CITY OF SAN PABLO
AGREEMENT FOR CONSULTING SERVICES
Project No.**PCB-125**/ Agreement No. **1**

THIS AGREEMENT ("**Agreement**"), effective the 2nd day of June, 2025 ("**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 Larry Walker Associates, Incorporated, a California Corporation, ("**Consultant**") (individually, a "**Party**," and collectively, the "**Parties**").

RECITALS

WHEREAS, the City desires to engage a consultant to provide support in the achievement of the SF Bay polychlorinated biphenyls (PCBs) total maximum daily load (TMDL) wasteload allocation by optimized and focused PCB control measures, supporting the Phase I and Phase II NPDES permit requirements for the PCB TMDL, and grant management 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 and 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 March 25, 2025 and any addenda thereto ("**RFP**"), attached as **Exhibit A** and incorporated herein, and the scope of services set forth in Consultant's proposal dated May 1, 2025 ("**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 Elizabeth Yin 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.

E. **Labor Code Compliance.** If the Services are "public works" services as defined in Labor Code section 1720 et seq. and the Agreement is for an amount greater than $1,000, the Agreement is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, beginning at section 1720, and the related regulations, including but not limited to requirements pertaining to wages, working hours and workers' compensation insurance. Consultant must also post all job site notices required by laws or regulations pursuant to Labor Code section 1771.4.

1. **Prevailing Wages:** Each worker performing Services under this Agreement that is covered under Labor Code section 1720 or 1720.9, must be paid at a rate not less than the prevailing wage as defined in sections 1771 and 1774 of the Labor Code. The prevailing wage rates are on file with the City and are available online at http://www.dir.ca.gov/DLSR. Pursuant to Labor Code section 1775, Consultant and any subconsultant will forfeit to City as a penalty up to $200 for each calendar day, or portion of a day, for each worker paid less than the applicable prevailing wage rate, in addition to paying each worker the difference between the applicable wage rate and the amount actually paid.

2. **Working Day:** Pursuant to Labor Code section 1810, eight hours of labor consists of a legal day's work. Pursuant to Labor Code section 1813, Consultant will forfeit to City as a penalty the sum of $25 for each day during which a worker employed by Consultant or any subconsultant is required or permitted to work more than eight hours during any one calendar day, or more than 40 hours per calendar week, unless such workers are paid overtime wages under Labor Code section 1815. All Services must be carried out during regular City working days and hours unless otherwise specified in the scope of services or authorized in writing by City.

3. **Payroll Records:** Consultant and its subconsultants must maintain certified payroll records in compliance with Labor Code sections 1776 and 1812, and all implementing regulations promulgated by the Department of Industrial Relations ("**DIR**"). For each payroll record, Consultant and its subconsultants must certify under penalty of perjury that the information in the record is true and correct, and that it has complied with the requirements of Labor Code sections 1771, 1811, and 1815. Unless the Agreement is for an amount under $25,000, Consultant must electronically submit certified payroll records to the Labor Commissioner as required under California law and regulations.

4. **Apprentices:** If the amount of the Agreement is $30,000 or more, Consultant must comply with the apprenticeship requirements in Labor Code section 1777.5.

5. **DIR Monitoring, Enforcement, and Registration:** The Services are subject to compliance monitoring and enforcement by the DIR pursuant to Labor Code section 1725.5, and, subject to the exception set forth below, Consultant and any subconsultants must be registered with the DIR to perform public works projects. The registration requirements of Labor Code section 1725.5 do not apply if the Agreement is for an amount under $25,000.

(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 **Seven Million Eight Hundred Thirty Thousand Dollars ($7,830,000)** 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 31, 2029**. 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:

Subconsultant/Subcontractor Name	Subconsultant/Subcontractor Services
EOA	TMDL mapping, monitoring and planning
Geosyntec Consultants	TMDL mapping, monitoring and planning
Stone Creek Environmental	TMDL mapping, monitoring and planning
Applied Marine Sciences	TMDL monitoring and assoc. services
Integral Consulting	TMDL monitoring and assoc. services
Northgate Environmental Management	TMDL monitoring and assoc. 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 (9) 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 (13) 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. General aggregate limit shall be twice the required occurrence limit. 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:** If the Consultant has employees, 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 thirty (30) days advance written notice to the City, unless due to non-payment of premiums, in which case ten (10) days advance 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. Termination for Convenience. 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 (37), "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 have the right to inspect Consultant's performance of the Services, files, and 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) **Authority of Parties**. Each of the signatories to this Agreement warrants that he or she has the authority to enter into and execute this Agreement and to bind the entity or entities on whose behalf they sign.

(35) **Counterparts**. This Agreement may be executed in duplicate counterparts.

(36) **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.

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

To Consultant: Sandra Mathews, Vice President
Larry Walker Associates, Inc.
2246 Sixth St.
Berkeley, CA 94710

To the City: City Manager, City of San Pablo
San Pablo City Hall
1000 Gateway 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.

(38) **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 – 200.327, 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.

X This Agreement is subject to federal funding. See Exhibit C.
___ This Agreement is not subject to federal funding.

(39) **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.

__ This Agreement is subject to funding by Caltrans. See Exhibit D.
X This Agreement is not subject to funding by Caltrans.

[Signatures on following page.]

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:

By _____
Brian P. Hickey, City Attorney

Date signed: _____

CITY OF SAN PABLO
A Municipal Corporation

By _____
Matt Rodriguez, City Manager

Date signed:_____

Larry Walker Associates, Incorporated

By _____
Sandra Mathews, Vice President

Date signed:_____

ATTEST:

By _____
Dorothy Gantt, City Clerk

Date signed:_____

Attachments: Exhibit A: Request for Proposals, dated March 25, 2025
Exhibit B: Consultant's Proposal, dated May 1, 2025
Exhibit C: Federal Contract Provisions

Exhibit A
City's Request for Proposals dated March 25, 2025

CITY OF SAN PABLO

City of New Directions

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

REQUEST FOR PROPOSALS

PCB TMDL Special Studies and Implementation Project (PCB-125)

March 25, 2025

Proposals Due:

May 1, 2025 by 5:00 p.m.

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TABLE OF CONTENTS

A. INTRODUCTION

1. About San Pablo

San Pablo is located in West Contra Costa County off 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 32,000 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"), on behalf of the Bay Area Municipal Stormwater Collaborative (BAMSC), invites professional engineering, monitoring, water quality, and other consultant services to submit competitive proposals in response to this Request for Proposals ("RFP"). The City seeks proposals for consultant services for the PCB TMDL Special Studies and Implementation Project (Project), a regional project to monitor stormwater for polychlorinated biphenyls (PCBs), perform GIS mapping, control measure planning, and significant project management for regional organizations. Professional disciplines expected to be involved with the project include, but are not limited to: civil engineering, land surveying, electrical engineering, environmental, permitting, geotechnical, water quality monitoring, stormwater modeling, GIS, and project management. Please see **Consultant Services** (Section B, Item #3) for a full description of the services required.

B. SCOPE OF WORK

1. Project Description

The purpose of the PCBs TMDL Special Studies and Implementation Project (Project) is to support the protection and restoration of the San Francisco Bay (Bay). The Project will continue and expand the implementation of the San Francisco Bay polychlorinated biphenyls (PCBs) total maximum daily load (TMDL).

The overall goals of the PCBs TMDL Special Studies and Implementation Project include:

1. Inform the PCBs TMDL reissuance process prior to 2030.
2. Support achievement of PCBs TMDL wasteload allocations for stormwater.
3. Optimize and focus PCB control measures to improve the trajectory of Bay recovery.
4. Support the Phase I Municipal Regional NPDES Permit monitoring, modeling, and TMDL implementation tasks.
5. Support implementation of the Phase II NPDES Permit requirements for the PCBs TMDL.

2. Project Background

PCBs and other sediment-bound pollutants are found in San Francisco Bay water, sediments, and biota. Concentrations of PCBs in certain fish exceed target levels and may pose a health risk to people who consume fish caught in the Bay. In response, the San Francisco Bay Regional Water Quality Control Board (Water Board) finalized a comprehensive TMDL program in 2011 to identify and control sources of PCBs in the Bay and restore water quality. The Water Board identified urban stormwater runoff as one area of particular concern as it conveys many types of pollutants from the urban landscape to the Bay. Controlling discharges of PCBs in urban stormwater runoff is key to achieving the goals of the PCBs TMDL.

To help address PCB pollution and further the goals of the TMDL, the City of San Pablo is the fiscal lead that submitted an EPA SF Bay Water Quality Improvement Fund (SFBWQIF) grant application (**Attachment 2**) and was awarded (**Attachment 3**) funding on behalf of the public agencies that participate in the Bay Area Municipal Stormwater Collaborative (BAMSC). The BAMSC agencies work together on requirements under the Phase I and Phase II municipal stormwater permits and other regulatory programs including TMDL implementation. BAMSC represents 103 agencies, including 88 cities and towns, eight counties, and seven special districts. Each agency with a stormwater permit is required to reduce PCB loads under the TMDL.

3. Consultant Services

The Consultant (or team of consultants) selected shall provide all services to complete all elements as listed for the PCB TMDL Special Studies and Implementation Project (**Attachment 2**). Consultants are expected to provide a proposal that outlines a program that meets the below requirements, the intent of the EPA grant (**Attachment 2**), and stays within the required budget. Proposals can suggest changes to tasks to either enhance the services provided or to keep a task within budget, however, that must be clearly outlined and can either be accepted or rejected by the review team. The Consultant selected will be required to complete the following tasks:

Task 1. Regional PCB Monitoring Program

Countywide stormwater programs and the SF Bay Regional Monitoring Program (RMP) have conducted PCB monitoring in stormwater, urban sediments, and in tributaries to the Bay for over two decades. This task is to support the ongoing monitoring requirements to address the five priority PCB management needs (i.e. source identification, contributions of Bay impairment, management action effectiveness, loads and status, and trends), more information on each of the 5 priority areas is provided in **Attachment 2**.

Task 1 Scope of Work Items:

- *Task 1.1 – Four (4) Small Tributary Monitoring Stations Monitoring*
  - As part of this grant, four (4) fixed monitoring stations (one each in Alameda, Contra Costa, San Mateo, and Santa Clara counties) will be installed. The monitoring stations will support regional monitoring and PCB modeling in

collaboration with the RMP. Specifically, these stations will collect data to support parameterization and calibration of watershed loading models. BAMSC will lead the physical installation of each station (e.g., pad, enclosure, security, power supply, communications, and installation of gages), and permitting, **the construction of the monitoring stations is not part of this RFP, this work will be completed as part of each Phase 1 Countywide program match requirements**. In addition, the RMP will be responsible for providing the instrumentation, sensors, and gages. BAMSC will also be responsible for site and BAMSC sampling equipment maintenance. One station is required to be installed in the first year of the grant, and the remaining stations will be installed in subsequent years. The Consultant team will meet and coordinate with the Phase 1 Countywide programs to complete this task. Coordination may include assistance in siting and/or permitting of stations, RMP coordination, assisting in the development of any Quality Assurance Project Plan(s) (QAPP) that may be required, assistance in the development of annual Urban Creeks Monitoring Reports (UCMR), or other tasks as determined by Phase 1 Countywide programs.

- Deliverables: Assist in the development of Phase I agency monitoring data and analyses which will be summarized in the UCMR prepared by the countywide programs in March of each year during the Project. These reports will be submitted to EPA and made publicly available on the agencies' websites or via the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS).

- *Task 1.2 - Alternative Source Property Investigation*
  - This task will develop and test alternative source property investigation tools, such as the use of PCB canine detection dogs or other rapid screening methods for PCB identification. Proposers are encouraged to provide innovative ideas for this task with a well-outlined approach. Proposals should describe the proposed alternative source property investigation method with the potential needs and benefits.
    - Deliverables: QAPP(s) in compliance with the EPA QAPP Standard (**Attachment 5**), sampling plans, technical report(s) that comprehensively assess the sampling and site investigation conducted, and California Environmental Data Exchange Network (CEDEN) compatible submittals. Progress on Task 1.2 will be provided by the consultant to each Countywide Program for its use in annual NPDES reporting. Phase I programs will report on their progress as part of their UCMRs prepared by the Countywide Programs in March of each year during the Project. If applicable, Phase II agencies will summarize monitoring data and analyses in the TMDL Annual Report in October of each year during the Project. These reports will be submitted to EPA and made publicly available

on the agencies' websites or via the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS).

Task 2. Phase II Permittee PCBs Program Development and Monitoring

The Phase II Permittees in the Bay Area are anticipating adoption of a reissued statewide municipal permit near the end of 2025. The reissued permit will contain PCB TMDL requirements for the first time, and permittees will be required to develop and implement 10 PCB control programs to quantify PCB stormwater runoff loads and load reductions achieved through treatment, source control, and other actions. This task, and subtasks, will support the mapping, monitoring, and implementation planning efforts of the Phase II local public agencies.

Because of the anticipated timing of permit adoption, the scope of work for this task divides first-year activities not specifically dependent on adopted regulatory language, and later years' activities where precise regulatory language should be available to fully scope out sub-tasks in accordance with adopted permit language. Current assumptions are that Tasks 2.1-2.3 could be initiated in the first year, while Tasks 2.4-2.8 could be informed by adopted permit language and initiated in later years of the project. Proposals can suggest and detail a different approach if desired.

Task 2 Scope of Work Items:

- *Task 2.1 - Green Infrastructure Planning*
    - Prepare guidance for permittees on Green Infrastructure (GI) Plan development and a template GI plan.
        - Deliverables: Green Infrastructure Plan Guidance Document; Template GI Plan document (editable in MS Word).

- *Task 2.2 – PCB-Containing Building Materials and Waste Control Program*
    - Adapt existing program guidance, training, and documentation materials from the Bay Area Municipal Stormwater Collaborative (BAMSC) PCBs in Building Demolition Program for implementation by Phase II permittees.
        - Deliverables: Model Screening Assessment Applicant Package for PCBs in Priority Building Materials; Commercial/Industrial Inspector Training Materials

- *Task 2.3 – Identification of PCB Source Properties and Areas*
    - Provide protocols for identifying properties or areas that are, or may be, sources of PCBs and conduct a desktop exercise using available spatial data and other information (e.g. ABAG Land Use GIS layers, Geotracker, Envirostor, other public databases or historic land use information) to identify areas of interest for further investigation.
        - Deliverables: Guidance document for implementing PCB source identification protocol; Summary report and spatial data for each county identifying additional properties or areas of interest for

possible PCB contamination; List of potential monitoring locations to refine source property and area identification.

- *Task 2.4 – Controlling PCBs from Bridges and Overpasses*
  - Develop a program to comply with the final adopted permit language.
    - Deliverables: Guidance document on access to Caltrans bridge inventory and implementation of the Caltrans specification.

- *Task 2.5 – Mercury Collection and Recycling Program*
  - Evaluate existing outreach material and/or programs for mercury collection and recycling in North Bay Phase II communities. Evaluate the adequacy of existing reporting systems from household hazardous waste collection facilities in Phase II permittees TMDL areas. Develop strategies for Phase II permittees to promote, facilitate, and/or participate in the recycling programs to increase awareness and public participation.
    - Deliverables: Guidance document with outreach participation strategies and tracking tools for reporting in accordance with the TMDL language in the adopted permit.

- *Task 2.6 – PCB Risk Reduction Program*
  - Develop recommendations for permittees to conduct or participate in risk reduction programs to address public health impacts of mercury and PCBs in SF Bay.
    - Deliverables: Develop guidance and program options for implementing a risk-reduction outreach program in accordance with the TMDL language in the adopted permit.

- *Task 2.7 – TMDL Water Quality Monitoring*
  - Develop materials to support mercury and PCB TMDL monitoring, including a regional PCB and mercury TMDL Monitoring Plan and Quality Assurance Project Plan (QAPP) that can be collectively used by Bay Area Phase II permittees for required monitoring in accordance with the TMDL language in the adopted permit.
    - Deliverables: Regional PCB and mercury Monitoring Plan, including a sampling plan, and QAPP. QAPP(s) are required to be in compliance with the EPA QAPP Standard.

- *Task 2.8 – Regional Load Reduction Accounting Framework*
  - Develop a Phase II regional TMDL Load Reduction Accounting Framework
    - Deliverables: Spreadsheet-based load reduction calculator and associated guidance document.

In your proposal, for Task 2 please ensure to submit a breakdown of pricing for each of the sub-tasks.

Task 3. Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning

The four (4) Phase I Countywide stormwater programs and agencies (Alameda County Clean Water Program (ACCWP), Contra Costa Clean Water Program (CCCWP), San Mateo Countywide Pollution Prevention Program (SMCWPPP), and Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), collectively known as the Phase 1 Countywide Programs), have each developed Geographic Information System (GIS) maps and databases to assist in identifying land areas that may contribute high, moderate, and low levels of PCBs to the Bay via stormwater runoff. Task 3 will perform the below tasks to help support the implementation of each of the Phase I Countywide Programs Old Industrial Area Control Measures Plans (linked below). Consultants are expected to provide a proposal that outlines monitoring and mapping programs and plans that meet the below requirements, the intent of the EPA grant (**Attachment 2**) and stay within the required budget for this Task.

Task 3 Scope of Work Items:

- *Task 3.1 – Conduct large-scale public Rights-of-way (ROW) and private property sediment sampling*
  - The Consultant will coordinate with each of the Phase 1 Countywide Programs to conduct sediment sampling in old industrial areas that are likely to be PCB source areas. The number of samples may vary based on each Phase 1 Countywide Program's needs and Old Industrial Area Control Measures Plans. The Consultant will need to work with individual permittees and Countywide Programs regarding coordination and outreach to private property owners for site access when required.
    - Deliverable- QAPP(s) in compliance with the EPA QAPP Standard, sampling plan(s), technical report(s) that comprehensively assess the sampling and site investigation conducted, and California Environmental Data Exchange Network (CEDEN) compatible submittals. These reports may be submitted to EPA and made publicly available on the agencies' websites or via the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS). Reports and updates will be required for each Phase 1 Countywide Program's UCMR in March and the Annual Report in September of each year of the project.

- *Task 3.2 – Conduct low-priority catchment verification water sampling*
  - The Consultant will coordinate with each of the Phase 1 Countywide Programs to conduct water sampling in low-priority stormwater catchments and verification monitoring in areas where PCB control measures have already been implemented or are otherwise considered low priority based on previous monitoring or desktop characterization. The number of samples may vary based on each Phase 1 Countywide Program's needs and Old Industrial Area Control Measures Plans.

        - Deliverable- QAPP(s) in compliance with the EPA QAPP Standard, sampling plan(s), technical report(s) that comprehensively assess the sampling and site investigation conducted, and California Environmental Data Exchange Network (CEDEN) compatible submittals. These reports may be submitted to EPA and made publicly available on the agencies' websites or via the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS). Reports and updates will be required for each Phase 1 Countywide Program's UCMR in March and the Annual Report in September of each year of the project.

- *Task 3.3 – Conduct load reduction verification monitoring*
    - The Consultant will coordinate with each of the Phase 1 Countywide Programs to conduct verification monitoring in select areas where PCB control measures have already been implemented. The number of samples may vary based on each Phase 1 Countywide Program's needs and Old Industrial Area Control Measures Plans.
        - Deliverable: Deliverable- QAPP(s) in compliance with the EPA QAPP Standard, sampling plan(s), technical report(s) that comprehensively assess the sampling and site investigation conducted, and California Environmental Data Exchange Network (CEDEN) compatible submittals. These reports may be submitted to EPA and made publicly available on the agencies' websites or via the State Water Board's SMARTS system. Reporting will include a comprehensive technical analysis to assist Countywide programs with Reasonable Assurance Analysis (RAA) reporting. Reports and updates will be required for each Phase 1 Countywide Program's UCMR in March and the Annual Report in September of each year of the project.

- *Task 3.4 – Correct and improve existing Phase I GIS maps and databases*
    - Each of the Phase 1 Countywide Programs has developed GIS-based maps and databases to track PCB and mercury sampling efforts that help to identify locations where actions are needed and calculate load reductions achieved. Building on the existing GIS maps and databases, the Consultant will work with each Phase I Countywide Program to provide updates to the maps, make corrections where needed, and input new information as provided. Updates may include improving the existing maps to better help quantify loads reduced through control measure implementation. Specific efforts may include mapping of direct discharge properties, non-municipal separate storm sewer system permitted land areas, structural and source controls, storm drain catchments, and adjustments to the land use category base map. The Consultant will need to coordinate with each Phase 1 Countywide Program on specific mapping needs.
        - Deliverables: Updated maps for each of the four Phase 1 Countywide Programs. All GIS information will be required to be made in a format

that is suitable for each Phase 1 Countywide Program's individual GIS platform.

- *Task 3.5 – Develop PCB control programs for private properties in identified moderate or high concentration PCB catchments*
  - The Consultant will coordinate with each of the Phase 1 Countywide Programs to develop a program to oversee the actions needed to implement controls of PCB sources from private properties, addressing PCB releases from these properties into the municipal separate storm sewer system (MS4). The Consultant will need to review each Countywide Program's Old Industrial Area Control Measures Plan and will coordinate with each Countywide Program to identify actions that will work for that program. Consultants should provide a proposal that lists examples of actions that can be taken with the understanding that the Consultant will tailor the programs to each Phase 1 Countywide Program's needs.
    - Deliverable: Deliverables may change based on need and the Consultant's proposed approach but are likely to include documentation needed for the implementation of programs to assist agencies, presentations to permittees, and/or processes and procedures documents to implement actions.

- *Task 3.6 – Develop PCB control programs for MS4 operations*
  - The Consultant will coordinate with each of the Phase 1 Countywide Programs to support enhanced cleanout of storm drain lines or other MS4 infrastructure that contain PCBs-contaminated sediments that are located in catchments where PCBs are elevated. The Consultant will need to review each Phase 1 Countywide Program's Old Industrial Area Control Measures Plan and coordinate with each Countywide Program to identify actions that may work for that program. Consultants should provide a proposal that lists examples of actions that can be taken with the understanding that the Consultant will tailor the programs to each program's needs. The development of treatment control projects may include assessing storm drain systems, local utilities, and public right-of-way; designing conceptual stormwater treatment measures; and exploring funding options and implementation agreements for the project. The Consultant will obtain any necessary permits, such as encroachment permits, and secure access agreements required for these efforts, while also coordinating internal agency and public outreach.
    - Deliverable: Deliverables may change based on need and the Consultant's proposed approach but are likely to include documentation needed for the implementation of programs to assist agencies, presentations to permittees, and/or processes and procedures documents to implement actions.

- *Task 3.7 – Plan and design stormwater treatment systems*

- The Consultant will coordinate with each of the Phase 1 Countywide Programs to identify locations best suited to develop 10% conceptual designs for treatment systems that will assist each of the Countywide Programs in meeting their required PCB treatment acres for the permit term as identified in the Old Industrial Area Control Measures Plan. The development of the concept design(s) may include, desktop analysis preliminary site investigation, preliminary sizing, determination of treatment type, and high-level cost estimate. Depending on the cost and complexity of the concept design a Countywide Program may request one or multiple concept designs.
    - Deliverable: A summary report documenting the justification for the concept design at the location chosen, results of the preliminary investigation, identification of the treatment type and sizing, preliminary schematics, preliminary drawings, and high-level cost estimate. Results will also be presented to permittees/Countywide Programs.

Phase 1 Countywide Programs Old Industrial Area Control Measure Plans:

- CCCWP Old Industrial CMP (Final 3-13-24)
- ACCWP Old Industrial CMP (October 2024)
- SMCWPPP Old Industrial CMP (July 2024)
- SCVURPPP Old Industrial CMP (Sept. 2024) -**Attachment 6**

Task 4. Program Administration and Management

The City of San Pablo is acting as the applicant administrator and fiscal agent for the Project. A BAMSC Project Management Team (PMT) will be assigned to the project to help coordinate various stormwater Countywide Program scopes. The chosen Consultant team will be expected to lead:

- Coordination of all BAMSC stakeholders for project scope and timelines.
- Coordination and be the central point of contact for all BAMSC permittees/ Countywide Programs.
- Project Management Team (PMT) meetings, presentations, and updates.
- The coordination and collection of all match documents from each BAMSC member and provide them to the City of San Pablo for auditing purposes.
- Management of the budget, scopes, grant requirements, and timelines to ensure all are achieved.
- The development of all content for quarterly reports to EPA (see **Attachment 4** for the Quarterly Report template) for review and submittal by the City of San Pablo.
- The development of all content for annual FFR and MBE/WBE reports to EPA (see **Attachment 2** for more information) for review and submittal by the City of San Pablo.
- The development of all content for the Final Project Report in accordance with the EPA Notice of Award (**Attachment 3**).

If the chosen Consultant has a team of consultants or sub-consultants the City expects the team to have a single prime consultant as a point of contact for contracting, invoices, and other administrative matters.

A proposal can suggest changes to any tasks and/or scope to either keep the project within budget or provide additional services as long as the suggestions still maintain the overall objectives of the work. The City may choose to keep or deny any suggested changes.

4. Pre-Proposal Meeting

A virtual Pre-Proposal Meeting has been scheduled for **April 8, 2025, at 10:00 a.m**. To be provided a link for the Pre-Proposal meeting please email AmandaB@SanPabloCA.gov and request an invite for *PCB TMDL Special Studies and Implementation Project*. Proposers are encouraged to attend for review of the Project and Proposal requirements.

5. Estimated Cost

The City estimates that the Project will cost **Seven Million Eight Hundred Thirty Thousand Dollars ($7,830,000)** for all elements of the above-provided scope. *The Project must be completed within the 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 25 pages, excluding proposal cover, cover letter, table of contents, and dividers. Each Proposal must include the following, organized as Sections 1 through 11:

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 consist of several professional disciplines, submittals must provide an organization or personnel chart to delineate the communication, coordination and hierarchical structure of the project team.

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 team's experience with:

a. Civil and engineering services and other relevant planning, green infrastructure, and landscape architecture services, or environmental planning and permitting, as needed for project design.
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. Stormwater monitoring, modeling, mapping, and planning. Relevant projects should be of similar size, involve TMDL compliance and ideally be located in the Bay Area.
d. Adhering to projects of similar type, size, and funding requirements and had to meet similar challenging timelines.
e. Successfully meeting state, federal, and local project requirements, including expense tracking when there are multiple funding sources.
f. Working collaboratively on an interdisciplinary team of consultants.

4. Staff Statement of Qualifications or Resumes

Provide the qualifications or resumes of key personnel proposed for the project in the submittal. In this section, identify similar/related projects that key members of the submittal have worked on. *Note: key team members identified in the submittal shall not change in the executed contract unless notified and approved by the City.*

5. Project Management and Staff Availability

The Consultant should have one individual who will function as the main coordinator and point of contact for all the other consultants and sub-consultants; this person will oversee project updates under the direction of City staff. This person will monitor timelines, review and evaluate products, ensure quality control, and assist in facilitating meetings. Any substitutes of staff after submittal is received must be provided in writing and approved by the City if the contract is awarded.

6. Project Approach

In seven pages ***or less***, describe the Consultant's proposed approach to this project and if relevant the typical approach to projects similar to this one. The approach should identify how the consultant will ensure to meet the required delivery schedule, all grant requirements, and be flexible to potential changes in scope (while still meeting the required delivery schedule). A proposal can suggest changes to the tasks and/or scope to either keep the project within budget or provide additional services as long as the suggestions still maintain the overall objectives of the work. The City may choose to keep or deny any suggested changes.

7. Schedule of Work

It would be the responsibility of the consultant to prepare the documentation and submit the required documents to the City for forwarding to all grant agencies, including EPA for approval of grant funds within the required timeframe.

The schedule of work must be included in the submittal in order to demonstrate Consultants ability to accomplish all Project deadlines. The schedule of work must include

milestones for deliverables of each required aspect. All tasks including deliverables of each sub-consultant must meet set individual deadlines and overall project schedule. Progress meetings with City staff shall be scheduled as needed until the design is completed. These meetings may also be attended by other stakeholders as needed.

8. Cost Proposal

The cost proposal shall include a cost estimate for each work task outlined in the scope of services for this project. Prices quoted shall include key project team member(s) proposed for each task and the number of management, technical, drafting and support personnel hours, cost per hour for each project team member and total cost envisioned for each task. In addition, in the cost proposal please provide a breakdown of costs per task and sub-task as outlined in the **Consultant Services** (Section B, Item #3). Identify any other costs to be billed to the project including project expenses and sub-consultant fees. Include any proposed markup for sub-consultant fees. Proposing Consultants will need to submit certified payroll records if required. Include a copy of the proposed rate schedules(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 monthly progress payments based on work performed. The consultant performs the services stated in the contract for an agreed amount as compensation. For invoice procedures; the City will receive the invoice from the Contractor, submit for reimbursement from EPA, once payment is received the City will then issue payment for the invoice.

Piggybacking Allowance- It is the intent of this RFP that other local government agency use of this contract is optional. Local government agencies are defined in Public Contract Code Chapter 2, Section 10298 (a) (b) and 10299 (b); this includes the California State Universities (CSU) and University of California (UC) systems, K-12 schools, and community colleges empowered to expend public funds for the acquisition of products. While the City makes this contract available to local governmental agencies, each local governmental agency should determine whether this contract is consistent with its procurement policies and regulations. Local governmental agencies shall have the same rights and privileges as the City of San Pablo under the terms of this contract. Any local governmental agencies desiring to participate shall be required to adhere to the same responsibilities as the City of San Pablo and have no authority to amend, modify, or change any condition of the contract without the Consultants consent.

10. References

Provide a short summary (one-page maximum) of at least three 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

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.

12. Special Requirements

a. **Small and Minority Businesses.** This Project is funded in whole or in part by the federal government. DBE must comply with all applicable federal requirements as further specified in the Contract Documents, and when procuring Subcontractors, Disadvantage Business Enterprise (DBE) 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:

b. **Solicitation Lists.** Placing qualified small and minority businesses and women's business enterprises on solicitation lists.

c. **Soliciting Potential Sources.** Assuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources.

d. **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.

e. **Establishing Delivery Schedules.** Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.

f. **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. Local Employment and Contracting Opportunities

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. Local Subcontracting - Outreach.

Firms 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.

2. Questions.

Questions regarding this RFP, the Project, or site access 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 and distributed by email to all firms registered on PlanetBids to receive updates from the City. Written questions must be submitted no later than **April 15, 2025 by 4:00 p.m.**

3. 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.

4. Agreement

The anticipated duration of the agreement will be 4.5 years, with the term tentatively to begin June 2025 and end December 31, 2029.

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.

5. Minority/Women Business Enterprises (MBE/WBE) Participation

This Project has an MBE/WBE reporting requirement under 40 CFR, Part 33, Subpart E. All proposers are encouraged to seek the participation of an MBE/WBE-rated firm(s) to fulfill this reporting. As part of project management, the project will assist the City of San Pablo in submitting EPA Form 5700-52A for this requirement.

E. PROPOSAL PROCEDURE

1. Submission of Proposals

Each Proposer must submit a ***sealed envelope*** or package containing three (3) print copies and one electronic copy (PDF or comparable) of its Proposal, each copy clearly identified as "Proposal for PCB TMDL Special Studies and Implementation Project." The electronic copy may be included on a thumb drive in the sealed envelope or package or emailed to: AmandaB@SanPabloCA.gov. The sealed proposal package must be delivered to:

City of San Pablo
Att: Public Works C/O Amanda Booth
1000 Gateway Ave,
San Pablo, CA 94806

All Proposals, in both print and electronic format, must be received by the City Public Work's office by May 1, 2025, no later than 5:00pm. ("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. Staff may waive minor inconsistencies with Department Director or Council approval. 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 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 who are considered to be best qualified to perform the contract work. The selection process may include oral interviews. The consultant will be notified of the time and place of oral interviews and if any additional information that may be 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 each criterion below. The scores for all the 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 project is 100 points.

	Criteria	**Maximum Points**
A	Completeness of Response	Pass/Fail
B	Understanding of the Work/Project	25
C	Experience with Similar Work	25
D	Quality and Availability of Staff	15
E	Innovation and Advanced Techniques	15
F	Knowledge of State, Federal, and local Procedures	10
G	Financial Responsibility	5
H	Project Delivery	5
	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, 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 to meet the requirements and objectives of the EPA grant.

C. Experience with Similar Work (25 points)
Experience of the firm(s) with similar projects, including local knowledge, expedited timelines, working with multiple grants and prior experience with stormwater monitoring, mapping and TMDL implementation work.

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 identifying innovative approaches and solutions to key project issues.

F. Knowledge of State and Federal Procedures (10 points)
Experience and familiarity with state federal, and local procedures.

G. Financial Responsibility (5 points)
The firm's(s) ability 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	*March 25, 2025*
Pre-Proposal Meeting Date	*April 8th at 10:00am*
Last day to submit any questions	*April 15th 4:00pm*
RFP Proposal submittal Date	***May 1, 2025***
Panel Review	*May 5–10, 2025*
Interview period	*Week of May 19th 2025*
Selection and negotiation period	*May 26-29, 2025*
Contract to be awarded at City Council	*June 16, 2025*

F. ATTACHMENTS

Attachment 1 – Sample Consultant Agreement
Attachment 2 – EPA WQIF Grant Application
Attachment 3 – EPA Award Agreement
Attachment 4 – Quarterly Report Template
Attachment 5 – EPA Quality Assurance Project Plan Standard
Attachment 6 – SCVRUPPP Old Industrial CMP

Attachment 1:
Sample Consultant Agreement

CITY OF SAN PABLO
AGREEMENT FOR CONSULTING SERVICES
Project No._____/ Agreement No. _____

THIS AGREEMENT ("**Agreement**"), effective the ____ day of _____, 20__ ("**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 _____, a _____, ("**Consultant**") (individually, a "**Party**," and collectively, the "**Parties**").

RECITALS

WHEREAS, the City desires to engage a consultant to provide _____ 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 and 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 _____ and any addenda thereto ("**RFP**"), attached as **Exhibit A** and incorporated herein, and the scope of services set forth in Consultant's proposal dated _____ ("**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.

E. **Labor Code Compliance.** If the Services are "public works" services as defined in Labor Code section 1720 et seq. and the Agreement is for an amount greater than $1,000, the Agreement is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, beginning at section 1720, and the related regulations, including but not limited to requirements pertaining to wages, working hours and workers' compensation insurance. Consultant must also post all job site notices required by laws or regulations pursuant to Labor Code section 1771.4.

1. **Prevailing Wages:** Each worker performing Services under this Agreement that is covered under Labor Code section 1720 or 1720.9, must be paid at a rate not less than the prevailing wage as defined in sections 1771 and 1774 of the Labor Code. The prevailing wage rates are on file with the City and are available online at http://www.dir.ca.gov/DLSR. Pursuant to Labor Code section 1775, Consultant and any subconsultant will forfeit to City as a penalty up to $200 for each calendar day, or portion of a day, for each worker paid less than the applicable prevailing wage rate, in addition to paying each worker the difference between the applicable wage rate and the amount actually paid.

2. **Working Day:** Pursuant to Labor Code section 1810, eight hours of labor consists of a legal day's work. Pursuant to Labor Code section 1813, Consultant will forfeit to City as a penalty the sum of $25 for each day during which a worker employed by Consultant or any subconsultant is required or permitted to work more than eight hours during any one calendar day, or more than 40 hours per calendar week, unless such workers are paid overtime wages under Labor Code section 1815. All Services must be carried out during regular City working days and hours unless otherwise specified in the scope of services or authorized in writing by City.

3. **Payroll Records:** Consultant and its subconsultants must maintain certified payroll records in compliance with Labor Code sections 1776 and 1812, and all implementing regulations promulgated by the Department of Industrial Relations ("**DIR**"). For each payroll record, Consultant and its subconsultants must certify under penalty of perjury that the information in the record is true and correct, and that it has complied with the requirements of Labor Code sections 1771, 1811, and 1815. Unless the Agreement is for an amount under $25,000, Consultant must electronically submit certified payroll records to the Labor Commissioner as required under California law and regulations.

4. **Apprentices:** If the amount of the Agreement is $30,000 or more, Consultant must comply with the apprenticeship requirements in Labor Code section 1777.5.

5. **DIR Monitoring, Enforcement, and Registration:** The Services are subject to compliance monitoring and enforcement by the DIR pursuant to Labor Code section 1725.5, and, subject to the exception set forth below, Consultant and any subconsultants must be registered with the DIR to perform public works projects. The registration requirements of Labor Code section 1725.5 do not apply if the Agreement is for an amount under $25,000.

(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 (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 _____. 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:

Subconsultant/Subcontractor Name	Subconsultant/Subcontractor 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 (9) 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 (13) 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. General aggregate limit shall be twice the required occurrence limit. 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:** If the Consultant has employees, 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 thirty (30) days advance written notice to the City, unless due to

non-payment of premiums, in which case ten (10) days advance 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. Termination for Convenience. 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 (37), "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 have the right to inspect Consultant's performance of the Services, files, and 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) **Authority of Parties**. Each of the signatories to this Agreement warrants that he or she has the authority to enter into and execute this Agreement and to bind the entity or entities on whose behalf they sign.

(35) **Counterparts**. This Agreement may be executed in duplicate counterparts.

(36) **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.

(37) **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, City of San Pablo
San Pablo City Hall
1000 Gateway 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.

(38) **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 – 200.327, 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.

(39) **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:

By _____
Brian P. Hickey, City Attorney

Date signed: _____

CITY OF SAN PABLO
A Municipal Corporation

By _____
Matt Rodriguez, City Manager

Date signed:_____

[NAME OF CONSULTANT]

By _____
Consultant, [Title]

Date signed:_____

ATTEST:

By _____
Dorothy Gantt, City Clerk

Date signed:_____

Attachments: Exhibit A: Request for Proposals, dated _____
Exhibit B: Consultant's Proposal, dated _____
Exhibit C (if applicable): Federal Contract Provisions
Exhibit D (if applicable): Mandatory Fiscal and Federal Provisions for Architectural and Engineering Consultant Contracts Subject to Caltrans Funding

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

Exhibit A
<Insert City's Request for Proposals>

Exhibit B
<Insert Consultant's Proposal>

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 its 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 must comply with the Davis-Bacon Act (40 U.S.C. § 3141 et seq.) and the requirements of 29 CFR Park 5 as may be applicable, including the provisions in 29 CFR § 5.5(a), which are attached hereto and incorporated herein by reference. 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. Consultant and Subcontractors/Subconsultants must insert the requirements in 29 CFR § 5.5(a) in full into subcontracts of any tier. <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. Additionally, the current provisions at 29 CFR § 5.5(a), which may be accessed at https://www.ecfr.gov/current/title-29/subtitle-A/part-5/subpart-A/section-5.5, should be printed and included with the Agreement. Refer to the applicable Notice of funding Opportunity or other program guidance and/or contact the federal funding agency representative for additional information on how to implement this requirement and any other required Agreement provisions for compliance with the Davis-Bacon Act and related acts and incorporate the federal agency-specific requirements, as appropriate.>

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 ("CWHSSA"), as set forth in 40 U.S.C. §§ 3701-3708, as supplemented by the regulations set forth in 29 CFR Part 5, including 29 CFR § 5.5(b), as may be amended from time to time, which are fully incorporated herein, including:

(A) **Overtime Requirements.** No Consultant or subcontractor contracting for any part of the Work which may require or involve the employment of laborers or mechanics will require or permit any such laborer or mechanic in any workweek in which he or she is employed on such Work to work in excess of 40 hours in such workweek 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 in such workweek.

(B) **Violation; Liability for Unpaid Wages; Liquidated Damages.** In the event of any violation of the clause set forth in (A), above, the Consultant and any subcontractor responsible therefore will be liable for the unpaid wages and interest from the date of the underpayment. In addition, such Consultant and subcontractor will be liable to the United States for liquidated damages. The liquidated damages will be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in (A) of this Section, in the sum of $32 (or as otherwise set forth in 29 CFR § 5.5(b)) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in (A) of this Section.

(C) **Withholding for Unpaid Wages and Liquidated Damages.**

(1) *Withhold Process.* The City may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the Contractor or any Subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this Section, any other Federal contract with the same Contractor, or any other federally assisted contract subject to the CWHSSA that is held by the same Contractor (as defined in 29 CFR § 5.2). The necessary funds may be withheld from the Contractor under this Contract, any other Federal contract with the same Contractor, or any other federally assisted contract that is subject to the CWHSSA and is held by the same Contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

(2) *Priority to Withheld Funds.* The Department of Labor has priority to funds withheld or to be withheld in accordance with 29 CFR § 5.5(a)(2)(i) or 29 CFR § 5.5(b)(3)(i), or both, over claims to those funds by: (a) a contractor's sureties, including without limitation performance bond sureties and payment bond sureties; (b) a contracting agency for its re-procurement costs; (c) a trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate; (d) a contractor's assignee(s); (e) a contractor's successor(s); or (f) a claim asserted under the Prompt Payment Act (31 U.S.C. §§ 3901–3907).

(D) **Subcontracts.** Contractor and Subcontractors must insert in any subcontracts the clauses set forth in this Section and a clause requiring Subcontractors to include these clauses in any lower tier subcontracts. Contractor is responsible for compliance by any Subcontractor or lower tier Subcontractor with the clauses set forth in this Section. In the event of any violations of these clauses, the Contractor and any Subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier Subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

(E) **Anti-Retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

(1) Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the CWHSSA or its implementing regulations in 29 CFR Part 5;
(2) Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or 29 CFR Part 5;
(3) Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or 29 CFR Part 5; or
(4) Informing any other person about their rights under CWHSSA or 29 CFR Part 5.

(F) **CWHSSA Required Records.** To the extent that the Contract is subject only to the CWHSSA and not to any of the other Laws referenced in 29 CFR § 5.1, Contractor and its Subcontractors must maintain regular payrolls and other basic records during the course of the Work and must preserve them for a period of three years after all the Work on the Contract is completed for all laborers and mechanics, including guards and watchpersons, working on the Contract. Such records must contain the name; last known address, telephone number, and email address; and social security number of each such worker; each worker's correct classification(s) of Work actually performed; hourly rates of wages paid; daily and weekly number of hours actually worked; deductions made; and actual wages paid. The records must be made available by the Contractor or Subcontractor for inspection, copying, or transcription by authorized representatives of the City and the Department of Labor, and the Contractor or Subcontractor will permit such representatives to interview workers during working hours on the job.

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), and all applicable standards, orders, and regulations issued pursuant thereto, which are fully incorporated into the Agreement by this reference, including requirements for reporting violations to the City, federal 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, Contractor and each subcontractor must comply with the requirements of the Federal Water Pollution Control Act (33 U.S.C. §§ 1251-1387), and all applicable standards, orders, and regulations issued pursuant thereto, which are fully incorporated into the Agreement by this reference, including requirements for reporting violations to the City, federal 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.** This Agreement is a covered transaction for purposes of 2 CFR Part 180 and 2 CFR Part 3000. Consultant is required to verify that none of 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, in addition to remedies available to City, 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 City. 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 who in turn will forward the disclosure(s) to the federal awarding agency.

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 of 1976 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 will consider small businesses, minority businesses, women's business enterprises, veteran-owned businesses, and labor surplus area firms, as set forth in 2 CFR § 200.321, when possible and subject to the limitations of law. Consideration means:

(A) **Solicitation Lists.** These business types are included on solicitation lists.

(B) **Soliciting Potential Sources.** These business types are solicited whenever they are deemed eligible as potential sources.

(C) **Maximizing Participation.** Dividing procurement transactions into separate procurements to permit maximum participation by these business types.

(D) **Establishing Delivery Schedules.** Establishing delivery schedules that encourage participation by these business types.

(E) **Organizational Assistance.** Utilizing organizations such as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

(F) **Lower-Tier Subcontracts.** Requiring Subcontractors to apply this Section to lower-tier subcontracts, if any.

12. **Prohibition on Covered Telecommunications.** Federal loan or grant funds must not be obligated or expended to procure or obtain covered telecommunications equipment or services, extend or renew a contract to procure or obtain covered telecommunications equipment or services, or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, as further specified in 2 CFR § 200.216, which is fully incorporated into the Agreement by this reference. "Covered telecommunications equipment or services" means any of the following: telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities); video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities); telecommunications or video surveillance services provided by such entities or using such equipment; or telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the

government of a covered foreign country. The term “covered telecommunications equipment or services” also includes systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractor will include this provision in all subcontracts or purchase orders in connection with the work.

13. **Domestic Preferences for Procurements.** The City should, to the greatest extent practicable and consistent with laws, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States, as further specified in 2 CFR § 200.322, which is fully incorporated into the Agreement by this reference, including, but not limited to, iron, aluminum, steel, cement, and other manufactured products, as specified therein. The requirements of 2 CFR § 200.322 must be included in all subcontracts and purchase orders for work or products under the federal award.

Exhibit D
Mandatory Fiscal and Federal Provisions
for Architectural and Engineering Consultant Contracts
Subject to Caltrans Funding

<DELETE BEFORE FINALIZING: The following provisions are referenced in Chapter 10, *Consultant Selection*, of the Local Assistance Procedures Manual and set forth in Exhibit 10-R, *A&E Boilerplate Agreement Language*, as the boilerplate provisions for architectural and engineering consultant contracts. Of the various boilerplate provisions in Exhibit 10-R, the fiscal and federal provisions are required for any federally-funded contract. Staff should cross-reference the most current Exhibit 10-R (at https://dot.ca.gov/programs/local-assistance/forms/local-assistance-procedures-manual-forms) to ensure that these provisions are up-to-date. Exhibit 10-R indicates that the language is recommended and acknowledges that the language may be modified as recommended by the City's legal staff and to fit the City's requirements and project. Within many of the provisions, are "Options" that Staff must tailor to meet the needs of the particular Agreement. Staff should follow the prompts regarding the options and delete any provisions that are not necessary given the selected option. These instructions and the italicized prompts throughout the attachment should also be deleted prior to use. >

Caltrans Funded Agreement. This Agreement is for architectural and/or engineering services funded in whole or in part by Caltrans and subject to the following provisions. In the event of any conflict or inconsistency between Exhibit D and this Agreement, Exhibit D will control.

1. <u>Consultant's Reports or Meetings</u> (Exhibit 10-R, Article II).

<Choose either Option 1 or Option 2>

*<**Option 1** - Use paragraphs A & B below for standard agreements>*

A. Consultant shall submit progress reports at least once a month. The report should be sufficiently detailed for the City's contract administrator to determine if Consultant is performing to expectations or is on schedule, to provide communication of interim findings, and to sufficiently address any difficulties or special problems encountered, so remedies can be developed.

B. Consultant's project manager shall meet with City's contract administrator, as needed, to discuss progress on the Agreement.

*<**Option 2** - Use paragraphs A & B below for on-call agreements>*

A. Consultant shall submit progress reports on each specific project in accordance with the task order. These reports shall be submitted at least once a month. The report should be sufficiently detailed for City's contract administrator or project coordinator to determine if Consultant is performing to expectations or is on schedule, to provide communication of interim findings, and to sufficiently address any difficulties or special

problems encountered, so remedies can be developed.

B. Consultant's project manager shall meet with City's contract administrator or project coordinator, as needed, to discuss progress on the project(s).

2. <u>Performance Period</u> (Exhibit 10-R, Article IV).

<A time must be set for beginning and ending the work under the agreement. The time allowed for performing the work is specified; it should be reasonable for the kind and amount of services contemplated; and it is written into the agreement. If it is desirable that Critical Path Method (CPM) networks, or other types of schedules be prepared by Consultant, they should be identified and incorporated into the agreement.>

A. This Agreement shall go into effect on <_____>, contingent upon approval by City, and Consultant shall commence work after notification to proceed by City's contract administrator. The Agreement shall end on <_____>, unless extended by amendment to the Agreement.

B. Consultant is advised that any recommendation for award of the Agreement is not binding on City until the Agreement is fully executed and approved by City.

< Add paragraph C below <u>in addition to</u> paragraphs A & B above for on-call agreements. On-call agreements must not exceed five years.>

C. The period of performance for each specific project shall be in accordance with the task order for that project. If work on a task order is in progress on the expiration date of this Agreement, the Term of the Agreement shall be extended by amendment to the Agreement prior to expiration of the Agreement to cover the time needed to complete the task order in progress only. The maximum term shall not exceed five years.

3. <u>Allowable Costs and Payments</u> (Exhibit 10-R, Article V).

<Choose either Option 1, 2, 3, or 4>

*<**Option 1** - Use paragraphs A through I below for Cost-Plus-Fixed Fee agreements. Use LAPM Exhibit 10-H1: Cost Proposal Format.>*

A. The method of payment for this Agreement will be based on actual cost plus a fixed fee. City will reimburse Consultant for actual costs (including labor costs, employee benefits, travel, equipment rental costs, overhead and other direct costs) incurred by Consultant in performance of the work. Consultant will not be reimbursed for actual costs that exceed the estimated wage rates, employee benefits, travel, equipment rental, overhead, and other estimated costs set forth in Consultant's approved cost proposal, unless additional reimbursement is provided for by amendment to the Agreement. In no event will Consultant be reimbursed for overhead costs at a rate that exceeds the City approved overhead rate set forth in the cost proposal. In the event that City determines that a change to the work from that specified in the cost proposal and Agreement is required, the Agreement time or actual costs reimbursable by City shall be adjusted by amendment to the Agreement to accommodate the changed work. The

maximum total cost as specified in Paragraph “I” shall not be exceeded, unless authorized by amendment to the Agreement.

B. The indirect cost rate established for this Agreement is extended through the duration of this specific Agreement. Consultant’s agreement to the extension of the 1-year applicable period shall not be a condition or qualification to be considered for the work or award of the Agreement.

C. In addition to the allowable incurred costs, City will pay Consultant a fixed fee of $<_____>. The fixed fee is nonadjustable for the Term of the Agreement, except in the event of a significant change in the scope of services and such adjustment is made by amendment to the Agreement.

D. Reimbursement for transportation and subsistence costs shall not exceed the rates specified in the approved cost proposal.

E. When milestone cost estimates are included in the approved cost proposal, Consultant shall obtain prior written approval for a revised milestone cost estimate from the contract administrator before exceeding such cost estimate.

F. Progress payments will be made monthly in arrears based on services provided and allowable incurred costs. A pro rata portion of Consultant’s fixed fee will be included in the monthly progress payments. If Consultant fails to submit the required deliverable items according to the schedule set forth in the scope of services, City shall have the right to delay payment or terminate this Agreement.

G. No payment will be made prior to approval of any work, nor for any work performed prior to approval of this Agreement.

H. Consultant will be reimbursed promptly according to California Regulations upon receipt by City’s contract administrator of itemized invoices in duplicate. Invoices shall be submitted no later than 30 calendar days after the performance of work for which Consultant is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated for the approved cost proposal and shall reference this Agreement number and project title. Final invoice must contain the final cost and all credits due City including any equipment purchased under the provisions of Section 9 (Article XI), Equipment Purchase and Other Capital Expenditures, of this Exhibit D. The final invoice should be submitted within 60 calendar days after completion of Consultant’s work. Invoices shall be mailed to City at the following address:

City Manager
1000 Gateway Avenue
San Pablo, CA 94806

I. The total amount payable by City including the fixed fee shall not exceed $<_____>.

J. For personnel subject to prevailing wage rates as described in the California Labor Code, all salary increases, which are the direct result of changes in the prevailing wage rates are reimbursable.

<***Option 2*** *- For Cost per Unit of Work agreements, replace paragraphs A & B of Option 1 with the following paragraphs A, B, and C and re-letter the remaining paragraphs. Adjust as necessary for work specific to your project. Use Exhibit 10-H3: Cost Proposal Format.>*

A. The method of payment for the following items shall be at the rate specified for each item, as described in this Section. The specified rate shall include full compensation to Consultant for the item as described, including but not limited to, any repairs, maintenance, or insurance, and no further compensation will be allowed therefor.

B. The specified rate to be paid for vehicle expense for Consultant's field personnel shall be $<_____> per approved cost proposal. This rate shall be for fully equipped vehicle(s) specified in the scope of services, as applicable. The specified rate to be paid for equipment shall be as listed in the approved cost proposal.

C. The method of payment for this Agreement, except those items to be paid for on a specified rate basis, will be based on cost per unit of work. City will reimburse Consultant for actual costs (including labor costs, employee benefits, travel, equipment-rental costs, overhead and other direct costs) incurred by Consultant in performance of the work. Consultant will not be reimbursed for actual costs that exceed the estimated wage rates, employee benefits, travel, equipment rental, overhead and other estimated costs set forth in the approved cost proposal, unless additional reimbursement is provided for, by amendment to this Agreement. In no event will Consultant be reimbursed for overhead costs at a rate that exceeds the City approved overhead rate set forth in the approved cost proposal. In the event City determines that changed work from that specified in the approved cost proposal and Agreement is required, the actual costs reimbursable by City may be adjusted by amendment to this Agreement to accommodate the changed work. The maximum total cost as specified in Paragraph "I," shall not be exceeded unless authorized by amendment to this Agreement.

<***Option 3*** *- Use paragraphs A through P for Specific Rates of Compensation agreements [such as on-call agreements]. This payment method shall only be used when it is not possible at the time of procurement to estimate the extent or duration of the work or to estimate costs with any reasonable degree of accuracy. The specific rates of compensation payment method should be limited to agreements or components of agreements for specialized support type services where the Consultant is not in direct control of the number of hours worked, such as construction engineering and inspection. Use Exhibit 10-H2: Cost Proposal Format.>*

A. Consultant will be reimbursed for hours worked at the hourly rates specified in Consultant's approved cost proposal. The specified hourly rates shall include direct salary costs, employee benefits, prevailing wages, employer payments, overhead, and fee. These rates are not adjustable for the performance period set forth in this Agreement. Consultant will be reimbursed within 30 days upon receipt by City's contract administrator of itemized invoices in duplicate.

B. In addition, Consultant will be reimbursed for incurred (actual) direct costs other than salary costs that are in the approved cost proposal and identified in the approved cost proposal and in the executed task order.

C. Specific projects will be assigned to Consultant through issuance of task orders.

D. After a project to be performed under this Agreement is identified by City, City will prepare a draft task order, less the cost estimate. A draft task order will identify the scope of services, expected results, project deliverables, period of performance, project schedule and will designate a City project coordinator. The draft task order will be delivered to Consultant for review. Consultant shall return the draft task order within ten (10) calendar days along with a cost estimate, including a written estimate of the number of hours and hourly rates per staff person, any anticipated reimbursable expenses, overhead, fee if any, and total dollar amount. After agreement has been reached on the negotiable items and total cost, the finalized task order shall be signed by both City and Consultant.

E. Task orders may be negotiated for a lump sum (firm fixed price) or for specific rates of compensation, both of which must be based on the labor and other rates set forth in Consultant's approved cost proposal.

Consultant shall be responsible for any future adjustments to prevailing wage rates including, but not limited to, base hourly rates and employer payments as determined by the Department of Industrial Relations. Consultant is responsible for paying the appropriate rate, including escalations that take place during the Term of the Agreement.

<For paragraph F of Option 3, choose <u>one</u> of the two variations listed below and <u>delete</u> the unused variation.>

F. Reimbursement for transportation and subsistence costs shall not exceed State rates.

F. Reimbursement for transportation and subsistence costs shall not exceed the rates as specified in the approved cost proposal. Consultant will be responsible for transportation and subsistence costs in excess of State rates.

G. When milestone cost estimates are included in the approved cost proposal, Consultant shall obtain written approval from the City's contract administrator, in the form of an amendment to the Agreement, for a revised milestone cost estimate, before exceeding such estimate.

H. Progress payments for each task order will be made monthly in arrears based on services provided and actual costs incurred.

I. Consultant shall not commence performance of work or services until this Agreement has been approved by City, and notification to proceed has been issued by City's contract administrator. No payment will be made prior to approval or for any work performed prior to approval of this Agreement.

J. A task order is of no force or effect until returned to City and signed by an authorized representative of City. No expenditures are authorized on a project and work shall not commence until a task order for that project has been executed by City.

K. Consultant will be reimbursed within 30 days upon receipt by City's contract administrator of itemized invoices in duplicate. Separate invoices itemizing all costs are required for all work performed under each task order. Invoices shall be submitted no later than 30 calendar days after the performance of work for which Consultant is billing, or upon completion of the task order. Invoices shall detail the work performed on each milestone, on each project as applicable. Invoices shall follow the format stipulated for the approved cost proposal and shall reference this Agreement number, project title and task order number. Credits due City that include any equipment purchased under the provisions of Section 9 (Article XI), Equipment Purchase and Other Capital Expenditures, of this Exhibit D, must be reimbursed by Consultant prior to the expiration or termination of this Agreement. Invoices shall be mailed to City at the following address:

City Manager
1000 Gateway Avenue
San Pablo, CA 94806

L. The period of performance for task orders shall be in accordance with dates specified in the task order. No task order will be written which extends beyond the expiration date of this Agreement.

M. The total amount payable by City for an individual task order shall not exceed the amount agreed to in the task order, unless authorized by amendment.

N. If Consultant fails to satisfactorily complete a deliverable according to the schedule set forth in a task order, no payment will be made until the deliverable has been satisfactorily completed.

O. Task orders may not be used to amend this Agreement and may not exceed the scope of services under this Agreement.

P. The total amount payable by City for all task orders resulting from this Agreement shall not exceed $<_____>. It is understood and agreed that there is no guarantee, either expressed or implied that this dollar amount will be authorized under this Agreement through task orders.

<***Option 4*** *- Use paragraphs A through E below for lump sum agreements. Use Exhibit 10-H1: Cost Proposal Format.>*

A. The method of payment for this Agreement will be based on lump sum. The total lump sum price paid to Consultant will include compensation for all work and deliverables, including travel and equipment described in the scope of services. No additional compensation will be paid to Consultant, unless there is a change in the scope of the services or the scope of the project. In the instance of a change in the scope of services or scope of the project, adjustment to the total lump sum compensation will be negotiated between Consultant and City. Adjustment in the total lump sum

compensation will not be effective until authorized by amendment to this Agreement and approved by City.

B. Progress payments may be made monthly in arrears based on the percentage of work completed by Consultant. If Consultant fails to submit the required deliverable items according to the schedule set forth in the scope of services, City shall have the right to delay payment or terminate this Agreement in accordance with the provisions of Section 4 (Article VI), Termination, of this Exhibit D.

C. Consultant shall not commence performance of work or services until this Agreement has been approved by City and notification to proceed has been issued by City's contract administrator. No payment will be made prior to approval of any work, or for any work performed prior to approval of this Agreement.

D. Consultant will be reimbursed within 30 days upon receipt by City's contract administrator of itemized invoices in duplicate. Invoices shall be submitted no later than 30 calendar days after the performance of work for which Consultant is billing. Invoices shall detail the work performed on each milestone, on each project as applicable. Invoices shall follow the format stipulated for the approved cost proposal and shall reference this Agreement number and project title. Final invoice must contain the final cost and all credits due City that include any equipment purchased under the provisions of Section 9 (Article XI), Equipment Purchase and Other Capital Expenditures, of this Exhibit D. The final invoice must be submitted within 60 calendar days after completion of Consultant's work unless a later date is approved by City. Invoices shall be mailed to City at the following address:

City Manager
San Pablo City Hall
1000 Gateway Avenue
San Pablo, CA 94806

E. The total amount payable by City shall not exceed $<_____>.

4. <u>Termination</u> (Exhibit 10-R, Article VI).

A. This Agreement may be terminated by City, provided that City gives not less than thirty (30) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate. Upon termination, City shall be entitled to all work, including, but not limited to, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not.

B. City may temporarily suspend this Agreement, at no additional cost to City, provided that Consultant is given written notice (delivered by certified mail, return receipt requested) of temporary suspension. If City gives such notice of temporary suspension, Consultant shall immediately suspend its activities under this Agreement. A temporary suspension may be issued concurrent with the notice of termination.

C. Notwithstanding any provisions of this Agreement, Consultant shall not be relieved of liability to City for damages sustained by City by virtue of any breach of this Agreement by Consultant, and City may withhold any payments due to Consultant until

such time as the exact amount of damages, if any, due City from Consultant is determined.

D. In the event of termination, Consultant shall be compensated as provided for in the Agreement. Upon termination, City shall be entitled to all work, including but not limited to, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not,

5. <u>Cost Principles and Administrative Requirements</u> (Exhibit 10-R, Article VII).

A. Consultant agrees that 48 CFR Part 31, Contract Cost Principles and Procedures, shall be used to determine the allowability of individual items of cost.

B. Consultant also agrees to comply with federal procedures in accordance with 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

C. Any costs for which payment has been made to Consultant that are determined by subsequent audit to be unallowable under 48 CFR Part 31 or 2 CFR Part 200 are subject to repayment by Consultant to City.

D. When a Consultant or subconsultant is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.

6. <u>Retention of Records/Audits</u> (Exhibit 10-R, Article VIII).

For the purpose of determining compliance with Government Code 8546.7, Consultant, subconsultants, and City shall maintain all books, documents, papers, accounting records, Independent CPA Audited Indirect Cost Rate workpapers, and other evidence pertaining to the performance of the Agreement, including, but not limited to, the costs of administering the Agreement. All parties, including Consultant's Independent CPA, shall make such workpapers and materials available at their respective offices at all reasonable times during the Term of the Agreement and for four years from the date of final payment under the Agreement. City, Caltrans Auditor, FHWA, or any duly authorized representative of the Federal Government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or in part) shall have access to any books, records, and documents of Consultant, subconsultants, and Consultant's Independent CPA, that are pertinent to the Agreement for audits, examinations, workpaper review, excerpts, and transactions, and copies thereof shall be furnished if requested without limitation.

7. <u>Audit Review Procedures</u> (Exhibit 10-R, Article IX).

A. Any dispute concerning a question of fact arising under an interim or post audit of this Agreement that is not disposed of by agreement, shall be reviewed by City's Chief Financial Officer.

B. Not later than 30 calendar days after issuance of the final audit report, Consultant may request a review by City's Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by City will excuse Consultant from full and timely performance, in accordance with the terms of this Agreement.

D. Consultant and subconsultant contracts, including cost proposals and Indirect Cost Rates (ICR), may be subject to audits or reviews such as, but not limited to, a contract audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the contract, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review, it is Consultant's responsibility to ensure federal, state, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The contract, cost proposal, and ICR shall be adjusted by Consultant and approved by City's contract administrator to conform to the audit or review recommendations. Consultant agrees that individual terms of costs identified in the audit report shall be incorporated into the Agreement by this reference if directed by City at its sole discretion. Refusal by Consultant to incorporate audit or review recommendations, or to ensure that the federal, state or local governments officials have access to CPA work papers, will be considered a breach of Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

E. Consultant's cost proposal may be subject to a CPA ICR Audit Work Paper Review and/or audit by the Independent Office of Audits and Investigations (IOAI). IOAI, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. The cost proposal shall be adjusted by the Consultant and approved by City's contract administrator to conform to the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the Consultant to incorporate the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report will be considered a breach of the Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

1. During IOAI's review of the ICR audit work papers created by the Consultant's independent CPA, IOAI will work with the CPA and/or Consultant toward a resolution of issues that arise during the review. Each Party agrees to use its best efforts to resolve any audit disputes in a timely manner. If IOAI identifies significant issues during the review and is unable to issue a cognizant approval letter, City will reimburse the Consultant at an accepted ICR until a FAR (Federal Acquisition Regulation) compliant ICR {e.g. 48 CFR Part 31; GAGAS (Generally Accepted Auditing Standards); CAS (Cost Accounting Standards), if applicable; in accordance with procedures and guidelines of the American Association of State Highways and Transportation Officials (AASHTO) Audit Guide; and other applicable procedures and guidelines} is received and approved by IOAI.

Accepted rates will be as follows:

a. If the proposed rate is less than 150% - the accepted rate reimbursed will be 90% of the proposed rate.

b. If the proposed rate is between 150% and 200% - the accepted rate will be 85% of the proposed rate.

c. If the proposed rate is greater than 200% - the accepted rate will be 75% of the proposed rate.

2. If IOAI is unable to issue a cognizant letter per paragraph E.1. above, IOAI may require Consultant to submit a revised independent CPA-audited ICR and audit report within three (3) months of the effective date of the management letter. IOAI will then have up to six (6) months to review the Consultant's and/or the independent CPA's revisions.

3. If the Consultant fails to comply with the provisions of this Section E, or if IOAI is still unable to issue a cognizant approval letter after the revised independent CPA-audited ICR is submitted, overhead cost reimbursement will be limited to the accepted ICR that was established upon initial rejection of the ICR and set forth in paragraph E.1. above for all rendered services. In this event, this accepted ICR will become the actual and final ICR for reimbursement purposes under this Agreement.

4. Consultant may submit to City final invoice only when all of the following items have occurred: (1) IOAI accepts or adjusts the original or revised independent CPA-audited ICR; (2) all work under this Agreement has been completed to the satisfaction of City; and (3) IOAI has issued its final ICR review letter. Consultant must submit its final invoice to City no later than 60 calendar days after occurrence of the last of these items. The accepted ICR will apply to this Agreement and all other agreements executed by City and Consultant, either as a prime or subconsultant, with the same fiscal period ICR.

8. <u>Subcontracting</u> (Exhibit 10-R, Article X).

A. Nothing contained in this Agreement or otherwise, shall create any contractual relation between City and any subconsultant(s), and no subcontract shall relieve Consultant of its responsibilities and obligations hereunder. Consultant agrees to be as fully responsible to City for the acts and omissions of its subconsultant(s) and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by Consultant. Consultant's obligation to pay its subconsultant(s) is an independent obligation from City's obligation to make payments to Consultant.

B. Consultant shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted without written authorization by City's contract administrator, except that which is expressly identified in Consultant's approved cost proposal. There shall be no change in Consultant's project manager or members of the project team, as listed in the approved cost proposal, without prior written approval by City's contract administrator.

C. Any subcontracts entered into as a result of this Agreement shall contain all the provisions stipulated in this Agreement to be applicable to subconsultants unless otherwise noted.

D. Consultant shall pay its subconsultants within fifteen (15) calendar days from receipt of each payment made to Consultant by City.

E. Any substitution of subconsultant(s) must be approved in writing by City's contract administrator in advance of assigning work to a substitute subconsultant.

F. Prompt Progress Payment

Consultant or subconsultant shall pay to any subconsultant, not later than fifteen (15) days after receipt of each progress payment, unless otherwise agreed to in writing, the respective amounts allowed Consultant on account of the work performed by the subconsultants, to the extent of each subconsultant's interest therein. In the event that there is a good faith dispute over all or any portion of the amount due on a progress payment from Consultant or subconsultant to a subconsultant, Consultant or subconsultant may withhold no more than 150% of the disputed amount. Any violation of this requirement shall constitute a cause for disciplinary action and shall subject the payor to a penalty, payable to the subconsultant, of 2% of the amount due per month for every month that payment is not made.

In any action for the collection of funds wrongfully withheld, the prevailing party shall be entitled to his or her attorney's fees and costs. The sanctions authorized under this requirement shall be separate from, and in addition to, all other remedies, either civil, administrative, or criminal. This clause applies to both DBE and non-DBE subconsultants.

G. Prompt Payment of Withheld Funds to Subconsultants

City may hold retainage from Consultant and shall make prompt and regular incremental acceptances of portions, as determined by City, of the work, and pay retainage to Consultant based on these acceptances. Consultant or subconsultant shall return all monies withheld in retention from all subconsultants within 15 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the work by City. Any delay or postponement of payment may take place only for good cause and with City's prior written approval. Any violation of these provisions shall subject the violating Consultant or subconsultant to the penalties, sanctions, and other remedies specified in section 3321 of the California Civil Code. This requirement shall not be construed to limit or impair any contractual, administrative or judicial remedies otherwise available to Consultant or subconsultant in the event of a dispute involving late payment or nonpayment by Consultant, deficient subconsultant performance, and/or noncompliance by a subconsultant. This clause applies to both DBE and non-DBE subconsultants.

9. <u>Equipment Purchase and Other Capital Expenditures</u> (Exhibit 10-R, Article XI).

A. Prior authorization in writing by City's contract administrator shall be required before Consultant enters into any unbudgeted purchase order, or subcontract exceeding $5,000 for supplies, equipment, or consultant services. Consultant shall provide an evaluation of the necessity or desirability of incurring such costs.

B. For purchase of any item, service or consulting work not covered in Consultant's approved cost proposal and exceeding $5,000, with prior authorization by City's contract administrator, three competitive quotations must be submitted with the request, or the absence of quotes must be adequately justified.

C. Any equipment purchased with funds provided under the terms of this Agreement is subject to the following:

1. Consultant shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of $5,000 or more. If the purchased equipment needs replacement and is sold or traded in, City shall receive a proper refund or credit at the conclusion of the Agreement, or if the Agreement is terminated, Consultant may either keep the equipment and credit City in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established City procedures, and credit City in an amount equal to the sales price. If Consultant elects to keep the equipment, fair market value shall be determined at Consultant's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by City and Consultant, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by City.

2. Regulation 2 CFR Part 200 requires a credit to Federal funds when participating equipment with a fair market value greater than $5,000 is credited to the project.

10. <u>State Prevailing Wage Rates</u> (Exhibit 10-R, Article XII).

A. No Consultant or subconsultant may be awarded an agreement containing public work elements unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5. Registration with DIR must be maintained throughout the entire Term of this Agreement, including any subsequent amendments.

B. Consultant shall comply with all of the applicable provisions of the California Labor Code requiring the payment of prevailing wages. The General Prevailing Wage Rate Determinations applicable to work under this Agreement are available and on file with the Department of Transportation's Regional/District Labor Compliance Officer (https://dot.ca.gov/programs/construction/labor-compliance). These wage rates are made a specific part of this Agreement by reference pursuant to Labor Code section 1773.2 and will be applicable to work performed at a construction project site. Prevailing wages will be applicable to all inspection work performed at City construction sites, at City facilities and at off-site locations that are set up by the construction contractor or one of its subcontractors solely and specifically to serve City projects.

C. General Prevailing Wage Rate Determinations applicable to this project may also be obtained from the Department of Industrial Relations website at http://www.dir.ca.gov**.**

D. Payroll Records

1. Each Consultant and subconsultant shall keep accurate certified payroll

records and supporting documents as mandated by Labor Code section 1776 and as defined in 8 CCR section 16000 showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Consultant or subconsultant in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

a. The information contained in the payroll record is true and correct.

b. The employer has complied with the requirements of Labor Code sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

2. The payroll records enumerated under paragraph (1) above shall be certified as correct by Consultant under penalty of perjury. The payroll records and all supporting documents shall be made available for inspection and copying by City representatives at all reasonable hours at the principal office of Consultant. Consultant shall provide copies of certified payrolls or permit inspection of its records as follows:

a. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or the employee's authorized representative on request.

b. A certified copy of all payroll records enumerated in paragraph (1) above, shall be made available for inspection or furnished upon request to a representative of City, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations. Certified payrolls submitted to City, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards shall not be altered or obliterated by Consultant.

c. The public shall not be given access to certified payroll records by Consultant. Consultant is required to forward any requests for certified payrolls to City's contract administrator by both email and regular mail on the business day following receipt of the request.

3. Each Consultant shall submit a certified copy of the records enumerated in paragraph (1) above, to the entity that requested the records within ten (10) calendar days after receipt of a written request.

4. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by City shall be marked or obliterated in such a manner as to prevent disclosure of each individual's name, address, and social security number. The name and address of Consultant or subconsultant performing the work shall not be marked or obliterated.

5. Consultant shall inform City of the location of the records enumerated

under paragraph (1) above, including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.

6. Consultant or subconsultant shall have ten (10) calendar days in which to comply subsequent to receipt of written notice requesting the records enumerated in paragraph (1) above. In the event the Consultant or subconsultant fails to comply within the ten (10) day period, he or she shall, as a penalty to City, forfeit one hundred dollars ($100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Such penalties will be withheld by the Division of Labor Enforcement Standards from payments then due. Consultant is not subject to a penalty assessment pursuant to this Section due to the failure of a subconsultant to comply with this Section.

E. When prevailing wage rates apply, Consultant is responsible for verifying compliance with certified payroll requirements. Invoice payment will not be made until the invoice is approved by City's contract administrator.

F. Penalty

1. Consultant and any of its subconsultants shall comply with Labor Code sections 1774 and 1775. Pursuant to Labor Code section 1775, Consultant and any subconsultant shall forfeit to City a penalty of not more than two hundred dollars ($200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of DIR for the work or craft in which the worker is employed for any public work done under the Agreement by the Consultant or by its subconsultant in violation of the requirements of the Labor Code and in particular, Labor Code sections 1770 to 1780, inclusive.

2. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of mistake, inadvertence, or neglect of the Consultant or subconsultant in failing to pay the correct rate of prevailing wages, or the previous record of Consultant or subconsultant in meeting their respective prevailing wage obligations, or the willful failure by the Consultant or subconsultant to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rates of prevailing wages is not excusable if Consultant or subconsultant had knowledge of the obligations under the Labor Code. Consultant is responsible for paying the appropriate rate, including any escalations that take place during the Term of the Agreement.

3. In addition to the penalty and pursuant to Labor Code section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by Consultant or subconsultant.

4. If a worker employed by a subconsultant on a public works project is not paid the general prevailing per diem wages by the subconsultant, the prime Consultant of the project is not liable for the penalties described above unless the

prime Consultant had knowledge of that failure of the subconsultant to pay the specified prevailing rate of wages to those workers or unless the prime Consultant fails to comply with all of the following requirements:

a. The agreement executed between the Consultant and the subconsultant for the performance of work on public works projects shall include a copy of the requirements in Labor Code sections 1771, 1775, 1776, 1777.5, 1813, and 1815.

b. Consultant shall monitor the payment of the specified general prevailing rate of per diem wages by the subconsultant to the employees by periodic review of the certified payroll records of the subconsultant.

c. Upon becoming aware of the subconsultant's failure to pay the specified prevailing rate of wages to the subconsultant's workers, Consultant shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subconsultant for work performed on the public works project.

d. Prior to making final payment to the subconsultant for work performed on the public works project, Consultant shall obtain an affidavit signed under penalty of perjury from the subconsultant that the subconsultant had paid the specified general prevailing rate of per diem wages to the subconsultant's employees on the public works project and any amounts due pursuant to Labor Code section 1813.

5. Pursuant to Labor Code section 1775, City may notify Consultant on a public works project within fifteen (15) calendar days of receipt of a complaint that a subconsultant has failed to pay workers the general prevailing rate of per diem wages.

6. If City determines that employees of a subconsultant were not paid the general prevailing rate of per diem wages and if City did not retain sufficient money under the Agreement to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, Consultant shall withhold an amount of moneys due the subconsultant sufficient to pay those employees the general prevailing rate of per diem wages if requested by City.

G. Hours of Labor. Eight (8) hours labor constitutes a legal day's work. Consultant shall forfeit, as a penalty to the City, twenty-five dollars ($25) for each worker employed in the execution of the Agreement by Consultant or any of its subconsultants for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code, and in particular sections 1810 to 1815 thereof, inclusive, except that work performed by employees in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day and forty (40) hours in any week, at not less than one and one-half (1.5) times the basic rate of pay, as provided in section 1815.

H. Employment of Apprentices

1. Where either the Agreement or the subagreement exceeds thirty thousand dollars ($30,000), Consultant and any subconsultants under him or her shall comply with all applicable requirements of Labor Code sections 1777.5, 1777.6 and 1777.7 in the employment of apprentices.

2. Consultant and subconsultants are required to comply with all Labor Code requirements regarding the employment of apprentices, including mandatory ratios of journey level to apprentice workers. Prior to commencement of work, Consultant and subconsultants are advised to contact the DIR Division of Apprenticeship Standards website at https://www.dir.ca.gov/das/, for additional information regarding the employment of apprentices and for the specific journey-to-apprentice ratios for the work under the Agreement. Consultant is responsible for all subconsultants' compliance with these requirements. Penalties are specified in Labor Code section 1777.7.

11. <u>Conflict of Interest</u> (Exhibit 10-R, Article XIII).

A. During the Term of this Agreement, Consultant shall disclose any financial, business, or other relationship with City that may have an impact upon the outcome of this Agreement or any ensuing City construction project. Consultant shall also list current clients who may have a financial interest in the outcome of this Agreement or any ensuing City construction project which will follow.

B. Consultant certifies that it has disclosed to City any actual, apparent, or potential conflicts of interest that may exist relative to the services to be provided pursuant to this Agreement. Consultant agrees to advise City of any actual, apparent or potential conflicts of interest that may develop subsequent to the date of execution of this Agreement. Consultant further agrees to complete any statements of economic interest if required by either City ordinance or State law.

C. Consultant hereby certifies that it does not now have nor shall it acquire any financial or business interest that would conflict with the performance of services under this Agreement.

D. Consultant hereby certifies that Consultant or subconsultant and any firm affiliated with Consultant or subconsultant that bids on any construction contract or on any agreement to provide construction inspection for any construction project resulting from this Agreement has established necessary controls to ensure a conflict of interest does not exist. An affiliated firm is one which is subject to the control of the same persons through joint ownership or otherwise.

12. <u>Rebates, Kickbacks or Other Unlawful Consideration</u> (Exhibit 10-R, Article XIV).

Consultant warrants that this Agreement was not obtained or secured through rebates kickbacks or other unlawful consideration, either promised or paid to any City employee. For breach or violation of this warranty, City shall have the right, in its discretion, to terminate the Agreement without liability, to pay only for the value of the work actually performed, or to deduct from the Agreement price or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

13. <u>Prohibition of Expending Local Agency, State, or Federal Funds for Lobbying</u> (Exhibit 10-R, Article XV).

<Include this Section in all agreements where federal funding will exceed $150,000. If less than $150,000 in federal funds will be expended on the agreement, delete this Section and re-number the Sections that follow.>

A. Consultant certifies, to the best of his or her knowledge and belief, that:

1. No state, federal or local agency appropriated funds have been paid or will be paid, by or on behalf of Consultant, to any person for influencing or attempting to influence an officer or employee of any local, state or federal agency, a Member of the State Legislature or United States Congress, an officer or employee of the Legislature or Congress, or any employee of a Member of the Legislature or Congress, in connection with the awarding or making of this Agreement, or with the extension, continuation, renewal, amendment, or modification of this Agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, in connection with this Agreement, Consultant shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

B. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. section 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

C. Consultant also agrees by signing this Agreement that he or she shall require that the language of this certification be included in all lower-tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

14. <u>Non-Discrimination Clause and Statement of Compliance</u> (Exhibit 10-R, Article XVI).

<Attach Appendix A and Appendix E of the Title VI Assurances to the agreement. These appendices are available at https://dot.ca.gov/programs/local-assistance/guidance-and-oversight/title-vi/requirements.>

A. This Agreement is subject to Appendix A and Appendix E of the Title VI Assurances, which are attached to this Agreement. Consultant's signature affixed to the Agreement, and dated, shall constitute a certification under penalty of perjury under the laws of the State of California that Consultant has, unless exempt, complied with the nondiscrimination program requirements of Gov. Code §12990 and 2 CCR § 8103.

B. During the performance of this Agreement, Consultant and its subconsultants shall not deny the Agreement's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical

condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Consultant and subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

C. Consultant and subconsultants shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 et seq.), the applicable regulations promulgated thereunder (2 CCR §11000 et seq.), the provisions of Gov. Code §§11135-11139.5, and the regulations or standards adopted by City to implement such article. The applicable regulations of the Fair Employment and Housing Commission implementing Gov. Code § 12990 (a-f), set forth 2 CCR §§ 8100-8504, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.

D. Consultant shall permit access by representatives of the Department of Fair Employment and Housing and City upon reasonable notice at any time during the normal business hours, but in no case less than twenty-four (24) hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or City shall require to ascertain compliance with this clause.

E. Consultant and its subconsultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

F. Consultant shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

G. Consultant, with regard to the work performed under this Agreement, shall act in accordance with Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d et seq.). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the United States shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.

H. Consultant shall comply with regulations relative to non-discrimination in federally-assisted programs of the U.S. Department of Transportation (49 CFR Part 21 - Effectuation of Title VI of the Civil Rights Act of 1964). Specifically, Consultant shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR §21.5, including employment practices and the selection and retention of subconsultants.

I. Consultant, subrecipient or subconsultant will never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by 49 CFR 26 on the basis of race, color, sex, or national origin. In administering City's components of the DBE Program Plan, Consultant, subrecipient or subconsultant will not, directly, or through contractual or other arrangements, use criteria or methods of

administration that have the effect of defeating or substantially impairing accomplishment of the objectives of the DBE Program Plan with respect to individuals of a particular race, color, sex, or national origin.

15. <u>Debarment and Suspension Certification</u> (Exhibit 10-R, Article XVII).

A. Consultant's signature affixed to the Agreement shall constitute a certification under penalty of perjury under the laws of the State of California, that Consultant or any person associated therewith in the capacity of owner, partner, director, officer, or manager:

1. Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;

2. Has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years;

3. Does not have a proposed debarment pending; and

4. Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

B. Any exceptions to this certification must be disclosed to City. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining responsibility. Disclosures must indicate the party to whom the exceptions apply, the initiating agency, and the dates of agency action.

C. Exceptions to the Federal Government Excluded Parties List System maintained by the U.S. General Services Administration are to be determined by the Federal Highway Administration.

16. <u>Disadvantaged Business Enterprises (DBE) Participation</u> (Exhibit 10-R, Article XVIII).

A. If this Agreement is subject to DBE participation requirements under 49 CFR 26, Consultant, City, or subconsultant shall take necessary and reasonable steps to ensure that DBEs have opportunities to participate in the contract (49 CFR 26). To ensure equal participation of DBEs provided in 49 CFR 26.5, City shows a contract goal for DBEs. Consultant shall make work available to DBEs and select work parts consistent with available DBE subconsultants and suppliers.

Consultant shall meet the DBE goal shown in the Agreement or demonstrate that they made adequate good faith efforts to meet this goal. It is Consultant's responsibility to verify that the DBE firm is certified as DBE at date of proposal opening and document the record by printing out the California Unified Certification Program (CUCP) data for each DBE firm. A list of DBEs certified by the CUCP can be found at https://dot.ca.gov/programs/civil-rights/dbe-search

All DBE participation will count toward the California Department of Transportation's federally mandated statewide overall DBE goal. Credit for materials or supplies

Consultant purchases from DBEs counts towards the goal in the following manner:

- 100 percent counts if the materials or supplies are obtained from a DBE manufacturer.
- 60 percent counts if the materials or supplies are purchased from a DBE regular dealer.
- Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a DBE that is neither a manufacturer nor regular dealer. 49 CFR 26.55 defines "manufacturer" and "regular dealer."

This Agreement is subject to 49 CFR Part 26 entitled “Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.” Consultants who enter into a federally-funded agreement will assist City in a good faith effort to achieve California's statewide overall DBE goal.

B. The goal for DBE participation for this Agreement is _____%. Participation by DBE Consultant or subconsultants shall be in accordance with information contained in Exhibit 10-O2: Consultant Contract DBE Commitment attached hereto and incorporated as part of the Agreement. If a DBE subconsultant is unable to perform, Consultant must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.

C. Consultant can meet the DBE participation goal by either documenting commitments to DBEs to meet the Agreement goal, or by documenting adequate good faith efforts to meet the Agreement goal. An adequate good faith effort means that the Consultant must show that it took all necessary and reasonable steps to achieve a DBE goal that, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to meet the DBE goal. If Consultant has not met the DBE goal, complete and submit Exhibit 15-H: DBE Information – Good Faith Efforts to document efforts to meet the goal. Refer to 49 CFR Part 26 for guidance regarding evaluation of good faith efforts to meet the DBE goal.

D. Contract Assurance

Under 49 CFR 26.13(b):

Consultant, City, or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of the Agreement. Consultant shall carry out applicable requirements of 49 CFR 26 in the award and administration of federal-aid contracts.

Failure by Consultant to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as the City deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or

4. Disqualifying Consultant from future proposing as non-responsible.

E. Termination and Substitution of DBE Subconsultants

Consultant shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless Consultant or DBE subconsultant obtains the City's written consent. Consultant shall not terminate or substitute a listed DBE for convenience and perform the work with their own forces or obtain materials from other sources without authorization from City. Unless City's consent is provided, Consultant shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE on the Exhibit 10-02: Consultant Contract DBE Commitment form, included in the Proposal.

City may authorize a request to use other forces or sources of materials if Consultant shows any of the following justifications:

1. Listed DBE fails or refuses to execute a written contract based on plans and specifications for the project.

2. City stipulated that a bond is a condition of executing the subcontract and the listed DBE fails to meet City's bond requirements.

3. Work requires a consultant's license and listed DBE does not have a valid license under Contractors License Law.

4. Listed DBE fails or refuses to perform the work or furnish the listed materials (failing or refusing to perform is not an allowable reason to remove a DBE if the failure or refusal is a result of bad faith or discrimination).

5. Listed DBE's work is unsatisfactory and not in compliance with the Agreement.

6. Listed DBE is ineligible to work on the project because of suspension or debarment.

7. Listed DBE becomes bankrupt or insolvent.

8. Listed DBE voluntarily withdraws with written notice from the Agreement

9. Listed DBE is ineligible to receive credit for the type of work required.

10. Listed DBE owner dies or becomes disabled resulting in the inability to perform the work on the Agreement.

11. City determines other documented good cause.

Consultant shall notify the original DBE of the intent to use other forces or material sources and provide the reasons and provide the DBE with 5 days to respond to the notice and advise Consultant and City of the reasons why the use of other forces or sources of materials should not occur.

Consultant's request to use other forces or material sources must include:

1. One or more of the reasons listed in the preceding paragraph.

2. Notices from Consultant to the DBE regarding the request.

3. Notices from the DBEs to Consultant regarding the request.

If a listed DBE is terminated or substituted, Consultant must make good faith efforts to find another DBE to substitute for the original DBE. The substitute DBE must perform at least the same amount of work as the original DBE under the Agreement to the extent needed to meet or exceed the DBE goal.

F. Commitment and Utilization

City's DBE program includes a monitoring and enforcement mechanism to ensure that DBE commitments reconcile to DBE utilization.

City requests that Consultant:

1. Notifies City's contract administrator or designated representative of any changes to its anticipated DBE participation
2. Provides this notification before starting the affected work
3. Maintains records including:
    - Name and business address of each 1st-tier subconsultant
    - Name and business address of each DBE subconsultant, DBE vendor, and DBE trucking company, regardless of tier
    - Date of payment and total amount paid to each business (see Exhibit 9-F: *Monthly Disadvantaged Business Enterprise Payment*)

If Consultant is a DBE Consultant, they shall include the date of work performed by their own forces and the corresponding value of the work.

If a DBE is decertified before completing its work, the DBE must notify Consultant in writing of the decertification date. If a business becomes a certified DBE before completing its work, the business must notify Consultant in writing of the certification date. Consultant shall submit the notifications to City. On work completion, Consultant shall complete a Disadvantaged Business Enterprises (DBE) Certification Status Change, Exhibit 17-O, form and submit the form to City within 30 days.

Upon work completion, Consultant shall complete Exhibit 17-F Final Report – Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors and submit it to City within 90 days of work completion. City will withhold $10,000 until the form is submitted. City will release the withhold upon submission of the completed form.

In City's reports of DBE participation to Caltrans, City must display both commitments and attainments.

G. A DBE is only eligible to be counted toward the Agreement goal if it performs a commercially useful function (CUF) on the Agreement. CUF must be evaluated on an agreement by agreement basis. A DBE performs a CUF when it is responsible for execution of the work of the Agreement and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the Agreement, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable), and paying for the material itself. To determine whether a

DBE is performing a CUF, evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Agreement is commensurate with the work it is actually performing, and other relevant factors.

H. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, Agreement, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, examine similar transactions, particularly those in which DBEs do not participate.

I. If a DBE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its Agreement with its own work force, or the DBE subcontracts a greater portion of the work of the Agreement than would be expected on the basis of normal industry practice for the type of work involved, it may be presumed that it is not performing a CUF.

J. Consultant shall maintain records of materials purchased or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE Consultants shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.

K. If a DBE subconsultant is decertified during the Term of the Agreement, the decertified subconsultant shall notify Consultant in writing with the date of decertification. If a subconsultant becomes a certified DBE during the Term of the Agreement, the subconsultant shall notify Consultant in writing with the date of certification. Any changes should be reported to the City's contract administrator within thirty (30) calendar days.

L. After submitting an invoice for reimbursement that includes a payment to a DBE, but no later than the 10th of the following month, the Consultant shall complete and email the Exhibit 9- F: Disadvantaged Business Enterprise Running Tally of Payments to business.support.unit@dot.ca.gov with a copy to City.

M. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this Section.

17. Funding Requirements (Exhibit 10-R, Article XX).

A. It is mutually understood between the Parties that this Agreement may have been written before ascertaining the availability of funds or appropriation of funds, for the mutual benefit of both Parties, in order to avoid program and fiscal delays that would occur if the Agreement were executed after that determination was made.

B. This Agreement is valid and enforceable only if sufficient funds are made available to City for the purpose of this Agreement. In addition, this Agreement is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress, State Legislature, or City Council that may affect the provisions, terms, or funding of this Agreement in any manner.

C. It is mutually agreed that if sufficient funds are not appropriated, this Agreement may be amended to reflect any reduction in funds.

D. City has the option to terminate the Agreement pursuant to Section 4 (Article VI), Termination, or by mutual agreement to amend the Agreement to reflect any reduction of funds.

18. <u>Contingent Fee</u> (Exhibit 10-R, Article XXII).

Consultant warrants, by execution of this Agreement, that no person or selling agency has been employed, or retained, to solicit or secure this Agreement upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by Consultant for the purpose of securing business. For breach or violation of this warranty, City has the right to annul this Agreement without liability; to pay only for the value of the work actually performed; or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

19. <u>Safety</u> (Exhibit 10-R, Article XXV).

A. Consultant shall comply with Occupational Safety and Health Administration (OSHA) regulations applicable to Consultant regarding necessary safety equipment or procedures. Consultant shall comply with safety instructions issued by City Safety Officer and other City representatives. Consultant personnel shall wear hard hats and safety vests at all times while working on the construction project site.

B. Pursuant to the authority contained in Vehicle Code section 591, City has determined that such areas are within the limits of the project and are open to public traffic. Consultant shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. Consultant shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.

<Add the following paragraph to all agreements which may require trenching of five feet or deeper>

C. Consultant must have a Division of Occupational Safety and Health (CAL-OSHA) permit(s), as outlined in Labor Code sections 6500 and 6705, prior to the initiation of any practices, work, method, operation, or process related to the construction or excavation of trenches which are five (5) feet or deeper.

20. <u>Ownership of Data</u> (Exhibit 10-R, Article XXVI).

A. It is mutually agreed that all materials prepared by Consultant under this Agreement shall become the property of City, and Consultant shall have no property right therein whatsoever. Immediately upon termination, City shall be entitled to, and Consultant shall deliver to City, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and other such materials as may have been prepared or accumulated to date by Consultant in performing this Agreement which is not Consultant's privileged information,

as defined by law, or Consultant's personnel information, along with all other property belonging exclusively to City which is in Consultant's possession. Publication of the information derived from work performed or data obtained in connection with services rendered under this Agreement must be approved in writing by City.

B. Additionally, it is agreed that the Parties intend this to be an Agreement for services and each considers the products and results of the services to be rendered by Consultant hereunder to be work made for hire. Consultant acknowledges and agrees that the work (and all rights therein, including, without limitation, copyright) belongs to and shall be the sole and exclusive property of City without restriction or limitation upon its use or dissemination by City.

C. Nothing herein shall constitute or be construed to be any representation by Consultant that the work product is suitable in any way for any other project except the one detailed in this Agreement. Any reuse by City for another project or project location shall be at City's sole risk.

D. Applicable patent rights provisions regarding rights to inventions shall be included in the contracts as appropriate (48 CFR 27 Subpart 27.3 - Patent Rights under Government Contracts for federal-aid contracts).

E. City may permit copyrighting reports or other agreement products. If copyrights are permitted, the FHWA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, the work for government purposes.

21. <u>Claims Filed by City's Construction Contractor</u> (Exhibit 10-R, Article XXVII).

A. If claims are filed by City's construction contractor relating to work performed by Consultant's personnel, and additional information or assistance from Consultant's personnel is required in order to evaluate or defend against such claims, Consultant agrees to make its personnel available for consultation with City's construction contract administrator and legal staff and for testimony, if necessary, at depositions and at trial or arbitration proceedings.

B. Consultant's personnel that City considers essential to assist in defending against construction contractor claims will be made available on reasonable notice from City. Consultation or testimony will be reimbursed at the same rates, including travel costs that are being paid for Consultant's personnel services under this Agreement.

C. Services of Consultant's personnel in connection with City's construction contractor claims will be performed pursuant to a written amendment to this Agreement, if necessary, extending the termination date of this Agreement in order to resolve the construction claims.

22. <u>Confidentiality of Data</u> (Exhibit 10-R, Article XXVIII).

A. All financial, statistical, personal, technical, or other data and information relative to City's operations, which are designated confidential by City and made available to Consultant in order to carry out this Agreement, shall be protected by Consultant from unauthorized use and disclosure.

B. Permission to disclose information on one occasion, or public hearing held by City relating to the Agreement, shall not authorize Consultant to further disclose such information, or disseminate the same on any other occasion.

C. Consultant shall not comment publicly to the press or any other media regarding the Agreement or City's actions on the same, except to City's staff, Consultant's own personnel involved in the performance of this Agreement, at public hearings, or in response to questions from a Legislative committee.

D. Consultant shall not issue any news release or public relations item of any nature whatsoever, regarding work performed or to be performed under this Agreement without prior review of the contents thereof by City, and receipt of City's written permission.

<For PS&E contracts, add paragraph E, below, to paragraphs A through D, above>

E. All information related to the construction estimate is confidential, and shall not be disclosed by Consultant to any entity, other than City, Caltrans, and/or FHWA. All of the materials prepared or assembled by Consultant pursuant to performance of this Agreement are confidential and Consultant agrees that they shall not be made available to any individual or organization without the prior written approval of City or except by court order. If Consultant or any of its officers, employees, or subcontractors does voluntarily provide information in violation of this Agreement, City has the right to reimbursement and indemnity from Consultant for any damages caused by Consultant releasing the information, including, but not limited to, City's attorney's fees and disbursements, including without limitation experts' fees and disbursements.

23. <u>National Labor Relations Board Certification</u> (Exhibit 10-R, Article XXIX).

In accordance with Public Contract Code § 10296, Consultant hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against Consultant within the immediately preceding two-year period because of Consultant's failure to comply with an order of a federal court that orders Consultant to comply with an order of the National Labor Relations Board.

24. <u>Evaluation of Consultant</u> (Exhibit 10-R, Article XXX).

Consultant's performance will be evaluated by City. A copy of the evaluation will be sent to Consultant for comments. The evaluation together with the comments shall be retained as part of the Agreement record.

Attachment 2:
EPA WQIF Grant Application

PCBs TMDL Special Studies and Implementation Project

Funding Opportunity: San Francisco Bay Program Fiscal Year 2024 Funds (EPA-REGIX-SFBAY-24)

Grant Applicant: City of San Pablo on behalf of the Bay Area Municipal Stormwater Collaborative (BAMSC) partner organizations and associated public agencies subject to the National Pollutant Discharge Elimination System (NDPES) Phase I permit for municipal stormwater discharges and the NPDES general permit for stormwater discharges from small municipal separate storm sewer systems (Phase II permit) within the San Francisco Bay Regional Water Quality Control Board region (Region 2).

Project Partners: Alameda Countywide Clean Water Program (ACCWP), Contra Costa Clean Water Program (CCCWP), San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), Solano Stormwater Alliance (SSA), Marin Countywide Stormwater Pollution Prevention Program, Napa Countywide Stormwater Pollution Prevention Program, County of Sonoma, City of Petaluma, City of Benicia, and Port of Oakland

Project Budget: $ 10,666,667 (75% grant-funded; 25% match via Project Partners in-kind services)

Anticipated Project Term: ~January 2025 – January 2030 (five years)

Project Summary

BACKGROUND AND PROJECT PURPOSE

The purpose of the PCBs TMDL Special Studies and Implementation Project (Project) is to support protection and restoration of the San Francisco Bay (Bay). The Project will continue and expand implementation of the San Francisco Bay polychlorinated biphenyls (PCBs) total maximum daily load (TMDL).

PCBs and other sediment-bound pollutants are found in San Francisco Bay water, sediments, and biota. Concentrations of PCBs in certain fish exceed target levels and may pose a health risk to people who consume fish caught in the Bay. As a result, the California Office of Environmental Health Hazard Assessment issued an advisory on the consumption of fish from the Bay. Of particular concern were subsistence fishing communities, often in underserved and minority neighborhoods, which were taken into account when the Bay was designated as impaired on the Clean Water Act 303(d) list due to PCBs. In response, the San Francisco Bay Regional Water Quality Control Board (Water Board) finalized a comprehensive TMDL program in 2011 to identify and control sources of PCBs in the Bay and restore water quality. The water quality of the Bay is inextricably linked to historical and current human activities in the urban watersheds that drain into the Bay. Urban stormwater runoff is of particular concern as it conveys many types of pollutants from the urban landscape to the Bay. Controlling discharges of PCBs in urban stormwater runoff is key to achieving the goals of the PCBs TMDL.

The anticipated funded activities of the PCBs TMDL Studies and Implementation Project will effectively respond to these challenges. Ultimately, SF Bay Program funding will help reduce harm to the Bay's aquatic ecosystems, improve the recovery time of the Bay, and in doing so make the Bay fishable for subsistence populations and underserved communities. EPA expects work under the SF Bay Program to benefit underserved communities and meaningfully involve affected communities experiencing adverse and disproportionate environmental harm and health risks and will ask grantees to track such progress.

This work is identified as a priority on the SF Bay Program Annual Priority List. The Priority List advances EPA's Strategic Plan (2022-26) Goal 1: Tackle the Climate Crisis, Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights, and Goal 5: Ensure Clean and Safe Water for All Communities.

Given the compounding threats of climate change including sea level rise, increased storm events, and groundwater rise, it is critical to identify and implement control measures for PCBs near the Bay.

APPLICANT AND PARTNER ORGANIZATIONS

The City of San Pablo is the Grant Applicant submitting the grant application on behalf of the public agencies that participate in the Bay Area Municipal Stormwater Collaborative (BAMSC). The BAMSC agencies work together on requirements under the Phase I and Phase II municipal stormwater permits and other regulatory programs including TMDL implementation. BAMSC represents 103 agencies, including 88 cities and towns, eight counties, and seven special districts. Each agency with a stormwater permit is required to reduce PCBs loads under the TMDL.

The BAMSC members (Project Partners) will assist with the implementation of the Project and are fully committed to active participation and providing the agreed upon matching funds (via in-kind services) to the Project.

The organizational structure for the Project is illustrated in **Figure 1**. The City of San Pablo will solicit and select a consultant team (consistent with federal procurement requirements) to serve as the Project Manager and to implement the project. The Project Manager will be responsible for successfully accomplishing the tasks defined under this workplan, in coordination with the City of San Pablo and the Project Partners.

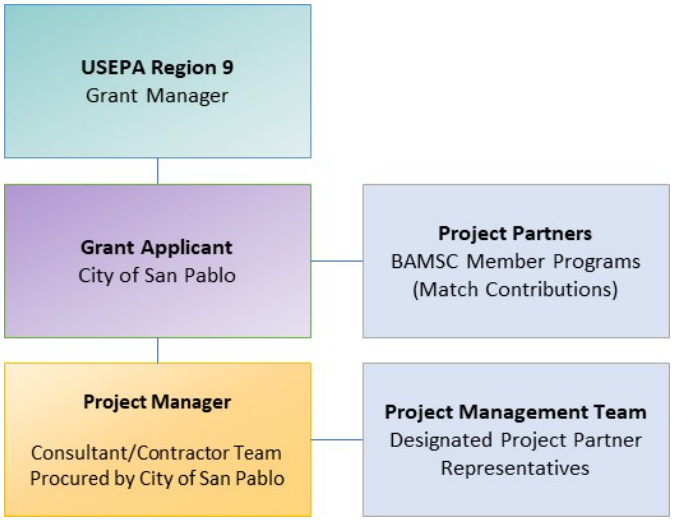

Figure 1: Organizational Structure for the PCBs Special Studies and Implementation Project

PROJECT GOALS

The goals of the PCBs TMDL Special Studies and Implementation Project include:

1. Inform the PCBs TMDL reissuance process prior to 2030
2. Support achievement of PCBs TMDL wasteload allocations for the stormwater category
3. Optimize and focus PCBs control measures to improve the trajectory of Bay recovery
4. Support the Phase I Municipal Regional NPDES Permit monitoring, modeling, and TMDL implementation tasks
5. Support implementation of the Phase II NPDES Permit requirements for the PCBs TMDL

SCOPE OF WORK

The following sections describe the four main tasks the Project will complete to accomplish the five project goals. These tasks will be accomplished across the region with a regional, countywide, or local focus based on the specific study and implementation needs of the Project Partners. Table 1 summarizes the Project schedule and deliverables, and Table 2 provides a summary of the Project's outputs and outcomes.

Task 1. Regional PCBs Monitoring Programs

Phase I countywide stormwater programs and the SF Bay Regional Monitoring Program (RMP) have conducted PCBs monitoring in stormwater, urban sediments, and in tributaries to the Bay for over two decades. This task will support ongoing monitoring to address the following five priority PCBs management information needs:

- Source Identification - identifying or confirming which sources or watershed source areas provide the greatest opportunities for reductions of PCBs in urban stormwater runoff;
- Contributions to Bay Impairment - identifying which watershed source areas contribute most to the impairment of San Francisco Bay beneficial uses (due to source intensity and sensitivity of discharge location);
- Management Action Effectiveness - evaluating the effectiveness or impacts of existing management actions, including compliance with TMDLs and other Pollutants of Concern (POC) requirements and providing support for planning future management actions;
- Loads and Status - providing information on POC loads, concentrations, and presence in local tributaries or urban stormwater discharges;
- Trends - evaluating trends in POC loading to the Bay and POC concentrations in urban stormwater discharges or local tributaries overtime.

This task will include establishing four fixed monitoring stations (one each in Alameda, Contra Costa, San Mateo, and Santa Clara counties). The monitoring stations will support regional monitoring and PCBs modeling in collaboration with the RMP. Specifically, these stations will collect data to support parameterization and calibration of watershed loading models. In addition, these stations will provide information on trends in POC loads and concentrations over time. They will also inform the assessment of the effectiveness of management actions implemented within the monitored watershed. BAMSC will lead the physical installation of each station (e.g., pad, enclosure, security, power supply, communications, and installation of gages) and permitting, while the RMP will be responsible for providing the instrumentation, sensors, and gages. BAMSC will also be responsible for site and BAMSC sampling equipment maintenance. One station will be installed in the first year of the grant, and the remaining stations will be installed in subsequent years.

This task will also develop and test alternative source property investigation tools, such as the use of canine detection dogs or other rapid screening methods to identify sources of PCBs.

Monitoring efforts associated with the alternative investigation tools will be supported by a rigorous Quality Assurance Project Plan (QAPP) and data management protocols, with the data made publicly available (as appropriate) on the California Environmental Data Exchange Network (CEDEN). A QAPP will be submitted to EPA prior to the start of field monitoring efforts for each type of monitoring.

Phase I agency monitoring data and analyses will be summarized in the Urban Creeks Monitoring Reports prepared by the countywide programs in March of each year during the Project. Phase II

agencies will summarize monitoring data and analyses in the TMDL Annual Report in October of each year during the Project. These reports will be submitted to EPA and made publicly available on the agencies' websites or via the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS).

Task 2. Phase II PCBs Program Development and Monitoring

The Phase II Permittees[1] will be required to implement 10 PCBs control programs including monitoring and assessment programs to quantify PCBs stormwater runoff loads and load reductions achieved through treatment, source control, and other actions. This task will support monitoring, mapping, and implementation planning efforts for the Phase II local public agencies conducted in compliance with the Phase II permit.

Outputs from this task include monitoring and mapping data, implementation plans, and actions. Data will be provided to the EPA, Water Board, and the RMP for TMDL planning, modeling, and implementation purposes, as applicable.

All monitoring efforts will be supported by a QAPP and data management protocols, with the data made publicly available (as appropriate) on CEDEN. A QAPP will be submitted to EPA prior to the start of field monitoring efforts for each type of monitoring.

Phase II agency monitoring, mapping, and implementation planning efforts will be summarized in the agencies' Annual Reports each year during the Project. Phase II Annual Reports are submitted to State Water Resources Control Board by October 15 each year. The PCBs TMDL Annual Report summaries will be submitted to EPA and made publicly available via SMARTS.

Task 3. Phase I PCBs Monitoring, Mapping, and Control Measure Planning

The Phase I stormwater programs and agencies have developed Geographic Information System (GIS) maps and databases to assist in identifying which watershed characteristics correlate well with land areas that contribute high, moderate, and low levels of PCBs to the Bay via stormwater runoff. The mapping methodology was developed using the collective local understanding of the types of land areas, facilities, and activities that generate PCBs to assist local public agencies in identifying areas where PCBs load reduction measures will have the greatest load reduction benefits. The Phase I stormwater programs have also developed Old Industrial Area Control Measure Plans designed to control PCBs in stormwater from areas containing known or suspected sources or areas with evidence of moderate to high mercury or PCBs sediment concentrations. This task will include additional monitoring, mapping, and planning in support of control measure implementation.

Monitoring tasks will include large-scale sediment sampling in old industrial areas that are likely to be PCBs source areas and water sampling to verify the locations of low-priority stormwater catchments and PCBs reductions in catchments where control measures have been implemented to date. All monitoring efforts will be supported by a QAPP and data management protocols, with the data made publicly available (as appropriate) on CEDEN. A QAPP will be submitted to EPA prior to the start of field monitoring efforts for each type of monitoring.

Additional mapping tasks include correcting and improving the existing maps and databases to help quantify loads reduced through control measure implementation.

[1] Responsible Permittees include but may not be limited to: County of Napa, City of American Canyon, City of Calistoga, City of Napa, City of Yountville, City of St. Helena, County of Marin, City of Belvedere, Town of Corte Madera, Town of Fairfax, City of Larkspur, City of Mill Valley, City of Novato, Town of Ross, City of San Anselmo, City of San Rafael, City of Sausalito, Town of Tiburon, County of Solano, City of Benicia, County of Sonoma, City of Sonoma, Sonoma Water, City of Petaluma, and the Port of Oakland.

This task will support actions needed to implement the Phase I Old Industrial Area Control Measure Plans. Implementation actions may include programs to identify and take actions to control PCBs sources on private properties, planning for and conducting enhanced operations and maintenance activities to remove contaminated sediments from municipal separate storm sewer system (MS4) infrastructure, and design of stormwater treatment control measures in the public right-of-way.

Outputs from this task include monitoring data and analyses, improved GIS data, and implementation plans and actions. Phase I agency monitoring data and analyses will be summarized in the Urban Creeks Monitoring Reports prepared by the countywide programs in March of each year during the Project. These reports will be submitted to EPA and made publicly available on the agencies' websites. Data will be provided to the EPA, Water Board, and the RMP for TMDL planning, modeling, and implementation purposes, as applicable. Phase I planning and implementation efforts will be summarized in the countywide programs' Annual Reports each year during the Project. These summaries will be submitted to EPA in October each year and made publicly available on the agencies' websites.

Task 4. Project Administration and Management

The City of San Pablo will serve as the applicant and administrator of the Project. Environmental Program Manager, Amanda Booth, will serve as the principal-in-charge of the project on behalf of the City of San Pablo. The City of San Pablo will lead the preparation of invoices, and review and submit quarterly performance and financial reports to EPA. Additionally, the City of San Pablo will lead the development of a Request for Proposals (RFP) to select and procure a Project Manager to lead the Project and complete all tasks. The City of San Pablo will enter into a contract agreement with and manage the Project Manager during the term of the project.

The City of San Pablo will also form a Project Management Team (PMT) at the onset of the project to provide oversight of Project task completion. The PMT will consist of Project Partner representatives, Water Board staff, and EPA staff. The PMT will assist the City of San Pablo in selecting and managing the Project Manager, who will lead project implementation, develop quarterly performance and financial reports, coordinate with the PMT, and prepare final grant documentation. In-kind match contributions for this subtask will consist of other Project Partner participation on the PMT, and coordination with the Project Manager on task implementation.

TABLE 1. PCBS SPECIAL STUDIES AND IMPLEMENTATION PROJECT SCHEDULE AND DELIVERABLES

Task #	Grant Program Function or Activity	2025				2026				2027				2028				2029			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Regional PCBs Monitoring Programs	P	P	F	F	R	F	F	F	R	F	F	F	R	F	F	F	R			
2	Phase II PCBs Program Development and Monitoring	P	D F	D F	D F	D F	D F	D R	D F	D F	D F	D R	D F	D F	D F	D R	D F	D F	D F	R	
3	Phase I PCBs Monitoring, Mapping, and Control Measure Planning	P F	P F	P F	P F	F	F	R F	F	F	F	R F	F	F	F	R F	F	F	F	R	
4	Project Administration/ Management	M	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R	M R

Task Implementation

P = planning, F = field work, R = report, D = desktop analysis/design, M = meeting

TABLE 2. PCBS SPECIAL STUDIES AND IMPLEMENTATION PROJECT OUTPUTS AND OUTCOMES

Task	Outputs	Near-term Outcomes (within 5 years)	Longer-term Outcomes (5-20+ years)
1. Regional PCBs Monitoring Programs			
Install Four Small Tributary Loading Stations	• Establishment of four monitoring stations in collaboration with the RMP that will collect samples to evaluate the loads of PCBs entering the Bay from urban stormwater.	• The loading stations will support overall estimation of stormwater loads to the Bay and modeling of stormwater loads to the Bay.	• Improved understanding of PCBs status and trends in stormwater discharges to the Bay. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
Develop and Test Alternative Source Property Investigation Tools	• QAPP for Alternative Methods Testing • Technical report(s) that comprehensively assess the alternative monitoring methods.	• Development and implementation of a pilot study design to test the use of canine detection dogs or other rapid screening methods to identify sources of PCBs.	• Identification and control of remaining sources of PCBs into the MS4. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
2. Phase II PCBs Program Development and Monitoring			
Phase II PCBs Program Development	• Monitoring and mapping data, implementation plans, and actions.	• Identification of sources of PCBs into the MS4 in Phase II areas to assist with planning and implementation of PCBs control measures.	• Control of sources of PCBs into the MS4 in Phase II areas. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
3. Phase I PCBs Monitoring, Mapping, and Control Measure Planning			
Conduct Large-Scale Public ROW/Private Property Sediment Sampling	• QAPP for Sediment Sampling. • Technical report(s) that comprehensively assess the sampling and site investigations conducted.	• Identification and control of sources of PCBs to the MS4 and the Bay from private properties.	• Observable reductions of PCBs in urban sediments and stormwater and/or receiving water monitoring due to control of sources on private properties. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.

Task	Outputs	Near-term Outcomes (within 5 years)	Longer-term Outcomes (5-20+ years)
Conduct Low Priority Verification Water Sampling	• QAPP for Low Priority Verification Water Sampling • Technical report(s) that comprehensively assess the water verification sampling conducted.	• Watershed or catchment-scale stormwater monitoring at sites where previous data have found low PCBs, and/or where PCBs sources are not suspected, to further verify the watershed or catchment is not producing moderate or high levels of PCBs.	• Improved understanding of which watershed source areas contribute most to the impairment of San Francisco Bay beneficial uses. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
Conduct Load Reduction Verification Monitoring	• QAPP for Load Reduction Verification Water Sampling • Technical report(s) that comprehensively assess the water verification sampling conducted.	• Development and implementation of a study design to evaluate the impacts of controls on load reductions at the watershed or catchment scale.	• Improved understanding of the effectiveness or impacts of existing management actions, including compliance with TMDLs and other POC requirements and providing support for planning additional management actions. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
Correct and Improve Existing Phase I GIS Maps and Databases	• Improved GIS maps and databases in the Phase I agency areas.	• Improved maps and databases to assist with planning and implementation of PCBs control measures.	• Control of sources of PCBs into the MS4 in Phase I areas. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
Develop and Implement Programs to Control PCBs Discharges from Private Properties	• Development and implementation of programs to assist agencies in providing oversight of actions that may be required on private properties to address PCBs released from the property to the MS4.	• Identification and control of sources of PCBs to the MS4 and the Bay from private properties.	• Observable reductions of PCBs in urban sediments and stormwater and/or receiving water monitoring due to control of sources on private properties. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices	• Support for the enhanced cleanout of storm drain lines or other MS4 infrastructure that contain PCBs-contaminated sediment that are located in catchments where PCBs are elevated.	• Implementation of PCBs control measures on 2,880 acres of Phase I old industrial areas, resulting in an estimated load reduction of about 467 grams of PCBs per year.	• Decreased discharges of PCBs in stormwater to the Bay. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
Plan and Design Stormwater Treatment Systems	• Develop conceptual designs for stormwater treatment systems and projects that may be identified as potential projects to address old industrial or moderate PCBs areas.	• Implementation of PCBs control measures on 2,880 acres of Phase I old industrial areas, resulting in an estimated load reduction of about 467 grams of PCBs per year.	• Decreased discharges of PCBs in stormwater to the Bay. • Achievement of PCBs TMDL wasteload allocations for the stormwater category.
4. Project Administration/Management			
Project Management	• Strengthened regional leadership through meetings with Project Partners, Water Board, and/or EPA representatives	NA	NA
Invoicing & Progress Reporting	• Quarterly project progress reports (4/grant year) and subsequent invoices • Final grant report	• Improved understanding of how to achieve the PCBs TMDL wasteload allocations for the stormwater category.	• Achievement of PCBs TMDL wasteload allocations for the stormwater category.

Task Budget and Match

A summary of the budget for the Project is included in **Table 3**. Grant funded totals include estimated labor and expenses. Match-funded totals are based on the in-kind contributions committed by the Project Partners.

Task #	Grant Program Function or Activity	Grant-Funded Costs	Match-Funded Costs	Total Project Costs
1	Regional PCBs Monitoring Programs	$700,000		
2	Phase II PCBs Program Development and Monitoring	$1,101,878		
3	Phase I PCBs Monitoring, Mapping, and Control Measure Planning	$5,398,122		
4	Project Administration/ Management	$800,000		
	Total	$8,000,000	$2,666,667	$10,666,667

Note: The project match will be tracked at the project level (not by task).

The $2,666,667 in matching funds will be provided by the Project Partners and will be incrementally reported on in the semi-annual Progress Reports.

Coordinates of Main Facility

City of San Pablo City Hall: 37.9559574,-122.338828

Representative Photo and Caption

The PCBs Special Studies and Implementation Project aims to support protection and restoration of the San Francisco Bay through continuing and expanding implementation of the San Francisco Bay polychlorinated biphenyls (PCBs) total maximum daily load (TMDL).

Attachment 3:
EPA Award Agreement

U.S. ENVIRONMENTAL PROTECTION AGENCY

Grant Agreement

GRANT NUMBER (FAIN): 97T23001 **MODIFICATION NUMBER:** 0 **PROGRAM CODE:** W9	**DATE OF AWARD** 12/11/2024
TYPE OF ACTION New	**MAILING DATE** 12/16/2024
PAYMENT METHOD: ASAP	**ACH#** 90655

RECIPIENT TYPE: Municipal	**Send Payment Request to:** Contact EPA RTPFC at: rtpfc-grants@epa.gov
RECIPIENT:	**PAYEE:**
CITY MGRS. OFFICE SAN PABLO 1000 Gateway Avenue SAN PABLO, CA 94806-3703 **EIN:** 94-6000423	CITY MGRS. OFFICE SAN PABLO 1000 Gateway Avenue SAN PABLO, CA 94806-3703

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Amanda Booth 1000 Gateway Avenue SAN PABLO, CA 94806 **Email:** amandab@sanpabloca.gov **Phone:** 510-215-3066	Michael Beakes 75 Hawthorne Street, WTR-1 San Francisco, CA 94105 **Email:** Beakes.Michael@epa.gov **Phone:** 415-972-3565	Danielle Tucker Grants Branch, MSD-6 75 Hawthorne Street San Francisco, CA 94105 **Email:** Tucker.Danielle.E@epa.gov **Phone:** 415-972-3871

PROJECT TITLE AND DESCRIPTION

San Francisco Bay Water Quality Improvement Fund

See Attachment 1 for project description.

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
01/01/2025 - 12/30/2029	01/01/2025 - 12/30/2029	$ 10,666,667.00	$ 10,666,667.00

NOTICE OF AWARD

Based on your Application dated 09/09/2024 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards $ 8,000,000.00. EPA agrees to cost-share 75.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of $ 8,000,000.00. 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	**ORGANIZATION / ADDRESS**
U.S. EPA, Region 9, U.S. EPA, Region 9 Grants Branch, MSD-6 75 Hawthorne Street San Francisco, CA 94105	U.S. EPA, Region 9, Water Division, WTR-1 R9 - Region 9 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** 12/11/2024

EPA Funding Information

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	$ 0	$ 8,000,000	$ 8,000,000
EPA In-Kind Amount	$ 0	$ 0	$ 0
Unexpended Prior Year Balance	$ 0	$ 0	$ 0
Other Federal Funds	$ 0	$ 0	$ 0
Recipient Contribution	$ 0	$ 0	$ 0
State Contribution	$ 0	$ 0	$ 0
Local Contribution	$ 0	$ 0	$ 0
Other Contribution	$ 0	$ 2,666,667	$ 2,666,667
Allowable Project Cost	$ 0	$ 10,666,667	$ 10,666,667

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.126 - Geographic Programs - San Francisco Bay Water Quality Improvement Fund	Clean Water Act: Sec. 125	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
-	2509W32002	2425	B	09L2	000BK4	4158	-	-	$ 8,000,000
									$ 8,000,000

Budget Summary Page

Table A - Object Class Category (Non-Construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$ 120,993
2. Fringe Benefits	$ 36,298
3. Travel	$ 0
4. Equipment	$ 0
5. Supplies	$ 0
6. Contractual	$ 10,493,647
7. Construction	$ 0
8. Other	$ 0
9. Total Direct Charges	$ 10,650,938
10. Indirect Costs: 0.00 % Base See terms and conditions	$ 15,729
11. Total (Share: Recipient 25.00 % Federal 75.00 %)	$ 10,666,667
12. Total Approved Assistance Amount	$ 8,000,000
13. Program Income	$ 0
14. Total EPA Amount Awarded This Action	$ 8,000,000
15. Total EPA Amount Awarded To Date	$ 8,000,000

Attachment 1 - Project Description

The purpose of the PCBs TMDL Special Studies and Implementation Project is to support protection and restoration of the San Francisco Bay. This project will continue and expand implementation of the San Francisco Bay polychlorinated biphenyls (PCBs) total maximum daily load (TMDL). PCBs and other sediment-bound pollutants are found in San Francisco Bay water, sediments, and biota. Concentrations of PCBs in certain fish exceed target levels and may pose a health risk to people who consume fish caught in the Bay. As a result, the California Office of Environmental Health Hazard Assessment issued an advisory on the consumption of fish from the Bay. Of particular concern were subsistence fishing communities, often in underserved and minority neighborhoods, which were taken into account when the Bay was designated as impaired on the Clean Water Act 303(d) list due to PCBs. In response, the San Francisco Bay Regional Water Quality Control Board (Water Board) finalized a comprehensive TMDL program in 2011 to identify and control sources of PCBs in the Bay and restore water quality. The anticipated funded activities of the PCBs TMDL Studies and Implementation Project will help reduce harm to the Bay's aquatic ecosystems, improve the recovery time of the Bay, and in doing so make the Bay fishable for subsistence populations and underserved communities.

This assistance agreement provides full federal funding in the amount of $8,000,000.00.The PCBs TMDL Special Studies and Implementation Project activities will focus in three primary areas including: 1) support ongoing PCBs monitoring in stormwater, urban sediments, and in tributaries to the San Francisco Bay, 2) implement 10 PCBs control programs including monitoring and assessment programs to quantify PCBs stormwater runoff loads and load reductions achieved through treatment, source control, and other actions, and 3) continued development of Geographic Information System (GIS) maps and databases to assist in identifying which watershed characteristics correlate well with land areas that contribute high, moderate, and low levels of PCBs to the Bay via stormwater runoff.Anticipated deliverables include: Establishment of four monitoring stations in collaboration with the RMP that will collect samples to evaluate the loads of PCBs entering the Bay from urban stormwater, technical reports that comprehensively assess the alternative monitoring methods, sampling and site investigations conducted, monitoring and mapping data, implementation plans, and potential management actions to support PCBs control programs. In addition, this project is expected to aid development of programs to assist agencies in addressing PCBs released from the property to the MS4, and stormwater treatment systems to address old industrial or moderate PCBs areas. The intended beneficiaries of this project are San Francisco Bay community members including subsistence fishing communities and underserved communities.No subawards are included in this assistance agreement.

Administrative Conditions

General Terms and Conditions

The recipient agrees to comply with the current Environmental Protection Agency (EPA) general terms and conditions available at: https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2024-or-later

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 EPA Finance Center in Research Triangle Park, NC. The annual FFR will be submitted electronically to rtpfc-grants@epa.gov no later than **December 30** of the same calendar year. Find additional information at https://www.epa.gov/financial/grants. (Per 2 CFR § 200.344(b), the recipient must submit the Final FFR to rtpfc-grants@epa.gov within 120 days after the end of the project period.)

B. Procurement

The recipient will ensure all procurement transactions will be conducted in a manner providing full and open competition consistent with 2 CFR § 200.319. In accordance with 2 CFR § 200.324, the recipient and subawardee(s) must perform a cost or price analysis in connection with applicable procurement actions, including contract modifications. *State and Tribal government entities must follow procurement standards as outlined in 2 CFR § 200.317.*

C. MBE/WBE Reporting, 40 CFR, Part 33, Subpart E (EPA Form 5700-52A)

The recipient agrees to submit a “MBE/WBE Utilization Under Federal Grants and Cooperative Agreements” report (EPA Form 5700-52A) annually for the duration of the project period. The current EPA Form 5700-52A with instructions is located at https://www.epa.gov/grants/epa-grantee-forms

This provision represents an approved exception from the MBE/WBE reporting requirements as described in 40 CFR Section 33.502.

Reporting is required for assistance agreements where funds are budgeted for procuring construction, equipment, services and supplies (including funds budgeted for direct procurement by the recipient or procurement under subawards or loans in the “Other” category) with a cumulative total that exceed the **Simplified Acquisition Threshold (SAT) currently set at $250,000** (the dollar threshold will be automatically revised whenever the SAT is adjusted; See 2 CFR Section 200.1), including amendments and/or modifications. All procurement actions are reportable when reporting is required, not just the portion which exceeds the SAT.

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 4A when completing the form.

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 “Final Report (project completed)” in section 1B of the form.

The annual reports are due by October 30th of each calendar year and the final report is due within 120 days after the end of the project period, whichever comes first. The recipient will submit the MBE/WBE report(s) and/or questions to GrantsRegion9@epa.gov and the EPA Grants Specialist identified on page 1 of the award document.

D. Non-Federal Third-Party Contributions

This award includes non-federal third party contributions. Third party contributions counting towards satisfying a cost sharing requirement must be verifiable from the recipient's records and its subgrantee (s). 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 requirement apply (2 CFR § 200.306).

Programmatic Conditions

a. Reporting Conditions

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 previous quarter (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 120 days of the end of the project period the recipient must email a 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 be emailed to the EPA Project Officer.

b. 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.

c. Quality Assurance Plan

QUALITY ASSURANCE- Quality Assurance Project Plan

In accordance with 2 CFR 1500.11, the recipient must develop and implement quality assurance and quality control procedures, specifications and documentation that are sufficient to produce data of adequate quality to meet project objectives. Recipients implementing environmental programs within the scope of the assistance agreement must submit to the EPA Project Officer an approvable Quality Assurance Project Plan (QAPP) at least 60 days prior to the initiating of data collection or data compilation. The Quality Assurance Project Plan (QAPP) is the document that provides comprehensive details about the quality assurance, quality control, and technical activities that must be implemented to ensure that project objectives are met. Environmental programs include direct measurements or data generation, environmental modeling, compilation of date from literature or electronic media, and data supporting the design, construction, and operation of environmental technology.

The QAPP should be prepared in accordance with EPA QA/R-5: EPA Requirements for Quality Assurance Project Plans. No environmental data collection or data compilation may occur until the QAPP is approved by the EPA Project Officer and Quality Assurance Regional Manager. When the recipient is delegating the responsibility for an environmental data collection or data compilation activity to another organization, the EPA Regional Quality Assurance Manager may allow the recipient to review and approve that organization's QAPP. Additional information on these requirements can be found at the EPA Office of Grants and Debarment Web Site: https://www.epa.gov/grants/implementation-quality-

assurance-requirements-organizations-receiving-epafinancial

d. 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 Grant Condition for Other Recipients, Including Intertribal Consortia

(a) The recipient agrees that when collecting and managing environmental data under this assistance agreement, it will protect the data by following all applicable State or Tribal law cybersecurity requirements.
(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 200.332(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.

f. Geospatial Data Standards

All geospatial data created must be consistent with Federal Geographic Data Committee (FGDC) endorsed standards. Information on these standards may be found at https://www.fgdc.gov/.

END-OF-DOCUMENT

Attachment 4:
Quarterly Report Template

PCBS TMDL SPECIAL STUDIES & IMPLEMENTATION PROJECT

QUARTERLY PROGRESS REPORT NO. XX (XXX/25 – XXX/29)

EPA Project Period: 01/01/2025 – 12/30/2029
Grant Recipient: City of San Pablo
Assistance ID Number: W9 – 97T23001 - 0
Submitted by: Amanda Booth
Environmental Program Manager
City of San Pablo
510-215-3066
amandab@sanpabloca.gov

PROGRESS REPORT HIGHLIGHTS

- **XXXXX**
- **XXXXX**
- **XXXXX**

REGIONAL MONITORING PROGRAM, TASK 1

Phase I countywide stormwater programs and the SF Bay Regional Monitoring Program (RMP) have conducted PCB monitoring in stormwater, urban sediments, and in tributaries to the Bay for over two decades. This task will support ongoing monitoring to address the following five priority PCBs management information needs including source identification, contributions to Bay impairment, management action effectiveness, loads and status, and trends.

ACTIVITIES & ACCOMPLISHMENTS:

XXXX

DIFFICULTIES AND RESOLUTIONS:

XXXXX

Task/Sub-Task	Timeline	Comments	Percent Complete
1	Jan. 2025 – Mar. 2029	No Comments.	0%

PHASE II PCBS PROGRAM DEVELOPMENT & MONITORING, TASK 2

The Phase II Permittees are required to implement 10 PCBs control programs including monitoring and assessment programs to quantify PCBs stormwater runoff loads and load reductions achieved through treatment, source control, and other actions. This task will support monitoring, mapping, and implementation planning efforts for the Phase II local public agencies conducted in compliance with the Phase II permit.

ACTIVITIES & ACCOMPLISHMENTS:

XXXXX.

DIFFICULTIES AND RESOLUTIONS:

XXXXX.

Task/Sub-Task	Timeline	Comments	Percent Complete
2	Jan. 2025 – Sep. 2029	No Comments.	0%

PHASE I PCBS MONITORING, MAPPING, & CONTROL MEASURE PLANNING, TASK 3

The Phase I stormwater programs and agencies have developed Geographic Information System (GIS) maps and databases to assist in identifying which watershed characteristics correlate well with land areas that contribute high, moderate, and low levels of PCBs to the Bay via stormwater runoff. This task includes additional monitoring, mapping, and planning in support of control measure implementation. Specifically, this task involves: conducting large-scale public ROW/private property sediment sampling, conducting low-priority verification water sampling, conducting load reduction verification monitoring, correcting and improving existing Phase I GIS maps and databases, developing and implementing programs to control PCBs from private properties & MS4, and planning and designing stormwater treatment systems.

ACTIVITIES & ACCOMPLISHMENTS:

XXXXX.

DIFFICULTIES AND RESOLUTIONS:

XXXXX.

Task/Sub-Task	Timeline	Comments	Percent Complete
3	Jan. 2025 – Sep. 2029	No Comments.	0%

PROJECT ADMINISTRATION & MANAGEMENT, TASK 4

This task includes the administration aspects of the project including coordination of stakeholders, project management team meetings, preparation of invoices, and review and submit quarterly performance and financial reports.

ACTIVITIES & ACCOMPLISHMENTS:

XXXXX.

DIFFICULTIES AND RESOLUTIONS:

XXXXXX.

Task/Sub-Task	Timeline	Comments	Percent Complete
4	Jan. 2025 – Dec. 2029	No Comments.	0%

OUTPUTS AND OUTCOMES COMPLETED/COMMENCED

Task	Outputs	Outcomes

ACTIVITIES PLANNED FOR NEXT QUARTER

- XXX
- XXX
- XXX

ATTACHMENTS

Attachment 5:
EPA QAPP Standard

Quality Assurance Project Plan Standard

1. PURPOSE

This Standard supports the implementation of EPA's Environmental Information Quality Policy and Environmental Information Quality Procedure.

All EPA organizations performing environmental information operations and non-EPA organizations performing environmental information operations on behalf of EPA are required to participate in the EPA Agency-wide Quality Program. EPA's Quality Program supports EPA's mission to protect human health and the environment and to ensure environmental information operations products and services are of known and documented quality for their intended use(s).

All work performed by or on behalf of EPA involving environmental information operations shall be implemented in accordance with an approved Quality Assurance Project Plan (QAPP).

The QAPP is a formal planning document which describes how environmental information operations are planned, implemented, documented, and assessed during the life cycle of a project. The QAPP describes in comprehensive detail the necessary Quality Assurance (QA) and Quality Control (QC) requirements and other technical activities that must be implemented to ensure that the results of the environmental information operations performed will satisfy the stated performance and acceptance criteria.

QAPPs must be approved in accordance with this Standard. EPA QA Managers (QAM), as defined by the organization's Quality Management Plan (QMP), review and approve QAPPs for all environmental information operations projects prior to any information gathering work, or use, except under circumstances requiring immediate action to protect human health and the environment or operations conducted under police powers.

2. SCOPE

This Standard defines the minimum requirements for QAPPs for EPA and non-EPA organizations performing environmental information operations. Environmental information operations is a collective term that encompasses the collection, production, evaluation, or use of environmental information by or for EPA and the design, construction, operation, or application of environmental technology.

3. AUDIENCE

The audience for this Standard is all Agency employees responsible for environmental information operations. This includes EPA Regions, Program Offices, and their sub-organizations hereafter referred to as EPA organizations.

This Standard also applies to non-EPA organizations performing environmental information operations in support of EPA's mission or national program priorities as defined by and in accordance with:

- federal laws and legal requirements including administrative orders/enforcement actions,
- regulations,
- extramural agreements, or
- performing work on a voluntary basis under agreement with EPA.

This Standard will be applied to non-EPA organizations as described in the current version of the EPA organizations' QMP that is sponsoring the work.

Non-EPA organizations include but are not limited to:

- contractors,
- regulated parties,
- cooperative agreement holders,
- grantees,
- states, tribes, territories, localities, intergovernmental agencies,
- educational institutions, hospitals, non-profits,
- other federal governmental agencies, and parties to Memoranda of Agreement or Understanding,
- volunteer organizations, and
- other environmental information providers.

4. AUTHORITY

These citations are valid at the time of issuance of this Standard. Since these documents are subject to periodic review, users of this Standard should refer to the most recent version.

- U.S.C. App.; Pub. L. 98–80, 84 Stat. 2086 (Reorganization Plan No. 3 of 1970)
- Information Quality Act, Section 515 of Treasury and Government Appropriations Act, 2001 (PL 106-554, 31 USC 3516) (Refer to Page 114 STAT.2763A-154)
- 2 CFR 1500.12: Uniform Administration Requirements, Cost Principles and Audit Requirements for Federal Awards, Quality Assurance
- 40 CFR Part 35: State and Local Assistance
- 48 CFR Part 46: Quality Assurance
- 40 CFR Appendix A to Part 58 – Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards

5. STANDARD

A. QAPP OVERVIEW

1. GENERAL CONTENT

All work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information including the design, construction, operation, or application of environmental technology must be documented in a QAPP.

The QAPP shall be composed of standardized, recognizable elements covering the entire project from planning, through implementation, to assessment, and final data use and reporting. Section 5.B QAPP REQUIREMENTS of this document describes requirements for QAPPs.

The EPA organization sponsoring the work has the authority to define any special requirements beyond those listed in this Standard. Each EPA organization shall define their organization-specific requirements for QAPP documentation in their QMP. All applicable elements defined by the EPA organization sponsoring the work must be addressed.

2. LEVEL OF DETAIL: THE GRADED APPROACH AND QAPPs

A QAPP is unique to its specific project. Implementation of the Quality Policy and Procedure allows for the principle of the graded approach to be applied to the systematic planning, development, and approval of QAPPs.

The graded approach establishes the QA and QC requirements commensurate with the complexity and type of work, how the results will be used, , the available resources, and the unique needs of the organization or the customer (for contracts). The level of detail to be applied to activities listed in the QAPP are developed and then documented according to the intended use and the degree of confidence needed in the quality of the results.

The Graded Approach is not a mechanism to waive requirements. If an element is not applicable, an explanation as to why it is not applicable shall be provided in the QAPP.

3. QAPP PREPARATION RESPONSIBILITY

The QAPP is prepared by EPA and the organizations listed in Section 3. In most instances, the preparation of the QAPP is the responsibility of the organization performing the environmental information operations.

- **EPA Organizations**
  The EPA organization's senior manager having executive leadership authority for the organization is responsible for assuring the preparation and approval of QAPPs as per the organization's approved QMP to cover

all environmental information operations to be performed under the Quality Program.

The actual preparation of the QAPP may be assigned to managers of the environmental information operations (Operations Managers) and/or designees within the organization.

- **Non-EPA Organizations**
  The senior manager of the non-EPA organization is responsible for assuring the preparation and appropriate approval of QAPPs that cover all environmental information operations specified by the applicable extramural agreement(s) and for which the organization's management is accountable.

  The actual preparation of the QAPP may be assigned to Operations Managers and/or designees within the organization.

4. QAPP SUBMITTAL AND APPROVAL

QAPPs must be approved prior to the collection, production, evaluation, or use of environmental information including the design, construction, operation, or application of environmental technology except under circumstances requiring immediate emergency response action to protect human health and the environment or operations conducted under police powers.

- **EPA Organizations**
  QAPPs shall be submitted to the QAM or designee as specified in the organization's QMP and follow internal processes for review and approval.

  The EPA organization's QAM or designee has authority to review and approve QAPPs within their organization as stated in the organization's approved QMP.

  In emergency response cases, QAPPs shall be approved during the environmental information operations in accordance with the sponsoring organization's QMP and other applicable EPA-approved QMPs (such as the contractor's QMP).

- **Non-EPA Organizations:**
  The QAPP shall be submitted for review and approval to the EPA official responsible for the work, who will then follow the approval procedures listed in the sponsoring organization's QMP. The EPA official may include the contracting officer's representative (COR), the grant project officer (PO), and the EPA QAM in accordance with their organization's overall approved QMP.

Non-EPA Organizations shall also consult with the EPA organization sponsoring the work for additional requirements for document submittal and approval.

- **States, Tribes, and Territories:** If stated in the EPA sponsoring organization's QMP, approval of the state, tribal, or territory QMP may include delegated QA activities to include, but not limited to QAPP approvals and training. In these cases, states, tribes, or territories with delegated approval for QAPPs, shall follow the QAPP approval processes as stated in their EPA-approved QMP.

5. PERIOD OF APPLICABILITY OF AN APPROVED QAPP

- **EPA Organizations:** QAPPs approved under this Standard shall be valid for no more than the lesser of five years or shorter duration as may be defined for the project.

- **States, Tribes, Territories, and Other Federal Agencies:** QAPPs approved under this Standard shall be valid for no more than the lesser of five years or shorter duration as may be defined in the extramural agreement.

- **All other non-EPA organizations:** QAPPs approved under this Standard shall be valid for no more than five years or shorter duration as may be defined in the extramural agreement, contract, memorandum of understanding /agreement, or legal agreement.

  If a QAPP no longer meets the requirements of this Standard, approving officials may rescind their approval prior to the period of applicability listed.

6. QAPP ANNUAL REVIEWS AND REVISIONS

Annual Reviews

All EPA and non-EPA organizations required to have a QAPP shall review their QAPP at least annually to confirm its suitability and evaluate its effectiveness for the project. Projects less than one year in duration will not be required to have an annual review.

The review shall be documented and made available to the QAM of the sponsoring organization if requested.

Non-EPA organizations shall contact the EPA organization sponsoring the work for additional requirements for QAPP annual reviews.

Revisions

Although the approved QAPP should be implemented as approved, it is a flexible, living document. Because of the complex and diverse nature of environmental

information operations, changes to original plans may be needed.
When necessary, the organization shall revise its QAPP to incorporate minor changes and notify the approving authority of the changes. In general, a copy of any QAPP revision(s) made during the year should be submitted to the approving authority (QAM or designee) in writing when such changes occur.

If significant changes have been made to the project, it may be necessary to re-submit the entire QAPP for re-approval. When significant changes occur, the approving authority (QAM or designee) shall determine if the change significantly impacts the technical and/or quality objectives of the project. The QAM may consult with the Operations Manager for this determination.

If it is determined that the QAPP must be revised and submitted for re-approval, the originator of the QAPP shall submit the revision for approval to the same organization with approving authority that performed the original review. The submission shall include a revision history page that briefly summarizes the changes made. No work under the changed condition shall be performed until the QAPP is reviewed and approved.

Significant changes that may require the revision and resubmittal of an approved QAPP include: change in the scope of the project resulting in new or revised project objectives; changes in implementation such as how information will be collected, produced, evaluated or used; changes in the design, construction, operation, or application of environmental technology; change in the statement of work or workplan for extramural agreements; expiration of the QAPP; changes in the organization's mission or structure, such as in the delegation status of QAPPs; or changes in performance criteria as to how results will be assessed for acceptance.

All personnel in the organization performing environmental information operations covered by the scope of the QAPP shall be notified of the changes. This practice shall also include contractors, sub-contractors, and grantees associated with the environmental information operations described in the QAPP.

B. QAPP REQUIREMENTS

QAPPs are required for all work performed by or on behalf of EPA involving the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology.

Environmental Information includes data and information that describe environmental processes or conditions. Examples include, but are not limited to:

- direct measurements of environmental parameters or processes.
- analytical testing results of environmental conditions (e.g., geophysical or hydrological conditions).
- information on physical parameters or processes collected using environmental technologies.
- calculations or analyses of environmental information.
- information provided by models.

- information compiled or obtained from databases, software applications, decision support tools, websites, existing literature, and other sources.
- development of environmental software, tools, models, methods, applications; and
- design, construction, and operation or application of environmental technology.

Environmental Technology includes systems, devices and their components applicable to both hardware and methods or techniques that measure and/or remove pollutants or contaminants and/or prevent them from entering the environment. Examples include but are not limited to:

- Pollution prevention: measurement, monitoring, reduction, control, and/or treatment processes, such as wet scrubbers (air), granulated activated carbon unit (water), filtration (air, water).
- Contamination: containment to prevent further movement of the contaminants, such as capping, and solidification or vitrification, and biological treatment.
- Storage containers, methods, or facilities, such as drums, tanks, and ponds or lagoons.
- Remediation processes and their components, and/or technologies, such as soil washing (soil), pump and treatment, soil vapor extraction (soil), land farming and other bioremediation processes.

Because environmental information operations can encompass many different types of projects, the EPA organization sponsoring the work has authority to define their organization-specific content requirements for QAPPs by project type. QAPP preparers shall contact the EPA organization sponsoring the work for additional QAPP guidance, tools, and templates specific to the type of project.

The QAPP shall be composed of standardized, recognizable elements covering the entire project. Elements of a QAPP may be described or cited. If the designated references are well documented and are readily available to all key personnel, citations may be adequate; however, because weblinks and web addresses may change over time, one official, controlled version (such as pdf) of the referenced documents should be placed on file with the appropriate EPA office and available for routine referencing when needed.

The required QAPP elements have been arranged into four general groups. The four groups of elements are:

- GROUP A - Project Management and Information/Data Quality Objectives
- GROUP B - Implementing Environmental Information Operations
- GROUP C - Assessment and Oversight
- GROUP D - Environmental Information Review and Usability Determination

1. GROUP A ELEMENTS: PROJECT MANAGEMENT AND INFORMATION/DATA QUALITY OBJECTIVES

The elements in Group A (Table 1) address project management including project history and roles and responsibilities of the personnel involved in the project. These elements document that the project has defined information/data quality objectives, that strategies are in place to help personnel understand the approach to be used, and that the planning has occurred. QAPPs should contain all of the Group A elements.

Group A: Project Management and Information/Data Quality Objectives

Element	Description
A1	Title Page
A2	Approval Page
A3	Table of Contents, Document Format, and Document Control
A4	Project Purpose, Problem Definition, and Background
A5	Project Task Description
A6	Information/Data Quality Objectives and Performance/Acceptance Criteria
A7	Distribution List
A8	Project Organization
A9	Project QAM Independence
A10	Project Organizational Chart and Communications
A11	Personnel Training/Certification
A12	Documents and Records

Table 1

A1 – Title Page

The Title Page shall contain the name of the document to include “Quality Assurance Project Plan”; date of QAPP preparation; organization conducting the environmental information operations; name of organization that developed the QAPP (if different from organization conducting the work); period of applicability; and revision/version control information.

Non-EPA Organizations shall also specify:

- Grant or cooperative agreement number if the work is performed under an EPA assistance agreement
- Contract number and Task Order number (if applicable) if the work is performed under an EPA contract acquisition
- Interagency Agreement number if the work is performed under an Interagency Agreement

- Title and date of the Memoranda of Understanding/Agreement if applicable
- Citation of the regulatory requirement if applicable, or
- Title and date of the enforcement or legal agreement if applicable

A2 – Approval Page

QAPPs shall include signatures from the Operations Manager or designee and QAM or designee. Electronic signatures and equivalent electronic approval systems are acceptable. At a minimum, signatures shall include:

- **EPA Organizations:**
  - Operations Manager or designee, and
  - EPA QAM or designee as specified in the organization's QMP.

- **Non-EPA Organizations:**
  - Operations Manager or designee for the project,
  - Project QAM or individual with QAM responsibilities for the project
  - QAPPs requiring EPA approval shall also include:

    - EPA signature from operations (COR or PO) and
    - EPA QAM or designee.

  For specific signatures to include, contact the EPA organization sponsoring the work.

A3 – Table of Contents, Document Format, and Document Control

Table of Contents

The Table of Contents shall include location of sections, tables, diagrams, charts, worksheets (if used), and other deliverables.

Document Format

In general, the organization developing the QAPP should follow the format and section headings of this QAPP Standard to expedite review and approval.

QAPP preparers shall contact the EPA organization sponsoring the work for additional format requirements. The Environmental Information Quality Procedure authorizes the EPA organization sponsoring the work to determine guidance or tools suitable for QAPPs where projects do not readily fit in the structure or described contents of this Standard. National Program Offices may also provide program direction to the Regional Program Offices on National Program QA guidance and requirements.

Document Control

Document Control is used to identify the most current version of the QAPP and shall be included on every page.

Document control for the QAPP shall include at a minimum:

- The title of the document (abbreviations are acceptable),
- The version number of the document (original or revision number),
- The date of the version, and
- The page number in relation to the total number of pages.

A4 – Project Purpose, Problem Definition, and Background

The QAPP shall identify and address other QA planning documents that have relevant requirements such as QMPs.

The QAPP is the output or result of systematic planning. Its purpose is to document the purpose of the project, the environmental information operations needed to meet those goals, and the application of quality management strategies to those goals.

For additional guidance on systematic planning, refer to the current version of EPA G*uidance for the Data Quality Objectives Process*.

Project Purpose and Problem Definition
The QAPP shall describe the purpose of the project's environmental information operations (to include, but not limited to research, monitoring, environmental technology for clean-up, and use of existing data from other sources) and define the problem(s) to be addressed and question(s) to be answered.

The QAPP shall also document the environmental decision(s) that need to be made and the level of information quality needed to ensure that those decisions are based on sound environmental information.

The QAPP shall identify the type, quantity, and quality of information needed for its intended use and describe the acceptance and performance criteria.

The QAPP shall include the following as applicable:

- Identification of the applicable regulatory programs and standards,
- conceptual site model(s), and
- a discussion that directly links the results of the environmental information operations to possible actions.

Project Background
The QAPP shall describe and/or cite background information, plans, and/or reports to provide the historical, scientific, and regulatory perspective for the project as well as identify the sources for existing information for the project.

A5 – Project Task Description

The QAPP shall include all project tasks and the schedule for accomplishing the tasks. The QAPP shall also include the following:

- description of work to be performed, and
- products to be produced.

A6 – Information/Data Quality Objectives and Performance/Acceptance Criteria

The QAPP shall describe the project's information/data quality objectives, the performance and/or acceptance criteria to achieve those objectives, and the information/data quality indicators.

Performance criteria address the adequacy of information that is to be collected for the project. These criteria often apply to new information collected for a specific use.

Acceptance criteria address the adequacy of existing information proposed for inclusion in the project. These criteria often apply to information drawn from existing sources. Identifying the information/data quality objectives ensures that the quality goals of the project are clearly defined and communicated, guiding the conduct of environmental information operations to provide information of known and documented quality. For example, the QAPP shall describe performance and acceptance criteria for laboratory analytical methods (each matrix, each analyte or analyte group, and concentration level). Information/Data Quality Indicators (DQI) are qualitative and quantitative measures of information/data quality attributes associated with the environmental information.

The principal DQIs for environmental information projects are precision, accuracy (bias), representativeness, comparability, completeness, and sensitivity. However, depending on the type of project, other DQIs may be more appropriate. DQIs are typically applied to the laboratory measurement processes, but DQIs can be identified to capture the effects of other important processes and procedures on the overall quality of environmental Information.

The six standard DQIs are also referred to by the acronym PARCCS:

- *Precision* is the measure of agreement among repeated measurements of the same property under identical, or substantially similar, conditions.

- *Accuracy (Bias)* is a measure of the overall agreement of a measurement to a known value.

- *Representativeness* is defined as the measure of the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

- *Comparability* is the qualitative term that expresses the measure of confidence that two or more data sets can contribute to a common analysis. Before pooling data, the comparability of data sets generated at different times or different organizations must be evaluated in order to establish whether two data sets can be considered equivalent in regard to the measurement of a specific variable or groups of variables.

- *Completeness* is a measure of the amount of valid data obtained from a measurement system, expressed as a percentage of the number of valid measurements that should have been collected (i.e., measurements that were planned to be collected).

- *Sensitivity* is the capability of a method or instrument to discriminate between measurement responses representing different levels of the variable of interest. The term "detection limit" is closely related to sensitivity and is often used synonymously.

Please contact the EPA organization sponsoring the work for additional information and requirements for performance and/or acceptance criteria, and information/data quality indicators.

A7 – Distribution List

The QAPP distribution list shall include all individuals and their organizations who shall receive copies of the approved QAPP and any subsequent revisions. Also, a complete copy of the original version and all revisions of the QAPP shall be maintained on file by the organization responsible for conducting the environmental information operations and made available to approval authorities upon request.

The distribution list shall include the following:

- Operations Manager
- QAM
- Other operations and quality personnel involved in environmental information operations for the project to include those working for the organization responsible for conducting the environmental information operations as well as contractors, subcontractors and grantees in key operations and quality roles.

A8 – Project Organization

The QAPP shall identify the individuals and organizations participating in the project or the environmental information operations and describe their roles and responsibilities. Specifically, the QAPP shall identify individuals with the following roles and describe their responsibilities:

- The approval authority for the QAPP.

- The senior manager having executive leadership authority for the organization conducting the environmental information operations One responsibility of the senior manager is providing resources. Resources are knowledgeable personnel, funding, materials, supplies, and time.
- The project Operations Manager for the organization conducting the environmental information operations.
- The Project QAM for the organization conducting the environmental operations. The QAPP shall describe the Project QAM's oversight authority and responsibilities for planning, documenting, coordinating. and assessing effectiveness of the QAPP. The QAPP shall also describe the QAM's authority to access and discuss quality-related issues with their organization's senior manager outside of their direct supervisory chain as necessary.
- The individual responsible for maintaining the QAPP.
- Titles, roles, and names (if determined during planning) of operations and quality individuals within the organization conducting or supporting environmental information operations and their reporting relationships.
- Identification of all contractors, subcontractors, sub-grantees, supporting environmental information operations and their project role and responsibilities.
- Principal environmental information or data users within the organization conducting the environmental information operations as well as outside of this organization.

A9 – Project Quality Assurance Manager Independence

The Project QAM shall be independent of environmental information operations. The QAPP shall describe how the Project QAM's independence is ensured. The Project QAM is not required to be independent of senior officials, such as corporate managers or agency administrators, who are nominally, but not functionally, involved in environmental information operations. The Operations Manager or designee will not have authority to sign QAPPs for the QAM or designee, nor will the QAM or designee have authority to sign QAPPs for the Operations Manager or designee.

The two functions, QA and operations, must remain independent; however, in small organizations outside of EPA and EPA contractors (e.g., small tribal departments), these two functions may be combined with approval from the EPA QAM.

A10 – Project Organization Chart and Communications

The Project Organization Chart

The Project Organization Chart shows both the lines of authority to include the reporting relationships and the lines of communication both within the organization

responsible for the environmental operations and between the organization responsible for the work and all organizations involved in the project.

The Project Organization Chart shall also include the following:

- The name of the organization responsible for conducting the environmental information operations.
- Identification of all contractors, subcontractors, and sub-grantees and their reporting relationships to the organization responsible for conducting the environmental information operations.
- The individual in the senior manager role.
- The individual in the Project Operations Manager role for the organization conducting the environmental information operations and their reporting relationship to the senior manager.
- The individual in the Project QAM role for the organization conducting the environmental information operations, their independence from environmental information operations, and their reporting relationship to the senior manager. If the senior manager does not directly supervise the QAM, the QAM must have authority to access and discuss quality-related issues with the senior manager outside of their direct supervisory chain as necessary. The latter is demonstrated by a dotted line on the organizational chart.
- Titles, roles, and names (if determined during planning) of operations and quality individuals within the organization conducting or supporting environmental information operations and their reporting relationships.

Lines of communication, communication pathways and communication mechanisms shall be determined during planning and documented in the QAPP.

Communication procedures including timing of communication shall be outlined in sufficient detail to ensure that users of the QAPP understand the processes and the roles and responsibilities associated with those processes when communication is necessary.

The QAPP shall describe or cite the standard procedures for communications to include elevating discrepancies and QAPP non-conformances; process improvements; and seeking concurrence and approvals between project personnel, and/or between contractors within the organization responsible for conducting environmental information operations.

Non-EPA Organizations - Shall also describe communication procedures to EPA to include elevating discrepancies and QAPP non-conformances.

A11 – Personnel Training/Certification

Personnel responsible for conducting environmental information operations identified in the QAPP shall have appropriate qualifications, education, training, experience, and knowledge of the requirements of the work activities to be performed.

The QAPP shall identify the individual responsible for ensuring personnel conducting environmental information operations are qualified, trained, and experienced.

The QAPP shall identify the individual responsible for documenting personnel training.

The QAPP shall identify and describe any specialized training or certifications needed by personnel to successfully participate in the environmental information operations. Training may include on-the-job training as well as training on internal procedures. Additionally, the QAPP shall describe how the training will be provided, how the necessary skills will be assured, and the procedure or system that will document training records and skill evaluation.

EPA Organizations - QAPPs for EPA Organizations conducting environmental information operations involving field activities shall also include or reference all Personnel and Training requirements identified in the current version of the EPA Quality Assurance Field Activities Procedure (QAFAP).

A12 – Documents and Records

The QAPP shall identify documents and records that will be produced for projects that involve environmental information operations. The QAPP shall also describe or reference the management of the documents and records, including the QAPP. Management of project information is covered in the Group B Elements, Implementing Environmental Information Operations, B7 Environmental Information Management.

The QAPP shall include or reference all applicable requirements for the final disposition of records and documents, including location and length of retention period. The organization responsible for conducting the environmental information operations shall maintain a system for the control of all documents including preparation, review, approval, issuance, revision, and archiving documents.

EPA Organizations - QAPPs for EPA Organizations conducting environmental information operations involving field activities shall also include all Document Control and Records Management requirements identified in the EPA QAFAP.

2. GROUP B ELEMENTS: IMPLEMENTING ENVIRONMENTAL INFORMATION OPERATIONS

Group B Elements identify and address all aspects of environmental information operations to help to ensure products and services are of known and documented quality and to evaluate the products and services delivered under the project.

This section of the QAPP describes in comprehensive detail the implementation of necessary QA and QC requirements and other technical activities to ensure that the results of the environmental information operations performed will satisfy the

intended purpose, and the information/data quality objectives and performance/acceptance criteria in the Group A4 and A6 Elements.

The Group B elements in Table 2 shall be addressed in the QAPP. Most of the Group B Elements are unique to the type of environmental information operations in the project. The EPA sponsoring organization may have organization or project specific requirements for QAPP documentation in their QMP. If so, these elements also must be addressed.

If a Group B element is not applicable to the project based on the type of project, the QAPP shall 1.) state that the specific element "Does Not Apply" and why, or 2.) reference the project specific requirements provided by the EPA sponsoring organization that shall be used.

The QAPP shall describe all guidance, tools, and templates used to develop the QAPP.

EPA Organizations only - Conducting environmental information operations involving field activities shall also include all requirements identified in the EPA QAFAP.

Group B: Implementing Environmental Information Operations

Element	Description
B1	Identification of Project Environmental Information Operations
B2	Methods for Environmental Information Acquisition
B3	Integrity of Environmental Information
B4	Quality Control
B5	Instruments/Equipment Calibration, Testing, Inspection, and Maintenance
B6	Inspection/Acceptance of Supplies and Services
B7	Environmental Information Management

Table 2

In the Group B Section, if the Standard Operating Procedures (SOPs) and/or referenced materials are well documented and readily available to all key personnel, citations may be adequate; however, because weblinks and web addresses may change over time, one current, controlled version of the referenced documents (such as pdf) should be placed on file with the appropriate EPA office and made available for routine referencing when needed.

B1 – Identification of Project Environmental Information Operations

The QAPP shall describe in detail the environmental information operations to be

conducted for the project and state how they will satisfy the project purpose, and the information/data quality objectives and performance and acceptance criteria in the Group A4 and A6 Elements.

B2 – Methods for Environmental Information Acquisition

The QAPP shall identify and describe the methods and procedures for how environmental information will be acquired throughout the project including any implementation requirements. The acquisition of environmental information includes collection, production, evaluation and/or use as well as design, construction, operation, or application of environmental technology.

Methods shall be identified by number/identifier, version/revision date, and regulatory citation (if applicable). If a method allows the user to select from various options, then the method citations shall state exactly which option(s) are being selected.

The QAPP shall identify, describe or reference SOPs used for the acquisition of environmental information including the version/revision date of the SOP. If a SOP provides more than one procedure or option (for example, one SOP covers the use of several different types of field equipment for the same procedure) the QAPP shall note the specific option or equipment being used.

SOPs shall be available to personnel conducting the environmental information operations. The QAPP shall identify the individual responsible for updating and maintaining the SOPs. The QAPP shall describe any planned modifications to SOPs expected to occur during the project.

For additional information on SOPs, refer to the current version of *EPA Guidance for Preparing Standard Operating Procedures*.

Field Activities Environmental Measurements

If the environmental information operations include field activities such as environmental measurements of parameters or processes, the QAPP shall also describe or reference detailed descriptions of procedures for all field activities, including, but not limited to information derived from tools, instruments, observational results, investigations, and sample collection. The QAPP shall also describe or reference maximum holding times for sample extraction and/or analysis; selection and preparation of sample containers; sample volumes; preservation methods; sample handling and custody. For field activities involving emergency responses, QAPPs shall be approved during the environmental information operations as per the timelines specified in the EPA sponsoring organization's QMP and other applicable EPA-approved QMPs (such as the contractor's QMP).

Tribal Primary Quality Assurance Organizations (PQAO) conducting air monitoring should contact the EPA regional office sponsoring the work for additional information on B Elements.

Laboratory Analyses

If the environmental information operations involve laboratory analyses, the QAPP shall identify the analytical methods by number/identifier, version/revision date and regulatory citation (if applicable). Also, the QAPP shall describe or reference SOPs that address procedures to be conducted when a non-compliance or failure in the analytical system occurs, who is responsible for corrective action, and how to determine and document the effectiveness of the corrective action. The QAPP shall specify the laboratory data package turnaround time needed, if important to the project schedule. If a laboratory method allows the user to select from various options, then the method citations should state exactly the selection of option(s).

For non-standard method applications, such as for unusual sample matrices and situations, appropriate method performance study information is needed to confirm the performance of the method for the matrix. If previous performance studies are not available, they shall be developed during the project and included as part of the project results.

Existing Information

For environmental information compiled or obtained from databases, software applications, decision support tools, websites, existing literature, and other sources, the QAPP shall describe the information to be obtained, the collection process, and the intended use of that information together with criteria for acceptance and evaluation for suitability for the current project. If the information is to be combined with new environmental information, the criteria to ensure compatibility shall be described.

Environmental Technology

For environmental information operations involving environmental technology, the QAPP shall identify whether the technology is primarily for pollution prevention, contamination containment, storage, or remediation. The QAPP shall also describe the physical parameters or processes collected using environmental technologies as well as the specific systems, devices, and their components applicable to both hardware and methods or techniques that measure and/or remove pollutants or contaminants and/or prevent them from entering the environment. For additional advice on QAPPs for design, construction, and operation or application of environmental technology refer to the current version of *EPA Guidance on Quality Assurance for Environmental Technology Design, Construction and Operation*.

B3 – Integrity of Environmental Information

The QAPP shall describe or cite the procedures for ensuring the integrity of the environmental information operations.

If the environmental information operations include field sampling, the QAPP shall describe or cite procedures and requirements for sample handling and custody to include but not limited to field logs, packaging, transport and/or shipment from the

site, and storage at the laboratory. The QAPP shall also contain examples of sample labels, and chain of custody forms/sample custody logs.

If the environmental information operations include laboratory analyses, the QAPP shall identify each laboratory to be used as well as a back-up laboratory if identified as required in systematic planning, contract statements of work, or workplans. The QAPP shall also describe the processes for ensuring the laboratory maintains current accreditation and/or certification for applicable analytes and matrices.

B4 – Quality Control

The QAPP shall identify and describe the QC activities needed for each environmental information operation to meet project environmental information/data quality objectives and performance/acceptance criteria.

The QAPP shall describe or cite the frequency of each type of QC activity, corrective actions, and how the effectiveness of the corrective action shall be determined and documented. The QAPP shall describe or reference the procedures to be used to calculate applicable statistics (e.g., precision and bias).

For environmental information operations involving field sampling, measurements, and laboratory analysis, QC activities include, but are not limited to, the use of blanks, duplicates, matrix spikes, laboratory control samples, and surrogates.

For environmental information operations using existing data, QC activities include, but are not limited to, the use of systematic review, independent secondary review of studies in the open literature, and QC of constructed databases or spreadsheets.

For environmental information operations using models or modeling, QC activities include, but are not limited to model calibration and model validation (sensitivity analyses).

B5 – Instrument/Equipment Calibration, Testing, Inspection, and Maintenance

The QAPP shall identify instruments/equipment, to include, but not limited to tools, gauges, and pumps used for environmental information operations. The QAPP shall describe all procedures and documentation activities that will be performed to ensure that the instruments/equipment are available and in working order when needed. The QAPP shall describe or reference how calibration will be conducted, documented, and be traceable to the instrument.

The QAPP shall describe or reference procedures and documentation activities on how instruments and equipment will be tested, inspected, and maintained. The QAPP shall also discuss the availability of critical spare parts, identified in the operating guidance and/or design specifications of the instruments/equipment.

B6 – Inspection/Acceptance of Supplies and Services

The QAPP shall describe or reference the procedures for how supplies and services are inspected and accepted. The QAPP shall identify the individual(s) responsible for inspection and acceptance. This description shall specify the elements of this Standard for which the vendor is responsible and how their adherence to the QAPP requirements will be verified. Acceptance shall be identified on the items themselves or in documented information traceable to the items.

Supplies may include but are not limited to spare parts for instruments/equipment, standard materials and solutions, sample bottles, calibration gases, reagents, hoses, deionized water, potable water, and electronic data storage media. Services provided by vendors to include, but not limited to contractors, sub-contractors, and sub-grantees may include document development, performing environmental information operations.

B7 – Environmental Information Management

The QAPP shall describe or cite the environmental information management process for the project, tracing the path of the environmental information from its generation to its final use or storage (e.g., the field, the laboratory. the office, the database).

The QAPP shall describe or reference the standard record-keeping procedures, the document control system, and the approach used for information storage and retrieval on electronic media. The QAPP shall describe or reference the control mechanism for detecting and correcting errors and for preventing loss of information during data entry, reduction, and reporting, and data entry to databases, forms, and reports, and databases. The QAPP shall provide or reference examples of any forms or checklists to be used in these processes.

The QAPP shall describe or reference all procedures to process, compile, and analyze the information. This includes procedures for addressing environmental information generated as part of the project as well as environmental information from other sources.

Also, the QAPP shall describe or reference any required computer hardware/software and address any specific performance requirements for the hardware/software configuration used. The QAPP shall describe or reference the procedures to demonstrate acceptability of the hardware/software configuration required and for assuring that applicable information resource management requirements are satisfied.

3. GROUP C ELEMENTS FOR ASSESSMENT, RESPONSE ACTIONS, AND OVERSIGHT

The elements in this group (Table 3) address assessment, response actions and oversight activities. Assessments ensure that the planned project activities in the

QAPP are implemented as approved. Assessments can be internal and/or external and should be conducted throughout the project to ensure that usable environmental information are obtained. Response actions address findings, corrective actions and non-conformances identified from the assessments.

Oversight activities ensure that response actions and reporting mechanisms are in place to capture the project status and any QA issues that arise during implementation and through assessments.

The elements in this group, identified in Table 3, address the activities for assessing the effectiveness of project implementation and associated QA and QC activities.

Refer to the current version of *EPA Guidance on Technical Audits and Related Assessments for Environmental Data Operations* for additional information.

Group C: Assessment, Response Actions and Oversight

Element	Description
C1	Assessments and Response Actions
C2	Oversight and Reports to Management

Table 3

C1 – Assessments and Response Actions

This element addresses the activities for assessing the effectiveness of the implementation of the project and associated QA and QC activities. The purpose of an assessment is to ensure that the QAPP is implemented as approved. Assessments are conducted both during and after the environmental information operations identified in the Group B Elements.

Assessments
Assessment is the evaluation process used to measure the performance or effectiveness of a system and its elements. Assessments may also be used as an investigative tool where problems may be suspected.

The QAPP shall include assessment activities. The QAPP shall identify the assessments for the project to include the number, frequency, and types of planned assessments that will be performed. The QAPP shall also identify who will be performing the assessments. Assessment activities may include audits, performance evaluations, management reviews, peer reviews, inspections, surveillances, or readiness reviews (including competency assessment, pre-award assessment of proposal, or technical assessment), peer consultations, product reviews (e.g., data inspection, software testing, pre-dissemination reviews, or

review of contractor deliverables). The EPA organization sponsoring the work may also specify additional assessment requirements.

The QAPP shall address how assessment findings, non-conformances, and corrective actions will be documented. One objective of this documentation is to communicate assessment results to management and to the EPA organization sponsoring the work as specified in Section C2 Oversight and Reports to Management. Documentation may include reports, memos, and/or other formal communication as specified by the EPA organization sponsoring the work. The assessment documentation shall also indicate the timeframe for response actions.

Audits are a type of assessment. Audits are systematic and independent examinations to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.
Peer review is a type of assessment. Contact the EPA organization sponsoring the work to determine peer review activities for the project.

The QAPP should be the basis for planning and conducting assessments, although other planning documentation to include, but not limited to SOPs, workplans, statements of work may also be used.

Assessors should be free of any conflicts of interest, such as might occur by close association with the environmental information operations being assessed. Independence from the environmental information operations helps to ensure that the assessor has no stake in the outcome of the assessment, other than an interest that the environmental information operations are conducted objectively and in accordance with the approved QAPP.

Response Actions
The QAPP shall describe how response actions associated with assessment findings, non-conformances, and corrective actions will be developed, documented and tracked to ensure completion. The QAPP shall also identify the individual(s) responsible for response actions and how the response actions will be reported.

Response actions may include formal memos and notifications addressing findings, corrective actions, or non-conformances; and timelines for follow-up assessments.

C2 – Oversight and Reports to Management

The QAPP shall identify the individual(s) responsible for oversight activities. The QAPP shall describe the oversight activities that ensure that response actions and reporting mechanisms are in place to capture the project status and any QA issues that arise during implementation and through assessments.

The QAPP shall identify all reports to management. The QAPP shall describe the content of the management reports; and who is responsible for transmitting the

report, how the report will be transmitted, and to whom. Distribution shall include the Project Operations Manager, the Project QAM of the organization conducting the work, and the EPA organization sponsoring the work. An assessment report would be an example of management report.

QAPP preparers shall also contact the EPA organization sponsoring the work for additional QA reporting requirement.

4. GROUP D ELEMENTS FOR ENVIRONMENTAL INFORMATION REVIEW AND USABILITY DETERMINATION

The elements in this group (Table 4) address the activities associated with environmental information review for the purpose of determining whether the environmental information meets the established environmental/data quality objectives, the performance/acceptance criteria, and are useable for its intended purpose. Information review activities ensure that products and services resulting from the environmental information operations are of known and documented quality for their intended use(s) and that any limitations concerning its intended use is documented and communicated.

Although environmental information review takes place after the environmental information operations have been conducted, determination of the type of information/data verification, information/data validation, and information/data quality assessment activities needed to determine whether the project's environmental information/data quality objectives are met begins during the planning phase of the project and are documented in the QAPP.

Additional information can also be found in the current versions of the following:

- EPA Guidance on Environmental Data Verification and Data Validation
- EPA Guidance for Data Quality Assessment Practical Methods for Data Analysis
- EPA Data Quality Assessment: A Reviewer's Guide
- EPA Data Quality Assessment: Statistical Tools for Practitioners

Group D: Environmental Information Review and Usability Determination

Element	Description
D1	Environmental Information Review
D2	Useability Determination

Table 4

D1 – Environmental Information Review

The QAPP shall describe or cite the procedures for the information/data

verification and information/data validation activities.

The QAPP shall also describe or cite the data quality assessment activities that will occur after the environmental information operations phase of the project is completed, if applicable. Information/data verification and information/data validation activities are conducted prior to and may serve to inform information/data quality assessment activities.

The QAPP shall also describe or reference how performance criteria and/or acceptance criteria, and information/data quality indicators identified in A6 will be incorporated in the environmental information/data review process.

The QAPP shall also describe who will conduct these activities, and how the activities will be documented and communicated.

For additional environmental information review requirements including requirements for performance and/or acceptance criteria, and information/data quality indicators, contact the EPA organization sponsoring the work.

In general, verification is confirmation, through provision of objective evidence, that specified requirements have been fulfilled; and validation is confirmation, through provision of objective evidence that the requirements for a specific intended use or application have been fulfilled.

The following activity descriptions are from the EPA Quality Guidance documents listed above:

Data Verification is the process of evaluating the completeness, correctness, and conformance/compliance of a specific data set against the method, procedural, or contractual requirements.

Data Validation is an analyte- and sample-specific process that extends the evaluation of data beyond method, procedural, or contractual compliance (i.e., data verification) to determine the analytical quality of a specific data set.

Data Quality Assessment is the scientific and statistical evaluation of data to determine if the data obtained from environmental information operations are of the right type, quality, and quantity to support their intended use.

D2 – Useability Determination

Determining useability of the environmental information is the culmination of the entire QA process for the project and involves a retrospective evaluation of the planning process. Not all environmental information may be useable for its intended purpose. The useability of the environmental information is performed at the conclusion of the environmental information operations using the outputs of the environmental information/data verification, the environmental information/data validation, and the environmental information/data quality assessment activities. This reconciliation phase involves a qualitative and quantitative evaluation of

environmental information to determine if the project information is of the right type, quality, and quantity to support its intended use and are suitable for the decisions that will be made.

The QAPP shall describe or reference the process that will be used to determine whether the environmental information is useable. The QAPP shall describe how this determination will be documented and the individual(s) responsible. The QAPP shall describe how any known or anticipated limitations on the use of the environmental information will be communicated and to whom.

6. ROLES AND RESPONSIBILITIES

EPA Administrator: Promotes and ensures quality is an integral part of the Agency's mission by assuring that environmental information operations supporting EPA's programs and activities are of known and documented quality, scientifically valid, legally defensible, and appropriate for the intended use. The Administrator may re-delegate the responsibilities for this Standard to Assistant Administrators (AA) and Regional Administrators (RA).

Assistant Administrators (AA) and Regional Administrators (RA): Each AA and RA is responsible for implementing this Standard in the context of the organization's specific mission.

- Ensuring that adequate resources are devoted to QA activities to ensure compliance with EPA's QA directives, to support the organization's mission and to fully implement the organization's approved QMP.
- Ensuring that the organization's QMP includes activities that will help assure the quality of the information the organization collects, manages, or uses in carrying out its mission.
- Providing reasonable assurance and certifying annually to the DAA for IT/IM/CIO that their organization has implemented the Quality Policy and Procedure and have internal controls in place to ensure that environmental information produced and utilized is of known and documented quality for the intended use. Provide this certification along with the organization's QA annual report to the EQMD. The AA/RA may re-delegate the responsibilities for certification to the appropriate manager or supervisor. Promoting continuous improvement in QA activities across the organization.

Office of Mission Support (OMS), Deputy Assistant Administrator (DAA) for Information Technology/Information Management (IT/IM)/Chief Information Officer (CIO) (DAA for IT/IM/CIO): Acts as the EPA Senior Management Official for quality management and leads Agency-wide implementation of the Quality Policy and Procedure and EPA's Quality Program. Informs AAs, RAs, and the CIO Strategic Advisory Council (SAC) of any issues related to the quality of Agency environmental information and environmental information operations encompassed by this Standard.

Chief Information Officer's (CIO's) Strategic Advisory Council (SAC): Consisting of Senior Information Officials (SIOs) and other senior managers, the SAC advises and reports to the DAA for IT/IM/CIO on Agency-wide environmental information operations.

The SAC serves as a forum to discuss coordination of cross-cutting Agency quality-related issues.

Senior Information Officials (SIOs): Oversee effective implementation, coordination, and management of the organization's Quality Program for environmental information operations. Located in each Program Office and Region, SIOs report to the Agency DAA for IT/IM/CIO on quality-related issues.

National Program Office Directors: Provide Program direction to the Regional Program Office Directors on National Program Office QA guidance.

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Mission Support Division Directors (MSDDs): Manage issues related to information technology and information management (IT/IM). Support the Region's Quality Program and coordinate with Laboratory Services and Applied Science Division Directors (LSASDDs).

Laboratory Services and Applied Science Division Directors (LSASDDs): Serve as Director of a Regional Division with oversight of the Regional Quality Program through direct management oversight of the Regional QA personnel including the Regional QAM (RQAM). Through this oversight the LSASDD ensures conformance with this Policy and Regional QMPs.

Science and Technology Policy Council (STPC): Serves as a mechanism for addressing EPA's science policy issues that go beyond regional and program boundaries, with a goal of integrating policies that guide Agency decision-makers on their use of scientific and technical information.

The STPC is an executive level council that is chaired by the Agency Science Advisor, and provides a venue for identifying, coordinating, and, when appropriate, establishing consensus for high priority, cross-agency science, and technology policy issues to assist Programs and Regions. It focuses on issues that require high-level action and are relevant to the Regions and Program Offices (such as: Peer Review, Public Access, and Risk Assessment).

Office of Acquisition Solutions: Responsible for planning, awarding and administering contracts for the Agency, including issuing and interpreting acquisition regulations; administering training for contracting and program acquisition personnel; providing advice and oversight to regional procurement offices; and providing information technology improvements for acquisition.

Office of Grants and Debarment: Provides cradle-to-grave administrative management of all Headquarters-administered grants, loans, cooperative agreements, fellowships, interagency agreements (IAs) and for the management of the Agency's Suspension and Debarment program.

Office of General Counsel and Offices of Regional Counsel: Provide legal advice on issues related to environmental information operations.

OMS, Office of Records, Administrative Systems and eDiscovery (ORASE) and Enterprise Quality Management Division (EQMD) Directors: Serve as Office and Division Directors respectively and are responsible for oversight of the Agency's Quality Program. Execute actions on behalf of the DAA for IT/IM)/CIO according to Delegation 1-41. Mandatory Quality Program.

EPA Quality Assurance Managers (QAMs) or designee: Have delegated authority for the management of the Quality Program as described in their organization's QMP. The QAM roles and responsibilities below serve as a reference to assist the QAM in identifying activities and best practices. These activities and best practices are applicable to their organizations and may assist in continuous improvement. These activities are not provided as performance measures for the organization but may be used to guide the QAM in discussion with management on their roles and expectations for implementing the Quality Directives.

QAMs are individuals within the organization who are assigned specific quality management duties and are delegated authority for quality management as defined in the organization's QMP. Organizations may re-delegate the QAM's responsibilities as described in their QMP. The functions of the QAM or designee may be totally related to Quality Program activities or may be in conjunction with other functions and responsibilities within the organization. If these personnel have other functions to perform, there should be no conflict of interest. It is the QAM's responsibility to determine whether a conflict of interest exists.

Specific duties and responsibilities shall include:

- Facilitating QMP development and approval by the organization and preparing updates to the approved QMP.
- Representing the organization on matters pertaining to quality management and QA and QC activities.
- Providing expert assistance to the staff in the organization on QA and QC policies, requirements, programs and procedures applicable to procurement and technical activities.
- Reviewing QAPPs and, if applicable, QMPs for all projects, work assignments, delivery orders, task orders, grants, cooperative agreements, and interagency agreements involving environmental information operations that are performed by or on behalf of EPA.
- Approving all QAPPs for implementation in all applicable projects, work assignments, delivery orders, task orders, grants, cooperative agreements, and interagency agreements performed on behalf of EPA.
- Coordinating the correction of deficient QAPPs with the author(s) and their management including, as applicable, EPA authors, the COR, or the PO.
- Identifying QA and QC training needs for the organization.
- Providing oversight of QA and QC implementation in the environmental programs conducted by or for the organization.
- Performing assessments of environmental programs and confirming the effectiveness of corrective actions.
- Managing the day-to-day implementation of the mandatory Quality Program.

- Acting as liaison between the organization and EQMD on matters of QA requirements.
- Coordinating with senior management regarding changes to the Quality Program as needed to assure its continued effectiveness and assisting in reporting the results to EQMD.
- Managing organization resources designated for the Quality Program.
- Maintaining records of pertinent Quality Program activities performed by the organization.
- Reviewing environmental information products (i.e., project reports containing environmental information or reporting the results of environmental information activities), independently (i.e., by others than those who produced the information or the reports) to confirm that the information is presented correctly; and
- Preparing reports approved by management prior to release, publication, or distribution.

The QAM or designee roles and responsibilities reflect the activities that support systematic planning and life cycle management of EPA's environmental information operations products and services. Criteria for success are the organization executive management endorsement of quality, sufficiency of quality resources, and empowerment/authority of the QAM to oversee the organization's Quality Program. The list above does not prescribe the roles of management, but instead presents them from the perspective of the QAM. Executive management actions and support are needed for success. The QAM is to be aware of the support needed by the organization and can communicate those needs to management. Note: The QAPP Standard also uses the term Project Quality Assurance Manager to refer to the individual designated as the QAM for project defined in the QAPP.

Agency Personnel: Perform work associated with environmental information operations as identified in their organization's QMP.

Recipients of Extramural Agreements: Perform all environmental information operations in accordance with this Policy's requirements as defined by federal laws, regulations, and as defined in their extramural agreements. The agreement terms and conditions may also specify applicability of the EPA lead organization's QMP.

7. RELATED INFORMATION

These citations are valid at the time of issuance of this Standard. Since these documents are subject to periodic review, users of this Standard should refer to the most recent version.

OMS Links:

- Environmental Information Quality Policy
- Environmental Information Quality Procedure
- EPA QA Field Activities Procedure
- CIO Notification Procedure for Environmental Data Quality Issues
- Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency

- Enterprise Architecture Policy
- Data Standards Policy
- Enterprise Data Management Policy
- EPA Guidance for Quality Assurance Project Plans
- EPA Guidance for Geospatial Data Quality Assurance Project Plans
- EPA Guidance for Quality Assurance Project Plans for Modeling
- EPA Guidance for Preparing Standard Operating Procedures
- EPA Guidance on Technical Audits and Related Assessments for Environmental Data Operations
- EPA Guidance on Environmental Data Verification and Data Validation
- EPA Data Quality Assessment: Statistical Tools for Practitioners
- EPA Guidance on Quality Assurance for Environmental Technology Design, Construction and Operation

Other EPA/External Links:

- ASQ/ANSI E4: 2014 (R2019) Quality management systems for environmental information and technology programs—Requirements with guidance for use
- U.S. EPA Scientific Integrity Policy
- U.S. EPA Peer Review Handbook
- A Summary of General Assessment Factors for Evaluating the Quality of Scientific and Technical Information EPA 100/B-03/001
- 40 CFR Part 49: Tribal Authority Rule
- Uniform Federal Policy (UFP) for Quality Assurance Project Plans
- Uniform Federal Policy for Quality Assurance Project Plans: Evaluating, Assessing, and Documenting Environmental Data Collection and Use Programs - Part 1: UFP-QAPP Manual
- Workbook for Uniform Federal Policy for Quality Assurance Project Plans: Evaluating, Assessing, and Documenting Environmental Data Collection and Use Programs
- Uniform Federal Policy for Quality Assurance Project Plans - Part 2B: Quality Assurance/Quality Control Compendium (Minimum QA/QC Activities)

8. DEFINITIONS

Assessment—The evaluation process used to measure the performance or effectiveness of a system and its elements. As used here, assessment is an all-inclusive term used to denote any of the following: audit, performance evaluation, management review, peer review, inspection, surveillance, or readiness review (including competency assessment, pre-award assessment of proposal, or technical assessment), peer consultation, product review (e.g., data inspection, software testing, pre-dissemination review, or review of contractor deliverables).

Audit—A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

Consensus Standards—Standards that are developed and adopted by achieving agreement with all affected parties. These standards are developed in accordance with procedures used by the International Organization for Standardization or organizations accredited by the ANSI.

Data—A quantitative or qualitative representation of values, facts, observations, or ideas in a formalized manner capable of being transmitted, processed, stored, analyzed, interpreted, and/or communicated by some process, whether on paper or in electronic form.

- **Qualitative data**—is descriptive.
- **Quantitative data**—is numerical.
- **Primary data**—are data observed, collected, stored, or generated directly for a specific purpose.
- **Existing data**—are data that have been collected, derived, stored, or reported in the past or by other parties (for a different purpose and/or using different methods and quality criteria). Sometimes referred to as data from other sources.
- **Metadata**— Metadata is structured information that describes, explains, locates, or otherwise makes it easier to retrieve, use, or manage an information resource.

Data Standard—Documented consensus-based agreement on the format and definition of common data.

Environmental Information—Includes data and information that describe environmental processes or conditions which support EPA's mission of protecting human health and the environment. Examples include but are not limited to:

- direct measurements of environmental parameters or processes.
- analytical testing results of environmental conditions (e.g., geophysical or hydrological conditions).
- information on physical parameters or processes collected using environmental technologies.
- calculations or analyses of environmental information.
- information provided by models.
- information data compiled or obtained from databases, software applications, decision support tools, websites, existing literature, and other sources: and
- design, construction, and operation or application of environmental technology.

Environmental Information Operations—A collective term for work performed to collect, produce, evaluate, or use environmental information and the design, construction, operation, or application of environmental technology.

Environmental Measurement—A subgroup of Environmental Information that includes or produces values derived from tools, instruments, observational results, laboratory operations on environmental samples, or other sampling and testing equipment. It is any data collection activity or investigation involving the assessment of chemical, physical, or biological factors in the environment which affect human health and the environment.

Environmental Processes—Manufactured or natural processes that produce discharges or that impact human health and the environment.

Environmental Programs—Work or activities involving the environment, including but not limited to, characterization of environmental processes and conditions; environmental monitoring; environmental research and development; the design, construction, and operation of environmental technologies; and laboratory operations on environmental samples.

Environmental Technology—An all-inclusive term for systems, devices and their components applicable to both hardware and methods or techniques that measure and/or remove pollutants or contaminants and/or prevent them from entering the environment.

Examples include but are not limited to:

- Pollution prevention measurement, monitoring, reduction, control, and/or treatment processes, such as wet scrubbers (air), granulated activated carbon unit (water), filtration (air, water).
- Containment to prevent further movement of the contaminants, such as capping, and solidification or vitrification, and biological treatment.
- Storage containers, methods, or facilities, such as drums, tanks, and ponds or lagoons.
- Remediation processes and their components, and/or technologies, such as soil washing (soil), pump and treatment, soil vapor extraction (soil), land farming and other bioremediation processes.

Environmental Technology does not include or incorporate QA associated with the development and design of IT systems.

Extramural Agreement—A legal agreement between EPA and a non-EPA organization. Such agreements include but are not limited to contracts, work assignments, delivery orders, task orders, cooperative agreements, research grants, state and local grants, and EPA-funded interagency agreements and as negotiated in other agreements not funded by EPA. Refer to *Environmental Information Quality Procedure,* for additional details related to QA documentation associated with extramural agreements.

Graded Approach—The process of determining the level of detail for management controls to be applied to an activity according to the intended use and the degree of confidence needed in the quality of the results. This approach establishes the QA and QC requirements commensurate with the importance of the work, the available resources, and the unique needs of the organization.

Intergovernmental—Between the EPA and international, other federal, state, tribal, territorial, area-wide, regional or local governments and agencies.

Management System—A management system may describe the polices, objectives, principles, organizational authority, responsibilities, accountability, and implementation plan of an organization.

Operations Manager—The Operations Manager is independent of the QAM. In some organizations this individual may also be referred to as the program manager or person responsible for the activity.

Organization—An EPA organization is an office, region, national center, or laboratory. An external organization is a state, tribe, agency or other government entity, academia, company, corporation, firm, enterprise, or institution, or part thereof, whether incorporated or not, public or private, that has its own functions and administration.

Primary Quality Assurance Organization (PQAO)—A monitoring organization, a group of monitoring organizations or other organization that is responsible for a set of stations that monitor the same pollutant and for which data quality assessments can be pooled. Each criteria pollutant sampler/monitor at a monitoring station must be associated with only one PQAO.

Process—A set of interrelated resources and activities which transforms inputs into outputs. Examples of processes include analysis, design, data collection, operation, fabrication, and calculation.

Product—The intended result or final output of an activity or process that is disseminated or distributed among EPA organizations or outside of EPA.

Project—A unique process consisting of a set of coordinated, defined, and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements including constraints of time, cost, and resources.

Project Quality Assurance Manager (Project QAM)—The individual designated as the quality assurance manager for project defined in the QAPP. Note: The QAPP Standard also uses the term Quality Assurance Manager for the individual designated in the organization's QMP as the principal manager within the organization having oversight authority and responsibilities for planning, documenting, coordinating, and assessing the effectiveness of the Quality Program for the organization.

Quality—The totality of processes, procedures, features, and characteristics of a product or service that bear on its ability to meet the stated or implied needs and expectations of the user.

Quality Assurance (QA)—Management of an integrated system of activities involving planning, implementation, documentation, assessment, reporting, and quality improvement to ensure that a process, item, or service is of the type and quality needed and expected by the organization.

Quality Assurance Manager (QAM)—The individual designated in the organization's QMP as the principal manager within the organization having oversight authority and responsibilities for planning, documenting, coordinating, and assessing the effectiveness of the Quality Program for the organization. Note: The QAPP Standard also uses the term

Project Quality Assurance Manager to refer to the individual designated as the QAM for project defined in the QAPP.

Quality Assurance Project Plan (QAPP)—A planning document related to a project that describes in comprehensive detail the necessary QA/QC requirements and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance and acceptance criteria.

Quality Control (QC)—The overall system of technical activities that measures the attributes and performance of a process, item, or service against defined standards to verify that they meet the stated requirements; operational techniques and activities that are used to fulfill requirements for quality.

Quality Management—The aspects of the organization's overall management system that drive the implementation of an organization's Quality Program. Quality Management includes strategic planning, allocation of resources, and other systematic activities (e.g., planning, implementation, documentation, and assessment) pertaining to an organization's Quality Program.

Quality Management Plan (QMP)—A formal document that describes a Quality Program in terms of the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, and assessing all activities conducted.

Quality Program—The totality of management controls, processes, and documentation in EPA's planning, implementation, and assessment for ensuring the quality of Agency environmental information operations products and services.

9. WAIVERS

Statutory requirements for quality may supersede the specifications in this Directive or be more rigorous. In such cases, affected programs shall be exempt from the requirements of this Directive. EPA organizations conducting exempted activities shall comply with EPA CIO 2105.1 in all other respects. The following exemptions from these requirements apply:

The collection of environmental data under the authority of Good Laboratory Practices as defined by 40 CFR 792, for the Toxic Substances Control Act.

The collection of environmental data under the authority of Good Laboratory Practices as defined by 40 CFR 160, for the Federal Insecticide, Fungicide, and Rodenticide Act.

10. DIRECTIVE(S) SUPERSEDED

- *EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5, March 2001)*
- *EPA Systematic Planning: A Case Study for Hazardous Waste Site Investigations (QA/CS-1, February 2006)*

- *EPA Systematic Planning: A Case Study of Particulate Matter Ambient Air Monitoring (QA/CS-2, EPA QA/CS-2)*

11. CONTACTS

For information about this Standard or the Quality Program, contact the OMS, ORASE, EQMD, or email quality@epa.gov.

Vaughn Noga, Chief Information Officer and Deputy Assistant Administrator for Information Technology and Information Management

APPENDIX A: ACRONYMS & ABBREVIATIONS

AA	Assistant Administrator
ANSI	American National Standards Institute
ASQ	American Society for Quality
CFR	Code of Federal Regulations
CIO	Chief Information Officer
COR	Contracting Officer Representative
DAA	Deputy Assistant Administrator
EPA	Environmental Protection Agency
EQMD	Enterprise Quality Management Division
FMFIA	Federal Managers Financial Integrity Act
FY	Fiscal Year
IM	Information Management
IQA	Information Quality Act
IQG	Information Quality Guidelines
IT	Information Technology
LSASDD	Laboratory Services and Applied Science Division Director
MSDD	Mission Support Division Director
NTTA	National Technology Transfer and Advancement Act
OMB	Office of Management and Budget
OMS	Office of Mission Support
ORASE	Office of Records, Administrative Systems and eDiscovery
PL	Public Law
PO	Project Officer
PQAO	Primary Quality Assurance Organization
QA	Quality Assurance
QAFAP	Quality Assurance Field Activities Procedure
QAM	Quality Assurance Manager
QAPP	Quality Assurance Project Plan
QC	Quality Control
QMP	Quality Management Plan
RA	Regional Administrator
RQAM	Regional Quality Assurance Manager
SAC	Strategic Advisory Council
SIO	Senior Information Official
SOP	Standard Operating Procedure
STPC	Science and Technology Policy Council
UFP	Uniformed Federal Policy
USC	United States Code

Attachment 6:
SCVRUPPP Old Industrial CMP

Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Control Measure Plan to Reduce PCBs and Mercury in Urban Runoff from Old Industrial Areas

Plan and schedule for control measure implementation during MRP 3.0 in the Santa Clara Valley

Submitted in compliance with Provision C.11/12.c of NPDES Permit No. CAS612008, Order No. R2-2022-0018

FINAL REVISED
September 2024

This report is submitted by the agencies participating in the

Santa Clara Valley *Urban Runoff* Pollution Prevention Program

City of Campbell	City of Milpitas	City of Santa Clara
City of Cupertino	City of Monte Sereno	City of Saratoga
City of Los Altos	City of Mountain View	City of Sunnyvale
Town of Los Altos Hills	City of Palo Alto	County of Santa Clara
Town of Los Gatos	City of San José	Santa Clara Valley Water District (Valley Water)

Prepared for:

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)

Prepared by:

EOA, Inc.
1410 Jackson St., Oakland, CA 94612

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ACRONYMS

BASMAA	Bay Area Stormwater Management Agencies Association
BAMSC	Bay Area Municipal Stormwater Collaborative
BMP	Best Management Practice
CASQA	California Stormwater Quality Association
CWA	Clean Water Act
GSI	Green Stormwater Infrastructure
HDS	Hydrodynamic Separator
OI	Old Industrial
LID	Low Impact Development
MPC	Monitoring and Pollutants of Concern Committee
MRP	Municipal Regional Permit
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollution Discharge Elimination System
O&M	Operations and Maintenance
PCBs	Polychlorinated Biphenyls
POC	Pollutant of Concern
POTW	Publicly Owned Treatment Works
RMC	Regional Monitoring Coalition
RMP	Regional Monitoring Program for Water Quality in San Francisco Bay
ROW	Right-of-Way
RWSM	Regional Watershed Spreadsheet Model
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SFEI	San Francisco Estuary Institute
STM	Stormwater Treatment Measure
SWRP	Stormwater Resource Plan
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
USEPA	US Environmental Protection Agency
WMA	Watershed Management Area
WY	Water Year

EXECUTIVE SUMMARY

Fish tissue monitoring in San Francisco Bay (Bay) has revealed the bioaccumulation of Polychlorinated Biphenyls (PCBs), mercury, and other pollutants in Bay sportfish. The levels found are thought to pose a health risk to people consuming these fish. As a result, an interim advisory has been issued on the consumption of certain types of sportfish from the Bay. The San Francisco Bay Regional Water Quality Control Board (Regional Water Board) developed Total Maximum Daily Load (TMDL) water quality restoration programs for PCBs and mercury that identified urban runoff as an important pathway for these legacy pollutants to the Bay.

For over two decades, San Francisco Bay Area cities and counties have implemented control measures to reduce contributions of PCBs and mercury from municipal separate storm sewer systems (MS4s) that convey urban runoff to the Bay. Building off this significant experience, this *Control Measure Plan to Reduce PCBs and Mercury in Urban Runoff from Old Industrial Areas* (Plan) was developed by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Program) on behalf of all SCVURPPP member agencies (i.e., Co-permittees). This Plan is revised from the version submitted on March 31, 2023 to address Regional Water Board comments provided in a letter dated August 2023. The Plan complies with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R2-2022-0018; Permit No. CAS612008), also known as the Municipal Regional Permit (MRP 3.0).

This Plan summarizes the control measure programs, implementation schedules, and pollutant load reductions that SCVURPPP member agencies anticipate achieving during the MRP 3.0 term in the Santa Clara Valley. This Plan addresses MRP 3.0 Provisions C.11/12.c requirements for Co-permittees to submit plans and schedules for implementing control measures and stormwater treatment in old industrial (OI) land areas and other areas that generate moderate levels of PCBs or mercury to address the load reduction requirements included in these provisions. This Plan includes maps of the areas where control measures are to be implemented, the acreage of these areas, and a description of design and sizing features for all control measures implemented for each treated catchment in the Santa Clara Valley. This Plan describes two types of control programs: 1) *Targeted Control Programs* and (2) *Other Control Programs*. Targeted control programs are directed by Co-permittees and include ongoing, enhanced, and new actions that target OI land areas located in stormwater catchments containing known or suspected PCBs or mercury source areas or evidence of moderately to highly elevated PCBs or mercury based on monitoring data. Other (non-targeted) control measures include actions that are implemented by Co-permittees, other agencies, or by private parties associated with OI land use areas, but do not specifically target areas with known moderately to highly elevated PCBs or mercury in the catchment. Although they are not intended to target areas with moderately or highly elevated PCBs or mercury, these other control measures can still provide significant PCBs and mercury load reduction benefits in areas where there is evidence of contamination prior to implementation of the control.

Anticipated Control Measure Implementation

Land areas where *Targeted Control Programs* should be implemented are identified through monitoring data collected at multiple spatial scales. Verification Monitoring is conducted by SCVURPPP at the catchment or sub-catchment scale. This type of monitoring can include collecting stormwater samples at the catchment scale to verify that there are moderately or highly elevated PCBs or mercury in the stormwater catchment. Verification Monitoring can also include collection of sediment samples in the public right-of-way (ROW) in locations draining OI land areas. Catchments verified as having moderately to highly elevated PCBs or mercury are targeted for additional investigation and controls, as described below. SCVURPPP conducts Source Area Investigation monitoring, in catchments verified as having moderately to highly

elevated PCBs or mercury. The purpose of this type of monitoring is to identify the source(s) of PCBs or mercury in the catchment. Source Area Investigation monitoring has been ongoing since MRP 1.0, but during MRP 3.0 SCVURPPP further refined its process to incorporate new and enhanced efforts to gain access to and collect samples on private properties to determine if a property is a source of PCBs or mercury in stormwater.

Targeted Control Programs described in this Plan use available information to target land areas with moderately or highly elevated PCBs or mercury. Control measure programs that target these moderately or highly elevated OI land areas include:

1. **Controls for Properties with Moderately Elevated PCBs or Mercury**. This control program is a new effort developed during MRP 3.0 that targets Moderate Pollutant (PCBs or mercury) Contributing Properties (MPCPs) for on-site controls.
2. **Abatement of Highly Elevated PCBs Source Properties**. This control program is a continuation of ongoing efforts since MRP 1.0 to target properties that are sources of highly elevated PCBs for referral and abatement.
3. **Controls for Public ROW Areas in Catchments with High Priority OI Land Areas**. This control program focuses on catchments with moderately to highly elevated PCBs or mercury where source investigations failed to identify specific PCBs or mercury source properties. If PCBs or mercury source properties cannot be identified in a catchment with moderately or highly elevated PCBs or mercury, Co-permittees will delineate the drainage area associated with the moderate or high result(s), and follow the process described in the Clean Watersheds for a Clean Bay (CW4CB) Guidance Manual to evaluate how other types of controls (e.g., enhanced O&M activities) may provide PCBs and/or mercury reductions. The selection of appropriate controls for each catchment is site-specific, and will be determined through an evaluation process that will take place after the results from a source area investigation indicate that no source property(s) has been identified in the catchment.

The ***Other Control Measure Programs*** described in this Plan implement control measures in OI land areas that have multiple benefits and provide reductions of PCBs, mercury and trash. As such, these other types of control programs may be implemented in catchments that have yet to be verified as contributing moderately or highly elevated PCBs or mercury to stormwater; or where monitoring data indicate that an OI land area is not moderately or highly elevated. Other control measure programs include:

1. **Green Stormwater Infrastructure (GSI).** Includes parcel-based Low Impact Development (LID) implemented on properties, public green streets and regional GSI projects.
2. **High-Flow Capacity Stormwater Treatment Systems and Inlet-based Stormwater Screening Devices.** Stormwater treatment systems that include proprietary devices that remove sediment, trash, and other pollutants from stormwater through screening, trapping, and settling mechanisms.

In addition to the monitoring and control measures programs described above, this Plan also describes a new monitoring program that is currently under development by SCVURPPP to better demonstrate the potential scale of load reductions that can be achieved via both targeted and other control programs in OI land areas. Additional details on this program are described in Section 4.

Estimated PCBs and Mercury Load Reductions

The permit requires that Co-permittees in the Santa Clara Valley collectively achieve a reduction of 121 g/yr of PCBs and 28 g/yr of mercury during the permit term in OI land areas and other areas with land uses that generate moderately to highly elevated PCBs or mercury (i.e., ≥ 0.2 mg/kg PCBs and ≥ 0.3 mg/kg mercury in sediment or stormwater particle ratio, and/or > 36 ng/L PCBs in stormwater). Based on conservative estimates, anticipated control measure implementation (excluding source property referrals) is expected to result in the reduction of 121 g/yr for PCBs (ranging from 61 g/yr to 182 g/yr), and 25 g/yr for mercury (ranging from 13 g/yr to 35 g/yr) by the end of the permit term in OI areas with moderate PCBs or mercury. All load reductions were calculated using the methods approved by the Regional Water Board Executive Officer and described in the Source Control Load Reduction Accounting for Reasonable Assurance Analysis report (BASMAA 2022). These estimates represent a “best” estimate for anticipated control measure implementation during MRP 3.0. The best estimates were calculated generally assuming that roughly 50% of the anticipated control measure implementation described in this Plan would be completed during MRP 3.0. Ranges assume 25% to 75% of anticipated control measure implementation described in this Plan would be completed during MRP 3.0. Best estimates and ranges for PCBs and mercury demonstrate that Co-permittees should collectively achieve the C.11.c and C.12.c load reduction requirements during MRP 3.0.

1. INTRODUCTION

This *Control Measure Plan to Reduce Polychlorinated Biphenyls (PCBs) and Mercury in Urban Runoff from Old Industrial Areas* (Plan) presents the current status of control measure planning and implementation in the Santa Clara Valley (Santa Clara County, CA) to achieve PCBs and mercury load reductions required by the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R2-2022-0018; Permit No. CAS612008), also known as the Municipal Regional Permit (MRP). This Plan was developed by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Program) on behalf of all SCVURPPP member agencies (i.e., Co-permittees[1]) in compliance with MRP Provisions C.11.c.iii.(1) and C.12.c.iii.(1).

1.1 Problem Definition

Fish tissue monitoring in San Francisco Bay (Bay) has revealed the bioaccumulation of PCBs, mercury, and other pollutants in Bay sportfish (SFBRWQCB, 1995). The levels found are thought to pose a health risk to people consuming these fish and as a result, an interim advisory has been issued on the consumption of sportfish from the Bay. The advisory led to the designation of the Bay in 1998 by San Francisco Bay Regional Water Quality Control Board (SFBRWQCB or Regional Water Board) as an impaired water body on the Clean Water Act (CWA) "Section 303(d) list" due to elevated levels of PCBs and mercury. In response, the Regional Water Board developed Total Maximum Daily Load (TMDL) water quality restoration programs targeting PCBs and mercury. The general goals of the TMDLs are to identify sources of PCBs and mercury and implement actions to control the sources of these pollutants to achieve water quality standards and restore beneficial uses of the Bay (SFBRWQCB 2006, 2008). In the TMDLs, stormwater discharges, including those in the Santa Clara Valley, were identified as a key sources of these pollutants to the Bay.

Since the development and adoption of the PCBs and Mercury TMDLs, SCVURPPP Co-permittees have implemented numerous control measures to reduce the loads of PCBs and mercury in stormwater. These control measures have been previously reported by SCVURPPP and have had a direct benefit to Bay beneficial uses by reducing the contributions of PCBs and mercury from stormwater (SCVURPPP 2021).

1.2 Land Areas Contributing Moderately or Highly Elevated PCBs or Mercury to Stormwater

Over the past 20 years, SCVURPPP Co-permittees have spent significant public resources to identify locations within the urban landscape where PCBs or mercury are elevated and determine what control measures will likely provide the most load reduction benefits for these pollutants. Findings from numerous studies demonstrate that PCBs and mercury sources are generally associated with watershed land areas where equipment containing these pollutants were manufactured, transported or used and facilities that recycle PCBs or mercury-containing devices and equipment. These sources include current and historic metal, automotive, and

[1] Cities of Campbell, Cupertino, Milpitas, Monte Sereno, Mountain View, Palo Alto, San José, Santat Clara Saratoga Sunnyvale, the Towns of Los Altos Hills and Los Gatos, the County of Santa Clara and Valley Water.

hazardous waste recycling and transfer stations; electrical properties and power plants; and rail lines. These sources are typically located in areas that were industrialized between the late 1920's and the late 1970's, the timeframe when the production and use of PCBs and mercury were the greatest in the U.S. These areas are identified as old industrial (OI) land areas and are considered potential sources of PCBs and mercury in stormwater discharges to local creeks/rivers and the Bay.

Screening-level PCBs and mercury concentration thresholds have been selected to identify whether a land area likely has elevated (moderate or high) PCBs or mercury and to indicate proximity to a source (BASMAA 2022). Concentrations are considered elevated if sediment collected on properties or in the public right-of-way (ROW) are ≥0.2 mg/kg for PCBs or ≥0.3 mg/kg for mercury. Concentrations of PCBs in sediment that are ≥0.2 mg/kg, but <0.5 mg/kg are considered moderately elevated and concentrations ≥0.5 mg/kg are classified as highly elevated (SFBRWQCB 2022). Concentrations of mercury in sediment that are ≥0.3 mg/kg, but <1.0 mg/kg are considered moderately elevated and concentrations ≥1.0 mg/kg are classified as highly elevated (SFBRWQCB 2022). PCBs concentrations <0.2 mg/kg in sediment and mercury concentrations <0.3 mg/kg in sediment are considered low/background urban concentrations. Additionally, stormwater samples are considered elevated if particle ratios (i.e., whole water PCBs or mercury concentration divided by the suspended sediment concentration) are ≥0.2 mg/kg for PCBs, ≥0.3 mg/kg for mercury, or for PCBs only, if whole water concentrations are >36 ng/L (i.e., the top 15% of concentrations measured in stormwater across the Bay Area). A similar stormwater concentration threshold has not been set for mercury.

The dataset of PCBs and mercury concentrations measured over the past 20 years in sediment samples throughout the San Francisco Bay Area (SF Bay Area) has been invaluable to Co-permittees. This dataset has helped identify land areas where PCBs or mercury are elevated, and where controls measures will have the greatest load reduction benefits (BASMAA 2022). These sediment samples were collected from roadways, curb and gutters, driveways, sidewalks, storm drain inlets, manholes, culverts, and surface soils within public ROWs and on private properties across the Bay Area. To date, this data set includes over 1,600 PCBs datapoints and over 1,400 mercury datapoints. Table 1.1 presents the average concentrations of PCBs and mercury derived from this dataset, based on the predominant land use within the vicinity of where the sediment was collected. Additional information on these data is provided in BASMAA (2022). These data support the assumption that OI and other old (i.e., developed prior to 1980) land areas where PCBs or mercury were more heavily used in the past, contribute much higher masses of these pollutants per unit area than newer urban land areas developed post-1980, after the sale of PCBs was banned in the US. Other (non-industrial) old urban land areas where elevated PCBs concentrations have been observed include commercial/ transportation and residential areas. For mercury, elevated concentrations have been found in OI land areas, old residential, and even new urban land areas.

Table 1.1. Average PCBs and mercury concentrations (mg/kg) in sediment[a] measured across the SF Bay Area within five land use categories, including source properties where highly elevated PCBs and/or mercury concentrations have been observed.

Land Use Associated Category	PCBs (mg/kg)	Mercury (mg/kg)
Source Property	32[b]	NA
Old Industrial [b]	0.79[b]	0.43
Old Commercial / Old Transportation [b]	0.22[b]	0.20
Old Residential [b]	0.20	0.43
New Urban	0.07	0.46
Agriculture / Open Space	0.07	0.29

[a] mg/kg – milligrams per kilogram of sediment(< 2mm grain size)

[b] Average concentration for old industrial, old commercial/transportation, and old residential land use categories are in the moderate (0.2 - < 0.5 mg/kg) to high (≥ 0.5 mg/kg) range for PCBs.

1.3 Regulatory Requirements

The MRP regulates the control/management of stormwater and non-stormwater discharges from Phase I Municipal Separate Storm Sewer Systems (MS4s) in the SF Bay Area. The MRP is issued to SF Bay Area municipalities and flood control agencies by the Regional Water Board. The current version of the MRP (MRP 3.0) became effective on July 1, 2022. Provisions C.11 and C.12 contain specific requirements for controlling PCBs and mercury in municipal stormwater. These requirements are consistent with the urban runoff implementation plans for the Guadalupe River watershed mercury TMDL and the SF Bay PCBs and mercury TMDLs. Sub-provisions C.11/12.c require Co-permittees to implement (or cause to be implemented) treatment control measures, stormwater diversion to wastewater treatment facilities, redevelopment (provided green stormwater infrastructure (GSI) is implemented in compliance with C.3.b), enhanced operation and maintenance (O&M), or other control measures to comply with the performance metrics identified in Provisions C.11/12.c.i. Performance metrics must be achieved by the end of the permit term (i.e., June 2027). For the Santa Clara Valley Co-permittees, the C.11/12.c.i performance metrics are the following:

1. Reduce PCBs and mercury loads from 664 acres of Old Industrial or Moderate PCBs or mercury areas by implementing stormwater control measures with at least 70% load reduction efficiency; or
2. Reduce loads from these areas by 28 g/yr of mercury and 121 g/yr of PCBs.

If Co-permittees choose to comply with these requirements by demonstrating PCBs and mercury load reductions (i.e., option #2 above), then the Co-permittees must use accounting methods described in BASMAA (2022) that have been approved by the Regional Water Board's Executive Officer.

By March 31, 2023, Co-permittees were required to submit plans and schedules for implementing controls in old industrial/moderate PCBs and mercury areas to achieve the C.11/12.c.i performance metrics. The Control Measure Plans (CMPs) must include the following:

- Maps of the areas where control measures are to be implemented;
- Acreage of these catchments (areas); and
- Descriptions of design and sizing features for all control measures, treatment devices and stormwater diversion facilities implemented for each treated catchment.

Given that MRP 3.0 allows (and encourages) Co-permittees to comply with all requirements in C.11 and C.12 through a collaborative effort, SCVURPPP developed and submitted a CMP on behalf of all SCVURPPP Co-permittees in March 2023.

In a letter dated August 25, 2023, Regional Water Board staff provided comments on SCVURPPP's CMP as well as the CMPs submitted by the four other countywide programs that represent Co-permittees in counties other than Santa Clara. The letter requested that all stormwater programs (including SCVURPPP) revise and resubmit their CMPs by October 31, 2023 to address shortcomings identified by Regional Water Board staff in the letter. In a follow-up meeting held on September 15, 2023 between Regional Water Board, stormwater program, and Co-permittee staff, the CMPs and comments included in the letter were discussed and clarified. Stormwater programs agreed to revise their plans to address applicable comments provided in the letter, but requested additional time to resubmit their CMPs. Regional Water Board staff agreed to extend the resubmittal timeline to March 31, 2024, contingent upon receiving an adequate written response summarizing planned revisions to their CMPs. In October 2023, SCVURPPP developed and submitted a letter that outlined the planned revisions to the SCVURPP CMP and formally requested an extension to the original timeline. In a letter dated October 31, 2023, Regional Water Board staff agreed to the proposed revisions and extended the deadline for SCVURPP (and all stormwater programs) to submit their revised CMPs to March 31, 2024. This Plan has been revised from the version submitted in March 2023 to address all Regional Water Board comments included in the letter.

1.4 Control Measures Plan Purpose and Approach

The purpose of this Plan is to describe the control measures that SCVURPPP Co-permittees anticipate implementing to achieve the PCBs and mercury load reductions required by MRP Provisions C.11.c and C.12.c, respectively. This Plan includes descriptions of the ongoing, enhanced and new control measures Co-permittees have already begun to implement and will continue to implement during the remainer of MRP 3.0 in OI land areas.

This Plan describes two types of control programs: 1) *Targeted Control Programs* and (2) *Other Control Measure Programs*. Targeted control programs are directed by Co-permittees and include ongoing, enhanced, and new actions that target OI land areas located in stormwater catchments containing known or suspected PCBs or mercury source areas or evidence of moderately to highly elevated concentrations based on monitoring data. Other (non-targeted) control measures include actions that are implemented by Co-permittees, other agencies, or by private parties associated with OI land use areas, but do not specifically target areas with known moderately to highly elevated PCBs or mercury in the catchment. Although they are not intended to target areas with moderately or highly elevated PCBs or mercury, these other controls may still provide important load reduction benefits in OI land areas where there is evidence of PCBs or mercury contamination prior to implementation of the control.

Land areas where *Targeted Control Programs* should be implemented are identified through monitoring data collected at multiple spatial scales. Verification Monitoring is conducted by SCVURPPP at the catchment or sub-catchment scale. This type of monitoring can include collecting stormwater samples at the catchment scale to verify that there are moderately or highly elevated PCBs or mercury in the stormwater catchment. Verification Monitoring can also include collection of sediment samples in the public ROW in locations draining OI land areas. Catchments or parcels verified as having moderately to highly elevated PCBs or mercury are targeted for additional investigation, as described below. SCVURPPP conducts Source Area Investigation Monitoring, in catchments verified as having moderately to highly elevated PCBs or mercury. The purpose of this type of monitoring is to identify the source(s) of PCBs or mercury in the catchment. Source area investigation monitoring has been ongoing since MRP

1.0, but during MRP 3.0 there are new and enhanced efforts to gain access to and collect samples on private properties to determine if a property is a source of PCBs or mercury in stormwater.

Targeted Control Programs described in this Plan use available information to target land areas with moderately or highly elevated PCBs or mercury. Control measure programs that target these moderately or highly elevated OI land areas include:

1. **Controls for Properties with Moderately Elevated PCBs or Mercury**. This control program is a new effort developed during MRP 3.0 that targets Moderate Pollutant (PCBs or mercury) Contributing Properties (MPCPs) for on-site controls.
2. **Abatement of Highly Elevated PCBs Source Properties**. This control program is a continuation of ongoing efforts since MRP 1.0 to target properties that are sources of highly elevated PCBs for referral and abatement.
3. **Controls for Public ROW Areas in Catchments with High Priority OI Land Areas**. This control program focuses on catchments with moderately to highly elevated PCBs or mercury where source investigations failed to identify specific PCBs or mercury source properties. If PCBs or mercury source properties cannot be identified in a catchment with moderately or highly elevated PCBs or mercury, Co-permittees will delineate the drainage area associated with the moderate or high result(s) and follow the process described in the CW4CB Guidance Manual to evaluate how other types of controls (e.g., enhanced O&M activities) may provide PCBs and/or mercury reductions. The selection of appropriate controls for each catchment is site-specific, and will be determined through an evaluation process that will take place after the results from a source area investigation indicate that no source property(s) has been identified in the catchment.

The ***Other Control Measure Programs*** described in this Plan implement control measures in OI land areas more opportunistically than the targeted control measures summarized above. As such, these other types of control programs may be implemented in catchments that have yet to be verified as having moderately or highly elevated PCBs or mercury; or where monitoring data indicate that an OI land area is not moderately or highly elevated. Other control measure programs include:

1. **Green Stormwater Infrastructure (GSI).** Includes parcel-based Low Impact Development (LID) implemented on properties and public green streets and regional GSI projects.
2. **High-Flow Capacity Stormwater Treatment Systems and Inlet-based Stormwater Screening Devices**. Stormwater treatment systems that include proprietary devices that remove sediment, trash, and other pollutants from stormwater through screening, trapping, and settling mechanisms.

In addition to the monitoring and control measures programs described above, this Plan also describes a new monitoring program that is currently under development by SCVURPPP to better demonstrate the potential scale of load reductions that can be achieved via both targeted and other control programs in OI land areas. Additional details on this program are described in Section 4.

1.5 Organization of the Plan

The subsequent sections of this Plan are organized as follows:

Section 2 – Prioritized Locations For PCBs and Mercury Control Measure Implementation. This section identifies and prioritizes all OI land areas in the Santa Clara Valley that are potentially available for new or enhanced controls during MRP 3.0. These OI land areas are further prioritized for controls based on the availability and magnitude of PCBs or mercury monitoring data collected to date to classify OI land areas as high or low priority.

Section 3. Targeted Control Measure Programs. This section presents full details about the new, enhanced and ongoing control measure programs targeted in catchments containing moderately to highly elevated PCBs or mercury.

Section 4. Other Control Measure Programs. This section presents information about ongoing planning and implementation of other types of control measures that may provide important PCBs or mercury load reduction benefits on OI land areas. The types of controls and the assessments that Co-permittees will conduct to confirm that the controls implemented in these areas provide PCBs or mercury load reduction benefits are also presented in this section. The new monitoring program that is under development to provide data to better evaluate the collective benefits of these other control measures is also described.

Section 5 – Estimated Pollutant Load Reductions. This section provides estimates of the PCBs and mercury load reductions that will occur if control measures described in Sections 3 and 4 of this Plan are implemented. Maximum and “best” load reduction estimates are provided and compared to the performance metrics identified in MRP 3.0 Provisions C.11/12.c. This information demonstrates that the majority of the estimated load reduction benefits that will be achieved via this Plan will occur through controls targeted at OI land areas in catchments with moderately or highly elevated levels of PCBs or mercury.

Section 6. Implementation Schedule. This section outlines the implementation schedule for the control measures described in this Plan.

2. PRIORITIZED LOCATIONS FOR PCBS AND MERCURY CONTROL MEASURE IMPLEMENTATION

This section identifies and prioritizes all OI land areas in the Santa Clara Valley that are potentially available for new or enhanced controls during MRP 3.0. These OI land areas are prioritized for controls based on the availability and magnitude of PCBs or mercury concentrations observed in monitoring data associated with specific OI land areas in the Santa Clara Valley.

2.1 OI Land Areas Available for Control Measure Implementation

In 2002 (starting date of the PCBs and Mercury TMDLs), there were 7,509 acres of OI land areas in the Santa Clara Valley.[2] These OI land areas are widely distributed across the Valley and are mostly comprised of private properties and old railroads. Over the past two decades, a large portion (30%) of this OI area has been redeveloped and stormwater runoff from these areas is now addressed through Low Impact Development (LID) and Green Stormwater Infrastructure (GSI). An additional portion of the 2002 OI area (1.2%) has been identified by SCVURPPP as a highly elevated PCBs source property and was referred to the Regional Water Board for abatement by a Co-permittee. Given the high level of pollutant load reduction efficiencies of LID/GSI control measures and source property abatement[3], PCBs and mercury generated on these OI land areas are assumed to be effectively addressed by these controls.

For this Plan, LID/GSI controls implemented and source properties referred prior to July 1, 2021 are considered baseline controls and thus do not count towards the performance metrics described in MRP 3.0 Provisions C.11/12.c.[4] As such, these areas are not considered "available" for new/enhanced controls during MRP 3.0. The remaining OI land areas where LID/GSI was not implemented, or source property referrals were not made as of July 1, 2021 (i.e., areas not fully addressed for PCBs and mercury) are considered potentially available for new or enhanced controls during MRP 3.0. Controls implemented in these areas after the baseline date and through the end of the permit term (i.e., between July 1 2021 and June 30, 2027) may count towards the performance metrics in MRP 3.0 Provisions C.11/12.c.

All OI land areas in the Santa Clara Valley do not contribute the same level of PCBs or mercury to stormwater. To allow for the most cost-effective implementation of stormwater control measures, OI land areas that are potentially available for controls must be prioritized based on available monitoring data. Information gained through sediment and stormwater monitoring data is used to help Co-permittees prioritize OI land areas for PCBs or mercury control measure implementation. Over the past 20 years, SCVURPPP has conducted stormwater and sediment monitoring on behalf of Co-permittees in the Santa Clara Valley to help prioritize and direct PCBs and mercury control measure implementation.

Monitoring conducted to verify that an OI land area is in fact contributing moderately or highly elevated levels of PCBs or mercury to a Co-permittee's MS4 is called *Verification Monitoring*. This type of monitoring is typically conducted in stormwater catchments containing OI land

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[2] The CMP submitted in March 2023 identified 8,350 acres of old industrial (OI) land areas in the Santa Clara Valley. This number included 6,577 acres of OI parcels, 932 acres of old railroad parcels and rights-of-way (ROWs), and 841 acres of public ROW areas (i.e., streets/roads). The public ROW areas were removed from the OI land use classification in the current Plan (March 2024) for consistency with the other Bay Area counties, reducing the total OI land use area in the Santa Clara Valley to 7,509 acres.

[3] BASMAA 2022.

[4] Per Regional Water Board letter dated August 25, 2023.

areas or in other areas where PCBs or mercury were historically used, disposed of, or released. Verification Monitoring involves collecting screening-level stormwater or sediment samples in locations that drain entire catchments or sub-catchments containing OI areas. Samples are collected in the MS4, typically at outfalls (if possible) or further upstream in areas that drain a defined sub-catchment or specific OI parcels. If any screening-level samples have elevated concentrations (i.e., ≥ 0.2 mg/kg PCBs or ≥ 0.3 mg/kg mercury in sediments, or in stormwater, ≥ 0.2 mg/kg PCBs or ≥ 0.3 mg/kg mercury particle ratio and/or > 36 ng/L of PCBs, which is the top 15% of stormwater concentrations measured in MS4s across the Bay Area), then the OI land areas within the catchment area are verified as potential contributors of moderately or highly elevated PCBs or mercury to stormwater, and the catchment is then targeted for additional controls to reduce/eliminate the sources of PCBs or mercury in the catchment. SCVURPPP Verification Monitoring is focused on collecting data in all OI land areas.

SCVURPPP has conducted Verification Monitoring of OI land areas for nearly two decades. The information gained through monitoring conducted through Water Year 2023 (i.e., September 31, 2023) was used to prioritize the 5,156 acres of OI land area that has not been fully addressed for PCBs or mercury and thus is potentially available for new or enhanced controls during MRP 3.0. All OI land areas not fully addressed for PCBs or mercury were classified into the following categories based on this information:

- ***High Priority for Targeted Controls***: OI land areas within catchments where moderately to highly elevated PCBs or mercury have been observed via monitoring data. These areas are prioritized for targeted controls during MRP 3.0. Includes OI land areas that have been confirmed as source properties (but not yet referred or abated) or are potential sources of PCBs or mercury to the MS4. Targeted investigations of all potential sources are needed to identify specific source properties that contribute moderately or highly elevated PCBs or mercury to stormwater and determine the appropriate controls to address each source.
- ***Low Priority for Targeted Controls***: OI land areas where only low levels of PCBs or mercury have been observed via monitoring. These areas have been verified to have low levels of PCBs or mercury via stormwater monitoring at or near catchment outfalls; via sediment samples collected in the public ROW near or adjacent to OI land uses areas; or via sediment samples collected on OI parcels. OI land areas that are categorized as *Low Priority* will not be targeted for further control measure implementation during MRP 3.0.
- ***Undetermined Priority***: OI land areas that have not yet been monitored for PCBs and mercury. These areas require Verification Monitoring at the catchment, sub-catchment, or individual parcel-level to verify if PCBs or mercury are moderately or highly elevated. OI land areas that are verified as having moderately or highly elevated PCBs or mercury via monitoring data will be re-categorized as *High Priority*, while OI land areas identified as having low PCBs and mercury monitoring data will be re-categorized as *Low Priority*.

The Verification Monitoring process to categorize OI land areas as high or low priority for controls during MRP 3.0 is demonstrated in Figure 2.1.

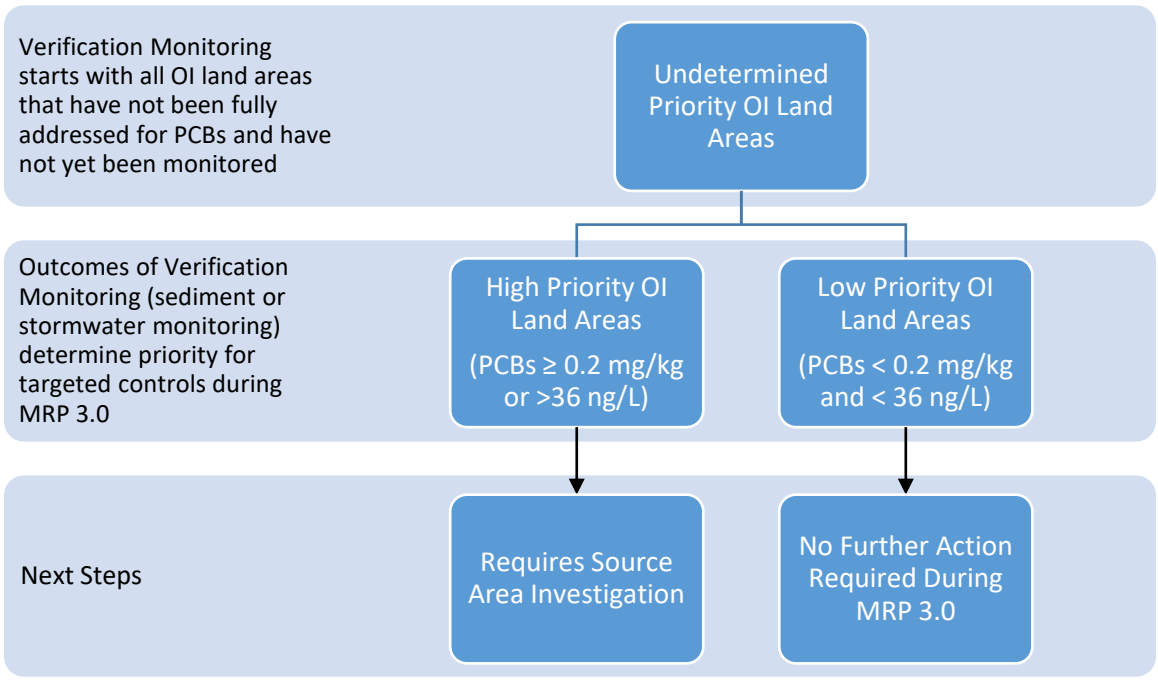

Figure 2.1. Flow chart demonstrating how verification monitoring is used to prioritize OI land areas for targeted controls during MRP 3.0 based on PCBs monitoring data.

Table 2.1 and Figure 2.2 present the MRP 3.0 baseline (July 1, 2021) treatment status of all 2002 OI land areas in the Santa Clara Valley. These areas include 2,264 acres of OI land areas that are addressed by LID/GSI projects constructed prior to July 1, 2021, and 88 acres of source properties referred to the Regional Water Board during MRP 2.0 for abatement. The remaining 5,156 acres of OI land areas that have not yet been fully addressed for PCBs and mercury are further prioritized for control measure implementation based on verification monitoring conducting through Water Year (WY) 2023, which ended on September 30, 2023.

Through WY 2023, SCVURPPP has conducted monitoring associated with 3,596 acres of the 5,156 acres of OI land areas that are not yet fully addressed by controls for PCBs and mercury at the start of MRP 3.0, including nearly 300 acres that were monitored during MRP 3.0 (i.e., in WY2022 or WY2023). Low PCBs and mercury were observed on the vast majority of these areas (86%). Other than the fact that these land areas are classified as OI, there is no evidence indicating that these land areas are contributing moderately or highly elevated PCBs or mercury to stormwater in the Santa Clara Valley. Therefore, these OI land areas are considered low priority for targeted controls, at least for the term of MRP 3.0. A total of 474 acres of the remaining OI land areas monitored by SCVURPPP are associated with moderately or highly elevated PCBs or mercury, and therefore are considered high priority areas for targeted control measure implementation during MRP 3.0.

For the 1,559 acres of OI land areas that are currently categorized as undetermined priority, where limited or no monitoring data are available to assist in the prioritization process, monitoring is planned to occur during MRP 3.0 or the subsequent permit term. Results from this monitoring will reclassify OI land areas into either the high or low categories, which may increase the acres of high priority areas where additional targeted control measures should be considered.

Table 2.1. Old industrial (OI) land areas in the Santa Clara Valley fully addressed for PCBs and mercury prior to MRP 3.0 and those (remaining) areas that are not fully addressed for PCBs and mercury, and further prioritized for targeted controls.[a]

SCVURPPP Co-permittee	Total OI Land Area in 2002 (acres)	OI Land Areas Addressed for PCBs and Mercury Prior to MRP 3.0[b] (Acres)		OI Land Areas Not Fully Addressed for PCBs and Mercury Prior to MRP 3.0[c,d] (acres)		
		Source Properties Referred to Regional Water Board	Addressed by Low Impact Development or Green Stormwater Infrastructure	High Priority[d]	Low Priority[e]	Undetermined Priority[f]
Campbell	119	--	11	0.53	48	59
Cupertino	183	--	49	--	92	42
Los Altos	2.0	--	--	--	2.0	--
Los Gatos	31	--	10	--	19	1.7
Milpitas	387	--	91	--	248	48
Mountain View	405	--	118	54 (50)	163 (71)	49
Palo Alto	451	--	110	50 (17)	181 (2)	109
San Jose	3,448	5.1	920	168	1,472 (32)	883 (77)
Santa Clara	1,019	12.3	209	147	468 (45)	183
Unincorporated Santa Clara County	293	--	0.50	--	168 (12)	124
Saratoga	44	--	0.56	--	5.4	38
Sunnyvale	1,127	70.2	745	56	234 (42)	22
TOTALS	**7,509**	**88**	**2,264**	**474 (67)**	**3,122 (204)**	**1,559 (77)**
		2,352		**5,156**		

[a] July 1, 2021 is the date used to denote whether a control was implemented before or during MRP 3.0.

[b]These old industrial (OI) land areas include those areas that have been addressed by source property referral and abatement or LID/GSI as of July 1, 2021.

[c]These OI land areas include those areas that have not been addressed by source property referral and abatement or LID/GSI as of July 1, 2021.

[d]The acres shown in parentheses (349 acres total) were monitored during MRP 3.0 to date (i.e., through WY2024); results for WY22 and WY23 were used to categorize 272 acres of OI acres as high or low priority, while results for WY24 data (77 acres) are still pending.

[d]OI land areas associated with moderately or highly elevated PCBs or mercury based on monitoring data.

[e]OI land areas associated with low levels of PCBs and mercury based on monitoring data.

[f]OI land areas that have not been fully monitored.

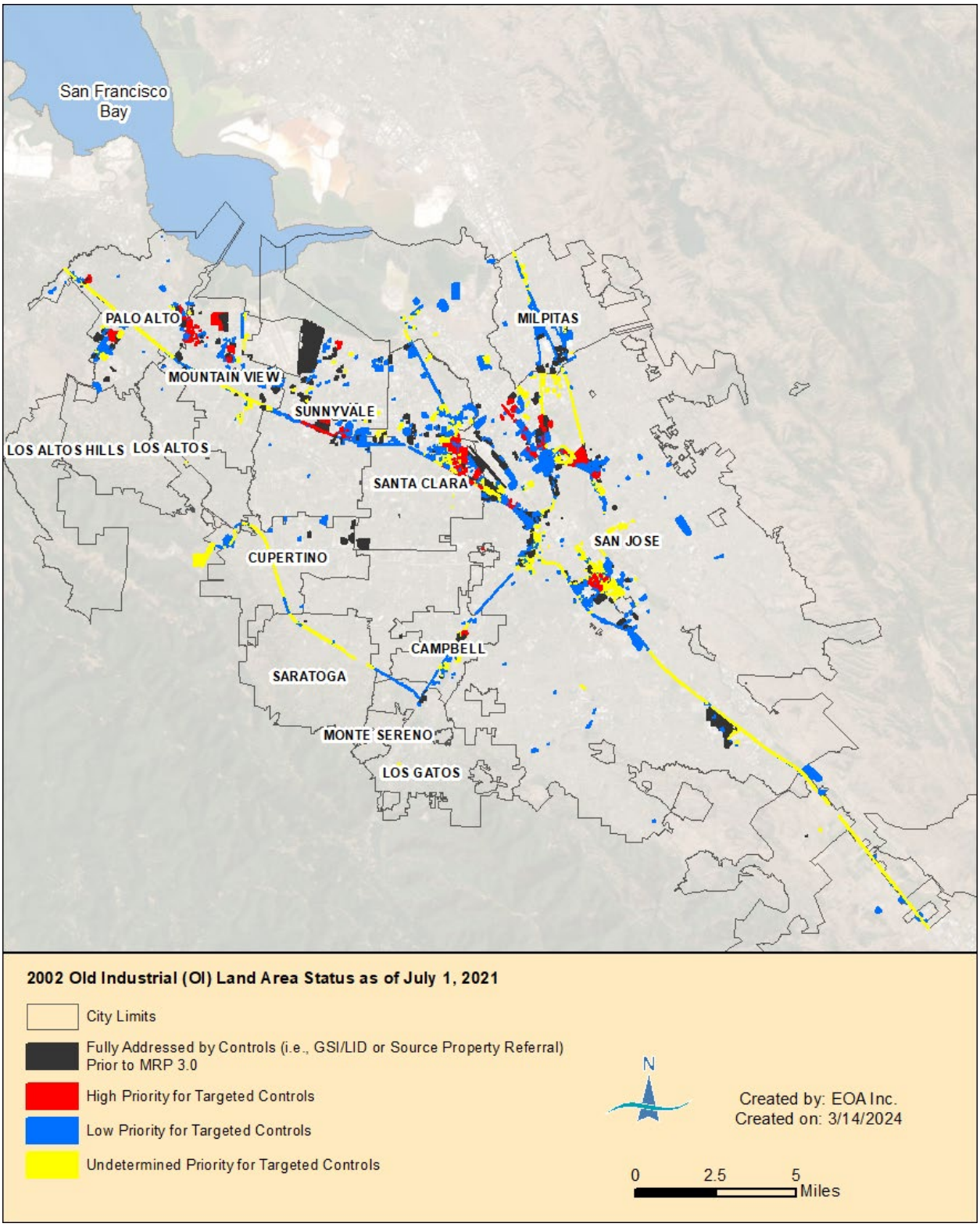

Figure 2.2. Geographical extent of land areas in the Santa Clara Valley identified as old (pre-1980) industrial land use in 2002 (i.e., starting date for the PCBs and Mercury TMDLs) categorized as fully addressed for PCBs and mercury or prioritized for targeted controls based on monitoring data.

As illustrated in Figure 2.2, the OI land areas that have not yet been addressed for PCBs or mercury and are prioritized for controls are geographically distributed throughout the Santa Clara Valley and are not located in a single or small number of stormwater catchments. As a result, the treatment of entire stormwater catchments (e.g., diversions to POTWs) is likely not a cost-effective or a technically feasible option for addressing PCBs and mercury (or other pollutants) associated with these areas.

2.2 Planned Additional Verification Monitoring During MRP 3.0

The OI land areas in 31 catchments containing 789 acres of undetermined priority OI parcels were selected for Verification Monitoring during MRP 3.0. These catchments and the undetermined priority OI land areas within these catchments are shown on Figure 2.3.

Through WY2023, verification monitoring has been completed in 16 of the 31 catchments (i.e., ~300 acres of OI land areas). The outcomes from this monitoring have already informed the prioritization of these OI land areas into either the high or low priority categories, as shown on Figure 2.2 and in Table 2.1.

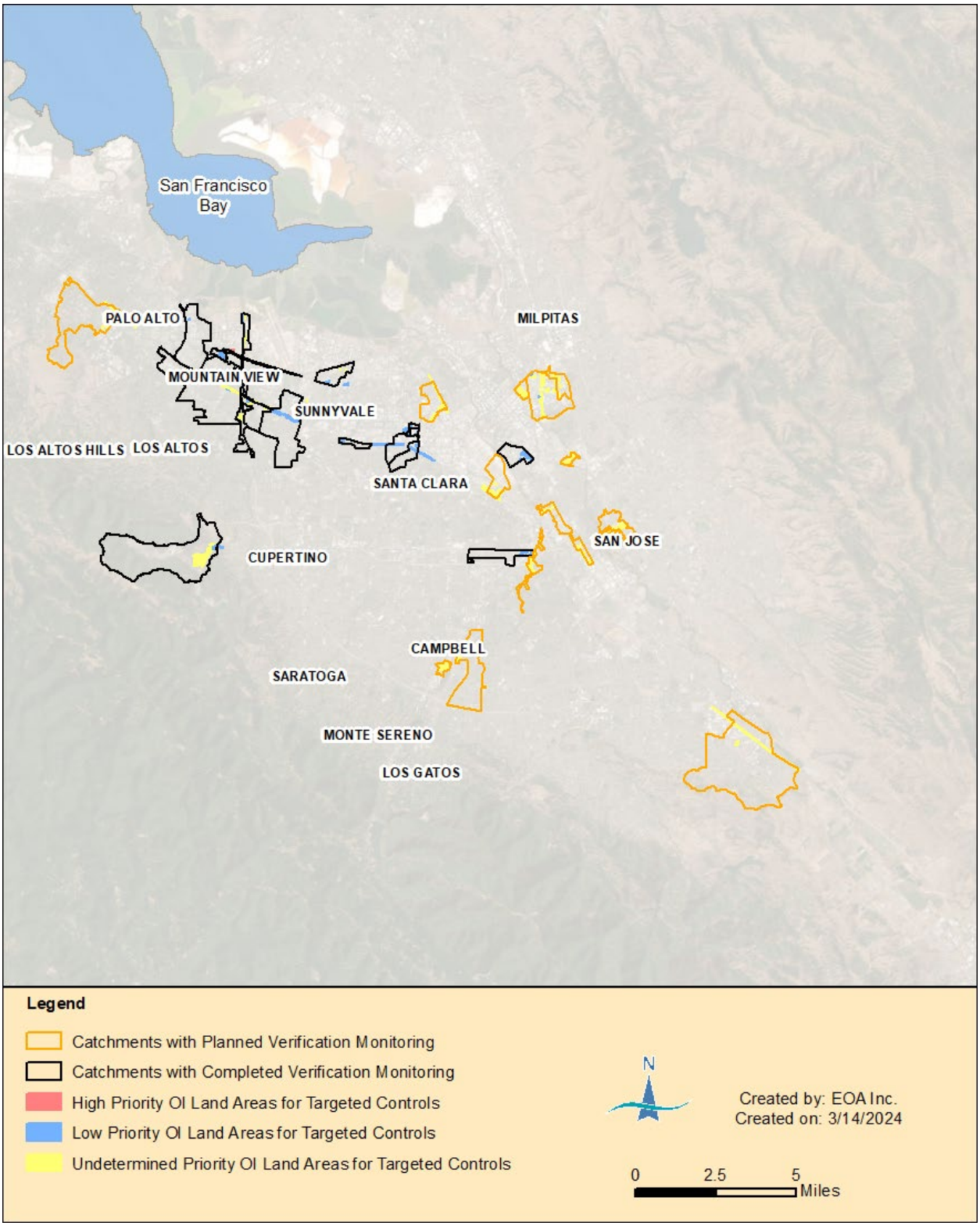

Figure 2.3 Stormwater catchments and associated old industrial (OI) parcels in the Santa Clara Valley where Verification Monitoring has been competed or is planned during MRP 3.0.

The remaining 15 catchments planned for Verification Monitoring during the permit term are presented in Table 2.2, along with the planned monitoring schedule. These 15 catchments represent more than 500 additional acres of OI land areas in the Santa Clara Valley. All OI land areas within catchments that are verified to have moderately or highly elevated PCBs or mercury through verification monitoring planned during MRP 3.0 will require Source Area Investigations as the next step, as described in the next section (Section 3.1).

Table 2.2. Verification Monitoring planned by SCVURPPP during MRP 3.0 to reclassify undetermined priority old industrial (OI) parcels in the Santa Clara Valley.

Catchment ID	Co-permittee	Undetermined Priority OI Land Areas (acres)[a]	Planned Sample Type	Implementation Schedule
036PCL800	San Jose	59	Stormwater	Planned WY2024
036PCL810	San Jose	9	Stormwater	Planned WY2024
067CTC150	San Jose	28	Sediment	Planned WY2024
PMC-D1	Santa Clara County	110	Stormwater	Planned WY2025
066GAC152	San Jose	46	Stormwater	Planned WY2025
049STA050	Santa Clara	37	Stormwater	Planned WY2025
130CNC022	San Jose	34	Stormwater	Planned WY2026
067CTC150	San Jose	28	Stormwater	Planned WY2026
083CTC350	San Jose	28	Stormwater	Planned WY2026
LGC-C3	San Jose	27	Stormwater	Planned WY2027
067GAC190	San Jose	27	Stormwater	Planned WY2027
050CTC100	San Jose	25	Stormwater	Planned WY2027
016MTC910	Palo Alto	23	Sediment	Planned WY2026
113LGC010	Campbell	23	Sediment	Planned WY2027
113LGC565	Campbell	23	Sediment	Planned WY2027
	Total Acres	**527**		

[a] Undetermined priority OI parcels have not been fully addressed for PCBs and mercury and require monitoring to verify if they are associated with moderately or highly elevated PCBs or mercury concentrations.

3. TARGETED CONTROL MEASURE PROGRAMS

This section describes control measure programs that are targeted at addressing PCBs or mercury on high priority OI land areas, known to generate moderately or highly elevated PCBs or mercury.[5] The controls described are likely the most effective options for reducing pollutants associated with high priority OI land areas in the Santa Clara Valley. The targeted control measure programs currently being implemented or planned for implementation by SCVURPPP Co-permittees during the MRP 3.0 include the following:

1. *Controls for Properties with Moderately Elevated PCBs or Mercury*;
2. *Abatement of Highly Elevated PCBs or Mercury Source Properties*; and
3. *Controls for Public ROW Areas in Catchments with High Priority OI Land Areas*.

The overall goal of these targeted control programs is to identify and control contributions of moderately or highly elevated PCBs or mercury to stormwater. Additionally, these control measure programs will assist Co-permittees in achieving PCBs and mercury load reduction requirements described in MRP 3.0 Provisions C.11/12.c.

3.1 Source Area Investigations

As described in Section 2.2, Verification Monitoring assists Co-permittees in classifying and prioritizing OI land areas for control measure implementation. Once an OI land area is classified as high priority, based on monitoring data, SCVURPPP begins to conduct a Source Area Investigation in the associated stormwater catchment. The purpose of a Source Area Investigation is to identify specific source properties or source areas in the catchment that disproportionately contribute moderately or highly elevated PCBs or mercury to stormwater. As demonstrated in Figure 3.1, the outcomes of a Source Area Investigation help determine the appropriate control measure program that should be implemented to address PCBs or mercury contributions from one or more properties/areas in the catchment. Once identified, source properties or areas will be subject to the additional controls described in Sections 3.2, 3.3, and 3.4 until all technically and economically feasible controls to reduce PCBs or mercury loads from the catchment have been implemented.

[5] As noted in Section 1.2, PCBs are considered elevated if concentrations in sediment are ≥ 0.2 mg/kg, or for stormwater samples if a PCBs particle ratio ≥ 0.2 mg/kg and/or a stormwater concentration >36 ng/L (i.e., the top 15% of concentrations measured in stormwater across the Bay Area) are observed. Mercury is considered elevated if concentrations in sediment are ≥ 0.3 mg/kg, or for stormwater samples if a mercury particle ratio ≥ 0.3 mg/kg are observed.

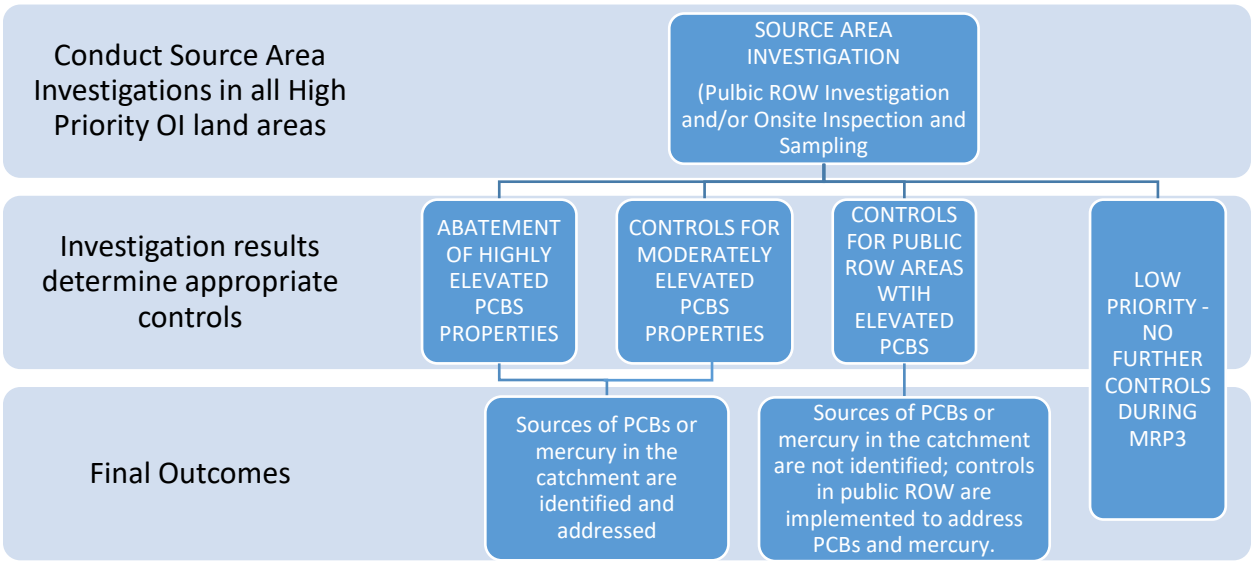

Figure 3.1. Flow chart demonstrating progression from Source Area Investigations through control measure implementation and final outcomes for high priority OI land areas.

SCVURPPP has conducted Source Area Investigations in high priority catchments since MRP 1.0, but with new and enhanced efforts to gain access to and collect samples on private properties, this program is expanding during MRP 3.0. These new and enhanced efforts will support further reduction of PCBs and mercury to stormwater by accomplishing the following objectives:

1) Expand the search for source properties to include moderate PCBs or mercury[6] sources in addition to high PCBs or mercury sources that have previously been the sole target, and
2) Identify additional source properties (both moderate and high) and (ultimately) control/abate.

Source Area Investigations are conducted in high priority catchments using a phased approach. The first phase is a Targeted Public ROW Investigation and the second phase is an On-site Inspection and Sampling. Each of these investigation phases are described below.

- Targeted Public ROW Investigation. This phase of investigation includes records review, public ROW surveys, and public ROW sampling. The information gathered during records review and public ROW surveys is used to inform development of a public ROW sampling plan. Samples are collected in public ROW locations that represents drainage or sediment release from suspect properties (typically OI parcels, but also other properties if records review/public ROW surveys indicate potential for PCBs or mercury sources on a given property). If any public ROW samples have elevated concentrations (≥ 0.2 mg/kg for PCBs or ≥ 0.3 mg/kg for mercury), the parcels draining or contributing

[6] As described in Section 1.2, moderate PCBs and mercury are defined in MRP 3.0 as concentrations in sediment between 0.2 mg/kg and 0.5 mg/kg for PCBs, and between 0.3 and 1.0 mg/kg for mercury. High PCBs and mercury concentrations in sediment ≥ 0.5 mg/kg for PCBs and ≥ 1.0 mg/kg for mercury.

sediment to that location are prioritized for on-site investigation. There may also be catchments that had elevated screening-level samples, but subsequent public ROW sampling does not point to any specific property(ies) as the potential source. When this occurs, all suspect properties in the catchment will be prioritized for on-site investigation and sampling. This can occur for a variety of reasons, for example there may not be appropriate or accessible sampling locations within the public ROW that represent drainage from a given property. Also, it is important to note that while the presence of an elevated sediment concentration in the public ROW is usually a clear indicator of proximity to a source, a low sediment concentration may be found even if sources are nearby. This is because sediment concentrations can be highly variable over time and across small spatial scales, and this variability is likely to increase with distance from the source. In some cases, additional on-site data may not be needed to determine if a given property is a source of moderately or highly elevated PCBs or mercury. If the public ROW data provides clear evidence that a given parcel is a source of PCBs or mercury to the MS4, then that parcel will be prioritized for the appropriate program (i.e., *Controls for Properties with Moderately Elevated PCBs* or *Mercury or Abatement of Highly Elevated PCBs Source Properties*).

- On-site Inspection and Sampling: In this phase of investigation on-site inspections and sampling of suspect properties are conducted to determine if the property is a moderately or highly elevated source of PCBs or mercury. On-site inspections and sampling for PCBs and mercury are coordinated with existing municipal stormwater inspection programs. During the property inspection, SCVURPPP and Co-permittee staff gather information about the property, including:
    - Locations and descriptions of all on-site inlets and any other storm drain infrastructure that is directly connected to the MS4;
    - Locations of potential sediment migration off-site;
    - Locations and descriptions of potential sources of PCBs or mercury on the property;
    - Locations and types of best management practices (BMPs) in place to address sediment migration and provide stormwater treatment.

This information helps Co-permittees identify where sediment samples should be collected on the property, and will also facilitate development of control plans if sampling data confirm the property is a source of moderately elevated PCBs or mercury and subject to the *Controls for Properties with Moderately Elevated PCBs or Mercury* control program described in Section 3.2. SCVURPPP's monitoring contractor collects the sample(s) on the property with permission of the property/business owner.

If on-site samples do not have elevated PCBs or mercury, the property is re-categorized as low priority and no further action is required during the permit term. If on-site samples have elevated PCBs or mercury, the property is confirmed as a source of moderately or highly elevated PCBs or mercury. If samples are not collected on a given property, either because appropriate sample collection locations are not found on-site or because property/business owners refuse permission, additional inspections or other follow-up actions may be needed. If samples are not collected because property/business owners refuse permission, Co-permittees will evaluate and consider using all available legal remedies to collect samples on the property. Alternatively, Co-permittees may require property owners to submit and implement an approved plan to prevent release of sediment-bound pollutants to the MS4 in-lieu of collecting samples. This last option is currently under consideration by Co-permittees.

Planned/Ongoing Source Area Investigations During MRP 3.0

As shown in Table 3.1, during MRP 3.0 to date, Source Area Investigations have been completed, are ongoing, or are planned in 15 catchments that contain more than 400 acres of high priority OI land areas targeted for control program implementation during MRP 3.0. These catchments are classified as high priority because previous Verification Monitoring found moderately or highly elevated PCBs or mercury. Public ROW investigation, and/or On-Site Inspection and Sampling, and implementation of appropriate controls based on the investigation outcomes will be conducted in these 15 high priority catchments during MRP 3.0 to identify and control the PCBs or mercury source(s) to stormwater. ***High Priority Catchment Factsheets*** that detail the ongoing or planned investigations and control measure implementation during MRP 3.0 in these 15 catchments, including catchment maps are provided in **Appendix A**.

SCVURPPP anticipates starting Source Area Investigations in these catchments during MRP 3.0. In order to achieve the C.11/12.b requirement to investigate 913 acres of OI land areas during the permit term, the Program estimates that investigations will need to be completed for about 200 acres of high priority OI land areas shown in Table 3.1, combined with completing investigations in at least 700 acres of undetermined priority OI land areas described in Section 2.2.

Table 3.1. Stormwater catchments with high priority old industrial (OI) land areas that are targeted for Public ROW Investigations or On-site Inspections and Sampling in the Santa Clara Valley during MRP 3.0.

Catchment ID[a]	Co-permittee	Investigation Type	High Priority OI Parcels[b] (acres)	Implementation Schedule
032SVC400	Mountain View	On-site Inspection/Sampling	20	Completed WY2022
017XXX010	Mountain View Palo Alto	Public ROW Investigation	48	Ongoing WY2023/24
017PMC600	Mountain View	On-site Inspection/Sampling	70[c]	Ongoing WY2024
067CTC250	San Jose	On-site Inspection/Sampling	23	Planned WY2024
050GAC580	Santa Clara	Public ROW Investigation	113	Planned WY2024
033SVW955	Sunnyvale	Public ROW Investigation	1.4	Planned WY2024
034BFL230B	Sunnyvale	On-site Inspection/Sampling	12	Planned WY2024
		Public ROW Investigation	1.9	Planned WY2024
048SVE395	Sunnyvale	Public ROW Investigation	3.0	Planned WY2024
049CZC800	Sunnyvale	Public ROW Investigation	13	Planned WY2024
049SVE410	Sunnyvale	On-site Inspection/Sampling	10	Planned WY2024
017ADC600	Palo Alto	On-site Inspection/Sampling	9[b]	Planned WY2025
		Public ROW Investigation	12	
050GAC020	San Jose	On-site Inspection/Sampling	38	Planned WY2025
050GAC400	Santa Clara	On-site Inspection/Sampling	0.4	Planned WY2025
		Public ROW Investigation	23	Planned WY2025
067CTC030	San Jose	Public ROW Investigation	12	Planned WY2025
113LGC030	Campbell	On-site Inspection/Sampling	0.5	Planned WY2026
		Total	**410**	

[a]Stormwater Catchments have been described as Watershed Management Areas (WMAs) in previous reports.

[b] High priority OI parcels are available for controls and are located in catchments with moderately or highly elevated PCBs based on monitoring data.

[c] These acres are not OI parcels, but samples collected in the adjacent public ROW have moderately/highly elevated PCBs.

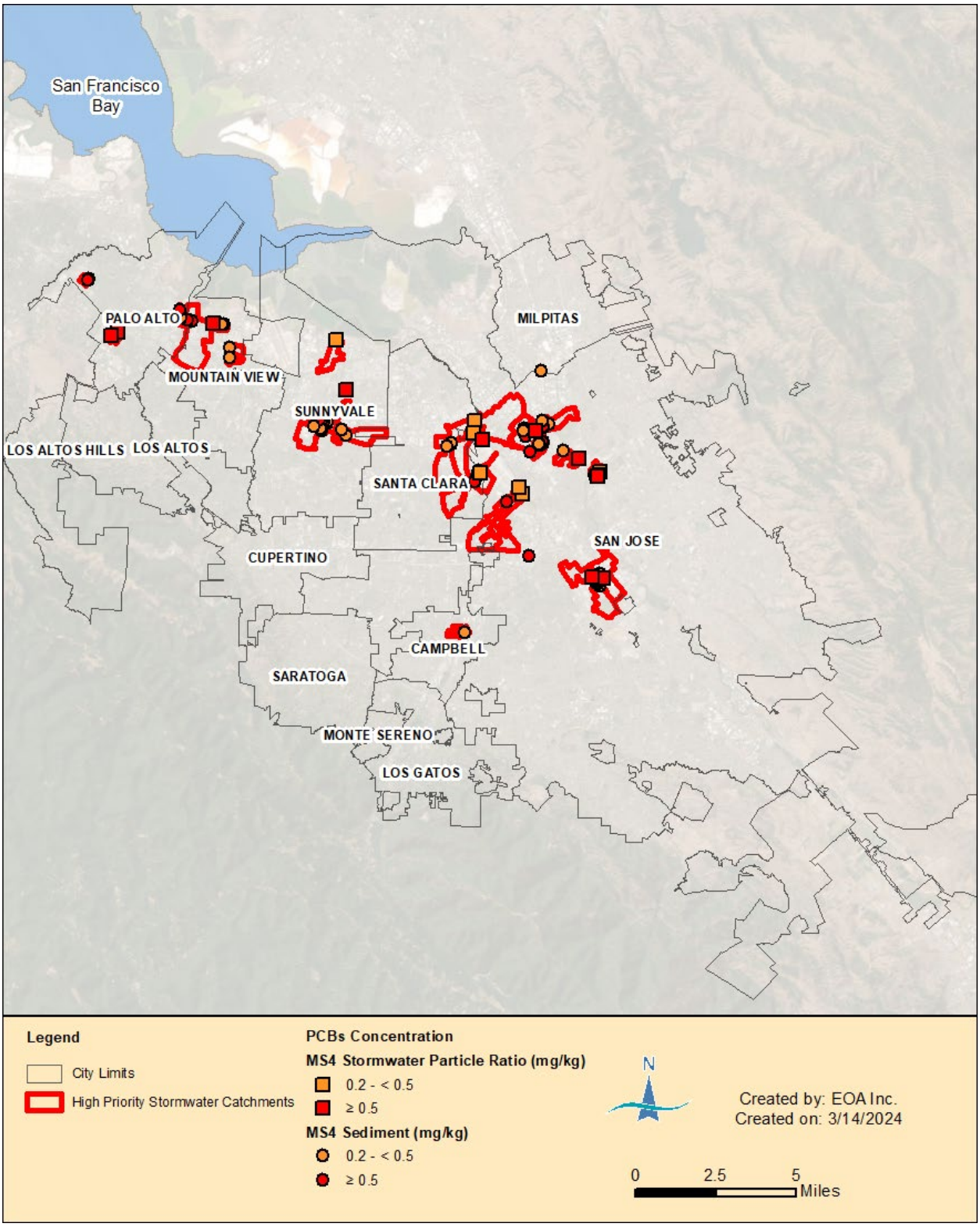

Figure 3.2. Stormwater catchments with high priority old industrial (OI) land areas that are targeted for Public ROW Investigations, On-site Inspections and Sampling and Targeted Control Programs in the Santa Clara Valley during MRP 3.0.

During MRP 3.0, Source Area Investigations are initially focused on the catchments identified in Table 3.1and shown on Figure 3.2. However, as Verification Monitoring of undetermined priority OI land areas proceeds during the permit term, the Program anticipates that additional catchments will be verified as having moderate/high PCBs or mercury. These catchments with high priority OI land areas will then be added to the Source Area Investigation program. Given that this process is sequential, all high priority OI land areas identified during MRP 3.0 may not be fully investigated by the end of the permit term.

Other Actions to Support Implementation of the Control Program

Since the effective date of MRP 3.0 (July 2022), SCVURPPP and its Co-permittees have also conducted a number of other actions to ensure the successful implementation of the new and enhanced On-site Inspection and Sampling tasks to support the identification of PCBs or mercury sources. SCVURPPP has worked with Co-permittees over the past year to develop the on-site inspection and sampling process and procedures, and to provide tools to support implementation. For example, SCVURPPP developed a number of supporting documents that are intended to inform property/business owners of the inspection and sampling process, and to provide general information about stormwater issues, PCBs and mercury, regulations, and controls. **Appendix B** provides drafts of these documents, which include the following:

- Property Owner Letter to Inspect and Collect Samples on-site Template; and
- Stormwater Pollutants Factsheet on PCBs and Mercury.

Although the overall On-site Inspection and Sampling process described in Section 3.1 above will be similar across all Co-permittees, implementation details will be tailored to each individual Co-permittee. Over the past year SCVURPPP staff has met multiple times with staff from the Cities of San Jose and Sunnyvale, the two cities where on-site inspection and sampling is planned to begin in FY 2023-24. The details of how each City will implement these actions were discussed and tailored. For example, the City of San Jose has decided to coordinate these inspections with their MRP 3.0 Provision C.3 Operation and Maintenance inspection team, and will develop a San Jose-specific letter to property owners to inform them in advance of the upcoming inspections. Full details of how each municipality implements these actions in coming years will be documented in future reports to the Regional Water Board.

In addition, all Co-permittees that have high priority OI land areas within their jurisdictions began reviewing their existing municipal codes over the past year and seeking input from their City Attorneys. The purpose of the review is to ensure that the Co-permittees have adequate authority to implement the new on-site inspection and sampling investigations described above, as well as other new MRP 3.0 requirements. To date, the outcomes of these reviews have varied across Co-permittees. While some Co-permittees are satisfied with the language in their current municipal codes, other Co-permittees are currently working on updates to more fully support implementation of the new or enhanced programs described in this Plan. These efforts are currently on-going and SCVURPPP will provide updates on the outcomes of these actions in future reports to the Regional Water Board.

3.2 Controls for Properties with Moderately Elevated PCBs or Mercury

Control Measure Description

This control program is a new effort developed by SCVURPPP during MRP 3.0 that targets properties that generate moderately elevated PCBs or mercury. This program to address moderate pollutant contributing properties (MPCPs) is focused on implementing control measures on-site, before PCBs or mercury can reach public ROWs and Co-permittee MS4s.

This control measure entails identifying properties with moderately elevated PCBs or mercury concentrations in sediments (0.2 to < 0.5 mg/kg for PCBs and 0.3 to < 1.0 mg/kg for mercury) through the source area investigations described in Section 3.1. Once identified, the control program includes tasks for Co-permittees to work directly with the property owners to cause the implementation of appropriate on-site controls. MPCPs can be addressed through voluntary actions by the responsible party (i.e., property owner, manager, and/or leasee/business owner) or through controls implemented by the responsible party as required by enforcement actions taken by a Co-permittee.

Following identification of an MPCP, Co-permittees (with support from SCVURPPP) work directly with the responsible party to cause implementation of appropriate controls on the property to prevent the release of PCBs or mercury to stormwater. The Co-permittee may require the responsible party to develop and implement a site-specific *Source Property Pollutant Control Plan*. The *Source Property Pollutant Control Plan* will identify all applicable PCBs or mercury sources and transport pathways on the property (e.g., stormwater runoff, wind, vehicle tracking, etc.) and the appropriate controls or BMPs that will be used to intercept each identified PCBs or mercury source/transport pathway.

The control program for MPCPs is still under development, but a preliminary outline of the implementation process and the party responsible for each step in the process is presented here.

Step 1. SCVURPPP staff will compile and describe data used to identify each MPCP. After an MPCP has been identified, SCVURPPP staff will prepare a brief technical memorandum that summarizes the relevant information gathered about the property during the source investigation. The memorandum may include information gathered during records review, inspections, and sampling, and will also include site maps that identify known or potential PCBs or mercury sources and transport pathways from the property to the MS4, as documented by SCVURPPP during site inspections.

Step 2 Co-permittee staff will develop an internal Co-permittee work plan that describes the process and timeline to address each MPCP. Co-permittee staff will review the technical memorandum and develop a site-specific work plan for each MPCP. The work plan will outline the steps that the Co-permittee will need to take to engage the responsible party and cause implementation of controls on the property to reduce the release of PCBs or mercury to the public ROW and the associated timeline. The work plan will address the following components:

1. Outline the process the Co-permittee will follow to inform responsible parties of the MPCP determination and next steps. This process may entail submitting a letter to the responsible party and following up with a scheduled meeting to provide information/guidance on required actions. In the letter and/or during the site visit, Co-permittees will inform responsible parties of the PCBs or mercury issue on their property, outline the requirements of the new control program for MPCPs, and provide guidance to responsible parties on next steps.
2. Identify the property abatement requirements. For example, the Co-permittee may require the responsible party to develop and implement a site-specific *Source Property Pollutant Control Plan* acceptable to the Co-permittee. The *Source Property Pollutant Control Plan* will document potential sources of PCBs or mercury on the property and associated transport pathways, and identify the control measure(s) that will be implemented to reduce/eliminate release of PCBs or mercury to MS4s via each source/pathway combination. Alternatively, the Co-permittee may provide the responsible party with a list of recommended site-specific controls, BMPs or other

actions that the responsible party can implement to reduce transport of PCBs or mercury from the property to the MS4. Responsible parties can choose to implement the recommended controls in lieu of developing their own PCBs or mercury control plan. The responsible party will be solely responsible for implementing the on-site control measures described in the *Source Property Pollutant Control Plan* or on the recommended list.

3. Identify potential enforcement actions or penalties for non-compliance (and associated timelines) that may be required to ensure the responsible party completes all requirements in a timely manner.
4. Determine follow-up actions to confirm the MPCP is appropriately controlled. For example, the Co-permittee may conduct follow-up inspections to ensure controls/BMPs are implemented and maintained as needed; or the Co-permittee may require the responsible parties to submit documentation to verify controls are in place and appropriately maintained.
5. Develop a schedule/timeline for all the work plan components to be implemented, including:
    - Informing the responsible party of the MPCP designation;
    - Submission of *Source Property Pollutant Control Plan* by the responsible party for Co-permittee review (if applicable);
    - Co-permittee review and approval of the *Source Property Pollutant Control Plan* (if applicable);
    - Control measure/BMP implementation schedule;
    - Follow-up actions; and
    - Any enforcement actions or penalties if appropriate.

Step 3. **Co-permittees will begin working with the Responsible Party to implement the internal work plan to address the MPCP.** SCVURPPP staff will provide guidance and support as needed.

Controls on MPCPs are expected to provide a relatively high load reduction benefit for PCBs (and potentially mercury). The benefit is estimated to reduce PCBs from the OI land-use based yield of 259 mg/acre/yr to the Old Commercial/Old Transportation land-use based yield of 49 mg/acre/yr (BASMAA 2022). There is not currently an approved method to account for mercury loads reduced as a result of implementing controls on properties with elevated mercury concentrations. This will need to be developed and approved by Regional Water Board in order to take mercury load reduction credit for these actions. As the program is implemented, there will be future opportunities to evaluate and document the load reduction benefits of these actions.

Planned/Ongoing Implementation During MRP 3.0

Although this control program is new to MRP 3.0, SCVURPPP has already identified one MPCP in the Santa Clara Valley via On-site Inspection and Sampling, and anticipates identifying many more as on-site investigations continue during the permit term. The MPCP that has been identified to date is a 20-acre property located in stormwater catchment 032SVC400 in the City of Mountain View. SCVURPPP prepared a ***High Priority Catchment Factsheet*** for this catchment that identifies the MPCP on a map, and describes all existing and planned controls in the catchment during MRP 3.0 (**Appendix A**).

The MPCP property identified in catchment 032SVC400 was targeted for On-site Inspection and Sampling because in summer 2022, the City received information that PCBs were found on the

property as part of an ongoing hazardous materials investigation. Because this property is already on their current C.4 business inspection list, the City of Mountain View staff, with support from SCVURPPP, conducted an unannounced inspection and sample collection event at the property in August 2022. During the inspection, two sediment samples were collected from inlets on the property. One of these samples had moderate PCBs concentrations (0.21 mg/kg), confirming this property is an MPCP. The Program prepared a technical memorandum for the City of Mountain View that outlines the results of the investigation and identifies the next steps for this MPCP. The City is currently reviewing the memo and preparing to implement the MPCP process at this site.

At this time, no other MPCP properties have been identified in the Santa Clara Valley. However, given the upcoming (spring 2024) planned implementation of the enhanced efforts to collect samples on private properties as part of ongoing Source Area Investigations (as described in Section 3.1), SCVURPPP anticipates that new MPCPs will be identified during 2024. As these properties are identified, all MPCPs will be subject to this new control measure program.

Other Actions to Support Implementation of the Control Program

SCVURPPP and Co-permittees conducted a number of other actions to ensure the successful implementation of the new program *Controls for Properties with Moderately Elevated PCBs or Mercury* to address MPCPs. SCVURPPP has worked with Co-permittees over the past year to develop the details of the control program, and to provide tools to support implementation. For example, SCVURPPP has developed both a template letter to inform property owners of the MPCPs control program, and a template for a *Source Property Pollutant Control Plan* that Co-permittees can provide to Property Owners so they can develop their site-specific control plans. SCVURPPP has also developed a fact sheet that identifies the types of controls/BMPs that will likely be needed on MPCPs to prevent release of sediment-bound PCBs or mercury from the property. Drafts of the *Source Property Pollutant Control Plan* template and the factsheet are provided in **Appendix B**.

In addition, as described earlier in this section, all Co-permittees that have high priority OI land areas within their jurisdictions began reviewing their existing municipal codes over the past year. The purpose of the review is to ensure adequate authority to implement the new control program for MPCPs as described above, as well as other new MRP 3.0 requirements. To date, the outcomes of these reviews have varied across Co-permittees, as described earlier in this section. These efforts are currently on-going and SCVURPPP will provide updates on the outcomes of these actions in future reports to the Regional Water Board.

3.3 Abatement of Highly Elevated PCBs or Mercury Source Properties

Control Measure Description

This control program is a continuation of the efforts implemented by SCVURPPP and Co-permittees since MRP 1.0. This program targets properties that contribute highly elevated PCBs (≥ 0.5 mg/kg in sediment) or mercury (≥ 1.0 mg/kg in sediment) to stormwater and is conducted in parallel to the control program for MPCPs. Highly elevated PCBs or mercury source properties are identified through research and monitoring (i.e., Source Area Investigations). Subsequent abatement of these source properties combined with focused control measure implementation in the public ROWs associated with these source properties can provide significant PCBs or mercury load reduction benefits. Property abatement may occur via actions taken by a property owner/manager voluntarily or as an outcome of enforcement actions brought against property owners by Co-permittees or through referrals to regulatory agencies (e.g., Regional Water Board, USEPA, etc.). Upon referral, Co-permittees conduct (or cause to

be conducted) interim enhanced O&M activities in the public ROW adjacent to referred properties or implement downstream treatment measures. These interim measures are intended to intercept historically deposited PCBs or mercury-laden sediment and prevent further discharge of PCBs or mercury from the source area until the property abatement is complete.

Abatement of Highly Elevated PCBs Source Properties provides the greatest PCBs load reduction benefit of all control measure programs (i.e., more than 20 times greater than the next most beneficial control measure). As such, identifying and abating highly elevated PCBs source properties has been and remains the most effective control measure for reducing PCBs loads from OI land areas in the Santa Clara Valley. The BASMAA Source Control Load Reduction Accounting for RAA document (BASMAA 2022) that Co-permittees are required to use for calculating pollutant load reductions during MRP 3.0 does not currently provide a method to account for mercury load reductions for source property abatement. However, if monitoring data demonstrate PCBs source properties are also mercury source properties (i.e., mercury ≥ 1.0 mg/kg in sediment), Co-permittees will evaluate the available data and develop a method to account for mercury load reductions that will occur as a result of property abatement actions, pending Regional Water Board approval of the new methodology.

Planned/Ongoing Implementation During MRP 3.0

The *Abatement of Highly Elevated PCBs or Mercury Source Properties* program has continued since the adoption of MRP 3.0 and will continue during the entire permit term. Through on-going source area investigations, SCVURPPP has recently identified ten (10) highly elevated PCBs source properties (70 acres) that will require abatement actions during MRP 3.0. These 10 properties are located in 7 different catchments in the Cities of Palo Alto, San Jose, and Santa Clara. The current status and planned actions to address each of these highly elevated PCBs source properties is summarized below. Additional information, including maps that identify each confirmed source property, the potential enhanced O&M activities, and other on-going or planned controls in the seven (7) catchments targeted for source property referrals during MRP 3.0 is detailed in the ***High Priority Catchment Factsheets*** provided in **Appendix A**.

Palo Alto Highly Elevated PCBs Source Property – Catchment 031SCH250

In January 2024, the City of Palo Alto submitted a source property referral to the Regional Water Board for a 19.3 acre multi-parcel property located at 3130-3100 Hansen Way and the parking lot of the property at 1001 Page Mill Road. The referral included an enhanced O&M plan which was approved by Regional Water Board staff prior to referral submission. The enhanced O&M plan entails an annual video and cleanout of the main public storm drain line that runs under the source property and continues downstream through the catchment. The City of Palo Alto is planning to conduct the first video and storm drain line cleanout during the upcoming dry season (summer 2024).

San Jose Highly Elevated PCBs Source Properties – Catchments 051CTC275, 051CTC400, 051CTC450, 067SCL080 and 083GAC900

Eight of the recently confirmed source properties are located in 5 stormwater catchments in the City of San Jose, including:

- 1815 - 1775 Monterey Road and 60-64 Barnard Ave (13 acres);
- 1800-1900 Monterey Road (14 acres);
- 1788 Rogers Ave (1.9 acres);
- 1726 Rogers Ave (1.4 acres);
- 1645 Old Bayshore Highway (0.24 acres);
- 701 Kings Row (4.0 acres);

- Railroad easement (5.7 acres);
- 520 North Marburg Road (8.9 acres).

The City of San Jose is planning to submit referrals to the Regional Water Board for all of these properties during MRP 3.0. City staff are currently evaluating the enhanced O&M actions that could be implemented in the vicinity of these properties and preparing the referral paperwork. During the next few months, City staff will reach out to Regional Water Board staff to discuss these properties and receive approval for the enhanced O&M plans. The City is considering other enhanced O&M options for properties without stormwater treatment systems and high-flow capacity stormwater treatment systems (i.e., HDS units) in downstream locations that drain the confirmed source properties, including storm drain line flush and capture, street sweeping, enhanced storm drain inlet and pump station cleanouts. The City anticipates submitting referrals to the Regional Water Board for six of the properties this year, and the remaining two properties in the following year.

Santa Clara Highly Elevated PCBs Source Property – Catchment 066GAC150

The final confirmed source property is a 1.9-acre property located at 280 Martin Avenue. Program and City staff are currently evaluating the available options to address this property, which may include submission of a new source property referral to the Regional Water Board during MRP 3.0. The City may also decide to work directly with the property owner to abate or cause the property to be abated. SCVURPPP and City staff are also currently evaluating appropriate enhanced O&M actions that could be implemented in the vicinity of this confirmed source property.

3.4 Control Program for Public ROW Areas in Catchments with High Priority OI Land Areas

Control Measure Description

This control program focuses on high priority catchments with moderately or highly elevated PCBs or mercury where a source property cannot be identified via source area investigations. If PCBs or mercury source properties cannot be identified in high priority catchments through the investigation process, Co-permittees will evaluate how alternative controls (e.g., enhanced O&M activities) may address PCBs or mercury in the applicable public ROW areas within the catchment.

The set of alternative controls evaluated will be site-specific and will focus on intercepting PCBs or mercury from the public ROW within catchments with observed (and verified) moderate or high levels of PCBs or mercury. An evaluation process will take place after a source area investigation has been completed in the catchment. The evaluation process will help Co-permittees identify the best control measure options for a given location. This process will follow the control measure evaluation and selection process that is outlined in the Clean Watersheds for a Clean Bay (CW4CB) Guidance Manual that was developed by BASMAA (2017). The CW4CB control measure selection process was developed to assist municipal agencies in selecting control measures at the site or catchment scale to address PCBs or mercury in municipal stormwater runoff. Controls in the CW4CB Guidance Manual include enhanced O&M activities (e.g., street sweeping, catch basin cleaning, pipe cleaning) and retrofitting public streets with GSI or other stormwater treatment controls (i.e., media filters, HDS units, etc.). The CW4CB evaluation and selection process identifies the factors that should be considered for each of these types of controls, including cost; load reduction potential; opportunity/feasibility; safety, and implementation challenges. Additional control-measure specific and site-specific factors are also identified for consideration in the CW4CB Guidance Manual. These factors will

be incorporated into a control measure scoring spreadsheet that will be used to score and rank the different controls for specific situations. This evaluation process will serve as the basis for control measure selection to address public ROW areas in high priority catchments where PCBs or mercury source(s) cannot be identified.

Planned/Ongoing Implementation During MRP 3.0

Implementation of the *Control Program for Public ROW Areas in Catchments with High Priority OI Land Areas* in a given location during MRP 3.0 is contingent on first completing the source area investigation process within that catchment. Because Source Area Investigations are currently ongoing or planned in all catchments that contain OI land areas that are available for controls, no catchments are currently targeted for this control program. However, as the permit term progresses, if Source Area Investigations are completed in a catchment and moderately or highly elevated PCBs or mercury source properties are not identified, then Co-permittees will delineate the drainage area and follow the process described in the CW4CB Guidance Manual to select and implement additional controls to reduce stormwater loads of PCBs or mercury from the catchment.

4. OTHER CONTROL MEASURE PROGRAMS

This section presents information about ongoing planning and implementation of *Other Control Measures* that may provide important PCBs and mercury load reduction benefits when implemented on OI land areas. Other Control Measures include:

- Green Stormwater Infrastructure (GSI):
    - Parcel-based Low Impact Development (LID);
    - Public Green Streets and Regional GSI Projects;
- High-Flow Capacity Stormwater Treatment Systems (e.g., HDS Units); and
- Inlet-based Stormwater Screening Devices.

These types of controls are primarily implemented for purposes other than the reduction of PCBs or mercury, and often by private parties to address stormwater impacts associated with their properties. This section describes these types of controls and the assessment that Co-permittees will conduct to confirm if these controls will provide PCBs and mercury load reduction benefits when implemented in catchments that may not have verification monitoring demonstrating moderately or highly elevated PCBs or mercury concentrations in stormwater. This section also describes a new monitoring program that is under development to provide data to evaluate the collective benefits of these control measures at the catchment scale.

4.1 Green Stormwater Infrastructure

Control Measure Description

GSI uses vegetation, engineered soils, and natural processes to manage water and create healthier urban environments. GSI can treat stormwater to remove pollutants and protect water quality, store stormwater (direct water to stable storage areas away from roads and other development), and infiltrate treated water back into the groundwater table (replenishing the groundwater table). At the scale of a neighborhood or project site, GSI refers to stormwater management systems and features that mimic nature by absorbing and storing water. The two major categories of GSI measures that will be implemented during MRP 3.0 are described below.

- Parcel-based Low Impact Development (LID) - All Co-permittees' currently require developers to submit applications for proposed new development and redevelopment projects to their Planning Departments for approval prior to construction. All projects that exceed the MRP 3.0 Provision C.3.b thresholds for Regulated Projects are required to implement LID techniques. In addition, all stormwater treatment on Regulated Projects must meet the C.3.d numeric sizing criteria for stormwater treatment systems. Implementation of LID through redevelopment activities on private and public properties has been and will continue to be one of the most effective control measures available for reducing pollutant loads from OI land areas.
- Public Green Streets and Regional GSI Projects – These types of projects include retrofit of GSI into existing developed areas within the public ROW or on public parcels. Along or within a street or public ROW, these measures are referred to as Green Street measures. When parcel-based GSI measures capture runoff from on-site and off-site areas, they are referred to as Regional Projects. Generally located on publicly-owned lands, Regional Projects may involve collaboration among multiple municipalities and/or public agencies to construct large GSI projects that capture and treat stormwater from large drainage areas.

Current and Anticipated Level of Implementation

Parcel-based Low Impact Development (LID)

All SCVURPPP Co-permittees are continuing to use their planning authorities to ensure that applicable new development and redevelopment projects address stormwater runoff pollutants through the implementation of LID techniques, as required by MRP 3.0 Provision C.3. The majority of the processes and programs needed for Co-permittees to implement these requirements are already in place and Co-permittees plan to continue these efforts, as well as enhance and update systems and processes as needed to ensure new requirements in MRP 3.0 will be fully implemented.

Table 4.1 and Figure 4.1 present the OI land areas that have been or are anticipated to be redeveloped during MRP 3.0.[7,8,9] Countywide, 40 acres of OI land areas have been redeveloped as C.3 Regulated Projects since July 1, 2021, the cutoff date for accounting for actions implemented in compliance with MRP 3.0 Provisions C.11/12.c. Of these 40 acres, 15 acres are located in high priority catchments with moderately or highly elevated PCBs. Another 18 acres are located in undetermined priority catchments that have not yet been monitored, and the remaining 7.4 acres are in low priority catchments where monitoring to date has only found low levels of PCBs. There are also an estimated 422 acres of OI parcels that are currently anticipated to undergo redevelopment during MRP 3.0. Of these 422 acres, 185 acres are located in high priority catchments, 123 acres are located in undetermined priority catchments, and 113 acres are in low priority catchments.

While it is possible that not all of the “anticipated” GSI/LID projects summarized in Table 4.1 will be completed by the end of the MRP 3.0 term due to project delays, Co-permittees anticipate that the majority of these projects will be constructed by June 30, 2027. Further, there will likely be additional LID facilities constructed via redevelopment projects not included in these estimates that will be constructed during the permit term due to the reduced thresholds in MRP 3.0 for Regulated Projects, which became effective in July 2023.

All existing and planned/anticipated parcel-based LID projects that are located in undetermined and low priority catchments will be required to demonstrate PCBs or mercury load reductions achieved in order to claim credit for these projects under C.11/12.c. This information may include new monitoring data, information on historical parcel use, hazardous materials information from environmental impact reports (EIRs), etc. Co-permittees will conduct an assessment of each completed parcel-based LID project prior to claiming PCBs or mercury load reduction credit under C.11/12.c. Available information will be compiled and evaluated during the assessment to determine if there is adequate justification to claim a PCBs or mercury load reduction credit for a GSI/LID project.

[7] Based on information available as of the writing of this report.

[8] Projects completed between July 1, 2021 and June 30, 2027 are eligible for load reduction credit under MRP 3.0.

[9] Co-permittees identified “anticipated” LID projects by reviewing project permit applications received as of approximately December 2022. Projects that qualify as C.3 Regulated Projects deemed likely to be completed during the permit term that will address OI land areas were identified.

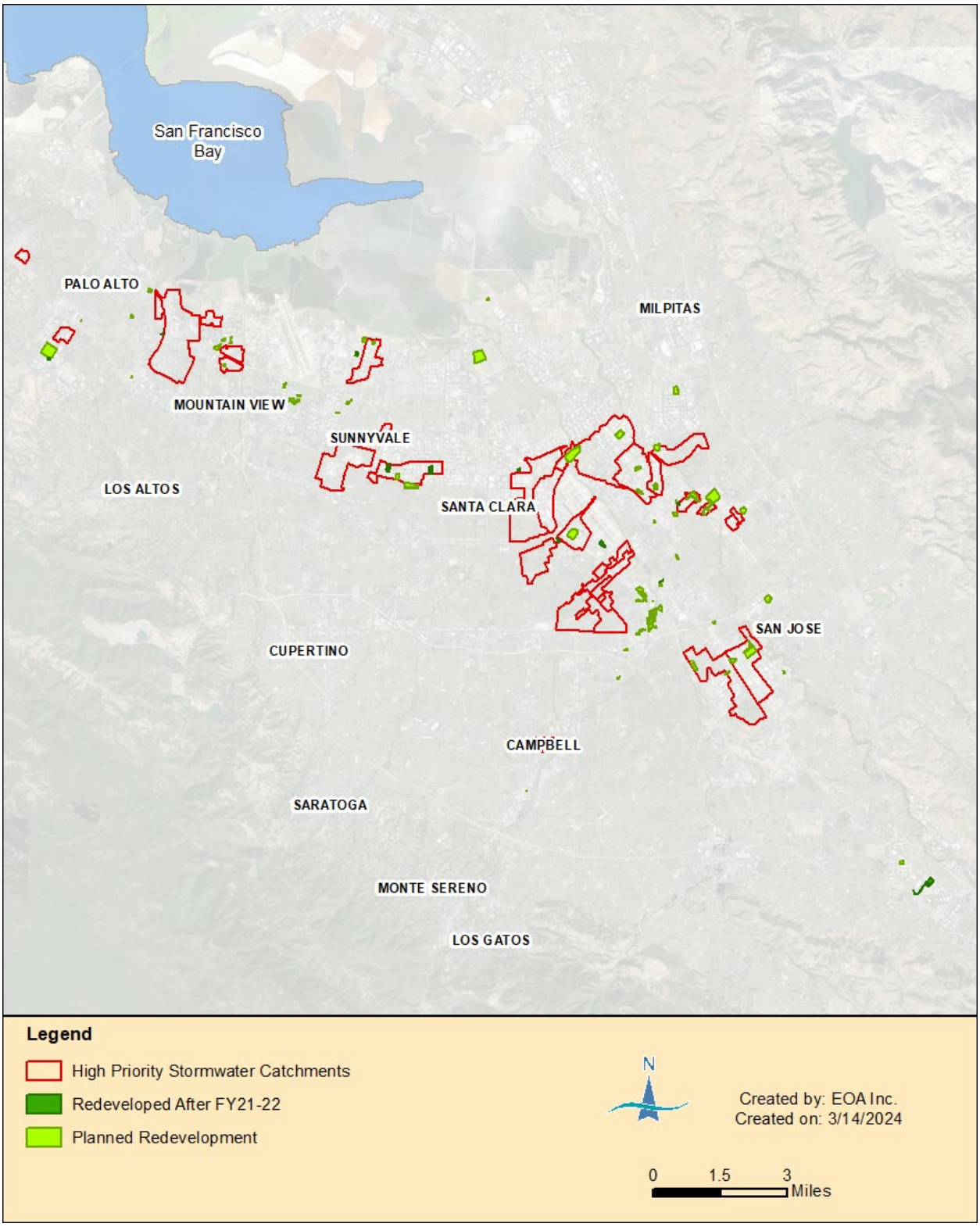

Figure 4.1. Locations where parcel-based Low Impact Development (LID) projects have been recently completed or are anticipated during MRP 3.0, including those within high priority catchments with moderately or highly elevated PCBs.

Table 4.1. Extent of land areas in high, undetermined and low priority catchments[a] in the Santa Clara Valley where parcel-based Low Impact Development (LID) projects have been recently completed or are anticipated during MRP 3.0.

Catchment Priority	SCVURPPP Co-permittee	Parcel-based LID Redevelopment Projects in MRP 3.0 (Acres of OI Parcels)		
		Constructed	Anticipated/ Planned	Total
High	Campbell	0.3	1.7	2.0
	Mountain View		1.3	1.3
	San Jose	1.5	154	156
	Santa Clara	5.8	21	27
	Sunnyvale	7.1	6.8	14
	Subtotal	***15***	***185***	***200***
Undetermined	Campbell		0.4	0.4
	Mountain View		4.3	4.3
	Palo Alto	2.3	7.9	10
	San Jose	16	55	71
	Santa Clara		36	36
	Sunnyvale		20	20
	Subtotal	***18***	***123***	***141***
Low	Mountain View		26	26
	Palo Alto		47	47
	San Jose	0.7	37	38
	Santa Clara	3.7		3.7
	Sunnyvale	3.0	3.4	6.4
	Subtotal	***7.4***	***113***	***120***
	Totals	**40**	**422**	**462**

[a] High priority catchments have moderate/high PCBs in the catchment based on monitoring data; Undetermined priority catchments have not yet been monitored, and Low priority catchments have low PCBs in the catchment based on monitoring to date.

To further support these efforts, and in general, provide more data to better understand the PCBs or mercury load reduction benefits of LID projects at the catchment scale, SCVURPPP Co-permittees are also developing a new monitoring program that will begin during MRP 3.0. The full details of this new monitoring effort are still under development, but the overall plan is to identify catchments with completed C.3 LID projects, for which pre-redevelopment PCBs or mercury data are available (at the catchment, sub-catchment, or parcel scale). Post-redevelopment monitoring will be conducted and the results compared to pre-redevelopment monitoring data. The Program has already identified one catchment (017PMC600) in the Santa Clara Valley where this type of monitoring is currently being planned. Catchment 017PMC600, located in the City of Mountain View, will be targeted for post-redevelopment monitoring during the permit term. Additional information about this catchment, including a map of existing monitoring data, the extent of existing C.3 redevelopment, and other controls in the catchment is provided in the ***High Priority Catchment Factsheet*** (**Appendix A)**.

The Program is also reviewing existing monitoring data and locations of recent redevelopment to identify other locations where this type of post-redevelopment monitoring could be conducted and compared to pre-redevelopment monitoring data.

Green Streets and Regional GSI Projects

Co-permittees are also continuing to implement their Municipal GSI Plans[10] that were developed during MRP 2.0 to identify, prioritize, design and implement public GSI projects during MRP 3.0. These efforts include the following actions:

- Annual reviews of Capital Improvement Plan (CIP) projects to identify any opportunities to incorporate GSI into CIP projects and evaluate feasibility. As part of this review, Co-permittees are conducting site reconnaissance, drainage area delineation, and cost analysis to determine which projects can include a GSI component;
- Evaluation of non-CIP project opportunities;
- Coordination with private development – Co-permittees continue to explore options for working with private property developers to install GSI facilities in public ROWs near redeveloped properties, such as along street frontages;
- Evaluation of opportunities identified in SCVURPPP's Stormwater Resource Plan (SWRP);
- Redevelopment in OI/moderate PCBs or mercury areas – Co-permittees are exploring opportunities to install GSI facilities in these areas as they are redeveloped;
- Continue to update and maintain the list of GSI projects that are planned for implementation, and infrastructure projects that have potential for GSI measures (Co-permittees submit these lists to the Regional Water Board each year with Annual Reports); and
- Continue to explore future funding options and identify resources for implementing GSI projects.

Co-permittees will continue to evaluate the extent of implementation, feasibility, locations, and funding options for additional GSI project opportunities during MRP 3.0. These new analyses may focus on the increased emphasis on addressing OI land areas, as well as the new C.3.j numeric GSI retrofit requirements in MRP 3.0. For the Santa Clara Valley, the countywide numeric retrofit target identified in MRP 3.0 Provision C.3.j is 46.09 acres of area treated by GSI projects during the permit term. Each municipal agency is required to address between 0.2 and 5.0 acres (prorated based on population) of land area via GSI retrofit projects.

In addition to the planning underway by each Co-permittee to address Provision C.3.j targets, there is also one large regional project in the City of San Jose that is currently under construction. This project is shown on Figure 4.2 and summarized below.

- River Oaks Stormwater Capture Project - The City of San Jose received grant funding to support this project and the City provided matching funds. Construction began in 2023

[10] City of Campbell 2019, City of Cupertino 2019, City of Los Altos 2019, City of Milpitas 2019, City of Monte Sereno 2019, City of Mountain View 2019, City of Palo Alto 2019, City of San Jose 2019, City of Santa Clara 2019, City of Saratoga 2019, City of Sunnyvale 2019, County of Santa Clara 2019, Town of Los Gatos 2019, Town of Los Altos Hills 2019

and will be completed in 2024. The project will collect and treat stormwater runoff from approximately 344 acres of impervious and pervious surfaces prior to its discharge into the Guadalupe River. The catchment is primarily high-density residential and commercial land uses, with some open space. The project will modify the existing pump station and retrofit the existing stormwater detention basin to divert and treat stormwater runoff, and also convert the site into a publicly accessible bioretention area with recreational, aesthetic and educational features. The project will divert both dry and wet weather flows from the existing pump station into a large bioretention basin that will provide stormwater treatment prior to discharge to the Guadalupe River. The site where the bioretention basin will be constructed currently contains a stormwater detention basin used for flood control. The treated flows from the bioretention basin will be captured by underdrains and discharged to the Guadalupe River by a new pump station.

Additionally, SCVURPPP and Co-permittees are working through the Bay Area Municipal Stormwater Collaborative (BAMSC) to identify new funding sources for GSI implementation in the Santa Clara Valley and throughout the region. One such funding source is the new Region 9 USEPA San Francisco Bay Program Office established through recent federal legislation. The new SF Bay Program Office anticipates receiving federal funding annually to support the implementation of projects that protect and restore the SF Bay. The current priority list for projects includes those that implement GSI and address the PCBs TMDL for the SF Bay. SCVURPPP is currently working with the BAMSC to establish a process at the regional scale to identify, rank, and select high priority projects for funding consideration through the new SF Program Office. SCVURPPP will provide updates on the status of establishing and implementing this new project prioritization and selection process in future reports to the Regional Water Board.

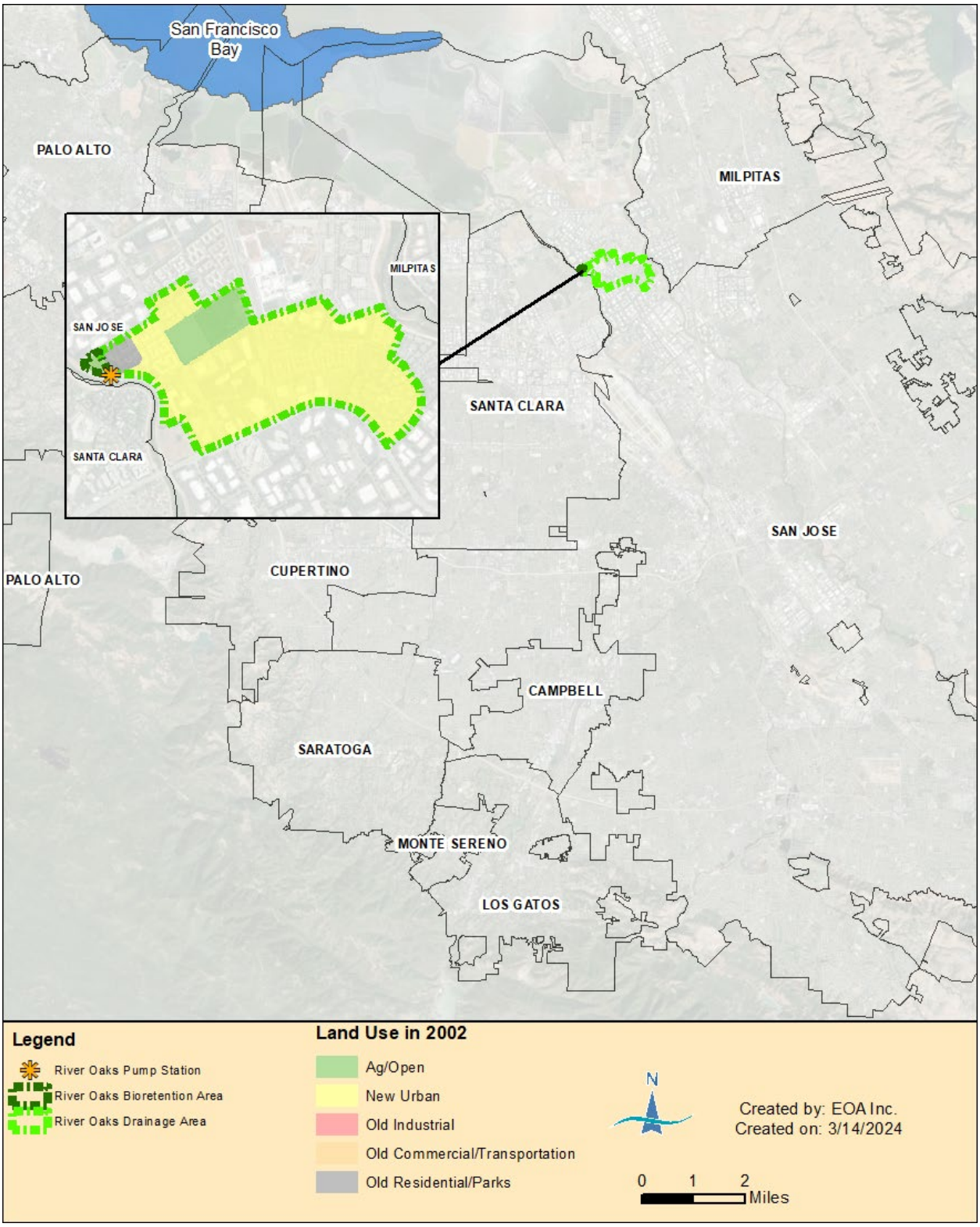

Figure 4.2. Planned location and drainage area of the anticipated River Oaks Stormwater Capture Project in the City of San Jose, CA.

4.2 Other Types of Stormwater Treatment Systems

Control Measure Description

The stormwater treatment systems described in this section are devices or series of devices that trap all particles retained by a 5 mm mesh screen and have a design treatment capacity of not less than the peak flow rate resulting from a one-year, one-hour storm in the tributary drainage catchment area. These devices are grouped into two general categories: 1) high-flow capacity systems that treat stormwater runoff from hundreds of acres (i.e., large devices), and 2) inlet-based stormwater screening devices that typically treat stormwater runoff from two or less acres of land (i.e., small devices). Because the State Water Board has certified a variety of these proprietary devices as achieving full trash capture, these systems are primarily installed for the purposes of MRP Provision C.10 (trash load reduction) compliance. However, when installed in drainages that contain moderately or highly elevated PCBs or mercury, these systems also reduce PCBs and mercury in direct proportion to the total suspended solids (TSS) removal efficiency (BASMAA 2018).

High-flow capacity stormwater treatment systems include hydrodynamic separators (HDS), debris separating baffle boxes (DSBBs), and gross solids removal devices (GSRDs). HDS devices are flow-through structures that use the tangential forces created by the incoming flow of water to separate trash, debris and sediment, oil and other pollutants from stormwater. These devices rely on a circular chamber to swirl the flow and a settling or separation unit to remove pollutants. Baffle boxes are subsurface rectangular vaults that are placed in line with the storm drain system to reduce pollutant loadings by capturing sediments, gross solids, and associated pollutants. Treatment mechanisms typically include filtration, hydrodynamic separations, and adsorption. These units are installed as sub-surface vaults commonly subdivided into a series of chambers by vertical baffles that interrupt the stormwater flow and promote capture of suspended particles by sedimentation. GSRDs use various screening technologies to remove trash, debris, and solids 5 mm and larger from stormwater runoff. These screens provide treatment by preventing solids larger than the screen opening from passing through. The PCBs and mercury removal efficiencies for these high-flow capacity stormwater treatment systems range from 14% (GSRDs) to 20% (HDS and Baffle boxes) (BASMAA 2022).

Inlet-based stormwater screening devices are generally screens or baskets that are installed in storm drain inlets and typically treat stormwater runoff from an acre or less of land. These devices can also provide PCBs or mercury load reductions due to the trapping and removal of contaminated sediment. When maintained appropriately, the PCBs and mercury removal efficiencies for these devices is approximately 18% (BASMAA 2022).

Current and Anticipated Level of Implementation

During MRP 3.0, Co-permittees are continuing to evaluate and plan for the installation of additional high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices in the Santa Clara Valley to achieve trash, PCBs and mercury load reduction benefits. The systems that have been installed during MRP 3.0 to date, or are planned (i.e., currently funded) or proposed (currently undergoing feasibility analysis) for installation during MRP 3.0 and their estimated drainage areas are shown on Figure 4.2. The locations of OI land areas that are/will be treated by these systems are also shown on Figure 4.2. Tables 4.2 and 4.3 present additional information about installed and planned treatment systems shown on Figure 4.2. Since July 1, 2021, Co-permittees have installed 227 new inlet-based stormwater screening devices in high priority stormwater catchments with moderately or highly elevated PCBs, and are currently planning to install one new high-flow capacity stormwater treatment system that will treat 145 acres of OI parcels in a high priority catchment during the permit term

(Table 4.2). Additional systems and devices have been installed during the permit term that are located in catchments containing undetermined or low priority OI areas (Table 4.3). These systems address about 11 acres of OI land areas.

Additional information on the drainage areas and locations of newly installed or planned devices that are located in high priority catchments is detailed in the ***High Priority Catchment Factsheets*** provided in **Appendix A**. Installations of high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices that are not located in high priority catchments will require additional information to demonstrate PCBs or mercury load reductions. For the purpose of C.11/12.c performance metrics, the PCBs or mercury load reduction credit for these projects will only apply to those projects that can provide sufficient evidence of PCBs or mercury in the treated catchment. The assessment that will be conducted to demonstrate this is the same as that described for LID/GSI projects in Section 4.1.

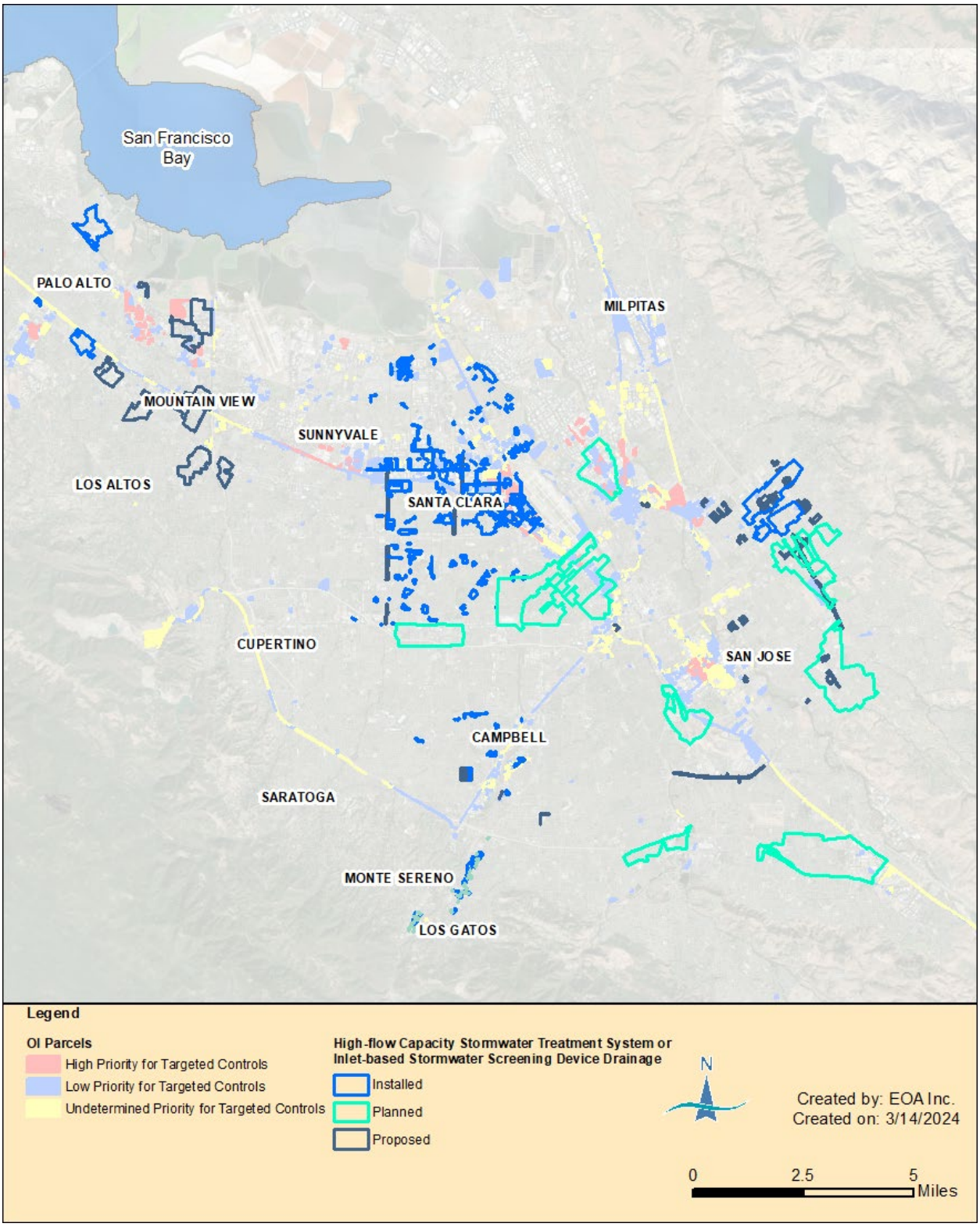

Figure 4.3. Drainage areas for high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices installed, planned or proposed for installation during MRP 3.0.

Table 4.2 Drainage areas and associated land uses for high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices installed or planned for installation during MRP 3.0 in high priority stormwater catchments with moderately or highly elevated PCBs or mercury.

Co-permittee	High Priority Stormwater Catchment	Status (Installed after July 1, 2021 or Planned)	Device Type	Device Count	Acres Treated					
					Old Industrial	Old Commercial/ Old Transportation	Old Residential	New Urban	Ag/Open	Totals
San Jose	050GAC020	Planned	High-flow capacity Stormwater Treatment	1	--	1.4	--	--	1.1	2.6
	051CTC275				141	166	1.7	102	28	438
	051CTC400				4.3	3.1	--	8.0	0.01	15
	066GAC550				0.14	0.12	--	0.07	--	0.33
	Other - San Jose				0.00	0.45	--	--	0.32	0.77
				Subtotal	***145***	***171***	***2***	***110***	***29***	***457***
Santa Clara	049CZC800	Installed	Inlet-based Stormwater Screening Device	10	4.8	9.3	--	4	0.1	18
	050GAC400			120	34	77	103	1.3	0.6	216
	050GAC580			63	55	13	0.2	4.2	0.00	73
	066GAC150			34	2.6	12	1.2	0.8	0.00	16.4
				Subtotal	***96***	***111***	***104***	***10***	***0.70***	***323***
			Totals	**235**	**242**	**282**	**106**	**121**	**30**	**781**

Table 4.3. Drainage areas and associated land uses for high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices installed during MRP 3.0 in undetermined or low priority stormwater catchments.

Co-permittee	Stormwater Catchment ID	Status (Installed after July 1, 2021 or Planned)	Device Type	Acres Treated					
				Old Industrial	Old Commercial/ Old Transportation	Old Residential	New Urban	Ag/Open	Totals
Campbell	113LGC010	Installed	Inlet-based Stormwater Screening Device	2.3	3.8	0.0	1.8	--	8.0
	113LGC140			--	0.3	1.6	--	--	1.9
	Other - Campbell			--	19	28	--	--	47
	Other - San Jose			--	--	0.0	--	--	0.0
Cupertino	Other - Cupertino	Installed	Inlet-based Stormwater Screening Device	--	0.1	--	--	0.6	0.7
Los Gatos	Other - Los Gatos	Installed	Inlet-based Stormwater Screening Device	--	15	2.6	--	0.0	17
Palo Alto	Other - Palo Alto	Installed	High-flow capacity Stormwater Treatment	4.5	105	84	34	89	317
	016MTC910	Installed	Inlet-based Stormwater Screening Device	--	4.2	0.7	--	--	4.9
	Other - Palo Alto			--	0.2	--	--	--	0.2
Santa Clara	049STA050	Installed	Inlet-based Stormwater Screening Device	0.8	1.9	1.1	0.7	--	4.5
	049STA300			2.1	7.4	--	1.4	--	11
	Other - Santa Clara			1.1	126	183	23	4.1	337
	Other - Santa Clara County			--	--	0.0	--	--	0.0
Sunnyvale	Other - Sunnyvale	Installed	Inlet-based Stormwater Screening Device	--	2.0	1.5	--	0.7	4.2
Totals				**11**	**285**	**301**	**61**	**95**	**753**

In addition to installed and planned stormwater treatment systems described above, SCVURPPP conducted a GIS analysis to identify new opportunities for both high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices within the Santa Clara Valley. This analysis is focused on identifying locations that would provide load reduction benefits for PCBs, mercury and trash. This analysis identified all overlapping areas in the Santa Clara Valley that met each of the following criteria:

1. OI land areas that are potentially available for controls during MRP 3.0; and
2. Areas that have moderate, high, or very high baseline levels of trash generation that are not currently addressed by existing (or planned) GSI or stormwater treatment systems; and
3. Areas that are located in high priority moderate/high PCBs or mercury catchments.

These areas represent potential locations where multiple benefits may be possible for reductions of PCBs, mercury and trash. The results identify locations where additional systems/devices will be considered during MRP 3.0 to address multiple pollutants. These multi-benefit areas based on the analysis conducted to date are illustrated in Figure 4.2.

The final step of this GIS/desktop analysis involved a careful review of the storm drain infrastructure configuration and other features within the areas of potential multi-benefit, to further evaluate the feasibility of installing and operating stormwater treatment systems in these areas. The results of this analysis to date have identified 23 high priority catchments that contain moderately or highly elevated PCBs that are potentially good candidates for high-flow capacity stormwater treatment systems or inlet-based stormwater screening devices to achieve multi-benefit PCBs, mercury and trash load reductions. The OI land areas within these catchments that overlap with significant trash generating areas total 309 acres. Another 266 acres of undetermined-priority OI land areas were also identified that overlap with significant trash generating areas. As verification monitoring of these undetermined priority OI land areas continues during the permit term, additional information will be available to determine if these locations are also good candidates based on the potential to provide multi-benefits.

In a related analysis, the City of San Jose has identified inlets in the City that are prioritized for potential installation of inlet-based stormwater screening devices based on trash load reduction needs. SCVURPPP staff reviewed these inlet locations and stormwater treatment devices, if feasible. As verification monitoring of undetermined priority catchments continues during the permit term, additional information will be available to determine if other inlets are also good candidates based on the potential to provide multi-benefits.

The next step is for Co-permittee staff to ground truth the information provided above by visiting the prioritized sites and making observations and measurements of the critical features necessary to identify whether a stormwater treatment device can be installed at the location of interest. One source of potential funding that Co-permittees are actively pursuing is through Caltrans' Cooperative Implementation Agreements (CIAs). As part of this step, locations that are not good candidates for high-flow capacity devices will be considered for multiple inlet-based devices. As a last step in the analysis, Co-permittees will evaluate resources and determine the feasibility of installing and maintaining stormwater treatment devices at the given locations. The feasibility analysis will include consideration of the initial funds needed to purchase and install each device, as well as the ongoing staffing resources that will be required to operate and maintain each device in the future.

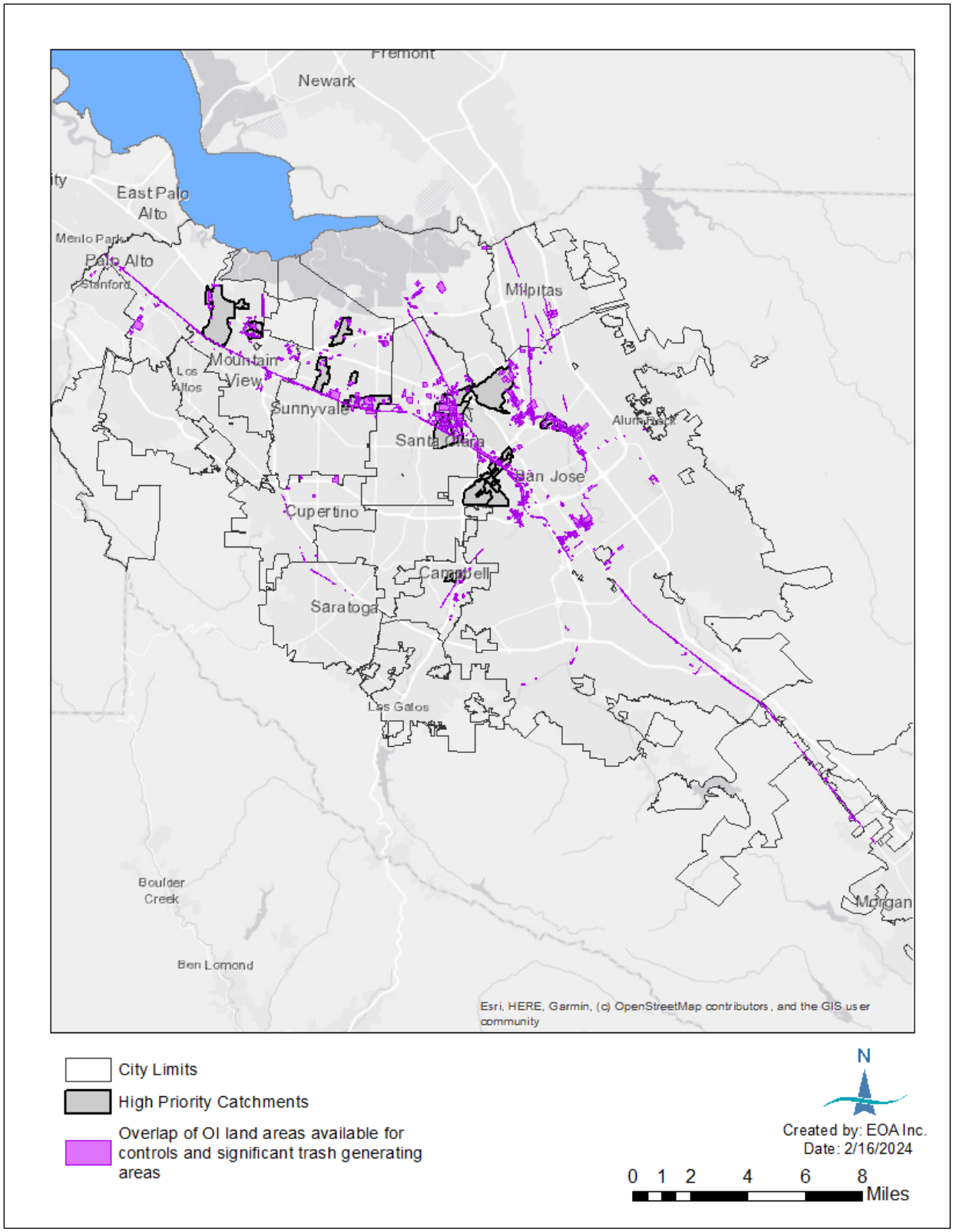

Figure 4.4. Areas of potential multi-benefit for PCBs, mercury and trash load reductions in the Santa Clara Valley.

5. ESTIMATED POLLUTANT LOAD REDUCTIONS

This section presents the estimated load reductions of PCBs and mercury that are anticipated to occur as a result of the continued, enhanced, and new control measures described in Sections 3 and 4. All load reductions were calculated using the accounting methodologies in BASMAA (2022).

5.1 Targeted Control Measure Programs

The estimated maximum annual PCBs and mercury load reductions that may be achieved by Co-permittees via implementation of *Targeted Control Programs* described in Section 3 were calculated based on the following assumptions:

- 70 acres of highly elevated PCBs source properties recently identified by Co-permittees but not yet been referred to the Regional Water Board will be referred during MRP 3.0; the associated enhanced O&M in public ROWs adjacent to the source properties will be implemented by Co-permittees; and Co-permittees will be credited for 50% of the PCBs load reduction associated with these properties.
- 50 new acres of highly elevated PCBs source properties will be identified (i.e., 2.6% of the ~2,000 acres of OI land areas that require either Verification Monitoring or Source Area Investigation to identify sources) and referred to the Regional Water Board during MRP 3.0; the associated enhanced O&M in public ROWs adjacent to the source properties will be implemented by Co-permittees; and Co-permittees will be credited for 50% of the PCBs load reduction associated with these properties.
- 20 acres of MPCPs identified to date in Mountain View will be addressed as Mountain View staff work with the property owner to implement control measures on the property during MRP 3.0; Co-permittees will be credited for the associated PCBs load reduction.
- 400 new acres of MPCPs will be identified (i.e., 20% of the 2,000 acres of OI land areas that require either Verification Monitoring or Source Area Investigations to identify sources); Co-permittees will be able to successfully work with the appropriate parties (e.g., property owners or managers) to implement control measures on the properties during MRP 3.0; and Co-permittees will be credited for the associated PCBs load reduction.
- PCBs loads reduced for abatement of highly elevated source properties is 5 g/acre/yr and loads reduced for controls implemented on MPCPs is 0.2 g/acre/yr.
- No mercury load reductions for targeted controls are currently accounted for in this Plan. During the permit term, Co-permittees may propose accounting methodologies for moderately and highly elevated mercury source properties and submit to the Regional Water Board for approval.

Control measures described in Section 3 and implemented based on the assumptions above would address 540 acres of OI parcels in high priority catchments with moderate/high PCBs and provide up to 390 g/yr of PCBs load reduction in the Santa Clara Valley. Abatements of all newly identified source properties (both highly and moderately elevated) however are unlikely to be completed by the end of the permit term. As listed in Table 5.1, a more conservative “best” estimate of PCBs load reduction that will be realized during MRP 3.0 via *Targeted Control Programs* is 50% of the 390 g/yr load reduction (i.e., 195 g/yr). Of this amount, the best estimate for the load reductions that will be achieved via controls on moderate PCBs properties (i.e., in

compliance with C.12.c) is 44 g/yr of PCBs load reduction. Note, there are assumed to be no mercury load reduction benefits via abatement of PCBs source properties. However, if mercury concentrations are elevated at any of these moderate or high PCBs source properties prior to abatement, then mercury load reduction benefits will be evaluated.

5.2 Other Control Measures

The estimated maximum annual PCBs and mercury load reductions that may be achieved by Co-permittees via implementation of the *Other Control Programs* described in Section 4 were calculated based on the following assumptions:

- 15 acres of parcel-based LID facilities constructed after July 1, 2021 address OI parcels located in high priority catchments that have moderate/high PCBs based on monitoring data.
- 25 acres of parcel-based LID facilities constructed after July 1, 2021 address OI parcels located in undetermined/low priority catchments; evidence of pre-redevelopment PCBs or mercury contamination will be provided.
- Anticipated construction of 185 acres of parcel-based LID facilities on C.3 Regulated Projects address OI parcels in high priority catchments that have moderate/high PCBs based on monitoring data by the end of MRP 3.0.
- Anticipated construction of 236 acres of parcel-based LID facilities on C.3 Regulated Projects address OI parcels in undetermined/low priority catchments by the end of MRP 3.0; evidence of pre-redevelopment PCBs or mercury contamination will be provided.
- The construction of a regional GSI stormwater capture project that will address 0.4 acres of OI, 0.42 acres of old commercial/old transportation, and 12 acres of old residential land use areas.
- 50% (23 acres) of the Provision C.3.j retrofit requirement will be implemented in high priority catchments that have moderate/high PCBs based on monitoring data.
- PCBs and mercury load reductions for parcel-based LID are calculated as the difference between the OI land use yield and the new urban land use yields, as described in BASMAA 2022.
- PCBs and mercury load reduction efficiencies are 70% for green streets and regional retrofit projects constructed in areas with evidence of moderate to high PCBs and mercury.
- Planned new high-flow capacity stormwater treatment systems will be installed in high priority catchments by the end of MRP 3.0 that will address 145 acres of OI, 171 acres of old commercial/old transportation, and 2 acres of old residential land use areas.
- 227 inlet-based stormwater screening devices installed after July 1, 2021 in high priority catchments that address 97 acres of OI, 112 acres of old commercial/old transportation, and 105 acres of old residential land use areas.
- 178 inlet-based stormwater screening devices installed after July 1, 2021 in undetermined priority catchments that address 6.4 acres of OI, 285 acres of old commercial/old transportation, and 301 acres of old residential land use areas. Evidence of PCBs or mercury contamination in the drainage area will be provided.
- One high-flow capacity stormwater treatment system installed after July 1, 2021 in an undetermined priority catchment that addresses 4.5 acres of OI, 105 acres of old

commercial/old transportation, and 84 acres of old residential land use areas. Evidence of PCBs or mercury contamination in the drainage area will be provided.

- PCBs and mercury load reduction efficiencies for high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices range from 14% to 20%, depending on the type of system installed (BASMAA 2022).

Control measures described in Section 4 and implemented based on the assumptions above would address more than 700 acres of OI parcels in high priority catchments with moderately or highly elevated PCBs. This level of control measure implementation would provide 142 g/yr of PCBs load reduction and 44 g/yr of mercury load reduction. Construction/installation of all planned GSI facilities and other stormwater treatment systems, however, are unlikely to be completed by the end of the permit term. As listed in Table 5.1, a more conservative "best" estimate of PCBs and mercury load reductions that will be realized during MRP 3.0 via *Other Control Programs* is roughly 50% of the maximum load reduction for anticipated/planned projects and 100% of the load reduction for projects that have already been completed (i.e., 77 g/yr) for PCBs and 25 g/yr for mercury.

5.3 Summary of Anticipated Load Reductions

Table 5.1 presents the estimated PCBs and mercury load reductions that are anticipated via the control measures outlined in Sections 5.1 – 5.2 as described in this Plan. All load reductions were calculated using the methods approved by the Regional Water Board Executive Officer and described in BASMAA (2022). These estimates include the maximum load reduction potential if all controls described in this Plan are implemented, as well as the best estimate and ranges for the more realistic levels of control measure implementation during MRP 3.0. The best estimates for load reductions anticipated to occur during MRP 3.0 in OI land and other land areas with moderate to high PCBs in the Santa Clara Valley are 272 g/yr for PCBs (ranging from 131 g/yr to 401 g/yr) and 25 g/yr for mercury (ranging from 13 g/yr to 35 g/yr). The majority of the PCBs load reductions during MRP 3.0 (~70%) will occur as a result of targeted control programs implemented in high priority catchments with moderately to highly elevated PCBs based on monitoring data. Excluding high PCBs source property referrals, the best estimates for load reductions that will be achieved via this Plan in moderate OI areas are 121 g/yr for PCBs and 25 g/yr for mercury. These best estimates for PCBs demonstrate that Co-permittees will be able to achieve the C.12.c load reduction requirement of 121 g/yr from OI/moderate PCBs areas during MRP 3.0. The range of likely mercury load reductions demonstrates that Co-permittees may be able to achieve the C.11.c load reduction requirement of 28 g/yr from OI/moderate mercury areas during MRP 3.0. Note, these estimates do not include any mercury load reductions for addressing moderately elevated mercury source properties. Co-permittees will need to evaluate the mercury load reduction benefits of moderate PCBs source property abatements that occur during the permit term and document the mercury load reduction benefits achieved at properties where monitoring data indicated mercury concentrations on the property were elevated. These evaluations are expected to provide additional mercury load reductions that will ensure achievement of the C.11.c load reduction requirement for mercury.

Table 5.1. Estimated PCBs and mercury load reductions anticipated to occur via the implementation of control measures identified in Sections 5.1 and 5.2 of this Plan.[a, b, c]

Control Measure	Assumptions for Estimated Loads Reduced	PCBs Loads Reduced (g/yr)				Mercury Loads Reduced (g/yr)			
		Maximum Potential	Best Estimate	Min	Max	Maximum Potential	Best Estimate	Min	Max
Targeted Control Programs	70 acres of confirmed highly elevated PCBs source properties will be referred and 50% load reduction will be credited	176	88	44	132	No mercury load reduction is currently estimated for moderately or highly elevated PCBs source property abatement, but will be evaluated during the permit term for any PCBs source properties that also have elevated mercury.			
	50 acres of new highly elevated PCBs source properties will be identified/referred and 50% load reduction will be credited	126	63	32	95				
	20 acres of currently identified MPCPs will be controlled for PCBs	4	2	1	3				
	400 acres of new MPCPs will be identified and controlled for PCBs	84	42	21	63				
	Subtotal	*390*	195	98	293				
Other Control Measures	LID facilities in high priority catchments via C.3 requirements for Regulated projects (Constructed after July 1, 2021)	4				1			
	LID facilities in medium/low priority catchments via C.3 requirements for Regulated projects (Constructed after July 1, 2021); evidence of PCBs or mercury contamination provided	7	3	2	5	1	1	0.3	0.9
	Anticipated completion of planned/potential LID facilities in high priority catchments via C.3 requirements for Regulated projects	48	24	12	36	9	5	2	7
	Anticipated completion of planned/potential LID facilities in medium/low priority catchments via C.3 requirements for Regulated projects; evidence of PCBs or mercury contamination provided	61	31	15	46	12	6	3	9
	Anticipated completion of planned regional GSI project which will address old commercial/old transportation and old residential land areas	0.3	0.2	0.1	0.2	5	2	1.2	4
	50% of the green street or regional GSI projects constructed by Co-permittees to comply with Provision C.3.j will address old industrial/moderate PCBs or mercury land use areas	4	2	1	3	1	0.5	0.3	0.8
	Anticipated high-flow capacity stormwater treatment systems installed in high priority catchments	9	5	2	7	4	2	1	3
	Inlet-based stormwater screening devices installed in high priority catchments after July 1, 2021	6				3			
	Anticipated high-flow capacity stormwater treatment systems installed in undetermined or low priority catchments; evidence of PCBs or mercury contamination provided.	1	1	0.3	1	4	2	1.0	3.0
	Inlet-based stormwater screening devices installed in undetermined priority catchments; evidence of PCBs or mercury contamination provided.	2	1	0.5	1	4	2	1.1	3.2
	Subtotal	142	77	33	109	44	25	13	35
Subtotal – Includes all controls in moderate/OI areas for credit towards MRP C.11/12.c		230	121	55	175	44	25	13	35
Totals		532	272	131	401	44	25	13	35

[a] Maximum Potential: the total load reduction that can be achieved for the maximum level of planned implementation for all controls described in Sections 3 and 4.

[b] Best Estimate: the total load reduction that can be achieved assuming only 50% of the maximum level of anticipated/planned implementation occurs and 100% implementation for control measures completed since July 1, 2021.

[c] Range: the range of load reductions that can be achieved assuming 25% to 75% of the maximum level of planned implementation occurs for all control measures.

6. PLANNING AND IMPLEMENTATION SCHEDULE

Table 6.1 provides the anticipated schedule for implementing the major control measure planning and implementation actions described in this Plan during the term of MRP 3.0. Given the uncertainties in the Plan surrounding the development and implementation of new programs, funding options, and other limitations, SCVURPPP will provide updates to this Plan via the Program's annual report to document the completion of tasks, projects, progress of ongoing evaluations and planning studies, and the addition of any new projects or controls not included in this version of the document. The annual updates will also serve to document many of the requirements of MRP Provision C.11/12 for annual reporting, including:

- Report progress on the acreage of land areas investigated, and actions taken for parcels investigated (e.g., abatement referral, enforcement, etc.);
- Source Property Referral Reports;
- Descriptions of enhanced O&M associated with Source Property Referrals; and
- Report on control measures implemented consistent with the Plan, and any modifications thereto.

Further, the information documented in the Plan and annual updates will be used to demonstrate achievement of the PCBs and mercury load reduction requirements identified in C.11/12.c, as well as document the overall loads of PCBs and mercury reduced Program-wide through implementation of all control measures during the permit term.

The Plan may also be updated and revised to reflect changing or new conditions in local watersheds, additional knowledge gained and lessons learned from ongoing control measure implementation, monitoring data, model outputs, etc. SCVURPPP will collect information from Co-permittees on an annual basis to document completed projects and level of control measure implementation achieved each year, and all associated loads reduced due to these actions. Tracking and mapping of completed GSI/LID projects will continue through the SCVURPPP Stormwater Treatment Measures (STM) Data Portal. Currently, the STM Data Portal operates as a centralized, web-based data management system with a connection to GIS platforms to track and map all completed GSI/LID projects in the Santa Clara Valley. The data portal may be updated in the future to track other types of control measures, including installation of other types of stormwater treatment systems and devices, the locations and types of enhanced O&M activities, and to document abatement on PCBs or mercury source properties (both moderately and highly elevated), as they are completed.

Additionally, this Plan does not limit SCVURPPP or any of its Co-permittees from pursuing any and all remedies that they may have in response to the MRP, including seeking funding for these mandates.

Table 6.1. Anticipated schedule for control measure planning and implementation tasks in old industrial (OI) and moderate PCBs or mercury land areas during MRP 3.0.

Control Measure - Planning and Implementation Tasks			MRP 3.0 Year				
			FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Targeted Control Programs	Verification Monitoring and Source Area Investigations	Conduct Verification Monitoring in undetermined priority catchments to confirm moderate/high PCBs or mercury					
		Conduct Targeted Public ROW investigations in high priority catchments					
		Develop new on-site inspection and sampling procedures					
		Conduct On-site Inspection and Sampling investigations					
		Review investigation results and identify new moderate/high PCBs or mercury source properties					
	Program to Control Moderate Pollutant-Contributing Properties (MPCPs)	Develop the new Program to Control MPCPs					
		Implement the new Program to Control MPCPs					
	Program to Abate High PCBs or Mercury Source Properties	For recently confirmed source properties (70 acres), evaluate options and develop plans for abatement and enhanced O&M					
		Submit referrals for high PCBs or mercury source properties to Regional Water Board and begin enhanced O&M in public ROWs					
		For new high PCBs or mercury source properties identified during MRP 3.0, evaluate options for property abatement and enhanced O&M and develop plans					
		Submit referrals for new source properties to Regional Water Board and begin enhanced O&M in public ROWs					
	Controls for Public ROW Areas in Catchments with High Priority OI Land Areas	As source investigations are completed, develop plans to implement controls in public ROWs in catchments where sources were not identified.					
	Document PCBs and mercury loads reduced during permit term for implementation of targeted control programs.						

Control Measure - Planning and Implementation Tasks				MRP 3.0 Year				
				FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Other Control Programs	Green Stormwater Infrastructure	Continued municipal oversight and review to ensure all C.3 Regulated Project requirements are met. Continued inspections and tracking of all C.3 Regulated Projects.		■	■	■	■	■
		Continued planning and implementation of Co-permittee GSI Plans		■	■	■	■	■
		River Oaks Regional Stormwater Capture Project	Design	■				
			Construction		■	■		
		Ongoing planning to identify public C.3.j project sites, develop funding sources, design and construct projects.		■	■	■	■	■
		Document PCBs or mercury loads reduced during permit term for all constructed GSI/LID projects.					■	
		Plan and implement new monitoring program to provide post-redevelopment data for LID/GSI projects			■	■	■	■
	Other Stormwater Treatment Systems	Construct planned high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices.		■	■			
		Conduct additional GIS analyses to identify candidate catchments for high-flow capacity stormwater treatment systems or inlet-based stormwater screening devices to achieve multiple benefits.		■	■			
		Ground-truth candidate catchment locations and potential funding sources.			■	■		
		Plan and implement additional stormwater treatment systems.			■	■		
		Document mercury and PCBs or mercury loads reduced during permit term for all constructed/installed high-flow capacity stormwater treatment systems and inlet-based stormwater screening devices.					■	

7. REFERENCES

Bay Area Stormwater Management Agencies Association (BASMAA) 2017. Clean Watersheds for a Clean Bay. Final Project Report. Prepared by EOA, Inc. and Geosyntec Consultants. April 2017.

BASMAA 2017. Guidance to San Francisco Bay Area Local Agencies for Reducing Polychlorinated Biphenyls (PCBs) and Mercury in Municipal Stormwater Runoff. May 2017.

BASMAA 2018. Evaluation of PCBs in Caulk and Sealants in Public Roadway and Storm Drain Infrastructure Final Project Report. Prepared by EOA, Inc. August 16, 2018.

BASMAA 2022. Source Control Load Reduction Accounting for Reasonable Assurance Analysis. Prepared for BASMAA by Geosyntec Consultants, Inc., and EOA, Inc. January 21, 2022.

City of Campbell 2019. Green Stormwater Infrastructure Plan. July 2019.

City of Cupertino 2019. Green Stormwater Infrastructure Plan. September 2019.

City of Los Altos 2019. Green Stormwater Infrastructure Plan. July 2019.

City of Milpitas 2019. Green Stormwater Infrastructure Plan. September 2019.

City of Monte Sereno 2019. Green Stormwater Infrastructure Plan. August 2019.

City of Mountain View 2019. Green Stormwater Infrastructure Plan. September 2019.

City of Palo Alto 2019. Green Stormwater Infrastructure Plan. 2019.

City of San Jose 2019. Green Stormwater Infrastructure Plan. September 2019.

City of Santa Clara 2019. Green Stormwater Infrastructure Plan. August 2019.

City of Saratoga 2019. Green Stormwater Infrastructure Plan. August 2019.

City of Sunnyvale 2019. Green Stormwater Infrastructure Plan. August 2019.

County of Santa Clara 2019. Green Stormwater Infrastructure Plan. September 2019.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), California State Water Resources Control Board, and California Department of Fish and Game. 1995. Contaminant Levels in Fish Tissue from San Francisco Bay: Final Report. San Francisco Regional Water Quality Control Board, Oakland, CA.

SFBRWQCB 2006. Mercury in San Francisco Bay, Proposed Basin Plan Amendment and Staff Report for Revised Total Maximum Daily Load (TMDL) and Proposed Mercury Water Quality Objectives.

SFBRWQCB 2008. Total Maximum Daily Load for PCBs in San Francisco Bay, Staff Report for Proposed Basin Plan Amendment. February 2008.

SFBRWQCB 2022. San Francisco Region Water Quality Municipal Regional Stormwater NPDES Permit. Order R2-2022-0018, NPDES Permit No. CAS612008.

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) 2021. Stormwater Control Measures Plan for PCBs and Mercury in the Santa Clara Valley - Version 5.0 (2016-2021). September 30 2021.

SCVURPPP and Santa Clara Valley Water District (Valley Water) 2019. Santa Clara Basin Stormwater Resource Plan. Final Report. Prepared by EOA, Inc., Paradigm Environmental, and Lotus Water. August 2019.

Town of Los Gatos 2019. Green Stormwater Infrastructure Plan. August 2019.

Town of Los Altos Hills 2019. Green Stormwater Infrastructure Plan. August 2019

DATE: April 16, 2025

SUBJECT: **ADDENDUM NO. 1**
Request for Proposals
PCB TMDL Special Studies and
Implementation Project (PCB-125)

CITY OF SAN PABLO
City of New Directions

To Prospective Consultants:

The following are responses to the questions submitted prior to the April 15 due date:

1	Question	Since the Scope-of-Work involves a PCB TMDL study, will the awardee need to engage an environmental laboratory to perform PCB analyses, i.e. is this a component of the Scope?
	Answer	Yes.
2	Question	Considering the page count on this, do resumes count towards the page limit?
	Answer	The proposals can exclude resumes from the page count. Please include resumes as an appendix or attachment.
3	Question	Will the City be providing an attendee list of those who participated on the call?
	Answer	No.
4	Question	On the RFP cover page, the title includes "(PCB-125)". What is the driver or reason for PCB-125 in the title?
	Answer	PCB-125 is the City's internal project tracking number/system.
5	Question	Does the City require a prevailing wage for travel time?
	Answer	Yes.
6	Question	RFP Section 9, Method of Payment, specifies that the contract will be a Lump Sum agreement. The work and work tasks are anticipated to be adaptively managed as the work proceeds over the five-year period, e.g., under Task 2, "Because of the anticipated timing of permit adoption, the scope of work for this task divides first-year activities not specifically dependent on adopted regulatory language, and later years' activities where precise regulatory language should be available to fully scope out sub-tasks in accordance with adopted permit language." Can the contract be conducted as a time and materials agreement with a firm fixed not to exceed value?
	Answer	Yes, the City has changed Section 9. Method of Payment to time and material with a not-to-exceed amount. The RFP Language changes as follows: Remove the paragraph in Section 9. Method of Payment: ~~The method of payment for this contract will be a Lump Sum agreement with~~

~~the ability of monthly progress payments based on work performed. The consultant performs the services stated in the contract for an agreed amount as compensation. For invoice procedures; the City will receive the invoice from the Contractor, submit for reimbursement from EPA, once payment is received the City will then issue payment for the invoice.~~

And replace with the following:

The method of payment for this contract will be time and material with a not-to-exceed amount. The contract has the ability for progress payments not to exceed a frequency of more than monthly. For invoice procedures; the City will receive the invoice from the Contractor, and submit it for reimbursement from EPA, once payment is received the City will then issue payment for the invoice

7	Question	Item C.4 of the RFP requests Resumes *or* Statement of Qualifications. Do the resumes count toward the 25-page limit?
	Answer	No, please see the answer to question 2.
8	Question	Can the proposer provide an appendix of resumes to provide a streamlined response that will not count against the 25-page limit?
	Answer	Yes, please see the answer to question 2.
9	Question	Items C.*9. Method of Payment* and C.*12. Special Requirements* are part of the Proposal Requirements. Please clarify the required information for each to respond to the RFP.
	Answer	No specific proposal requirement is needed for C.9 if the cost proposal provides the key information as stated in item C.8. For C.12 the proposer is expected to take the required steps to ensure that the DBE requirements are met. Proposals can either state in their proposal that they have completed the required steps regarding a “good faith effort” or can state how the DBE requirements are being met.
10	Question	Item C.10 References requires a summary of three projects in progress or completed. Is a description of the services expected in addition to items a-e?
	Answer	As part of C.10.b the reference should provide a 1-2 sentence description of the project type and the services the proposed provided.
11	Question	Item C.11 Consultant Contract Statement requires a statement affirming the acceptance or listing of any proposed modifications of the terms of the City’s Consultant Agreement. How would the City like Proposers to prepare these?

	Answer	If a proposer is accepting contract language as is, please make a statement that the proposer agrees to the contract language as is and does not require any modifications. Any proposer who may have proposed modifications can make redline adjustments to the provided standard contract language or a list of requested changes with specific sections identified and the requested alternative language provided.
12	Question	Can figures and tables be provided on 11 x 17" paper?
	Answer	Yes.
13	Question	EPA released a notice on 4/11/2025 suspending DBE requirements under 40 CFR Part 33. Does this notice affect the information required to be submitted in response to RFP Section K, Special Requirements?
	Answer	On April 11, 2025, EPA released RAIN-2025-G02. The City will be following this new guidance. Please note that not all sections of 40 CFR Part 33 have been suspended, in addition, the guidance states "nothing in this class exception and waiver affects EPA's statutory obligations or agency recipient obligations under 2 CFR Part 200." Therefore, according to the City's understanding of the guidance there will be no changes to "Section 12 Special Requirements" of the RFP, and the City is still requesting assistance with the completion of form 5700-52A as stated in Section D.5 on page 15.
14	Question	In Attachment 4, the City of San Pablo attached a Quarterly Report Template. Does the City of San Pablo also have a template for the Final Report to be submitted as a requirement for the EPA Grant Award?
	Answer	No.
15	Question	Can the City of San Pablo provide the template for the Final Report to be submitted as a requirement for the EPA Grand Award?
	Answer	No.
16	Question	Please confirm that the Region 2 Phase II Programs participating in the Grant Project are those listed as project partners: a. Marin Countywide Stormwater Pollution Prevention Program, b. Napa Countywide Stormwater Pollution Prevention Program, c. County of Sonoma, d. City of Petaluma, e. City of Benicia, and f. Port of Oakland
	Answer	The above-listed Phase II programs are participating in the program **in addition to Solano County**. Therefore, the full list of Phase II programs is as follows: b. Marin Countywide Stormwater Pollution Prevention Program, c. Napa Countywide Stormwater Pollution Prevention Program, d. County of Sonoma,

e. City of Petaluma,
f. City of Benicia,
g. Port of Oakland, and
h. Solano County.

Exhibit B
Consultant's Proposal dated May 1, 2025

LARRY WALKER ASSOCIATES
science | policy | solutions

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lwa.com

May 1, 2025

Amanda Booth
City of San Pablo
1000 Gateway Ave
San Pablo, CA 94806

Subject: Larry Walker Associates, Inc. Proposal for Request for Proposals - PCB TMDL Special Studies and Implementation Project

Dear Ms. Booth:

Larry Walker Associates, Inc. (LWA), and our partners, EOA, Geosyntec Consultants, Stone Creek Environmental, Applied Marine Sciences, Integral Consulting, and Northgate Environmental Management (collectively the LWA Team), are pleased to express interest in the Request for Proposals for the PCB TMDL Special Studies and Implementation Project (PCB-125). With over 40 years of experience in water quality and stormwater management, the LWA Team brings specialized expertise in technical stormwater permit implementation and grant administration to support the City of San Pablo (City) and the Bay Area Municipal Stormwater Collaborative (BAMSC) Regional Partners.

LWA Team Experience

- ✓ BAMSC Regional Stakeholder engagement
- ✓ EPA Grant Administration and Project Implementation
- ✓ NPDES compliance for municipal governments.
- ✓ San Francisco Bay PCBs TMDL Implementation, including TMDL calculations and compliance
- ✓ Countywide Stormwater Program Implementation and Collaboration
- ✓ Phase II Permittees Program Implementation Support

In responding to the RFP, LWA has assembled a team of experts who currently assist the BAMSC Regional Partners with administrative, technical, and stormwater program implementation. In addition to a proven record in implementing regionwide grant-funded projects in the San Francisco Bay, the LWA Team has the direct experience in providing comprehensive support to the BAMSC Regional Partners in implementing the San Francisco Bay PCBs TMDL. We are confident our team's expertise aligns perfectly with the project requirements and objectives. Our combined resources bring together industry-leading specialists in water quality monitoring, PCB source identification, control measure planning, regional project coordination, and grant administration – all essential components for successful execution of this project.

Having worked on similar TMDL implementation projects throughout the Bay Area, we recognize the importance of close coordination with Phase I Countywide Programs and Phase II permittees, as well as the need for innovative approaches to PCB source identification and control. Our team has the technical expertise, local knowledge, and proven track record necessary to deliver all required tasks while ensuring stakeholder engagement.

The LWA Team understands that the City submitted the USEPA Water Quality Improvement Fund (WQIF) Grant Application on behalf of the BAMSC Regional Partners and will serve as the fiscal agent for the duration of the Project. The LWA Team is poised to support the City with project management and

compliance with all EPA grant requirements. The LWA Team has the proven ability to successfully manage and implement grant projects for both individual and diverse stakeholder groups. Hallmarks of our approach include bringing flexibility to the project while managing the overall effort to meet the desired end goals; integrating project staff into a cohesive working team; providing an adaptive atmosphere that encourages interaction and communication; and being responsive to unforeseen needs, such as additional meetings or changes in direction or scope.

Our experience specifically includes the implementation and administration of multiple WQIF grant awards, including countywide and regionwide projects. With our Team's extensive background in PCBs TMDL implementation, strong working relationships with the City and the BAMSC Regional Partners, and proven expertise in producing deliverables on-time, the City can be assured of our commitment and ability to complete the proposed workplan within the grant timeframe.

As an officer of LWA, I welcome the opportunity to discuss how we can support the City in implementing the WQIF Grant Agreement and Workplan. Please contact me with any questions about our qualifications or approach to serving the City.

Contract Point of Contact
Sandy Mathews, Vice President
2246 Sixth Street
Berkeley, CA 94710
(510) 883-9873 x 412
sandym@LWA.com

Sincerely,

Sandy Mathews, Vice President
Larry Walker Associates, Inc.

May 1, 2025

PROPOSAL FOR

PCB TMDL Special Studies and Implementation Project

Prepared by:
Larry Walker Associates, Inc.
in association with
EOA, Geosyntec Environmental Consultants,
Stone Creek Environmental Consulting,
Applied Marine Sciences, Integral Consulting &
Northgate Environmental Management

Presented to:
The City of San Pablo

Larry Walker Associates, Inc. (LWA) is pleased to provide the following proposal in response to the Request for Proposals (RFP) for PCB TMDL Special Studies and Implementation Project (Project) (PCB-125) for the City of San Pablo (City). The LWA Team comprises Applied Marine Sciences, Inc. (AMS), EOA, Inc. (EOA), Geosyntec Consultants, Inc. (Geosyntec), Integral Consulting, Inc. (Integral), Northgate Environmental Management, Inc. (Northgate), and Stone Creek Environmental Consulting, Inc. (Stone Creek).

The LWA Team understands that the City is seeking qualified consultants to implement the Workplan associated with EPA Grant Award No. W9-97T23001-0, the PCBs TMDL Special Studies and Implementation Project, which will fund the continued implementation of the San Francisco Bay PCBs TMDL. The LWA Team understands that the City submitted the USEPA Water Quality Improvement Fund (WQIF) Grant Application on behalf of the Bay Area Municipal Stormwater Collaborative (BAMSC) Regional Partners and will serve as the fiscal agent for the duration of the Project.

Project Manager

Elizabeth Yin, Senior Scientist
2246 Sixth Street
Berkeley, CA 94710
(510) 883-9873 x 414
ElizabethY@LWA.com

2.0 ORGANIZATION CHART & PERSONNEL

As demonstrated by the qualifications and supporting information listed below, the LWA Team is uniquely and effectively positioned to assist the City in implementing the PCB Total Maximum Daily Load (TMDL) Special Studies and Implementation Project. **The LWA Team is comprised of the trusted technical leadership for all five Bay Area Phase I Stormwater Programs and the Phase II permittees with more than 30 years of experience in stormwater management in the San Francisco Bay Area.**

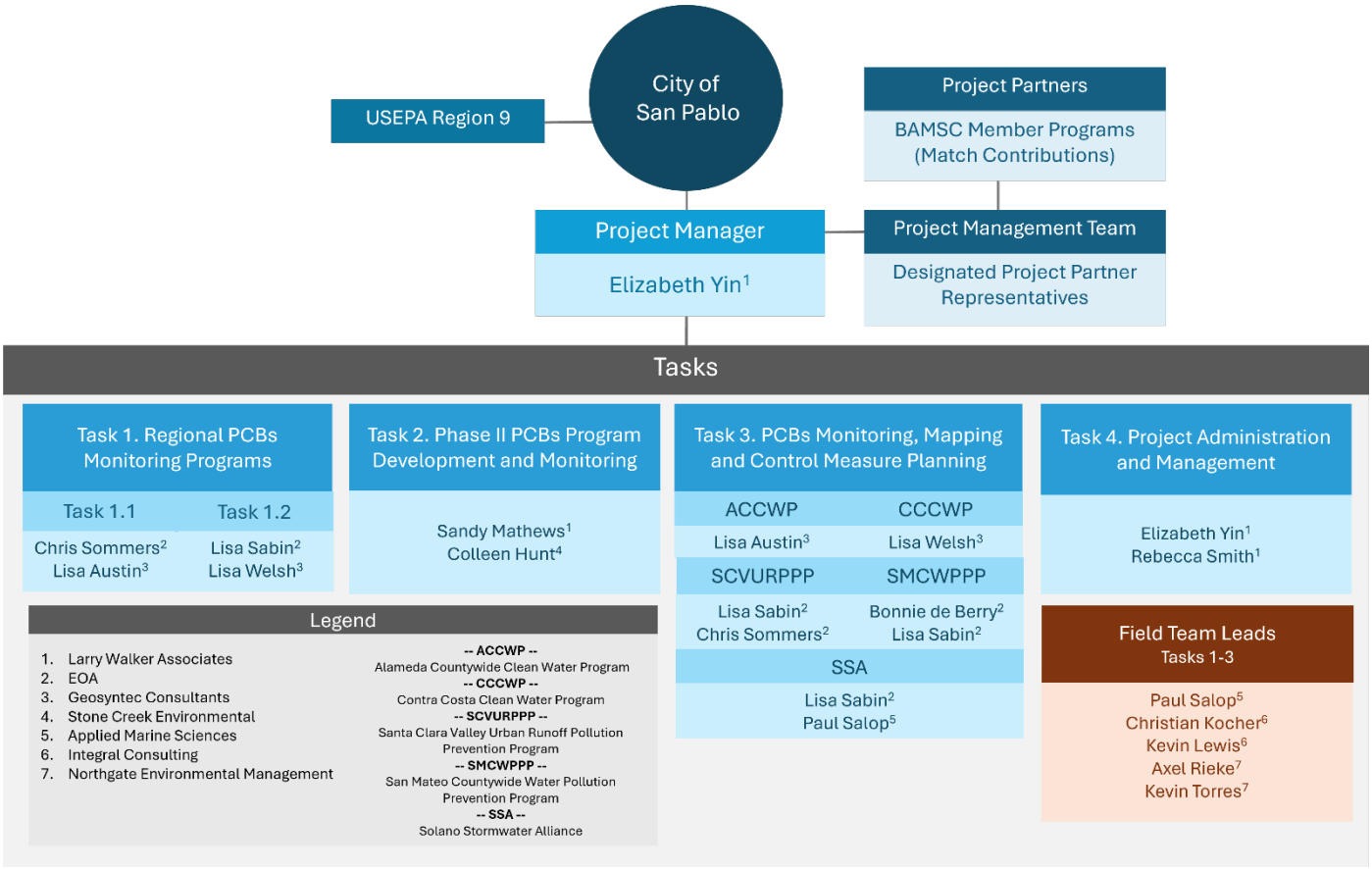


Figure 1. Structure of the LWA Team

Key staff identified for the LWA Team are comprised of highly qualified professionals who possess the qualifications and experience to successfully lead their tasks to support the City and the Project Partners with the requested services. LWA will have overall responsibility for the successful completion of all tasks and the delivery of high-quality deliverables. The organizational chart presented in **Figure 1** provides an overview of the LWA Team structure. Assigned key staff are available for the duration of the contract and are committed to meeting the City and Regional Partners' schedule.

As Project Manager, Ms. Yin will coordinate staff and subcontractors to ensure seamless delivery of all project components. The identified task leads will support Ms. Yin in developing the approach for each Task identified by the City and Project Partners. The LWA Team has additional technical specialists available to support the Project with expertise in:

- Implementing regional monitoring programs;
- Developing and implementing PCBs Programs;
- Working with Phase II communities, including monitoring constituents of concern;
- Developing monitoring plans and preparing reports detailing control measures;
- Administration of large-scale grant-funded projects; and
- Regulatory negotiation and stakeholder facilitation.

LWA will notify the City in writing to receive approval for any change to the Project Team key staff.

2.1 HISTORY OF COLLABORATION

The LWA Team has a proven track record of successfully managing collaborative, team-based projects and working cooperatively with other firms to achieve project objectives and goals. Hallmarks of our approach include bringing flexibility to the project plan while managing the Project to meet the stated end goals; integrating multidisciplinary experts into a cohesive working team; and providing an adaptive atmosphere that encourages interaction and communication amongst the Team and stakeholders.

In particular, the LWA Team has a long history of successful completion of projects using local, state, and federal grants, both for individual agencies as well as through regional collaborations. The LWA Team leads, participates, and is integral to the success of BAMSC, which was formed to continue to provide an institutionalized mechanism for its member agencies to develop innovative products and programs that are more cost-effective done regionally than can be accomplished locally. Through BAMSC, the LWA Team has overseen the completion of numerous collaborative regional projects and has proven its capacity to collaborate on significant projects of regional importance by producing deliverables and outcomes that provide much of the foundation for current regional stormwater quality management efforts.

In addition, the LWA Team is comprised of firms that have direct experience working with the City of San Pablo, as well as all of Phase I and Phase II Regional Partners involved in the scope of work:

- **Phase I Programs:**
    - Alameda Countywide Clean Water Program (ACCWP);
    - Contra Costa Clean Water Program (CCCWP);
    - Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP);
    - San Mateo Countywide Water Pollution Prevention Program (SMCWPPP); and
    - Solano Stormwater Alliance.
- **Phase II Programs:**
    - Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP);
    - Napa Countywide Stormwater Pollution Prevention Program (NCSPPP);
    - County of Sonoma;
    - City of Petaluma;
    - City of Benicia;
    - Port of Oakland; and
    - Solano County.

3.0 FIRMS STATEMENT OF QUALIFICATIONS

Table 1 features our Team's broad expertise in developing and implementing regional PCBs monitoring programs, working with Phase II permittees, monitoring constituents of concern, identifying source properties and control measure planning, regional collaboration, and grant administration.

Table 1. LWA Team Relevant Project Experience

	Technical Expertise																	Permittee Experience					
Firms	Tributary Monitoring	Alternative Source Property Investigation	Green Infrastructure Planning	PCB-Containing Building Materials and Waste Control Program	PCB Source Property and Area Identification	Overpass and Bridge PCB Control	Mercury Collection and Recycling	PCB Risk Reduction Program	TMDL Water Quality Monitoring	Regional Load Reduction Accounting Framework	Public ROW and Private Property Sediment Sampling	Catchment Verification Sampling	Load Verification Monitoring	GIS Maps & Databases	PCBs Control Programs for Private Properties	PCBs Control Programs for MS4	Program Administration & Management	Contra Costa Clean Water Program	Alameda Countywide Clean Water Program	San Mateo Countywide Pollution Prevention Program	Santa Clara Valley Urban Runoff Pollution Prevention Program	Solano Stormwater Alliance	Phase II Permittees
LWA	•	•	•	•	•	•	•	•	•	•			•	•		•	•	•	•	•			•
AMS	•	•			•				•		•	•	•	•			•	•	•			•	
EOA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Geosyntec		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•
Integral	•	•							•		•	•	•	•			•	•		•	•		
Stone Creek											•	•	•	•			•						•
Northgate			•								•	•	•	•			•		•				•

3.1 LWA FIRM PROFILE

LWA is a Women-Owned Business Enterprise founded in 1979, with over four decades of experience providing specialized water resources management consulting services throughout California. Headquartered in Davis, with strategic regional offices in Berkeley, Santa Monica, Ventura, San Diego, Yreka, and Seattle, our team of more than 75 professionals delivers comprehensive solutions to over 350 public agencies across California.

For more than 45 years, LWA has been a partner, innovator, and industry leader, assisting public agencies in navigating and solving complex environmental and public policy challenges. Our expertise spans the full spectrum of water management services, including water resources planning, regulatory compliance, recycled water program development, stakeholder engagement, specialized technical studies, and water quality monitoring. LWA has been a statewide leader in all aspects of stormwater management and has a successful history of supporting municipal stormwater programs throughout the state, excelling at developing and delivering innovative, strategic, and technically sound solutions.

Stormwater Program Implementation. LWA has a successful history of supporting Phase I and Phase II municipalities throughout California with general regulatory oversight and administration as well as the development and implementation of key stormwater program elements, including public education and outreach, commercial and industrial support, planning and land development support, illicit discharge tracking and elimination, training, annual reporting, assessments of program effectiveness, and the development and implementation of pollutant specific issues such as pyrethroids, methylmercury, and trash. LWA's guidance and implementation tools reflect our staff's real-world practical experience.

Grant Administration: Our firm has successfully secured numerous competitive grants for municipal clients, including multiple Water Quality Improvement Fund applications. Our experience highlights a comprehensive understanding of grant requirements and evaluation criteria through previous successful applications across California. In addition, LWA has extensive knowledge of green infrastructure implementation in urban environments and a current understanding of the City of San Pablo's needs, working relationship with the Project Partners, and the scope of the PCBs TMDL Special Studies and Implementation Project.

Stormwater Permits & Regulatory Assistance. LWA has the demonstrated ability to evaluate a wide range of complex regulatory requirements for municipalities and develop pragmatic solutions. Our track record includes collaboration with personnel from the United States Environmental Protection Agency (USEPA), the State Water Resources Control Board (State Water Board), and/or various Regional Water Quality Control Boards to effect positive change in regulatory outcomes. Notably, we have significant experience tracking regulatory developments and preparing comments for agencies and organizations on important federal, state, and local rules, regulations, and policies affecting permit conditions.

3.2 INTEGRAL FIRM PROFILE

Integral is a national science and engineering firm delivering technical solutions to complex environmental, health, and natural resource challenges faced by our clients. We employ an unrelenting commitment to technical excellence, innovation, and collaboration to help our clients address yesterday's environmental impacts, meet today's demands, and create a more sustainable tomorrow.

Since our founding in 2002, we have operated on a platform of mutual respect with a demonstrated commitment to the well-being, diversity, and professional development of our staff and an equal commitment to strong partnerships with our clients and teaming partners. We are a company where people come to solve today's toughest environmental challenges through technical innovation and teamwork.

3.3 AMS FIRM PROFILE

AMS is a certified California small business enterprise that specializes in the design, conduct, and management of environmental science and regulatory compliance investigations and assessments. Since its inception in 1989, AMS has provided high-quality scientific support and project management to federal, state, and local government agencies and private industry. AMS specializes in designing, conducting, and managing projects that deal with complex biological and chemical phenomena, fate and effects studies, and ecological baseline and impact monitoring studies in aquatic environments.

AMS has an extensive history of supporting commercial entities, nonprofits, and resource management agencies in investigations related to risks posed by PCBs and other organic contaminants. Notable examples include the conduct of statistical analysis to support the Regional Monitoring Program Small Tributaries Loading Strategy in tailoring a stormwater monitoring program to detect trends in PCBs and other contaminants, trends monitoring in water, sediment, and biota conducted for the Central Coast Long-term Environmental Assessment Network, and over a decade of compliance monitoring conducted for ACCWP consistent with Pollutants of Concern provisions of the Municipal Regional Permit (MRP). AMS has also supported multiple grant projects focused on PCBs, including a California Proposition 13 investigation of elevated concentrations of PCBs in the Ettie Street Pump Station watershed of Oakland, a Proposition 13 study of the potential linkage between sea otter mortality and presence of persistent organic pollutants in environmental media along the California central coast, and management of monitoring, quality assurance, and data management components of the USEPA Water Quality Improvement Fund grant project, Clean Watersheds for a Clean Bay.

3.4 EOA FIRM PROFILE

EOA is a privately owned environmental science and engineering consulting firm founded in 1985, with offices in Oakland and Sunnyvale. Specializing in municipal stormwater management and National Pollutant Discharge Elimination System (NPDES) permit compliance, EOA has built an unmatched solid reputation as a leader in the field. By combining regulatory expertise, public policy insight, and practical application of sound science, engineering, and program management, EOA is dedicated to helping clients protect, restore, and enhance water quality. With over 30 years of experience in municipal stormwater management, EOA has provided technical and regulatory services since the early 1990s, particularly for Bay Area municipalities. EOA's long-standing relationships with programs such as the SCVURPPP and SMCWPPP highlight its integral role in regional stormwater management efforts.

EOA specializes in reducing PCBs from urban runoff, a challenge faced by municipalities throughout the Bay Area. With extensive experience designing and implementing monitoring studies, EOA deeply understands PCB distribution across local watersheds. As the technical lead for SCVURPPP and SMCWPPP, EOA spearheads efforts to identify sources of PCBs, develop controls, and assess their effectiveness, helping municipalities comply with regulatory requirements. For over two decades, EOA has played a key role in regional efforts to address PCBs, contributing to projects led first by the Bay Area Stormwater Management Agencies Association and then by BAMSC. Through its leadership, EOA has assisted municipalities throughout the Bay Area in making significant progress toward achieving the urban runoff wasteload allocations required by the PCBs TMDL for San Francisco Bay. With its unmatched technical knowledge and dedication to addressing the unique challenges of the Bay Area, EOA continues to be a trusted partner in municipal stormwater management and water quality protection.

3.5 STONE CREEK FIRM PROFILE

Stone Creek is a female-owned, small business consulting firm specializing in environmental permitting and compliance. Stone Creek was formed in 2020. Colleen Hunt, owner, brings over 25 years of experience in environmental regulatory compliance. Ms. Hunt formed Stone Creek to provide exceptional, client-driven services with the dedication to developing streamlined and cost-effective regulatory compliance strategies.

Stone Creek specializes in municipal stormwater management, including compliance with the State's Phase II Permit. Specifically, Stone Creek supports multiple clients with Phase II Permit compliance. This includes development of stormwater management plans, development of TMDL implementation strategies, program effectiveness assessment, monitoring reports and annual reports. Stone Creek supports the BAMSC Phase II subcommittee with Colleen Hunt serving as a co-chair for the subcommittee and attends as a Phase II representative in the BAMSC Steering Committee.

3.6 GEOSYNTEC FIRM PROFILE

Geosyntec is a multidisciplinary engineering and consulting firm with 2,200 employees in more than 100 offices worldwide. We work with public and private sector clients to address complex problems involving the environment, natural resources, and civil infrastructure. Since 1983, Geosyntec has served municipalities and government agencies providing services in water resources, civil engineering and design, environmental consulting, geotechnical engineering, and construction management.

Geosyntec's engineers and scientists stand among the world's foremost experts in urban water management and are leading innovators in the design of best management practices that mitigate impacts to surface water quality, enhance water conservation strategies, and contribute to municipal water supplies. Our Oakland-based professionals assist CCCWP and ACCWP in stormwater management planning and program implementation tasks related to countywide PCBs and mercury TMDL implementation and reporting. Geosyntec projects have contributed to setting industry standards and guidelines.

We recognize the importance of technical leadership and local expertise in the variety of discipline areas that this program will encompass. Our team members are actively engaged or have a history of performing countywide and regional projects directly related to the relevant scope of services and are appropriately trained and licensed.

3.7 NORTHGATE FIRM PROFILE

Founded in 1999, **Northgate** is a woman-owned, full-service environmental engineering firm headquartered in Oakland, CA. Specializing in stormwater quality management and environmental compliance support for government agencies, Northgate has a thorough understanding of stormwater issues affecting the related Bay Area's policy frameworks and regulatory requirements. Through various as-needed environmental and stormwater services contracts, Northgate helps public agencies to understand applicable permit requirements, identify adequate compliance pathways, and support stormwater projects with assessments, including special studies and surveys, site inspections, and water quality monitoring. The company's experience includes performing hazardous material business inspections, drainage areas delineation, green stormwater infrastructure (GSI) planning, on-land visual trash assessments (OVTAs), PCBs load reduction assessments, TMDL monitoring, and MRP reporting.

3.8 PROJECT DESCRIPTIONS

The following project descriptions feature select efforts demonstrating our expertise in managing large-scale program implementation, regional monitoring plan development and implementation, reporting and data management, and grant administration. These examples highlight our collaborative approach, technical excellence, and consistently delivering exceptional results.

Project 1. MRP Compliance Support, Performed by LWA	
Client Name	Alameda Countywide Clean Water Program
Years of Service	2010-Present

Since 2010, LWA has led a team of consultants providing support to the ACCWP in fulfilling the requirements of the MRP, including implementation of the PCBs and mercury TMDLs. LWA's work efforts have also included serving as the Program Manager, facilitating permittee subcommittees and workgroups, providing training for municipal staff, providing regulatory support, developing a Stormwater Resources Plan, and evaluating pollutants of concern.

- Serve as the Program Manager since 2022, facilitating the Management Committee, serving as program liaison, and budgeting and tracking contractor work efforts.
- Assisting the permittees with identifying, characterizing, and managing PCBs and mercury source areas and reporting load reductions associated with these activities annually.
- Supporting the POC monitoring program design and annual reporting required by MRP Provision C.8.f.
- Developed the ACCWP Stormwater Resource Plan, including the identification of potential GI projects throughout the county, which supported the ACCWP Permittees in developing their GI Plans.
- Revised the City of Dublin's typical green infrastructure details to serve as countywide details that were included in GI Plans.
- Facilitated the MRP 3 C.11/C.12 Workgroup that negotiated a programmatic approach for the MRP 3 permit term.
- Prepared MRP-required TMDL PCBs and Mercury Control Measure Plan and countywide RAA.
- Coordinated training for the Industrial and Illicit Discharge, the New Development, and Municipal Maintenance Subcommittees, coordinating more than 25 workshops that trained more than 1,000 municipal agency staff within Alameda County.
- Lead the New Development Subcommittee developing annual work plans, leading special projects, and facilitating subcommittee meetings.
- Developed training to support the Turner Court Green Infrastructure Grant Project.
- Lead the Data Management-GIS subcommittee providing technical support on managing data and the development and use of Geographic Information System (GIS) tools to support MRP implementation.

RELEVANCE TO RFQ

- ✓ Provide Phase I Permit implementation support
- ✓ Prepare and manage program budget
- ✓ Serve as the Program's liaison with the Regional Water Board and public
- ✓ Identify and characterize PCBs sources areas and properties
- ✓ Identify and plan control programs and practices
- ✓ Lead permittee subcommittees
- ✓ Coordinate with permittees and subcommittees to develop work products
- ✓ Engage with permittee level and regional stakeholder groups

Project 2. MRP Technical Services and Staff Augmentation, Performed by LWA	
Client Name	Contra Costa Clean Water Program
Years of Service	2014-Present

LWA leads a team of consultants to provide technical support services to the Contra Costa Clean Water Program (CCCWP). LWA provides guidance and recommendations to Program staff on various technical studies and regulatory projects required by the MRP and has supported CCCWP during MRP 2.0 and 3.0 negotiations. LWA has also provided on-call staffing support during several recent staffing transitions. LWA staff lead CCCWP committees and workgroups, develop guidance, support permittees and participate in BAMSC committees and technical workgroups.

RELEVANCE TO RFP

- ✓ Phase I Permit implementation
- ✓ Grant Administration and Project Implementation
- ✓ Prepare and mange team budgets
- ✓ Prepare staff reports and briefings
- ✓ Lead report development and review consultant reports
- ✓ Develop regional compliance and negotiation strategies
- ✓ Prepare stakeholder briefings
- ✓ Identify and characterize PCBs sources areas and properties
- ✓ Identify and plan control programs and practices
- ✓ Engage with permittee level and regional stakeholder groups

Work to date has included:

- Assisted with the MRP 2 and MRP 3 reissuance process, including developing strategies for proposed programs, leading MRP workgroups, developing comment letters, testimonials, and presentations for negotiations with the Regional Water Board.
- Provided CCCWP Permittees with guidance on the MRP 3.0 requirements, including planning, implementation, and reporting.
- Led the Municipal Operations Committee, Development Committee, AGOL Workgroup, Administrative, and Management Committee.
- Supported the interim Program Manager in ad-hoc workgroups.
- Participated in regional collaborative efforts, such as the BAMSC Trash Subcommittee and BAMSC Cost Reporting Workgroup, to support MRP compliance.
- Led the preparation and review of the Program's Annual Reports.
- Provided briefings and updates to CCCWP committees, and relevant permittee and community stakeholder meetings, such as the Contra Costa Watersheds SWRP, Delta and Bay TMDLs, Asset Management, and emerging water quality issues.
- Assisted permittees with identifying, characterizing, and managing PCBs and mercury source areas and annually reporting load reductions associated with these activities.
- Developed the Source Control Accounting for Reasonable Assurance Analysis (RAA) report.
- Assisted with preparation and review of the CCCWP's Annual Reports, Urban Creeks Monitoring Reports (UCMR), Delta Methylmercury Control Study Reports, Stressor/Source Identification reporting, and other water quality monitoring plans and reports as requested.
- Supported permittee implementation of source identification and control measures for mercury, methylmercury, and PCBs.
- Developed and provided training to municipal inspectors on C.4, C.5, and C.6 requirements.
- Supported development of grant applications, including successful Prop 1 planning grant and implementation grants for CCCWP members.
- Provides grant administration and project support, including grant administration and development of the Contra Costa Watersheds Stormwater Resource Plan.
- Provides support for implementing WQIF grants, including the Clean Watersheds for All and Watching Our Watersheds regional implementation projects.

Project 3. Phase II Permit Compliance, Performed by LWA	
Client Name	Marin Countywide Stormwater Pollution Prevention Program
Years of Service	2013-Present

MCSTOPPP is a collaborative program that unites the 11 cities and the County of Marin through a Joint Exercise of Powers Agreement. LWA was selected by MCSTOPPP in 2013 to provide support for the Phase II Permit.

Work has involved developing tools and approaches for all aspects of the permit, including legal authority, public outreach and participation, staff training, illicit discharge control, construction stormwater control, municipal operations, program effectiveness assessments, annual reporting, TMDL monitoring and status reporting, and trash reduction planning. Recent work efforts have focused on supporting MCSTOPPP prepare for the reissuance of the Phase II Permit, building on LWA's 12 years of experience with the program and our statewide engagement with the California Stormwater Quality Association's (CASQA) on the reissuance process.

RELEVANCE TO RFP

- ✓ Provide Phase II Permit Implementation Support
- ✓ Prepare technical reports and briefings
- ✓ Conduct geospatial analyses to identify pollutant source areas and calculate load reductions
- ✓ Develop compliance strategies
- ✓ Evaluate and plan for pollutant load reduction strategies
- ✓ Negotiate permit and TMDL requirements
- ✓ Prepare stakeholder briefings
- ✓ Engage with permittee level and regional stakeholder groups

Work efforts have included:

- Provided regulatory assistance in negotiations with the Regional Water Board on the proposed merger into the regional Phase I Permit.
- Assisted with the evaluation of proposed control programs for the San Francisco Bay PCBs and mercury TMDLs and the negotiation of the proposed programs.
- Conducted a geospatial analysis of pollutant loads reduced under the Phase II Permit's Post Construction requirements and potential PCBs source areas within the watershed based on the SFEI Regional Watershed Spreadsheet Model.
- Conducted a geospatial analysis of potential PCBs and mercury source areas based upon the SFEI and ABAG land use data and drafted summary guidelines for conducting source area evaluations.
- Assisted with negotiations with the State Water Board on the proposed Phase II Permit reissuance, including drafting comment letters and summaries for MCSTOPPP members.
- Developed an estimate of resource needs to implement the proposed new requirements including cost reporting, TMDL monitoring and implementation, asset management, post construction, and business inspections.
- Developed the Marin Countywide Storm WaterResource Plan, which identified and prioritized projects to capture, treat and increase infiltration capacity, and/or use stormwater in ways that provide multiple benefits.
- Developed experiential learning activities on various stormwater requirements to municipal staff and proivided "train-the-trainer" sessions to allow program staff to deliver training.
- Drafted an approach for TMDL Water Quality Monitoring requirements and obtained Regional Water Board acceptance for the appropand developing a QAPP and sampling plan for the pesticide toxicity TMDL.

4.0 STAFF STATEMENT OF QUALIFICATIONS OR RESUMES

The LWA Team brings together highly qualified professionals with extensive experience supporting the City and Regional Partners in implementing stormwater monitoring requirements, managing large-scale regional projects, and meeting grant requirements. Each team member has been strategically selected based on their specialized expertise, regional knowledge, and proven track records in implementing this work with the Regional Partners. The following biographies highlight our key staff's qualifications, demonstrating the depth and breadth of experience they bring to the City. Detailed resumes are provided in **Appendix 1. Resumes**.

LWA Team Biographies

Elizabeth Yin, LWA
Role: Project Manager & Task 4 Key Staff

Ms. Yin is a Senior Scientist with LWA and brings over ten years of experience in water quality management and regulatory compliance, with particular expertise in stormwater program implementation and trash reduction initiatives. At LWA, she provides both strategic planning and technical support services to LWA's stormwater clients, supported by a strong background in project management and data analysis. Ms. Yin is intimately familiar with the regional landscape of stormwater program management and NPDES permit implementation in the San Francisco Bay Area, having successfully supported CCCWP since 2020. She has demonstrated success in grant writing and program implementation across California, having secured funding and managed projects for various municipalities, including the Stormwater Grant Program Proposition 1 Implementation Grant Application for San Pablo. Ms. Yin currently supports the CCCWP as a Grant Project Manager and Project Management Team member for multiple grant projects.

Sandy Mathews, CPESC/QSD/P, LWA
Role: Task 2 Key Staff

Ms. Mathews is a Vice President and leads LWA's stormwater market sector. She has 30 years of experience developing and implementing water quality compliance programs and has been engaged in Bay Area stormwater programs since the early 1990s. She provides both strategic planning and technical support services to LWA's stormwater clients, leveraging her regulatory and program implementation expertise to assist stormwater programs in finding cost-effective compliance solutions. Ms. Mathews works with Bay Area Phase I and Phase II, including the Alameda, Contra Costa, Napa, and Marin countywide programs as well as numerous individual public agencies, including the Ports of Oakland and San Francisco. Ms. Mathews has managed grant projects for various clients.

Rebecca Smith, Ph.D., LWA
Role: Task 4 Key Staff

Dr. Smith brings a unique combination of scientific expertise and grant-writing success to water resource management projects. Since joining LWA in 2023, she has secured multiple grant awards for groundwater recharge initiatives, including successful applications for the Sierra Valley Groundwater Management District. Her background as a biogeochemist and climate change scientist, coupled with extensive experience in data analysis and project management, enables her to develop compelling technical narratives for funding proposals. As Assistant Project Manager for the San Joaquin County Region Storm Water Resource Plan, she has demonstrated skill in stakeholder engagement and government collaboration, key elements in successful grant applications. Dr. Smith's technical proficiency in statistical analysis, geospatial visualization, and environmental monitoring strengthens her ability to craft data-driven grant proposals that effectively communicate project impacts and outcomes.

Chris Sommers, EOA
Role: Tasks 1.1 and 3 Key Staff

Mr. Sommers is the President of EOA and has over 25 years of consulting and project management experience and specializes in all aspects of stormwater management and assessment, including pollutant control programs, monitoring strategies, and effectiveness assessments. Chris has managed many groundbreaking stormwater management projects at the county, regional, and statewide scales, including Regional Guidance on Conducting RAAs for the San Francisco Bay PCBs and Mercury TMDLs and statewide guidance on Trash Control Measure Implementation. These and other projects managed by Mr. Sommers have assisted cities, counties, and other California public agencies with identifying pollutant sources, identifying and implementing appropriate and cost-effective control measures approaches, and tracking progress towards numeric targets. Mr. Sommers has proven experience of effectively assisting public agencies in developing practical and cost-effective stormwater management strategies, optimizing control measure implementation, and maintaining compliance with NPDES permit requirements.

Lisa Sabin, Ph.D., EOA
Role: Tasks 1.1 and 3 Key Staff

Dr. Sabin is a Managing Scientist at EOA and brings 20 years of experience in water quality protection and restoration across California, specializing in stormwater NPDES compliance, TMDL programs, and monitoring. She assists San Francisco Bay Area municipal agencies with stormwater management and pollutant control initiatives, particularly for PCBs and mercury. Her expertise includes characterizing watershed pollutant concentrations, identifying source areas, and evaluating control measure effectiveness. Dr. Sabin authored key regional documents including the TMDL Implementation Plan for PCBs and Mercury for SCVURPPP and co-authored BASMAA's Source Control Load Reduction Accounting guidance. She led the PCBs in Storm Drain Infrastructure Caulk Project and supported implementation of building demolition pollution prevention programs. For six years, she helped manage the $7M EPA-funded Clean Watersheds for a Clean Bay project evaluating stormwater best management practices (BMPs). Previously, at Southern California Coastal Water Research Project, she researched atmospheric deposition impacts on water quality.

Bonnie de Berry, CPSWQ, EOA
Role: Task 3 Key Staff

Ms. de Berry, a Managing Scientist at EOA, brings over 25 years of consulting expertise in municipal stormwater management, specializing in NPDES permit compliance for San Francisco Bay Area agencies. She conducts watershed investigations and environmental analyses focused on nonpoint pollution sources and water quality enhancement. Her core competencies include TMDL compliance and stormwater BMP selection, combining technical solutions with regulatory knowledge. She designs monitoring plans to identify pollutants and stressors such as trash, PCBs, bacteria, and nutrients, while leading field studies using advanced techniques to calibrate pollutant fate models. Skilled at stakeholder coordination and presenting technical content to diverse audiences, she consistently meets schedule and budget commitments. Ms. de Berry currently serves as co-chair of the CASQA's Monitoring and Science Subcommittee.

Lisa Welsh, Ph.D., QISP, Geosyntec
Role: Tasks 1.1 and 3 Key Staff

Ms. Welsh is a Senior Scientist with Geosyntec and has over a decade of experience in environmental consulting. Her expertise lies in water resources, water quality monitoring, and stormwater management. She has coordinated countywide water quality monitoring programs, managed projects for PCBs and mercury TMDL implementation, and supported municipal stormwater compliance across diverse topics. She is also a Qualified Industrial Stormwater Practitioner (QISP) under the California Industrial General Permit. In addition, Ms. Welsh's seven years of climate change and remote sensing research have resulted in over 10 peer-reviewed publications, and she has recently worked on projects that integrate future climate projections into GSI design.

Lisa Austin, P.E., Geosyntec
Role: Tasks 1.1 and 3 Key Staff

Ms. Austin has 35 years of experience in water quality and stormwater management. She has in-depth knowledge of NPDES permitting; municipal stormwater program planning and operations; and stormwater BMP selection, design, and maintenance. Ms. Austin has worked closely with both public and private clients on stormwater and industrial NPDES permit compliance-related tasks for much of her career. She is active in stormwater planning, providing technical assistance to various clients on regulatory issues, developing and evaluating conceptual BMP plans, and assessing the significance of potential water quality and hydromodification impacts (CEQA analysis) in California. Ms. Austin has assisted ACCWP and CCCWP with PCBs and mercury TMDL compliance for over a decade.

Colleen Hunt, CPMSM, Stone Creek
Role: Task 2 Key Staff

Ms. Hunt, Principal Compliance Specialist at Stone Creek, has a 26-year career in water quality regulations, including 18 years at the Regional Water Board and eight years as a consultant. Ms. Hunt specializes in municipal stormwater compliance, including compliance with the State's Phase II Permit. Ms. Hunt supports Phase II permittees with compliance strategies, including the development of stormwater management plans, TMDL implementation, program effectiveness, and monitoring data analysis and reporting. Additionally, Ms. Hunt serves as the BAMSC Phase II Subcommittee Co-Chair and the CASQA Phase II Subcommittee Co-Chair.

Paul Salop, AMS
Role: Task 3 Key Staff

Mr. Salop, a Principal Scientist at AMS, brings extensive experience managing complex water quality monitoring programs, currently serving as Field Program Manager for the Regional Monitoring Program's (RMP) Status and Trends component in the San Francisco Estuary, overseeing field sampling design and implementation for numerous Bay Area NPDES dischargers. His expertise includes managing NPDES monitoring programs for the Alameda Countywide Clean Water Program and Solano Stormwater Alliance, previously serving as Project Manager for the $2M+ EPA Clean Watersheds for a Clean Bay grant project, and Assistant Project Manager for the Clean Estuary Partnership supporting TMDL development for San Francisco Bay-Delta. Mr. Salop has developed numerous Quality Assurance Project Plans and served as QA officer for various local, regional, state and federal grant projects, including investigations of Areas of Special Biological Significance, fecal pathogen pollution monitoring, PCBs loading assessments, and EPA Ocean Disposal Site evaluations.

Christian Kocher, Integral
Role: Field Team Lead

Mr. Kocher offers over 34 years of experience implementing NPDES stormwater regulatory compliance monitoring programs, with expertise in stormwater BMP studies, PCBs source area investigations, and sediment dredge materials studies for municipal, industrial, state, and federal clients throughout the San Francisco Bay Area. Since 2011, Mr. Kocher has provided stormwater monitoring services for CCCWP, creating quality assurance project plans and successfully implementing stormwater characterization studies under challenging environmental conditions. His technical capabilities include comprehensive study design, instrumentation deployment, telemetry system management, automated flow monitoring, data validation and interpretation, and preparation of technical documents, including sampling and analysis plans, evaluation plans, and monitoring reports. Mr. Kocher also brings extensive scientific oceanographic field experience aboard research vessels, conducting water current meter studies, sediment vibracoring, mussel bioaccumulation studies, dye-tracer studies, and acoustic surveys for diverse clients locally and internationally.

Kevin Lewis, CESSWI, QSP, Integral
Role: Field Team Lead

Mr. Lewis is a Senior Scientist at AMS with over 17 years of professional experience in stormwater and surface water quality monitoring across California, serving federal, state, and local agencies, including USACE, Caltrans, and municipalities. His expertise encompasses Phase II Permit projects, water quality studies, PCB and mercury investigations in the San Francisco Bay Area, and BMP efficacy monitoring. Mr. Lewis is skilled in offshore sediment sampling, hydrologic equipment installation, remote monitoring station operation, stream rating equipment deployment, and data management for pollutants of concern. His technical capabilities include stormwater and sediment sample collection, field quality control, dissolved constituent analysis, and QA/QC oversight for dredge materials projects, complemented by GIS mapping skills and desktop-based site assessment for permitting and site access.

Axel Rieke, P.E., QSD/P, Northgate
Role: Field Team Lead

Mr. Rieke is a Principal at Northgate and has 30 years of experience and leading Northgate's stormwater management practice. He provides technical expertise and project management overseeing assessment studies, BMP inspections, discharge monitoring and reporting. He has been the project manager, design engineer and subject matter expert for numerous stormwater projects including the City of Oakland's Urban Green Plan, storm drainage and pipe repairs, streetscape improvement Stormwater Pollution Prevention Plan (SWPPP) reviews; the Ardenwood Creek flood control improvement; the Port of San Francisco In House Stormwater Regulatory Specialist; the State Park's Yosemite Slough Wetlands Restoration; and City of Berkeley GIS Support for GSI planning. He also provided senior-level review for Northgate's TMDL monitoring and reporting services to the City of Torrance. He has been the remediation engineer and Qualified SWPPP Developer (QSD) that oversaw the investigation and removal of PCB-impacted soil supporting stormwater compliance during the Palo Alto Medical Foundation hospital construction in San Carlos. In his role as a quality assurance expert, he assisted the Lawrence Berkeley National Laboratory Environmental Service Group with revision of it's Import Material Testing Work Plan and review of its Quality Assurance Program Plan (QAPP) for the investigation of contaminant releases. He currently manages the City As-Needed On-Call Hydrology and Stormwater Engineering contract where he oversees the Business Stormwater Inspection Program, as well as the Port of Oakland's On-Call Stormwater Compliance and Planning contract.

Kevin Torres, Northgate
Role: Field Team Lead

Mr. Torres is a Senior Scientist at Northgate and has 24 years of experience in the fields of stormwater compliance, hazardous materials business plans and assessment, water and sediment quality, Phase I environmental site assessments (ESAs), environmental impact reports (EIRs) and CEQA compliance, ecological risk assessments (ERAs), toxicology, and biology. He has supported municipalities with a variety of inspections, analyses, and reporting requirements to comply with the MRP, Phase II Permit, and IGP. Mr. Torres has conducted five years of OVTA years per the MRP and performed multiple Phase I ESAs in accordance with ASTM and USEPA Standards. He has assessed environmental impacts and identified mitigation and measures for EIRs. Mr. Torres is familiar with environmental regulations and guidance for stormwater and hazardous materials permit compliance, CEQA, NEPA, risk assessment, and site investigation (CERCLA, RCRA).

5.0 PROJECT MANAGEMENT

The LWA Team's overall approach to project management and successfully providing project administration, grant management, and technical support is based on 1) providing the necessary communication mechanisms and check-in points to ensure that the Project Team is meeting expectations and needs; 2) completing tasks on schedule; 3) leveraging existing collaborative mechanisms to streamline approaches, and 4) completing work within the agreed budget. The LWA Team has available and qualified staff as well as management efficiency and flexibility to meet the needs of the City and the Regional Partners. The basic components of the LWA Team's approach to managing and completing the Project include the following:

Project Management – T**he LWA Project Manager (PM), Elizabeth Yin, will provide overall project management of all four tasks identified in the Scope of Work and will work closely with assigned task leads to ensure that the work meets project outputs and outcomes**. Task leads are assigned based on their extensive expertise and leadership within each Task's Scope of Work. Given the regional and distributed nature of the Scope of Work, Task leads will develop work scopes and budgets alongside the Regional Partners and report to the LWA PM. Task leads will maintain regular consultations with the LWA PM on project approaches, risks, and solutions while offering direct communication channels to key stakeholders. Their role includes quality assurance review of deliverables and communication materials, as well as contributing additional technical expertise and institutional knowledge to support project success.

Schedule & Budget Management – Ms. Yin will maintain a master schedule with the due dates and budgets for all grant-funded tasks in the Project. The LWA PM will promptly notify the City PM of any changes in the project progress. Brief progress reports and budget summaries will be submitted with invoices to assist the City PM in understanding work completed and budget status. With this streamlined approach to project management, the LWA PM can ensure that the Project remains in compliance with the USEPA Grant Agreement and Workplan.

Coordination & Communication – The LWA PM will serve as the primary point of contact for the duration of the Project. The LWA PM will maintain close contact with the City, Regional Partners, and the LWA Team to ensure that all parties have a clear understanding of the project tasks, and that work is focused on achieving project objectives. With the LWA PM as the primary point of contact for the City, the LWA PM will work to identify key lines of communication with the Regional Partners and Project Management Team (PMT). The LWA PM will arrange project meetings with the City, the Regional Partners, or the Project Management Team, at critical check-in points as needed. The LWA PM will coordinate with the LWA Team to provide timely progress reports as needed to fulfill elements of the USEPA Grant Agreement.

Administrative – The LWA PM will be responsible for administrative tasks associated with the Project, including task orders, scopes, and contracts. Ms. Yin will also maintain budgets for services provided as in-kind matches in order to monitor progress and prepare reports to meet the requirements of the USEPA Grant Agreement.

6.0 PROJECT APPROACH

Task 1.0 Regional PCB Monitoring Program

This task will support ongoing monitoring to address five priority PCBs management information needs identified in MRP Provision C.8.f. (i.e., source identification, contributions to Bay impairment, management action effectiveness, loads and status, and trends).

Task 1.1 Small Tributary Monitoring Stations Monitoring

The LWA Team, in collaboration with the countywide stormwater programs and the RMP, will locate and install four fixed monitoring stations (one each in Alameda, Contra Costa, San Mateo, and Santa Clara counties). The stations will support regional monitoring and modeling conducted by the RMP and countywide programs. The LWA Team will coordinate purchasing equipment, permitting, and installation of each station in collaboration with the countywide programs and the RMP. The countywide programs will be responsible for funding the installation of the physical components of the monitoring stations (e.g.,

pad, enclosure, security, power supply, communications, and gages) through grant matching funds. The RMP will purchase instrumentation and sensors for each station. The timing of installation is contingent on coordination with the stormwater programs and the RMP's available funding. At least one of the stations will be installed by the end of the project's second year, and the remaining stations will be installed in subsequent years.

Task 1.2 Alternative Source Property Investigation

The LWA Team, in collaboration with the PMT, will develop and pilot test alternative source property investigation tools, including the use of canine detection dogs and passive samplers to rapidly screen areas for sources of PCBs and elevated PCBs loading. The detection dog pilot study will be conducted in collaboration with FieldLab LLC (or a suitable alternative) and will assess the feasibility of working with a detection dog to screen old industrial areas for moderate/high PCBs in combination with verification monitoring using traditional methods. FieldLab LLC has proven its PCBs detection dog capabilities in Washington State. In this pilot study, the LWA Team will support the FieldLab LLC team to survey old industrial areas in one or several Bay Area locations with moderate or high concentrations of PCBs, and in one or more locations that are not yet known to have elevated PCBs. The pilot study will combine field deployment of the detection dog with the collection and PCBs analysis of sediment samples to verify positive (or negative) source identification. In addition, the LWA Team will implement a pilot study to investigate water monitoring screening tools to identify high PCBs source areas rapidly and economically. The pilot study will test different passive samplers and deployment techniques during storm events to assess their potential to differentiate between catchments associated with higher and lower loadings of PCBs. The study area will focus on an approximately 77-acre zone in West Oakland that generated a composite sediment sample of over 50 µg/kg dw total PCBs in 2024 sampling and will incorporate a rigorous QA/QC program to help ensure the reliability of the method.

Deliverables: Monitoring Plans for the Detection Dog and Rapid Screening Tool pilot studies and amended overall project Quality Assurance Project Plan (QAPP, see Task 3.2); conducting the pilot studies; and technical reports that comprehensively assess the alternative monitoring methods studied and provide guidance on how the Project Partners could use these methods for identifying source areas.

Task 2.0 Phase II Permittee PCBs Program Development and Monitoring

San Francisco Bay Area Phase II permittees will be required to implement PCBs control programs when the Phase II Permit is reissued. Control programs would be scaled based on similar programs required of the Phase I permittees under the MRP to reduce PCBs loads to the San Francisco Bay. The LWA Team's approach incorporates flexibility in the planned work tasks given that the final PCBs control programs will not be established until the permit is reissued. The team members will leverage their knowledge of the MRP PCBs control program and experience with the Phase II Permit and the participating permittees. At the outset of each task, the LWA Team will meet with the permittees to establish a workplan for the task and identify any changes to the general task scope based on regulatory requirements and permittee needs. Tasks are scheduled to initiate efforts on programs most likely to be in the reissued permit earlier in the project. Early tasks will establish the foundation for implementation of the control programs at the local level by providing guidance, planning, and mapping needed to identify potential PCBs source areas and properties.

Task 2.1 Green Infrastructure Planning

Permittees will be required to implement green infrastructure (GI) that incorporates low-impact development drainage design. GI Plans will serve as an implementation guide and reporting tool for the shift from traditional storm drain infrastructure toward GI. The LWA Team will reference GI Plans and templates developed by MRP permittees and work with the Phase II permittees to customize a GI Plan template that reflects community goals and permit requirements. The schedule allows ample time for internal review of the template.

Deliverables: GI Plan template; training materials for municipal staff; outreach for municipal officials.

Task 2.2 PCB-Containing Building Materials and Waste Control Program

PCBs-containing building materials are a potentially significant source of PCBs that can be abated through controls implemented when buildings containing these materials are demolished. MRP

permittees created protocols to identify buildings likely to have PCBs containing materials and require project proponents to assess buildings and remove the PCBs containing materials prior to demolition. The LWA Team will adapt the protocols and procedures developed by MRP permittees for building demolition and develop guidance for enhancing construction site control programs to account for recommended best management practices and inspection procedures. The work plan for this task is structured to allow ample time for permittees to review and internally vet the proposed protocols with building officials.

Deliverables: PCBs Demolition Program documents; model ordinance and staff report; training materials for municipal staff; outreach for municipal officials.

Task 2.3 Identification of PCB Source Properties and Areas

The reissued Phase II Permit will require permittees to identify and investigate land areas likely to contribute PCBs to municipal storm drainage systems. The process involves a multi-step, iterative process that can vary based on watershed and data availability. Some of the participating permittees conducted preliminary geospatial evaluations of potential source areas while others need to conduct similar preliminary evaluations. The LWA Team will coordinate with permittees to gather and compile existing geospatial data and develop the source area and property investigation protocols based upon similar protocols developed by MRP permittees and foundational work initiated by MCSTOPPP, NCSPPP and Benica. The LWA Team will conduct a geospatial analysis to identify priority areas for desktop evaluation. After consulting with permittees, the LWA Team will conduct the desktop evaluations, which will identify and prioritize source areas for field evaluation. Once priority areas are identified, the LWA Team will amend the overall project QAPP (see Task 3.2), which will be submitted to EPA for approval prior to the start of monitoring. The LWA Team will conduct a pilot evaluation of prioritized source areas, which will include collecting and compositing street sediment from the public rights of way (ROW) to assess areawide PCBs concentrations. The pilot effort will include up to 10 source areas distributed among the participating permittees. Final site selection will be coordinated with and approved by the permittees. Following evaluation of the sediment sampling results, recommendations for the next steps will be developed. Findings from the evaluation will be documented in a summary report.

Deliverables: Source area and property investigation protocols; preliminary report of the prioritized areas and results of the desktop analysis; amended project QAPP; monitoring of 10 prioritized source areas; final summary report of the investigation results with exhibits and geospatial data layers.

Task 2.4 Controlling PCBs from Bridges and Overpasses

Like buildings, bridges potentially have PCBs-containing materials in expansion joints. In 2024, Caltrans developed a Standard Operating Procedure (SOP) for evaluating bridges and removing materials during roadway replacement or major repairs. The LWA Team will develop an inventory of bridges that includes bridge ownership, and a replacement/repair schedule based on the Caltrans National Bridge Inventory. The LWA Team will develop guidelines for permittees to implement the Caltrans SOP when planning and conducting bridge roadway replacement or major repair.

Deliverables: Bridge inventories for participating permittees and instructions for accessing the NBI database; guidelines to implement the Caltrans SOP.

Task 2.5 Mercury Collection and Recycling Program

The reissued Phase II Permit will require permittees to promote and facilitate programs that collect and recycle mercury-containing consumer products and equipment. Recycling programs are typically handled by county health departments. The LWA Team will evaluate existing recycling programs, including outreach materials and reporting systems. The LWA team will develop a strategy to improve outreach and develop a tool to track the collected amount of mercury. A final report will summarize guidance and information to facilitate the maintenance of the program and ongoing tracking.

Deliverable: Guidance document for tracking and ongoing maintenance of the program.

Task 2.6 PCB Risk Reduction Program

The reissued Phase II Permit will require permittees to conduct or participate in an ongoing risk reduction program to address the public health impacts of PCBs in San Francisco Bay. The LWA team will research the existing programs, identify the at-risk populations within the Phase II jurisdictions, and work with

permittees to develop a strategy and guidance to implement a program that is focused on people and communities most likely to consume San Francisco Bay-caught fish.

Deliverable: Fish risk reduction program strategy and guidance.

Task 2.7 TMDL Water Quality Monitoring

Discussions with Regional Water Board staff did not reach a conclusion regarding monitoring requirements for the PCBs TMDL. This scope is based on the last meeting in which permittees proposed monitoring focused on identifying source areas and properties. Pilot scale monitoring of source areas is part of Task 2.3. This task proposes pilot scale monitoring of individual potential source properties. Work on this task is proposed to start after the anticipated adoption of the permit and the LWA Team will work with permittees to rescope this work effort if the adopted permit requires a different monitoring approach. Under Task 2.3, the next steps will be identified for the prioritized source areas, which is expected to recommend an investigation of potential source properties. The LWA Team will amend the overall project QAPP (see Task 3), which will be submitted to EPA for approval prior to the start of monitoring efforts. The LWA Team will conduct a pilot source property investigation, which will include an inspection following the procedure developed in Task 2.3 and the collection of sediment from the property to assess PCBs concentrations. The pilot effort will include inspection and sampling of up to 10 source properties, distributed among the participating permittees. Final property selection will be coordinated with and approved by the permittees. Summary reports of the inspections and sampling results will be developed for each jurisdiction. These reports can form the basis of source property referrals to the Regional Water Board.

Deliverables: Amended project QAPP; monitoring of 10 prioritized source properties; final summary report of the investigations.

Task 2.8 Regional Load Reduction Accounting Framework

Permittees will be required to develop a methodology to account for the PCBs loads reduced through the implementation of control measures. The framework will encompass all the control measures required by the Phase II Permit. Following Regional Water Board staff guidance, the framework will be developed using the assessment methodologies described and cited in the MRP Fact Sheet. The methods cited were based on the BASMAA Source Control Load Reduction Accounting for RAAs. The LWA Team will use these approaches to customize a framework for the Phase II Permit's TMDL requirements and create a tracking tool (e.g., spreadsheet) to calculate actual and predicted load reductions by each permittee. Guidance will be developed to provide instructions on the tool's use and inform permittees what data they will need to track to demonstrate cumulative PCBs load reduced from each control measure implemented.

Deliverables: Load reduction accounting framework and tracking tool.

Task 3.0 Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning

To assist local public agencies in identifying areas that contribute high, moderate, and low levels of PCBs to the Bay via stormwater runoff, the MRP countywide programs have developed GIS maps and databases that identify the types of land areas, facilities, and activities that may generate PCBs. The MRP countywide programs have also developed Old Industrial Area Control Measure Plans (OICMPs) designed to control PCBs in stormwater from areas containing known or suspected sources or areas with evidence of moderate to high PCBs. This task will conduct additional monitoring, mapping, and control measure planning in support of OICMP implementation by MRP permittees.

Task 3.1 Workplan

The LWA Team will develop countywide program-specific workplans in collaboration with each program (i.e., ACCWP, CCCWP, SMCWPPP, SCVURPPP, and SSA). In project year 1, the LWA Team will develop a general workplan that reflects the county-specific priorities that will be completed over the duration of the Project. In addition, each year of the grant project, the LWA Team will prepare county-specific annual budgets to provide details on the scope of work (SOW) to be conducted by the LWA Team and the countywide programs in that project year. The general workplan and annual budgets will detail the tasks to be conducted by the LWA Team and the countywide programs within the allocated

grant budget and matching funds for Task 3. The SOW included in the general workplans, and the annual budgets will be consistent with the tasks described in Tasks 3.2 through 3.6, unless approved by the PMT and the EPA Grant Manager.

Deliverables: One general workplan for each countywide program (5 total) and an annual budget for each countywide program each year (5 total each year).

Task 3.2 Monitoring in Support of MRP Compliance (RFP Tasks 3.1, 3.2 and 3.3)

Monitoring tasks in the general workplans and annual budgets will include one or more of the following, as selected by each countywide program:

- **Large-scale public ROW and private property sampling**. Using sediment or water monitoring, investigate and identify sources of PCBs in catchments with old industrial land uses, or catchments where previous monitoring data have found elevated PCBs, but the source(s) have not yet been identified (i.e., MRP Provision C.12.b sampling).
- **Low-priority catchment verification water sampling**. Implement watershed or catchment-scale stormwater monitoring at sites where previous data have found low PCBs, and/or where PCBs sources are not suspected to further verify the watershed or catchment is not producing moderate or high levels of PCBs (i.e., MRP Provisions C.8.f and C.12.b sampling).
- **Load reduction verification**. Develop and implement a study to evaluate the impacts of PCBs controls on load reductions at the watershed, catchment, or property-specific scale in support of county-specific OICMP implementation (i.e., supports MRP Provision C.12.a accounting methodology development, and C.8.f / C.12.c sampling).

The monitoring priorities for each countywide stormwater program are provided in **Table 2**.

The LWA Team will also develop an overall project QAPP. The QAPP will be submitted to EPA for approval prior to the start of field monitoring efforts. The overall project QAPP will be amended as needed to address additional monitoring efforts.

Deliverables: County-specific monitoring plans documented in the annual budget updates (Task 3.1); overall project QAPP and QAPP amendments as needed; conducting the monitoring studies; CEDEN compatible monitoring data submittals for data collected during the previous Water Year and monitoring status updates reported in each countywide program's annual UCMR; and status updates and results on Task 3.2 implementation during the previous fiscal year reported in each countywide program's Annual Report. Documentation of the Task 3.2 project activities and the outcomes achieved over the entire project period will be reported in the Final Project Report (Task 4).

Task 3.3 Mapping in Support of MRP Compliance (RFP Task 3.4)

Mapping tasks may include correcting and improving the existing GIS maps and databases to better quantify loads reduced through control measure implementation. Specific mapping tasks, to be selected by the countywide programs, may include: 1) Map direct discharge properties; 2) Map non-MS4 permitted land areas; 3) Map structural and source controls; 4) Map storm drain catchments; and 5) Revisions/corrections to land use category base maps. The mapping priorities for each countywide program are provided in **Table 2**.

Deliverables: Improved GIS maps and databases. Documentation of Task 3.3 project activities and the outcomes achieved over the entire project period will be reported in the Final Project Report (Task 4).

Task 3.4 Implement Programs to Control PCBs Discharges from Private Properties (RFP Task 3.5)

The LWA Team will implement the source area control programs described in the countywide Old Industrial Control Measure Plans. These programs identify parcels that disproportionately contribute moderately elevated PCBs concentrations to the MS4 through onsite inspections and monitoring and address the moderate source through voluntary actions by the responsible party or enforcement actions taken by a permittee. Moderate parcels to be inspected will be identified using existing data and through the source property monitoring conducted in Task 3.2. This task will include: 1) desktop evaluation to identify properties for inspections/monitoring; 2) conduct inspections and monitoring to identify properties

contributing elevated PCBs to MS4s; 3) property-specific control measure assessments to identify potential on-site controls; 4) follow-up with property owners to document implementation of on-site controls to prevent release of PCBs to MS4s; and 5) reporting.

Deliverables: CEDEN compatible monitoring data submittals for all data collected during the previous Water Year and monitoring status updates reported in each countywide program's UCMR; reporting on Task 3.4 implementation during the previous fiscal year in each countywide program's Annual Report. Documentation of Task 3.4 project activities and the outcomes achieved over the entire project period will be reported in the Final Project Report (Task 4).

Table 2. Countywide Stormwater Program Priorities[1]

	Task Description	ACCWP	CCCWP	SCVURPPP	SMCWPPP	SSA
3.1	**Workplan Development**	H	H	H	H	H
3.2	**Monitoring in Support of MRP Compliance**					
	Source property investigation	H	H	H	H	H
	Low-priority catchment verification water sampling	M	M	M	M	M
	Load reduction verification monitoring	L	L	H	H	L
3.3	**Mapping**					
	Map direct discharge properties	L	L	M	H	H
	Map non-MS4 permitted land areas	L	L	L	L	H
	Map structural and source controls	M	M	M	M	H
	Map storm drain catchments	L	H	L	L	H
	Revisions/corrections to land use category base map	L	H	L	L	H
3.4	**Implement Programs to Control PCBs Discharges from Private Properties**	H	H	H	H	L
3.5	**Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices**	H	H	H	M	M
3.6	**Plan and Design Stormwater Treatment Systems**	H	H	L	L	M

1 H = High Priority; M = Medium Priority; L = Low Priority.

Task 3.5 Develop and Implement Programs to Control PCBs Discharges through MS4 Operations and Maintenance Practices (RFP Task 3.6)

The LWA Team will develop and assist with the implementation of county-specific programs to use enhanced operation and maintenance practices to control PCBs in storm drain system infrastructure. Potential methods include street sweeping; cleaning of locations in the storm drain system where sediments with PCBs accumulate (e.g., inlets and targeted pump station sumps); and street or storm drain flushing, collection of the wastewater and sediment, and routing to the sanitary sewer for treatment.

Deliverables: County-specific programs identified in the annual budgets (Task 3.1), potential implementation of the action items included in the programs; CEDEN compatible monitoring data submittals for any data collected during the previous Water Year and status updates reported in each countywide program's annual UCMR; and reporting on Task 3.5 implementation during the previous fiscal year in each countywide program's Annual Report. Documentation of Task 3.5 project activities and the outcomes achieved over the entire project period will be reported in the Final Project Report (Task 4).

Task 3.6 Plan and Design Stormwater Retrofit Treatment Systems (RFP Task 3.7)

Retrofit projects provide treatment control for existing developed areas without redeveloping the tributary area. Treatment controls may include green stormwater infrastructure (GSI) or non-GSI treatment. The LWA Team will develop conceptual designs for stormwater treatment systems that may be identified by the countywide stormwater programs as potential projects to address old industrial or moderate PCBs areas.

Deliverables: 10% concept designs for PCBs treatment measures identified by the countywide stormwater programs and summary reports documenting justification for concept design at the chosen location(s), results of preliminary investigation, identification of treatment type and sizing, preliminary schematics, and high-level cost estimate, as budget allows. Documentation of Task 3.6 project activities

and the outcomes achieved over the entire project period will be reported in the Final Project Report (Task 4).

Task 4.0 Program Administration and Management

The LWA Team will perform all activities associated with Task 4 throughout the project period. LWA has prepared a team of individuals who have 30 years of experience leading Bay Area stormwater programs and supporting stormwater programs across California. Key LWA staff assigned to this project currently manage grant projects for CCCWP and support the implementation and management of grant projects for Bay Area stormwater permittees and other water sectors. The LWA Team draws from experience in both countywide stormwater program and grant management to integrate best practices in program coordination, budgeting, and scheduling.

In addition to sound, effective, technical work, effective execution of the PCBs TMDL WQIF Grant requires strong project management, transparent communication, and full compliance with grant requirements. Task 4 is designed to ensure that the LWA Team works efficiently, meets the requirements of the Grant Agreement, and remains responsive to and collaborative with stakeholder priorities through its duration. A robust project management framework will be implemented to maintain clear scheduling, milestone tracking, and internal coordination across multiple technical tasks. The LWA Team will have project team check-ins to ensure compliance with WQIF grant requirements while also leveraging existing BAMSC and regional meetings to streamline task implementation, document production, and regional collaboration.

The LWA Team PM will coordinate and serve as the primary point of contact for BAMSC stakeholders (including the PMT), permittees and countywide programs throughout the duration of the project period. The Team has well-established relationships with all the participating partners and will draw from decades of experience to ensure effective program coordination. Key communication mechanisms and check-in points with BAMSC agencies will leverage existing regular meetings to streamline communication throughout the project period. As needed, the LWA Team will meet to review the scope, budget, and schedule, facilitate feedback and coordination among collaborators, and document progress on a monthly or quarterly basis.

The LWA Team has a strong track record of on-time and on-budget project delivery. The PM will manage the in-kind match by developing a match management tracking spreadsheet, compiling a quarterly budget, and completing a quarterly In-Kind Match Summary Report. The In-Kind Match Summary Report will include all match documents from each partner agency to be provided to San Pablo for auditing purposes. To ensure that tasks and grant requirements are achieved, the PM will maintain a master schedule with timelines, due dates, and budgets for tasks under the Project, perform monthly invoice reconciliation, and complete monthly progress reports to be submitted with invoices.

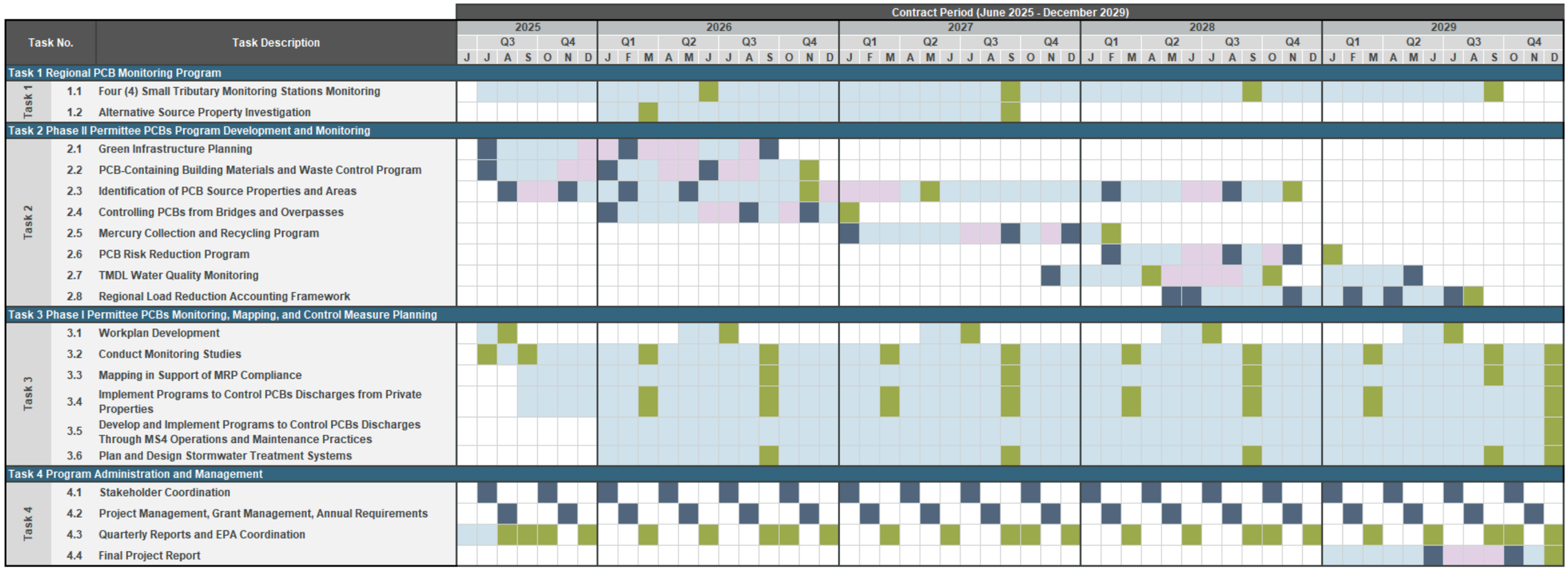
Finally, the LWA Team will support San Pablo with all aspects of grant management, reporting and invoicing, including the development of all content for quarterly progress reports, the annual Federal Financial Report and Minority Business Enterprise/Women Business Enterprise (FFR and MBE/WBE) reports to the EPA for review and submittal by San Pablo. The LWA Team's proven management approach will ensure that the Project remains compliant with the Grant Agreement requirements, including maintaining clear records of expenditures, task completion, and project challenges, allowing for transparent project administration. At the end of the project period, the LWA Team will draft the Final Project Report in accordance with the Notice of Award, including details of project activities and achievements over the project period.

7.0 SCHEDULE OF WORK

The LWA Team has developed a project schedule to meet both the City and the USEPA Grant Agreement timeline requirements, with work commencing on June 1, 2025, and concluding by December 30, 2029. Our comprehensive schedule reflects a measured approach that accounts for seasonal considerations essential for field work, appropriate sequencing of monitoring activities, and adequate time for stakeholder engagement and review processes. This proposed timeline demonstrates our ability to meet all project deadlines efficiently, with specific milestones and regular communication for each deliverable aspect of the Project aligned with existing regional stakeholder processes. We recognize the importance of regular communication, and our approach emphasizes efficient coordination among team members, the City, the USEPA Project Officer, and the Regional Partners. Critical path elements have been carefully mapped to ensure that the Project maintains momentum while allowing for thorough review at each stage of work.

Deliverable Development
Deliverable Due Date
Meetings/Communication
Permittee Comment/Response Period

Table 3. Schedule of Work



8.0 COST PROPOSAL

The LWA Team's approach emphasizes cost efficiency while delivering comprehensive, high-quality service that meets all scope of work elements outlined in the RFP and the EPA WQIF Grant Application. We have carefully structured our budget to align with the EPA Grant Application Task Budget and estimated cost identified in the RFP. Resources for each task have been appropriately allocated based on Regional Partner allocations and expected match contributions. The LWA Team developed the cost proposal to include[1]: Task-by-task cost estimates with associated team member allocation; comprehensive cost for all tasks and sub-tasks as specified in Section B, Item #3; itemization of project expenses and sub-consultant fees, including our proposed markup. We confirm our readiness to submit certified payroll records as required. Our Team is committed to delivering exceptional value within the proposed budget framework while maintaining flexibility to address evolving project needs.

[1] Individual staff allocations and rates for each team can be made available upon request. For the cost proposal, a five-year average of each staff rate (detailed in Section 8.1) was used to estimate the level of effort for the duration of the project.

Table 4. Cost Proposal[1,2]

		Task Hours												
												5%	5%	
Task No.	Task Description	LWA	Geosyntec	EOA	Stone Creek	Integral	AMS	Northgate	Totals	Labor Cost	ODCs	ODC Markup	Subconsultant Markup	Total Cost
1.0	Regional PCB Monitoring Program	0	57	318	0	867	464	0	1,706	$ 368,474	$ 284,002	$ 14,200	$ 33,334	$ 700,009
1.1	Four (4) Small Tributary Monitoring Stations Monitoring	0	57	48	0	747.2	16	0	868	$ 179,362	$ 192,000	$ 9,600	$ 19,048	$ 400,010
1.2	Alternative Source Property Investigation	0	0	270	0	120	448	0	838	$ 189,112	$ 92,002	$ 4,600	$ 14,286	$ 300,000
2.0	Phase II Permittee PCBs Program Development and Monitoring	2834	152	0	711	0	570	100	4,367	$ 1,062,671	$ 17,844	$ 892	$ 20,456	$ 1,101,863
2.1	Green Infrastructure Planning	46	0	0	143	0	0	0	189	$ 55,594	$ -	$ -	$ 2,088	$ 57,682
2.2	PCB-Containing Building Materials and Waste Control Program	194	0	0	16	0	0	0	210	$ 46,564	$ -	$ -	$ 234	$ 46,798
2.3	Identification of PCB Source Properties and Areas	1781	28	0	98	0	276	0	2,183	$ 515,810	$ 8,372	$ 419	$ 5,380	$ 529,981
2.4	Controlling PCBs from Bridges and Overpasses	4	0	0	78	0	0	0	82	$ 19,493	$ -	$ -	$ 902	$ 20,395
2.5	Mercury Collection and Recycling Program	4	0	0	164	0	0	0	168	$ 37,541	$ -	$ -	$ 1,804	$ 39,345
2.6	PCB Risk Reduction Program	4	0	0	138	0	0	0	142	$ 33,909	$ -	$ -	$ 1,623	$ 35,531
2.7	TMDL Water Quality Monitoring	211	32	0	18	0	294	100	655	$ 160,809	$ 9,472	$ 474	$ 5,912	$ 176,667
2.8	Regional Load Reduction Accounting Framework	590	92	0	56	0	0	0	738	$ 192,951	$ -	$ -	$ 2,513	$ 195,465
ACCWP	3.0 Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning	0	2246	0	0	0	2429	330	5,005	$ 1,242,894	$ 241,948	$ 12,097	$ 74,847	$ 1,571,786
ACCWP	3.1 Workplan Development	0	85	0	0	0	0	0	85	$ 28,621	$ -	$ -	$ 1,431	$ 30,052
ACCWP	3.2 Conduct Monitoring Studies	0	81	0	0	0	1819	0	1,900	$ 407,549	$ 113,275	$ 5,664	$ 26,324	$ 552,812
ACCWP	3.3 Mapping in Support of MRP Compliance	0	354	0	0	0	0	0	354	$ 94,114	$ -	$ -	$ 4,706	$ 98,820
ACCWP	3.4 Implement Programs to Control PCBs Discharges from Private Properties	0	962	0	0	0	610	330	1,902	$ 486,200	$ 123,673	$ 6,184	$ 30,803	$ 646,859
ACCWP	3.5 Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices	0	354	0	0	0	0	0	354	$ 102,510	$ 2,500	$ 125	$ 5,257	$ 110,392
ACCWP	3.6 Plan and Design Stormwater Treatment Systems	0	410	0	0	0	0	0	410	$ 123,900	$ 2,500	$ 125	$ 6,326	$ 132,851
CCCWP	3.0 Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning	0	1563	0	0	2404	0	0	3,967	$ 823,117	$ 217,471	$ 10,874	$ 52,573	$ 1,104,035
CCCWP	3.1 Workplan Development	0	67	0	0	0	0	0	67	$ 23,946	$ -	$ -	$ 1,197	$ 25,143
CCCWP	3.2 Conduct Monitoring Studies	0	81	0	0	1875.9	0	0	1,957	$ 329,157	$ 162,995	$ 8,150	$ 25,015	$ 525,317
CCCWP	3.3 Mapping in Support of MRP Compliance	0	292	0	0	0	0	0	292	$ 77,096	$ -	$ -	$ 3,855	$ 80,951
CCCWP	3.4 Implement Programs to Control PCBs Discharges from Private Properties	0	580	0	0	528	0	0	1,108	$ 233,148	$ 54,476	$ 2,724	$ 14,517	$ 304,865
CCCWP	3.5 Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices	0	224	0	0	0	0	0	224	$ 64,760	$ -	$ -	$ 3,238	$ 67,998
CCCWP	3.6 Plan and Design Stormwater Treatment Systems	0	319	0	0	0	0	0	319	$ 95,010	$ -	$ -	$ 4,751	$ 99,761
SCVURPPP	3.0 Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning	0	0	3959	0	2747	0	0	6,706	$ 1,438,834	$ 221,904	$ 11,095	$ 83,592	$ 1,755,425
SCVURPPP	3.1 Workplan Development	0	0	236	0	0	0	0	236	$ 63,576	$ -	$ -	$ 3,179	$ 66,755
SCVURPPP	3.2 Conduct Monitoring Studies	0	0	112	0	0	0	0	112	$ 614,340	$ 116,525	$ 5,826	$ 36,835	$ 773,526
SCVURPPP	3.3 Mapping in Support of MRP Compliance	0	0	466	0	0	0	0	466	$ 113,004	$ 379	$ 19	$ 5,670	$ 119,072
SCVURPPP	3.4 Implement Programs to Control PCBs Discharges from Private Properties	0	0	1408	0	1217	0	0	2,625	$ 552,454	$ 105,000	$ 5,250	$ 33,135	$ 695,839
SCVURPPP	3.5 Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices	0	0	382	0	0	0	0	382	$ 95,460	$ -	$ -	$ 4,773	$ 100,233
SCVURPPP	3.6 Plan and Design Stormwater Treatment Systems	0	0	0	0	0	0	0	-	$ -	$ -	$ -	$ -	$ -
SMCWPPP	3.0 Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning	0	0	1488	0	1173	0	0	2,661	$ 575,780	$ 93,440	$ 4,672	$ 33,695	$ 707,587
SMCWPPP	3.1 Workplan Development	0	0	156	0	0	0	0	156	$ 44,596	$ -	$ -	$ 2,230	$ 46,826
SMCWPPP	3.2 Conduct Monitoring Studies	0	0	638	0	653	0	0	1,291	$ 273,318	$ 48,950	$ 2,448	$ 16,236	$ 340,951
SMCWPPP	3.3 Mapping in Support of MRP Compliance	0	0	130	0	0	0	0	130	$ 32,252	$ 490	$ 25	$ 1,638	$ 34,405
SMCWPPP	3.4 Implement Programs to Control PCBs Discharges from Private Properties	0	0	494	0	520	0	0	1,014	$ 206,452	$ 44,000	$ 2,200	$ 12,633	$ 265,285
SMCWPPP	3.5 Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices	0	0	70	0	0	0	0	70	$ 19,162	$ -	$ -	$ 958	$ 20,120
SMCWPPP	3.6 Plan and Design Stormwater Treatment Systems	0	0	0	0	0	0	0	-	$ -	$ -	$ -	$ -	$ -
SSA	3.0 Phase I Permittee PCBs Monitoring, Mapping, and Control Measure Planning	0	0	212	0	0	640	0	852	$ 189,812	$ 54,388	$ 2,719	$ 12,346	$ 259,265
SSA	3.1 Workplan Development	0	0	33	0	0	16	0	49	$ 14,122	$ -	$ -	$ 706	$ 14,828
SSA	3.2 Conduct Monitoring Studies	0	0	20	0	0	580	0	600	$ 126,950	$ 29,388	$ 1,469	$ 7,890	$ 165,698
SSA	3.3 Mapping in Support of MRP Compliance	0	0	55	0	0	44	0	99	$ 20,948	$ -	$ -	$ 1,047	$ 21,995
SSA	3.4 Implement Programs to Control PCBs Discharges from Private Properties	0	0	0	0	0	0	0	-	$ -	$ -	$ -	$ -	$ -
SSA	3.5 Develop and Implement Programs to Control PCBs Discharges Through MS4 Operations and Maintenance Practices	0	0	88	0	0	0	0	88	$ 22,896	$ -	$ -	$ 1,145	$ 24,041
SSA	3.6 Plan and Design Stormwater Treatment Systems	0	0	16	0	0	0	0	16	$ 4,896	$ 25,000	$ 1,250	$ 1,557	$ 32,703
	4.0 Program Administration and Management	2565	0	0	0	0	0	0	2,565	$ 630,029	$ -	$ -	$ -	$ 630,029
	4.1 Stakeholder Coordination	422	0	0	0	0	0	0	422	$ 115,559	$ -	$ -	$ -	$ 115,559
	4.2 Project Management, Grant Management, Annual Requirements	775	0	0	0	0	0	0	775	$ 178,633	$ -	$ -	$ -	$ 178,633
	4.3 Quarterly Reports and EPA Coordination	1082	0	0	0	0	0	0	1,082	$ 266,359	$ -	$ -	$ -	$ 266,359
	4.4 Final Project Report	286	0	0	0	0	0	0	286	$ 69,477	$ -	$ -	$ -	$ 69,477
	Totals	5400	4018	5977	711	7191	4103	430	$ 27,830	$ 6,331,610	$ 1,130,997	$ 56,550	$ 310,842	$ 7,829,999

1. The distribution of Program-specific budget allocations within Task 3 across the various sub-tasks is preliminary; the final budget distribution across Task 3 sub-tasks for each stormwater program will be determined in consultation with Program and Permittee Staff as part of the workplan development, and will likely be iterative over the course of the Project. The program-specific annual budget workplans will define the budget allocation across the various Task 3 sub-tasks during each year of the grant.
2. Individual staff allocations and rates for each team can be made available upon request. For the cost proposal, a five-year average of each staff rate (detailed in Section 8.1) was used to estimate the level of effort for the duration of the project.

8.1 TEAM RATES

The following table presents the rates for all staff on the LWA Team. The LWA Team requests a uniform rate increase each fiscal year using a fixed annual escalation of 3% from the rates displayed in this table. A five-year average of each staff rate, using the specified 3% increase, was used to estimate the level of effort for the duration of the Project.

Table 5. LWA Team Rates

Firm	Classification	Rates (2025-2026)	Classification	Rates (2025-2026)
Larry Walker Associates	President	$368	Project Staff II-A	$221
	Senior Executive	$357	Project Staff II-B	$202
	Executive Vice President	$342	Project Staff I-A	$176
	Vice President	$324	Project Staff I-B	$150
	Associate II	$304	Project Staff I-C	$142
	Associate I	$289	Graphic Designer	$155
	Senior Staff II	$269	Contract Manager	$155
	Senior Staff I	$248	Administrative	$82
Geosyntec	Senior Principal	$361	Designer	$201
	Principal	$340	Staff Professional	$191
	Senior Professional	$314	Drafter/CADD Operator/Artist	$180
	Project Professional	$283	Senior Drafter/Senior CADD Operator	$175
	Professional	$252	Project Administrator	$108
	Senior Designer	$232	Clerical	$88
	Senior Staff Professional	$221		
EOA	Principal	$330	Senior Engineer/Scientist II	$243
	Senior Managing Engineer/Scientist I	$325	Senior Engineer/Scientist I	$222
	Managing Engineer/Scientist III	$321	Associate Engineer/Scientist III	$212
	Managing Engineer/Scientist III	$303	Associate Engineer/Scientist II	$202
	Managing Engineer/Scientist I	$288	Associate Engineer/Scientist I	$171
	Senior Project Manager	$282	Associate Engineer/Scientist	$154
	Senior Technical Specialist	$278	Technician, Administrative Manager	$130
	Senior Engineer/Scientist III	$268	Clerical/Computer Data Entry	$95
Stone Creek Environmental	Quality Assurance	$317	Field Inspector	$192
	Principal Compliance Specialist	$292	Intern	$114
	Compliance Specialist II	$205	Administrative Assistance	$114
	Compliance Specialist I	$185		
Integral	Principal	$232	Technical Specialist	$97
	Senior Scientist	$194	Senior Technical Editor	$142
	Project Scientist	$171	Senior Project Specialist	$116
	Scientist	$147	Project Specialist	$90
	Assistant Scientist	$117	Certified Industrial Hygienist	$259
AMS	Senior Principal Scientist	$262	Staff Scientist	$146
	Senior Scientist	$152	GIS Specialist	$152
Northgate	Principal III	$386	CAD/GIS/Web Specialist I	$210
	Principal II	$333	GIS/Data Analyst II	$195
	Principal I	$322	GIS/Data Analyst I	$168
	Project Manager	$322	CAD Operator II	$184
	Associate II	$314	CAD Operator I	$168
	Associate I	$293	Database Manager	$168
	Senior II	$271	Contract Manager	$168
	Senior I	$254	Field Technician II	$136
	Project II	$231	Field Technician I	$113
	Project I	$210	Project Assistant III	$161
	Senior Field Geologist	$201	Project Assistant II	$147
	Staff II	$174	Project Assistant I	$113
	Staff I	$148	Administrative Assistant	$94
	CAD/GIS/Web Specialist II	$226	Technical Editor	$151
Reimbursable Costs				
Direct Expenses				Cost plus 5%
Subcontract Services				Cost plus 5%
Personal Automobile (per mile)				Current Gov't Rate
Photocopies (per page)				$0.25

9.0 METHOD OF PAYMENT

Per Addendum 1, released on April 16, 2025, our Team fully understands and accepts the method of payment for this contract as time and materials with a not-to-exceed amount.

10.0 REFERENCES

LWA's extensive portfolio demonstrates our commitment to excellence across diverse programs and client needs, regulatory frameworks, and stakeholder environments. The following references highlight our proven expertise with related projects and clientele.

Reference 1. MRP Compliance Support			
Client Name	Alameda Countywide Clean Water Program	**Client Type**	Public
Years of Service	2010-Present		
Reference	Sharon Gosselin, ACCWP Management Committee Chair sharon@acpwa.org ; (510) 670-6547		
Type of Project/Development	Program Implementation / Administrative Support	**Geographic Area Size/Scale**	Countywide program of 17 Permittees
Description of Services	See Project 1 for a full description.		

Reference 2. Technical Services and Staff Augmentation			
Client Name	Contra Costa Clean Water Program	**Client Type**	Public
Years of Service	2014-Present		
Reference	Andrea Bullock, CCCWP Administrative Analyst andrea.bullock@pw.cccounty.us; (925) 313-2194		
Type of Project/Development	Program Implementation / Administrative Support	**Geographic Area Size/Scale**	Countywide program of 21 Permittees
Description of Services	See Project 2 for a full description.		

Reference 3. Phase II Permit Compliance Support			
Client Name	Marin Countywide Stormwater Pollution Prevention Program	**Client Type**	Public
Years of Service	2013-Present		
Reference	Rob Carson, MCSTOPPP Program Administrator Rob.carson@marincounty.gov; (415) 473-2745		
Type of Project/Development	Permit Implementation / Program Support	**Geographic Area Size/Scale**	Countywide program of 12 Permittees
Description of Services	See Project 3 for a full description.		

11.0 CONSULTANT CONTRACT STATEMENT

LWA and its subconsultants accept the terms of the City's Agreement sample found in Attachment 1 of the RFP and do not request exceptions.

12.0 SPECIAL REQUIREMENTS

LWA acknowledges that this Project is funded in whole or in part by the federal government and requires compliance with all applicable DBE requirements as specified in 2 CFR § 200.321(b). Our organization is fully committed to taking all necessary affirmative steps to ensure that minority businesses, women's business enterprises, and labor surplus area firms are utilized whenever possible throughout this Project. Our Team includes small businesses and women-owned business enterprises.

Appendix 1.
Resumes

LARRY WALKER ASSOCIATES
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Elizabeth Yin, M.E.M.

Senior Scientist I

EDUCATION

M.E.M., Ecotoxicology & Environmental Health, 2014, Duke University, Durham, NC

B.S. Ecology & Evolutionary Biology, B.A., Environmental Science, 2010, Rice University, Houston, TX

REGISTRATIONS

Certificate of Geospatial Analysis, Duke University, NC 2014

YEARS OF EXPERIENCE

With LWA: 11 years
With other Firms: 1 year

SPECIALIZED TOOLS

ArcGIS v. 10.x

QGIS

ENVI

R / RStudio

PROFESSIONAL AFFILIATIONS

Member, Society of Environmental Toxicology and Chemistry (SETAC), Northern California Chapter

Member, California Stormwater Quality Association (CASQA)

Ms. Yin is a Senior Scientist I with Larry Walker Associates. She has a B.S. in Ecology & Evolutionary Biology from Rice University and a Master of Environmental Management from Duke University. Ms. Yin joined LWA after completing her Master's degree, where she concentrated in Ecotoxicology & Environmental Health, emphasizing water resources management. Ms. Yin's unique combination of skills allows her to address water quality issues through artful solutions and clear communication. At LWA, Ms. Yin has provided both technical support and project management on projects across multiple sectors, including stormwater regulatory assistance and compliance; wastewater regulatory compliance, pollution prevention; and watershed management.

Technical Support and Staff Augmentation, Contra Costa Clean Water Program. 2019-Present. Martinez, CA.

Project manager providing senior-level operations management to support the ongoing and day-to-day operational needs of the Clean Water Program. Facilitates permittee communications and coordination, leads the Administrative and Management Committees, supports the Municipal Operations Committee, provides regulatory insight and permit implementation support on Municipal Regional Permit (MRP) 3.0 Provisions C.2, C.4, C.5, C.9, C.10, C.17, developed comments on those provisions in MRP 3.0, and provides technical support on an as-needed basis. Leads a specialized workgroup focused on assessing the Clean Water Program's ArcGIS Online System (AGOL) and assessing Permittee needs associated with MRP 3.0. Provides CCCWP representation and support for work performed at the regional level through BAMSC Steering Committee and Subcommittees. Tasks include: planning meetings and agendas, supporting Permittees with permit implementation and compliance, developing schedules for implementation, conducting research and writing reports, preparing and managing budgets, presenting findings to Program staff and Management Committees, and developing recommendations.

Provides the Contra Costa Clean Water Program with on-call regulatory and technical support to facilitate members' stormwater needs. Technical support tasks include leading and developing grant applications for Program and Permittee projects; finalizing the CCCWP Stormwater Resource Plan; the principal author of the City of San Pablo's successful application for the Proposition 1 Stormwater Grant Program Implementation Plan Round 2. Serves as the Grant Project Manager for the Clean Watersheds for All (CW4A) project, overseeing the Project Team, reviewing and coordinating grant deliverables, and coordinating with the EPA Grant Administrator. Represents the Clean Water Program on the regional project, Watching Our Watersheds (WOW) through participation on the Project Management Team, distribution of project deliverables, reviewing workplans, and coordinating responses for the Program.

Municipal Regional Permit Support Services, Alameda Countywide Clean Water Program (ACCWP). 2022-Present. Hayward, CA

Facilitator for the ACCWP Data Management and GIS Subcommittee. Coordinating internal and external communications, representing the program on regional workgroups and committees, provided technical assistance for the reissuance of the MRP, coordinating training workshops for the subcommittee, alongside co-sponsored topics and themes with other ACCWP subcommittees, overseeing the development of a Data Management Plan. Tasks include: tracking MRP 3.0 requirements, planning meetings and agendas, developing processes for evaluation, conducting research and writing reports, presenting findings to Committee agencies, staff and Management Committees, and developing recommendations.

Phase II Permit Implementation, Multiple Clients. 2014-Present. CA.

Task lead in providing Phase II Stormwater Permit implementation support for multiple Small MS4 clients throughout the San Francisco Bay Region and the Central Valley. Experience in the development and implementation of tools to support various permit requirements, including Public Education and Outreach, Municipal Operations, Construction Requirements, and Illicit Discharges.

Led the development of a preliminary evaluation of PCBs and Mercury load reductions in multiple San Francisco Bay Region Phase II communities. Evaluated and quantified the pollutant load reduction value of public and private projects green infrastructure constructed and installed throughout Napa and Marin Counties using geospatial techniques. Developed a baseline estimate of the load reduction value of green infrastructure projects. Drafted figures and reports, participated in stakeholder group discussions, developed additional information to assist Phase II communities in program planning efforts.

Statewide Trash Amendments Regulatory and Compliance Support for the Stockton Urbanized Area. City of Stockton / County of San Joaquin. 2017-Present. Stockton, CA.

Task lead to the City of Stockton and the County of San Joaquin in a joint effort to address the Phase I Stockton Urbanized jurisdictional area requirements for compliance with the Statewide Trash Amendments and conducted compliance assessment of the Statewide Trash Amendments Track 1 and Track 2 to determine cost-effective and efficient pathways for compliance. Developed cost estimates and regulatory comparisons of the compliance pathways, assessed and refined Priority Land Uses, evaluated trash best management practice (BMP) implementation feasibility and performance, and developed strategies for prioritizing the City and County's current programmatic efforts and resources. Identifying and prioritizing catch basins for trash BMP implementation. Developed a novel approach to identify and refine Priority Land Uses (PLUs) and prioritize City and County programmatic efforts and resources. Evaluated trash control measures, sited catch basins for BMP implementation, identified potential multi-benefit treatment controls for retrofit activities, and developed a cost analysis to implement full-capture systems within priority implementation areas. Produced the Trash Amendments Track 2 Implementation Plan for the City and County's Phase I jurisdictional area and authored the County of San Joaquin's Phase II Trash Amendments Track 2 Implementation Plan. Currently assisting the City and the County in developing implementation tools for compliance with the Statewide Trash Amendments and providing monitoring planning and support for the County's baseline On-Land Visual Assessments.

LARRY WALKER ASSOCIATES
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Sandy Mathews, CPESC, QSD/QSP

Vice President

EDUCATION

Master's Program, Environmental and Waste Management, State University of New York at Stony Brook

B.A. Liberal Arts, History of Science; Technology and Society; Linguistics, 1988, State University of New York at Stony Brook

REGISTRATIONS

CPESC, No. 6131;
QSD/QSP No. 00001;
CGP ToR;
IGP QISP ToR 077;
10-hour OSHA Construction Safety (29 *CFR* 1926)

YEARS OF EXPERIENCE

With LWA: 16 years
With other Firms: 18 years

PROFESSIONAL AFFILIATIONS

CASQA
Chair, 2001-03

Director 2001-06; 2014-19

Chair Construction Sub-Committee, 1998-2001; 2006-15

Member: EPC and Strategic Planning Committees; BMP, Industrial, Phase II Sub-Committees

Member, 1992-Present

IECA
Director/Secretary 2008-13
Member 1996-Present
Western Chapter Director, 2000-07
Western Chapter President 2002-03

Member: SWCS, CWEA, WEF, Stormwater Institute

Ms. Mathews serves as a Project Manager for LWA's work in the stormwater field and has over 30 years of experience developing and implementing water quality compliance programs. She has developed and successfully implemented industrial, construction, and municipal stormwater programs. In 2008, CASQA recognized her contributions to the stormwater profession with its Leadership Award.

Small Municipal Stormwater Assistance, 2013-Present.

Project Manager or technical advisor providing on-call services to multiple Phase II municipalities in the San Francsico Bay Area including: the Cities Benicia, Petaluma; the Marin and Napa countywide programs; and the Ports of San Francisco and Oakland. Work varies by permittees and has involved developing tools and approaches for all aspects of the permit including legal authority, public outreach and participation, staff training, illicit discharge control, construction stormwater control, municipal operations, program effectiveness assessments, annual reporting, TMDL monitoring and status reporting, and trash reduction planning, and geospatial analyses to support pollutant reduction planning

- *Marin Countywide Stormwater Pollution Prevention Program. 2013-Present.*
- *Napa Countywide Stormwater Pollution Prevention Program. 2014-Present.*
- *City of Benicia. 2014-Present.*
- *Port of Oakland. 2013-Present.*
- *City of Petaluma. 2021-2022.*
- *Port of San Francisco. 2018-Present.*

Regulatory Assistance Services, California Stormwater Quality Association (CASQA). 2019-2022, 2024-2025. Redondo Beach, CA.

Led the CASQA team providing early input and language to the State Water Board on the pending reissuance of the Phase II Stormwater Permit. Coordinating with two stakeholder committees to develop proposed changes to the existing permit language and develop conceptual language for new sections on Asset Management, Trash, and Compliance Pathways for Receiving Water Limitations. Led the effort to coordinate the input from CASQA members on the informal draft permit, identified key high-level comments for the comment letter and integrated specific, red-lined comments into the 400+ page permit and subsequent negotiations with State Water Board staff.

Municipal Regional Permit Support Services, Alameda Countywide Clean Water Program (ACCWP). 2010-2015; 2015-2020; 2020-Present. Fremont, CA.

Project Manager leading the team providing stormwater permit services to ACCWP for three consecutive five-year contracts. Work has included supporting various program components including serving as the Program Manager (since 2022); facilitating the New Development Subcommittee coordinating quarterly permittee meetings and developing technical materials to support the implementation of the construction and post-construction requirements of the Municipal Regional Stormwater Permit (MRP).

Led the development of the 2021-22 through 2023-24 Program Annual Reports. Over the course of the contracts, coordinated more than 25 training workshops for New Development, Industrial and Illicit Discharge, and Maintenance subcommittees. Oversaw the development of the ACCWP Stormwater Resource Plan (SWRP).

Stormwater Technical and Staff Augmentation Services, Contra Costa Clean Water Program (CCCWP). 2014-Present. Martinez, CA.

Project Manager providing technical support services to CCCWP on the implementation of the MRP. Provide guidance and recommendations to the program staff on various technical studies, and regulatory initiatives that will affect permits. Assist with program budgeting and filling staff shortages. Led a team of five consulting firms that developed the Contra Costa Watersheds SWRP and provided grant management support. Design and present biennial training workshops for municipal staff on the construction stormwater program requirements. Led the successful effort to acquire a Prop 1 planning grant (~$500,000) to develop the SWRP. Oversaw the grant application work that secured a $1.56 million grant for the City of San Pablo's Sutter Green Street Project.

PCBs in Caulk Project, San Francisco Estuary Partnership. 2010-2011. Oakland, CA.

Led a team of consultants in the first known attempt to create a model regional regulatory process to manage PCBs in building caulks and sealants to protect water quality. Created a set of model tools for Bay Area municipalities including recommended BMPs, a model implementation process (regulatory process), and a training program for municipal staff. The project set the groundwork for compliance with PCBs load reduction provisions of the PCBs TMDL for San Francisco Bay.

PCBs in Building Materials, Bay Area Stormwater Management Agencies Association (BASMAA). 2017-2019. Menlo Park, CA.

Assisted BASMAA to develop a program to control potential releases of PCBs during building demolition leading tasks to prioritize building materials of concern; assembled and reviewed existing information and regulatory drivers; and develop a model demolition permit applicant package. Served as the primary contact for stakeholders and project advisors, and coordinated communication with industry, regulatory, and municipal stakeholders. Under Bay Area Municipal Stormwater Collaborative (BAMSC) direction, subsequently updated the program to reflect changes required by the reissued Municipal Regional Permit (MRP). Created a menu of construction program enhancements to be customized by each permittee. Coordinated with the regional steering committee and permittee workgroup on the development of the updates

Stormwater Technical Support, San Mateo County Water Pollution Prevention Program (SMCWPPP). 2015-2022. Redwood City, CA.

Project Manager leading a team of consultants to provide technical support services to SMCWPPP on the implementation of the MRP. Coordinated efforts to develop the SWRP and Green Infrastructure Plan framework. Led the effort to submit two successful Proposition 1 implementation grant applications for multiple green streets projects in Redwood City and San Mateo.

Best Management Practice Handbooks, California Stormwater Quality Association (CASQA). 2009-2014; 2023-Present. Redondo Beach, CA.

Project Manager for the 2009-2012 updates of CASQA's Construction and Industrial Best Management Practice (BMP) Handbooks and the 2023 update of the Construction BMP Handbook for the 2022 CGP.

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Rebecca Smith, MSc, PhD

Project Scientist I-A

EDUCATION

PhD, Geosciences, 2023,
University of Massachusetts Amherst,
Amherst, MA

MSc, Geosciences, 2018,
University of Massachusetts Amherst,
Amherst, MA

B.S., Geology, 2016
Concentrations in Water and Society & Field Studies
Bates College,
Lewiston, ME

YEARS OF EXPERIENCE

With LWA: 2.5 years
With other Firms: 0
With UMass Amherst: 6 years

PROFESSIONAL AFFILIATIONS

American Geophysical Union
Sigma Xi, Scientific Honors Society
Geological Society of America
Groundwater Resource Association of California
The Water Research Foundation

SPECIALIZED TOOLS

R Statistical Analysis
Matlab
GitHub
ArcGIS
Ocean Data View
Panoply
Adobe Suite (Illustrator & InDesign)

Dr. Smith is a Project Scientist with Larry Walker Associates. She brings 2.5 years of experience supporting groundwater, stormwater and wastewater projects across California, and 6 years of experience prior to LWA managing organic biogeochemistry and climate change research projects for her PhD. As a Project Scientist at LWA, she provides project management and technical support to projects in San Joaquin County and Contra Costa County. Dr. Smith has played a major role in writing and implementing numerous grants in support of the Sierra Valley Groundwater Sustainability Plan.

San Joaquin County Region Storm Water Resource Plan (SWRP). 2023-2024.

Assistant Project Manager responsible for co-developing the San Joaquin County Region Storm Water Resource Plan on behalf of the County of San Joaquin and the cities of Stoctkon, Manteca, Tracy and Lodi. Lead several client meetings and presented information on the SWRP to regional watershed management groups and interested parties. Sought guidance from Tribal Liaisons within the California Department of Water Resources to identify respectful and inclusive ways to build government-to-government collaboration around the SWRP. Developed outreach materials for Tribal and non-Tribal Partners, including letters, emails, flyers, and content for the County website.

Sierra Valley Groundwater Sustainability Plan Implementation. 2023-Present.

Co-developed multiple grant applications on behalf of the Sierra Valley Groundwater Management District to enable implementation of pilot groundwater recharge projects in the Sierra Valley. Grants were awarded funding in 2023. Actively manages the acquisition of complex groundwater recharge permits, and serves as assistant manager of field team members and subcontractors during permit implementation. Regularly meets with State Water Resources Control Board and the California Department of Fish and Wildlife (CDFW) staff during permit development and implementation. Responsible for the development of multiple technical memorandums of potential aquatic and terrestrial wildlife species occurring near and around proposed points of diversion. Proactively coordinates with representatives of the Oroville Dam and regional water masters to ensure protection of downstream beneficial uses during recharge implementation.

Contra Costa County Visual Assessments, Contra Costa County. 2023-Present.

Regularly performs on-land visual trash assessments (OVTAs) for Contra Costa County as part of ongoing monitoring to demonstrate compliance with the Municipal Regional Stormwater Permit.

MS4 Annual Monitoring Reports, Select Watersheds, Los Angeles County, CA. 2023-Present.

Routinely performs data cleaning and exceedance analyses for the Dominguez Channel Watershed Management Group, the Santa Monica Bay Jurisidictional Group 7, and the Santa Monica Bay Jurisdictional Group 2/3, as part of receiving water and stormwater outfall monitoring requirements for the Los Angeles MS4 NPDES Permit. Data cleaning involves checking reported units and performing calculations for sums of specific constituents with applicaple water quality objectives (namely, Chlordanes, DDTs, PAHs, and PCBs).

Malibu Creek Nutrient TMDL Special Study, City of Agoura Hills. Los Angeles County, CA. 2025-Present.

Assists in the implementation of a special study on behalf of the Malibu Creek Watershed (MCW) Watershed Management Program (WMP) Group that is reevaluating key assumptions of TMDLs for nutrient, algal, and benthic macroinvertebrate (BMI) condition impairments in the MCW. The goal of the study is to identify and justify regulatory changes that would support more effective and efficient implementation. Currently supporting Phase 2 of the study, which involves conducting a comprehensive compilation of available data in the watershed (e.g., water quality, BMI condition, flow, physical habitat) from a wide variety of sources and agencies, conducting analyses of compiled data using custom R-scripts to evaluate drivers of algal biomass and BMI condition, and presenting findings from all analyses in a Phase 2 report to the MCW WMP Group and Los Angeles Regional Water Quality Control Board.

Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP). 2023.

Revised and updated the MSCTOPPP Annual Program Effectiveness Assessment (EA) and TMDL Status Report. The EA report compiles information on efforts of 12 MCSTOPPP members to reduce priority pollutants, namely pathogens, sediments and pesticides, and evaluates the long-term effectiveness of the best management practices and control programs.

Delta-Mendota Canal Constituents of Emerging Concern Study, North Valley Regional Recycled Water Program. 2024-Present. Tracy, CA.

Performs quarterly fieldwork for the Delta-Mendota Canal (DMC) Constituents of Emerging Conern (CEC) Study. The DMC CEC Study is a requirement of the National Pollutant Discharge Elimination System permit, which regulates discharges of municipally treated wastewater from both the City of Turlock's Regional Water Quality Control Facility and the City of Modesto's Water Quality Control Facility to the DMC. Responsibilities include developing and maintaining field standard operating procedures (SOPs), collecting samples for chemical analysis, and performing field and flow measurements at four locations along the Canal.

Cost of Compliance White Paper, Central Valley Clean Water Association (CVCWA). 2023. Central Valley, CA.

Conducted literature review and synthesized information on the potential greenhouse gas impacts associated with advanced wastewater treatment options, such as reverse osmosis, for removal of nutrients (nitrogen and phosphorus) and PFAS.

EOA inc.

Environmental and Public Health Engineering

RESUMES

Chris Sommers, M.S.

President

csommers@eoainc.com

Areas of Expertise

Stormwater Management
Trash/Litter Management
Pollutants of Concern/TMDLs
Water Quality Monitoring
Ecological Assessment
Program Effectiveness Assessment

Years of Experience

EOA: 24 Years
Prior to EOA: 6 Years

Education

M.S. Nat Resources Management
Humboldt State University
B.S. Environmental Science
Indiana University

Chris has over 25 years of consulting and project management experience and specializes in all aspects of stormwater management and assessment, including pollutant control programs, monitoring strategies, and effectiveness assessments. He has provided invaluable regulatory and technical guidance to permitted agencies throughout California on stormwater management and assessment and is highly regarded as one of the leaders in stormwater management in the State. Chris has managed a number of groundbreaking stormwater management projects at the county, regional and statewide scales, including *Regional Guidance on Conducting Reasonable Assurance Analyses for the SF Bay PCBs and Mercury TMDLs* and statewide guidance on *Trash Control Measure Implementation*. These and other projects managed by Chris have assisted cities, counties and other public agencies in California with identifying pollutant sources, identifying and implementing appropriate and cost effective control measures approaches, and tracking progress towards numeric targets. Chris has the proven experience to effectively assist public agencies in developing practical and cost-effective stormwater management strategies, optimizing control measure implementation, and maintaining compliance with NPDES permit requirements.

Example Relevant Project Experience

- Reasonable Assurance Analysis (RAA) for PCBs and Mercury, *BAMSAA/BAMSC (2018-2020)* - Chris was the project manager for a pivotal regional project that developed regional technical guidance on conducting RAA associated with the SF Bay Area Mercury and PCBs TMDLs. The technical guidance was developed to assist Permittees subject to the Municipal Regional Permit (MRP) with standardizing RAA approaches being conducted to demonstrate pollutant load reduction potentials for different control measure scenarios. The project resulted in RAA guidance acceptable to the Regional Water Board staff and technical advisors. The guidance continues to be used by MRP Permittees.

- SF Bay Mercury and PCBs TMDL Implementation - *SCVURPPP (2002 - Present)* - Total Maximum Daily Loads (TMDLs) for PCBs and mercury were approved in 2008/2009 for the San Francisco Bay. From 2002 to the present, Chris has provided technical and regulatory support to SCVURPPP to address TMDL requirements for all SCVURPPP Co-permittees. Technical support has included managing and designing pollutant source identification studies, managing the implementation of pollutant source and treatment control measures, developing load reduction accounting methods, tracking the TMDL implementation process, coordinating and updating SCVURPPP managers, and negotiating stormwater-related NPDES permit language associated with the TMDLs.

- *Regional Mercury and PCBs Load Reduction Accounting Methodology, BASMAA/BAMSC (2016 – 2022)* - Chris was a technical advisor on the *Regional Mercury and PCBs Load Reduction Accounting Tool,* a 2016 project managed by EOA. This project was designed to assist MRP Permittees in documenting progress towards achievement of load reduction of mercury and PCBs required by the MRP. Additionally, Chris assist with the update to the accounting methodology for stormwater source controls which was approved by the Regional Water Board in January 2022.

- *Regional Clean Watersheds for a Clean Bay (CW4CB), BASMAA/BAMSC (2011 – 2017)* – Chris provided technical support and advice on the BASMAA's CW4CB project, which was designed to implement mercury and PCBs TMDL requirements included in the MRP by evaluating a variety of potential control options to reduce pollutant loads in urban stormwater runoff to the Bay. CW4CB was facilitated through a partnership among Bay Area municipalities and countywide municipal stormwater management programs and was funded by a grant to BASMAA from the United States Environmental Protection Agency (EPA).

- Countywide Stormwater Program Management, *SCVURPPP (2001 – Present)* - EOA provides program management services to the countywide stormwater management program in Santa Clara County (SCVURPPP). Chris serves as the Program Manager for SCVUPRPPP, and has led the monitoring, pollutants of concern, trash, GIS, and data

management elements of the Program. Chris provides assistance and oversight on all institutional, regulatory, fiscal, and technical aspects of implementing the Program.

- *PCB Source Identification Projects – SCVURPPP (2001- Present)* - Beginning in 2001, Chris has managed and/or advised and directed projects for SCVURPPP that attempt to identify PCB source properties in older industrial areas in the Santa Clara Valley. The goal of these projects is to identify PCB source properties and provide information to support referrals of those properties to the Regional Water Board or other appropriate agencies for abatement. These projects include directing and conducting monitoring and watershed analyses to provide evidence that high concentrations of PCBs originating from these properties are entering MRP Permittee stormwater systems. The results from these projects have supported the referral of over 15 properties to the Regional Water Board for follow-up investigation and abatement.
- Trash Management Planning – *City of Oakland (2016 - Present)* – Chris and EOA staff provide assistance to the City on stormwater trash management planning to address MRP trash reduction goals. Chris has led the development of a trash full capture feasibility analysis for the City, where optimal locations that are the most cost-effective sites for the installation of full capture systems in the City's storm drain system. Additionally, Chris has applied his regulatory and technical expertise in assisting the City in negotiations with the Regional Water Board and served as project manager for a number of trash control measure effectiveness studies in which the City has participated.
- Phase II Stormwater Program Management – *County of Lake (2001-2010)* – Chris served as project lead for the establishment of the Lake County Clean Water Program (LCCWP) and the development of the first Stormwater Management Plan for the LCCWP. Chris also served as project staff for the LCCWP Advisory Committee and numerous subcommittees. Through these efforts, numerous public education and outreach pieces, stormwater treatment design standards, and BMP guidance documents were developed to assist Phase II permittees in Lake County in complying with their NPDES permit requirements.
- Street Sweeping and Curb Inlet Screens as Trash Controls – *Bay Area Storm Management Agencies Association (2013-2017)* – In 2013, BASMAA was awarded a grant by the State Water Board to implement the Tracking California's Trash (TCT) project. One element of the TCT project was to evaluate the effectiveness of street sweeping and/or curb inlet screening devices in reducing the transport of trash from urban streets to receiving water bodies via stormwater conveyance systems. Chris (as Project Manager) and the EOA Team determined that curb inlet screens significantly reduce the amount of trash transported to storm drain inlets from streets and sidewalks, and in combination with street sweeping achieve a level of trash reduction equivalent to a certified trash full capture system.
- San Francisco Bay Regional Trash Generation Rates - *BASMAA (2009-2014)* – Chris served as the project manager and lead scientist for the development of regional baseline trash generation rates in the Bay Area. Through the project, a predictive model for trash generation rates was developed based on trash characterization and monitoring conducted at over 150 sites in the Bay Area. Trash generation rates developed through the project served as the foundation for municipality-specific trash generation maps.

Professional Societies/Affiliates

- California Stormwater Quality Association (CASQA) – Board Member
- Bay Area Municipal Stormwater (BAMS) Collaborative
- Water Environment Federation (WEF)
- California Resource Recovery Association (CRRA)
- California Water Environment Association (CWEA)
- Society for Environmental Toxicology and Aquatic Chemistry (SETAC)

Publications/Technical Reports – Available upon request

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

Managing Scientist

ldsabin@eoainc.com

Areas of Expertise

NPDES Permit Compliance
Mercury TMDL Compliance
PCBs TMDL Compliance
Water Quality Monitoring
Stormwater Management

Years of Experience

EOA: 13 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

Overview

Dr. Sabin has 20 years of experience performing science and management related to a wide range of projects that protect and restore surface water quality in California. Her areas of expertise include stormwater NPDES permit compliance, TMDL water quality restoration programs, water quality monitoring, and developing and implementing stormwater control programs for PCBs and Mercury. She currently assists San Francisco Bay Area municipal agencies with stormwater management, pollutant control programs and permit compliance. Dr. Sabin develops and implements projects designed to characterize watershed concentrations and loads, identify source areas, and evaluate control measure effectiveness for stormwater pollutants of concern (POCs), including PCBs and other organic compounds, metals, nutrients, and sediment. She prepared the recent *TMDL Implementation Plan for PCBs and Mercury* for the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) to demonstrate progress towards the County's San Francisco Bay mercury and PCBs TMDL Wasteload allocations. Dr. Sabin co-authored the Bay Area Stormwater Management Agencies' (BASMAA's) *Source Control Load Reduction Accounting for PCBs and Mercury TMDLs*, and the *PCBs from Electrical Utilities in San Francisco Bay Area Watersheds* on behalf of BASMAA member agencies. She also led monitoring design and implementation of the BASMAA *PCBs in Storm Drain Infrastructure Caulk Project* that was completed to satisfy NPDES permit requirements. Dr. Sabin supported BASMAA's development of the guidance materials to assist Bay Area municipalities develop local programs to prevent PCBs from being discharged to municipal storm drains during building demolition activities, and she currently supports municipalities with implementing these programs. For six 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 Best Management Practices (BMPs) as part of implementing the Bay PCB and mercury TMDLs. Prior to joining EOA, Dr. Sabin implemented a research program on atmospheric deposition of trace metals, organic compounds, and nutrients and impacts on stormwater and receiving water quality at the Southern California Coastal Water Research Project (SCCWRP).

Relevant Project Experience

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) NPDES Permit Compliance, San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) NPDES Permit Compliance
Focus on PCBs and Mercury Control Programs
2011 - present

Dr. Sabin assists SCVURPPP and SMCWPPP to comply with NPDES permit provisions requiring reductions of PCBs and mercury loads to stormwater and the Bay. She leads the development and implementation of multiple pollutant control programs that include source area investigation and abatement, managing PCBs-containing materials and wastes during building demolition activities and during bridge and overpass roadway replacement or major repair, and controlling PCBs in oil-filled electrical equipment. She was the lead author of the Old Industrial Area PCBs and Mercury Control Measure Plans submitted to the Water Board for both countywide programs. She assists both counties in tracking and reporting control measure implementation and accounting for the associated POC load reductions. Major tasks have included: developing PCBs control measure programs; designing and

implementing monitoring plans; SAP/QAPP development; managing field teams; reviewing and analyzing monitoring and modeling data; writing project reports; tracking control measure implementation and calculating and reporting the associated mercury and PCB load reductions achieved.

Lake County Clean Water Program (LCCWP) – BMP Effectiveness Calculator
2020 – 2021
Dr. Sabin developed a Best Management Practices (BMP) Effectiveness Calculator Tool to assist the LCCWP Co-Permittees in evaluating their progress towards achievement of the Clear Lake Nutrient TMDL Wasteload allocation.

Bay Area Storm Water Management Agency Association (BASMAA) Mercury and PCBs Load Reduction Accounting
2016 - 2022
Dr. Sabin developed BASMAA's Mercury and PCBs Load Reduction Accounting Tool 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 also co-authored the BASMAA update to the accounting methodology for stormwater source controls which was approved by the SFBRWQCB in January 2022.

BASMAA Regional Stressor/Source Identification Project – PCBs in Electrical Utility Equipment
2019 – 2020
Dr. Sabin was the technical lead and primary author of the Regional Stressor/Source Identification Project on PCBs from Electrical Utilities in San Francisco Bay Area Watersheds developed on behalf of BASMAA member agencies. This project evaluated PCBs in electrical utility equipment in the Bay Area and estimated the load from this potential source to urban stormwater runoff. The final project report was submitted to the SFBRWQCB in September, 2020.

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 storm 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 reduce pollutant loads in urban stormwater runoff to the Bay. CW4CB was facilitated through a partnership among Bay Area municipalities and countywide municipal stormwater management programs and was funded by a grant to BASMAA from the United States Environmental Protection Agency (EPA). The total project cost was $7.04 million - $5M from USEPA and $2.04M matching funds from Bay Area municipal stormwater agencies, municipal wastewater treatment agencies, and industrial dischargers. Dr. Sabin provided oversight of day-to-day project management and coordination between CW4CB project partners, managed subcontractors, wrote progress reports, lead project management team and technical advisory committee meetings, tracked budgets for both grant funds and matching contributions, and ensured timely implementation of all grant tasks within project budgets.

Southern California Coastal Water Research Project (SCCWRP), Scientist
2002 - 2010
Designed and implemented a research program on atmospheric deposition of trace metals, organics and nutrients and impacts on water quality in southern California watersheds and the coastal ocean.

Bonnie de Berry, MFS, CPSWQ
Managing Scientist
bdeberry@eoainc.com

Areas of Expertise

NPDES Permit Compliance
Stormwater Program Management
Microbial Source Tracking
Water Quality Monitoring
QAPP/SOP Development
Stormwater Management
Grant Writing
TMDL Compliance

Years of Experience

EOA: 12 Years
Prior to EOA: 16 Years

Education

MFS/Aquatic Chemistry
Yale University
BS/Natural Resources & Environmental Studies
University of Minnesota

Registration/Certification

- Certified Professional in Storm Water Quality™ #0726 - 2011

Ms. de Berry has over 25 years of experience managing consulting projects for both public and private sector clients. She assists San Francisco Bay Area municipal agencies with all facets of municipal stormwater NPDES permit compliance. She specializes in water quality, stormwater management, and monitoring/assessment. She directs watershed investigations and environmental analyses to address a wide variety of water related issues with an emphasis on nonpoint sources of pollution and water quality enhancement. Bonnie focuses on NPDES permitting, TMDL compliance, and stormwater best management practice (BMP) selection. She leverages her interdisciplinary background to develop technical solutions within a dynamic regulatory setting. She designs and implements environmental monitoring plans to identify sources of pollutants and aquatic habitat stressors such as trash, PCBs, bacteria (through microbial source tracking), and nutrients. She leads field studies using state-of-the-art techniques to calibrate simulations of pollutant fate and transport in surface and groundwater systems. Bonnie is skilled at coordinating stakeholder groups, presenting complex studies to a wide variety of audiences, and writing detailed technical documents, often for the purposes of reaching mutually beneficial outcomes from negotiations. She successfully manages schedule and budget commitments for both small and large contracts. Bonnie currently serves as co-chair of the California Stormwater Quality Association (CASQA) Monitoring and Science Subcommittee.

Relevant Project Experience

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Municipal Stormwater NPDES Permit Compliance, 2024-ongoing

As contract manager, Bonnie leads a multi-disciplinary consulting team that assists the SMCWPPP Program Manager with implementation of the Program, including overall Program planning and management, budgeting and scheduling, and facilitation of Program committees, subcommittees, workgroups, and training workshops. Bonnie leads a team of EOA staff that assists. This includes assisting the Program's member agencies with all facets of municipal stormwater NPDES permit compliance, including permit requirements related to new and redevelopment, green infrastructure planning, water quality monitoring, PCBs/mercury source identification and control projects, trash controls, public outreach, and annual reporting.

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) NPDES Monitoring Compliance, 2013-ongoing

Ms. de Berry is assisting SCVURPPP and SMCWPPP with compliance with Provision C.8 (Water Quality Monitoring) of their municipal stormwater NPDES permit. From 2013 – 2022, monitoring was focused on bioassessment surveys, i.e., measurement of benthic macroinvertebrates, benthic algae, and physical habitat to assess biological conditions in creeks. With the reissuance of the NPDES permit in 2022, she developed new monitoring programs and associated Quality Assurance Project Plans (QAPPs) to evaluate the effectiveness of bioretention LID facilities and to measure discharges of trash from MS4 outfalls. She also coordinates pollutants of concern (PCBs and mercury) monitoring, pesticides & toxicity monitoring, and special studies to investigate sources of pollutants (low dissolved oxygen, bacteria, PCBs and mercury) and potential management actions.

Bonnie represents SCVURPPP and SMCWPPP in regional workgroups and committees and prepares annual interpretive reports.

As the Local Project Manager for the SCVURPPP and SMCWPPP NPDES monitoring programs, Ms. de Berry oversees the data validation process, ensuring that data generated and reported meet data quality objectives (DQOs) identified in the regional Quality Assurance Project Plan (QAPP). She ensures that all field and laboratory data are reviewed and compiled in electronic formats using State-approved templates, such as those developed for the California State Water Resources Control Board Surface Water Ambient Monitoring Program (SWAMP). She submits these templates to the Regional Data Center for upload to the California Environmental Data Exchange Network (CEDEN).

Sunnyvale-Mountain View Fecal Indicator Bacteria Monitoring and Source Identification, 2020-ongoing

Ms. de Berry is assisting the Cities of Sunnyvale and Mountain View investigate potential sources of fecal indicator (FIB) bacteria to their MS4s and identify control measures. Ms. de Berry led the development the FIB Monitoring and Source Identification Program which includes four components: a FIB geodatabase used to understand the extent of potential FIB sources within the Cities, a conceptual model to prioritize MS4 catchments for monitoring, a field monitoring plan and Quality Assurance Program Plan (QAPP), and adaptive management measures. The field monitoring component includes monthly monitoring at prioritized MS4 outfalls, periodic creek walks for comprehensive outfall monitoring, and monthly receiving water monitoring. All samples are analyzed for FIB and human-specific (HF183) genetic markers to assess the spatial and temporal extent of these indicators. Follow-up special studies are conducted within MS4 catchments that have consistently elevated HF183 concentrations. Special studies include methods such as windshield surveys, manhole sampling, and CCTV, and have resulted in corrective actions to eliminate identified sources of HF183.

South Santa Clara County Phase II Municipal Stormwater Management and NPDES Permit Compliance, Santa Clara County, CA, 2013-ongoing

Ms. de Berry is assisting South Santa Clara County and their regional partners, the Cities of Morgan Hill and Gilroy, comply with all aspects of the 2013 Phase II NPDES Permit. Major tasks have included: development of a Regional Wasteload Allocation Attainment Program addressing the Pajaro River Fecal Coliform TMDL; design and implementation of a desktop and field based water quality monitoring program, including development of a Quality Assurance Project Plan consistent with the California Surface Water Ambient Monitoring Program (SWAMP); oversight of compliance with the "Trash Amendments;" negotiations with Central Coast Regional Water Board staff to determine mutually acceptable approaches to compliance; MS4 outfall and catchment mapping; facility mapping; public outreach strategies; and development of the Program Effectiveness Assessment and Improvement Plan (PEAIP). Ms. de Berry also prepares annual reports addressing PEAIP Implementation, TMDL Status, and Water Quality Monitoring.

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

For Bay Areas Stormwater Management Agencies Association (BASMAA), served as project manager responsible for overseeing the development and implementation of two study designs to satisfy municipal stormwater NPDES permit monitoring requirements and to inform development of required Reasonable Assurance Analyses on behalf of BASMAA member agencies. One study evaluates PCBs in roadway and storm drain infrastructure caulk and sealants. The other evaluates the effectiveness of stormwater retrofit BMPs. Phase I began in 2017 with development of study designs, a SAP/QAPP, and detailed cost estimates. Phase II, completed in 2018 included collection of caulk and stormwater samples, column studies using several biochar mixes, and laboratory analysis. Monitoring reports were completed in 2019.

Geosyntec consultants

RESUMES

LISA AUSTIN, PE

stormwater management planning
stormwater BMP selection, evaluation, and design
water resource planning
TMDL compliance

EDUCATION

MS, Civil Engineering, Southern Illinois University, Carbondale, 1992
BS, Environmental Engineering, Southern Illinois University, Carbondale, 1986

REGISTRATIONS AND CERTIFICATIONS

Professional Civil Engineer (PE), California, Number 74663
Professional Civil Engineer (PE), Washington, Number 30370

CAREER SUMMARY

Lisa Austin has 35 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; green stormwater infrastructure planning and conceptual design; stormwater permit compliance; environmental impact analysis; and total maximum daily loads (TMDL) implementation planning. Lisa's unique mix of experience as a regulator with the state, a permittee with the city, and a consultant to both public and private clients has given her an understanding of the complex relationships between Clean Water Act regulatory programs such as the NPDES permitting program and TMDLs. Lisa's skills include writing detailed technical documents such as technical memoranda, reports, and manuals; giving technical presentations at conferences, meetings, and hearings; and managing complex projects to meet budgets and schedules. Lisa's relevant project experience is presented below.

Contra Costa County Clean Water Program On-Call Technical Support, *Contra Costa County Clean Water Program, Contra Costa County, California.* Lisa serves as project director and technical lead assisting the CCCWP in stormwater management planning and program implementation tasks related to monitoring and pollutants of concern. Her ongoing tasks include assisting with countywide polychlorinated biphenyls (PCBs) and mercury TMDL implementation and reporting, participating in the Bay Area Municipal Stormwater Collaboration (BAMSC) Monitoring and Pollutants of Concern (MPC) Committee, and providing review of technical

documents as part of the Regional Monitoring Program's (RMP) Sources, Pathways, and Loadings workgroup. Lisa lead the development of the Contra Costa County PCBs and Mercury TMDL Control Measure Plan and Reasonable Assurance Analysis (RAA) Report in 2020 and the Old Industrial Area Control Measure Plan in 2023/2024.

Regional Compliance for a Sustainable Bay Project, *City of San Pablo, California.* Lisa served as project director for the development of a regional alternative compliance system. This United States Environmental Protection Agency Water Quality Improvement Fund grant-funded project assisted the cities of San Pablo, Richmond, and Walnut Creek and Contra Costa County with the development of a regional alternative compliance system framework intended to allow for "exchange" of water quality-based metrics throughout Contra Costa County, providing a means to focus water quality investment across the County on those locations that may provide more benefits. Project tasks included steering, advisory, and technical advisory committee meetings; stakeholder workshops; a literature review; and development of the system.

Source Control Load Reduction Accounting for Reasonable Assurance Analyses*, Bay Area Stormwater Management Agencies Association (BASMAA), Alameda County, California.* Lisa served as project manager and technical lead for developing an approach for quantifying mercury and PCBs loads reduced through implementation of pollution prevention, source control, and treatment control measures. This methodology has been used for conducting RAAs for the Bay Area.

Alameda Countywide Clean Water Program On-Call Technical Support, *Alameda Countywide Clean Water Program, Alameda County, California.* Lisa serves as project director and technical lead assisting the Alameda Countywide Clean Water Program (ACCWP) in stormwater management planning and program implementation tasks related to stormwater monitoring and pollutants of concern in compliance with the San Francisco Bay Municipal Regional Permit (MRP). Lisa facilitated the MRP 3.0 C.11/C.12 Workgroup, which was a collaborative effort between the Permittees and the Regional Water Quality Control Board to develop a programmatic approach for the PCBs and mercury provisions for the MRP 3.0 permit term. Lisa served as the BAMSC MPC Committee chairperson on behalf of the ACCWP for two years.

PROFESSIONAL EXPERIENCE

Geosyntec Consultants, Oakland, California, 2002–Present
City of Bellevue Utilities Department, Bellevue, Washington, 2000–2002
Washington State Department of Ecology, Bellevue Washington, 1990–2000
CH2M Hill, Bellevue, Washington, 1988–1990

Geosyntec consultants

LISA KANNER WELSH, Ph.D., QISP

urban stormwater management
water quality monitoring and assessments
municipal TMDL and trash management
industrial stormwater management
climate change impacts

EDUCATION

Ph.D., Geoscience, University of Massachusetts, Amherst, Massachusetts, 2012
M.S., Geoscience, Brown University, Providence, Rhode Island, 2006
B.A., Geology, Carleton College, Northfield, Minnesota, 2004

REGISTRATIONS AND CERTIFICATIONS

8-Hour OSHA HAZWOPER 29 CFR 1910.120(e)(3)I Refresher
Qualified Industrial Stormwater Practitioner (QISP), California, Number 00881

CAREER SUMMARY

Lisa Welsh, PhD, is a senior environmental consultant with over a decade of experience. Lisa has a proven track record in coordinating comprehensive water quality monitoring programs, planning and implementing source control and treatment control projects for managing legacy pollutants such as mercury and PCBs, and ensuring municipal stormwater compliance. She is also a Qualified Industrial Stormwater Practitioner (QISP) and has assisted industrial facilities with stormwater pollution preventing, planning, and stormwater sampling.

Contra Costa County Clean Water Program (CCCWP) On-Call Technical Support, Contra Costa County Clean Water Program, *Contra Costa County, California.* Lisa serves as project manager and a technical lead to provide support to the Contra Costa County Clean Water Program in water quality monitoring, stormwater management planning, and program implementation tasks. She also serves as a technical lead in characterizing and managing potential polychlorinated biphenyls (PCBs) and mercury source areas and reporting on these activities, including leading technical support for the CCCWP Old Industrial Area Control Measure Implementation Plan.

Contra Costa County Clean Water Program (CCCWP) Administrative Support, CCCWP, *Contra Costa County, California.* From 2021 to 2025, Lisa served as staff augmentation, coordinating the water quality monitoring and pollutants of concern program for Contra Costa County. She facilitated the County's monthly monitoring committee meetings and regularly represents the County at regional coordination meetings. She represented the County in

negotiations with the Regional Water Quality Control Board for monitoring and TMDL-related provisions (e.g., trash, LID monitoring, mercury and PCBs) for the third term of the MRP which became effective July 1, 2022. She guided the County through the implementation of new MRP requirements. Contra Costa County is within the jurisdiction of two Regional Water Quality Control Boards and Dr. Welsh coordinated meetings with both.

Alameda Countywide Clean Water Program (ACCWP) On-Call Technical Support, Alameda Countywide Clean Water Program, *Alameda County, California.* Lisa serves as project manager and a technical lead to provide support to the Alameda County Clean Water Program in stormwater management planning and program implementation tasks. Her ongoing tasks include assisting with PCBs and mercury TMDL implementation planning, such as assisting the ACCWP with identifying, characterizing, and managing PCBs and mercury source areas, water quality monitoring, and reporting and associated load reductions in compliance with the MRP. Lisa led the technical support for the ACCWP Old Industrial Area Control Measure Implementation Plan. Dr. Welsh also leads the Monitoring and Pollutants of Concern subcommittee.

Clean Watersheds for All (CW4A), Contra Costa Clean Water Program, *Contra Costa County, California.* Lisa serves as the project manager for CW4A, a USEPA grant funded project focused on countywide implementation (i.e., funding and delivery) of green stormwater infrastructure (GSI) and other water quality improvement projects, especially in underserved communities in Contra Costa County. Priority projects include multi-benefit regional stormwater capture opportunities that provide MRP compliance, including treatment of old industrial areas with known elevated concentrations of PCBs. The CW4A Project includes developing the CW4A Regional Project Plan, a Funding and Delivery Roadmap, design of regional stormwater capture project opportunities, and conducting community outreach.

Phase 1 and 3 Plans for TMDL Implementation and Trash Reduction in District 4, California Department of Transportation (Caltrans), *Bay Area, CA.* Lisa served as the project manager for the Phase 3 TMDL and Trash Reduction Plan to identify opportunities for stormwater treatment within a 37-mile reach of the Caltrans District 4, I-680 corridor. The work includes desktop virtual surveys, plan review, and field investigations to identify a range of potential BMP opportunities that infiltrate/treat the water quality volume for pollutants and trash.

PROFESSIONAL EXPERIENCE

Geosyntec Consultants, Oakland, California, 2016–Present
2nd Nature, LLC, Santa Cruz, California, 2013–2016
University of Southern California, Los Angeles, California, 2012–2013
Fuss & O'Neill, Inc., Providence, Rhode Island, 2006–2008

STONE CREEK
environmental consulting

RESUMES

Colleen Hunt

Principal Compliance Specialist
Owner

STONE CREEK environmental consulting

BACKGROUND

Colleen Hunt has worked in the environmental regulatory field for 26 years, specializing in water quality and hazardous materials management. For 18 years Ms. Hunt was employed by the State of California at the North Coast Regional Water Quality Control Board. Her primary responsibility between 2012 and 2017 included managing the National Pollutant Discharge Elimination System (NPDES) storm water program. For the past 8 years Ms. Hunt has continued her career in environmental regulatory management as a private consultant. Her knowledge of environmental regulations and requirements allows her to advise clients on direct compliance approaches leading to technical and cost-effective solutions. Ms. Hunt has worked with dozens of municipalities on storm water permit compliance by providing program assessment, reporting, training, compliance determination, collaborative planning and program improvement.

Experience

Stone Creek Environmental Consulting, Santa Rosa, California:
February 2020 to current

Company owner and technical consultant providing professional consulting services across multiple regulatory programs including storm water management, hazardous material management, wastewater, and drinking water. Currently serves of the BAMSC Phase II Subcommittee Co-Chair.

Primary duties include:

- Manager of client accounts including contract negotiations, budgets, and deliverables;

Education

2000- BS, Environmental Studies Concentration in Hazardous Materials Management, Cum Laude, Sonoma State University, Rohnert Park, California

Professional Affiliations

California Stormwater Quality Association, Member
Phase II Subcommittee Co-Chair

Certifications

Certified Professional in Municipal Stormwater Management No. 343

- Meet and confer with clients to discuss technical requirements and implementation strategies;
- Assess client water quality programs for compliance with permits including drinking water, wastewater, and storm water NPDES requirements; provide recommendations and options for filling compliance gaps;
- Draft technical compliance plans for municipal storm water programs including storm water management plans, trash implementation plans, facility pollution prevention plans, Total Maximum Daily Loads (TMDL) planning and progress reports, annual reports, and monitoring reports.
- Plan and conduct Best Management Practices effectiveness assessments including sediment reduction studies, water conservation outreach, and integrated pest management;
- Conduct inspections of facilities to determine if BMPs are effective and in compliance with permit requirements; inspection types include commercial and industrial facilities, low impact development BMPs, construction sites, and municipal facilities such as corporation yards.
- Provide staff training on storm water permit components including illicit discharge detection and elimination, non-storm water discharges, best management practices, integrated pest management, spill prevention and response, and rain ready preparedness.

West Yost Associates, Santa Rosa, California:
October 2017 to February 2020
Senior Scientist responsible for managing over one million dollars in contracts, including the Russian River Watershed Association contract. The RRWA was formed to coordinate regional programs for clean water, fisheries restoration and watershed enhancement. Support services included coordination of a regional monitoring program, preparation of a regional monitoring report; developing children outreach strategies; developing outreach materials; assisting with training events, and attending public outreach events. Other experience at West Yost includes duties now performed at Stone Creek.

North Coast Regional Water Quality Control Board, Santa Rosa, California:
October 1999 to October 2017
Environmental Scientist responsible for managing the Region's municipal storm water program, including implementing and developing NPDES permits. Other responsibilities included:

- Assessment of compliance and program effectiveness of 22 municipal storm water dischargers with the Federal Clean Water Act and the California Water Code;
- Review of technical reports, including monitoring data, and conducting program audits to determine compliance with storm water program and permits;
- Drafting correspondence to provide comments on assessment with regulatory compliance, program deficiencies, and recommended improvements identified during report review and audit evaluations;
- Ensuring compliance with the California Environmental Quality Act (CEQA) and develop relevant documents for CEQA compliance; conducting CEQA analysis on projects, and reviewing and commenting on various types of CEQA documents.
- Prior to managing the municipal storm water program, Ms. Hunt was responsible for evaluating investigation and remedial activities related to contaminated soil, groundwater, and surface water for sites listed on the California Active Toxic Site List, including underground storage tank sites.

APPLIED
marine
SCIENCES

RESUMES

APPLIED marine SCIENCES

RESUME
Paul Salop
Senior Scientist, Principal

EXPERTISE

Stormwater Management
Environmental Monitoring Program Development
Quality Assurance
Coastal Geological Processes

CREDENTIALS

Education:

M.S.	1995	Marine Resource Management, College of Oceanographic & Atmospheric Sciences, Oregon State University
B.S.	1988	Industrial Engineering, North Carolina State University

Honors & Certifications: John Knauss National Sea Grant Fellow, 1993; Oregon State University Schumacher Scholar, 1992; Certified Engineer in Training (EIT), 1988; PADI Advanced Open Water and NAUI Dry Suit certifications

Professional Affiliations: The Coastal Society, Pan American Institute of Maritime Archaeology, Former President of Melrose Leadership Academy Nonprofit Board of Directors

EMPLOYMENT HISTORY

1997-Present	Aquatic Scientist, Principal, Applied Marine Sciences, Inc., Livermore, CA
1996-1997	Environmental Consultant, Self-employed, Seattle, WA
1995-1996	Natural Resource Technician, Washington Department of Natural Resources, Olympia, WA
1994-1995	Sea Grant Fellow, National Oceanic and Atmospheric Administration, Silver Spring, MD

EXPERIENCE

Mr. Salop has participated in a number of aquatic and terrestrial research and environmental management projects in California, Oregon, and Washington. He currently serves as Field Program Manager for the Status and Trends component of the Regional Monitoring Program for Water Quality in the San Francisco Estuary (RMP), a multi-million dollar, collaborative long-term monitoring program conducted to fulfill monitoring requirements of over sixty Bay Area public and private NPDES dischargers. In this capacity, he is responsible for oversight of field sampling program design and implementation in accordance with the programmatic quality assurance plan.

Mr. Salop has also managed and conducted monitoring programs for a variety of NPDES permit holders, including wastewater agencies, stormwater agencies, and industrial dischargers. For example, he currently serves as Program Manager in AMS' role as consultant to the Alameda Countywide Clean Water Program (ACCWP) in development and implementation of the Program's NPDES stormwater monitoring program. In this role has assisted with planning, quality assurance, analysis, and regional collaboration support implementation of permit requirements. He serves a similar role for the Solano Stormwater Alliance, helping to design and implement the Low Impact Development and outfall trash monitoring components specified in the Municipal Regional Stormwater Permit.

Mr. Salop previously served as Project Manager for monitoring-related activities associated with implementation of the EPA Grant Project, Clean Watersheds for a Clean Bay. In this capacity, he managed sixteen work orders worth over $2M overseeing many facets of project implementation, including development of the programmatic quality

assurance project plan, multiple sampling and analysis plans, conduct of monitoring, data management, and quality assurance, as well as serving in an advisory capacity to the Project Management Team overseeing the grant.

Previously at AMS, Mr. Salop has also served as Assistant Project Manager for AMS' implementation of the Clean Estuary Partnership, a cooperative effort of the San Francisco Bay Regional Water Quality Control Board, the Bay Area Clean Water Agencies, and the Bay Area Stormwater Management Agencies Association to provide scientific information in support of development and implementation of Total Maximum Daily Loads (TMDLs) and other water quality attainment strategies for the San Francisco Bay-Delta and its tributaries. His roles for this project included facilitation of several pollutant-specific technical work groups and oversight of the eventual close-out of the project.

Mr. Salop has also developed quality assurance project plans (QAPPs) and/or served as quality assurance officer for a number of local, regional, and state and Federal grant projects. Current and recent examples include a project investigating discharge to Areas of Special Biological Significance (ASBS) along the Central California coast, a Proposition 13 Sea Otter Monitoring Program for the City of Watsonville, a Proposition 50 project monitoring fecal pathogen pollution along the California Coast, a Proposition 13 project investigating sources of PCB loadings to the Ettie Street watershed in downtown Oakland, and a project evaluating effectiveness of monitoring conducted within EPA Ocean Disposal Sites.

SELECTED REPORTS & PUBLICATIONS

Applied Marine Sciences, Inc., 2015. Evaluation of Site Monitoring Activities at Ocean Disposal Sites. Prepared for EPA Office of Water. EPA Contract No.: EP-C-14-003.

Applied Marine Sciences, Inc., 2009. Assessment and Evaluation of Fish and Invertebrate Entrainment Effects from Commercial Aggregate Sand Mining in San Francisco Estuary. Prepared for ESA and the California State Lands Commission.

Gunther, A., Hagar, J, and P. Salop, 2000. An Assessment of the Potential for Restoring a Viable Steelhead Trout Population in the Alameda Creek Watershed. Prepared for the Alameda Creek Fisheries Restoration Workgroup.

Hardin, D., Salop, P., and B. Bemis, 2005. Optimizing Transplanted Bivalve Studies for the Regional Monitoring Program for Trace Substances. SFEI Contribution #431. Prepared for the San Francisco Estuary Institute: Richmond, CA.

Ogle, R.S., Gunther, A., Salop, P., Bell, D., Gold, J., Costifas, J., and S.L. Clark, 2003. Ambient Water Toxicity in San Francisco Bay: 1993-2002. Presented at the San Francisco Estuary RMP Annual Meeting, Berkeley, CA, May 13, 2003.

Salop, P. and B. Bemis, 2010. Technical Memorandum: Investigation of Best Management Practices to Limit Loadings of Methyl Mercury Associated with Planned Dredging Activities in Sacramento and San Joaquin River Deep Water Ship Channels. Prepared for Central Valley Regional Water Quality Control Board, US Army Corps of Engineers, and Ross Island Sand and Gravel Co. March 24, 2010.

Salop, P., Konnan, J., Gunther, A., and A. Feng, 2006. "PCBs in Urban Watersheds—A Challenge for TMDL Implementation." In The Pulse of the Estuary: Monitoring and Managing Water Quality in the San Francisco Estuary. SFEI Contribution 517. San Francisco Estuary Institute, Oakland, CA.

Salop, P., 2006. Municipal Maintenance and Sediment Management: Evaluation of Source Control Options for TMDL Implementation. Prepared for the Alameda Countywide Clean Water Program. Hayward, CA.

Salop, P., 2004. Exploratory Characterization of Polychlorinated Dibenzo-p-dioxins and Dibenzofurans in Watershed Sediments from Alameda County. Prepared for the Alameda Countywide Clean Water Program. Hayward, CA.

Salop, P., Hardin, D., Abu-Saba, K. and Gunther, A.J., 2002. Analysis of 2001 Source Investigations in Ettie Street Pump Station and Glen Echo Creek Watersheds, Oakland, California. Prepared for the Alameda Countywide Clean Water Program. Hayward, CA.

Trowbridge, P. R., et al., 2015. The Regional Monitoring Program for Water Quality in San Francisco Bay, California: Science in Support of Managing Water Quality. Regional Studies in Marine Science, http://dx.doi.org/10.1016/j.rsma.2015.10.002.

integral consulting inc.

Formerly Kinnetic Environmental

RESUMES

Christian Kocher

Principal

(831) 295-3242

Santa Cruz, CA

ckocher@kinneticenv.com

Education

B.S., Physics, University of California, Los Angeles

Certifications

40 Hour HAZWOPER Training in accordance with OSHA 29 CFR 1910.120

8 Hour Confined Space Entry Training in accordance with OSHA 29 CFR 1910.146

Christian Kocher has over 34 years of experience implementing National Pollutant Discharge Elimination System (NPDES) stormwater regulatory compliance monitoring programs; stormwater treatment control best management practices (BMP) studies; PCBs source area property investigations and sampling, stream and coastal water quality investigations; and sediment dredge materials studies. He performed these monitoring programs for municipal, industrial, state, and federal clients. Mr. Kocher's responsibilities include study design, site selection, logistics, operations management, subcontractor coordination, data collection, data validation, data interpretation and presentation, training, preparation of comprehensive reports and manuals, and formal presentations.

Mr. Kocher has performed many aspects of stormwater monitoring for comprehensive NPDES projects and special studies for a wide variety of clients throughout the San Francisco Bay Area. For these municipal and state clients, Mr. Kocher authored sampling and analysis plans, project assessment and evaluation plans, operation/maintenance manuals, quality assurance project plans, and annual monitoring reports. Many of these projects involved comprehensive instrumentation packages, telemetry equipment, automated flow monitoring devices, automatic sampling apparatuses, and treatment control evaluations.

Since 2011, Mr. Kocher has performed stormwater monitoring services for CCCWP. He wrote and edited quality assurance project plans, sampling and analysis plans, and monitoring reports. He has been instrumental in the successful implementation of stormwater characterization studies and BMP monitoring investigations involving a wide variety of approaches, instrumentation components, flow measurement strategies, telemetry methods, and challenging environmental conditions.

Mr. Kocher has served as the scientific oceanographic crew aboard a variety of research vessels for municipal, state, federal, and private entities, both locally and abroad. Projects included water current meter studies, profiling of water properties, researching mooring deployments, sediment vibracoring, sediment box coring, grab sampling for benthic organisms, mussel bioaccumulation studies, water quality studies, drogue deployments, researching buoy deployments, dye-tracer studies, diving operations, scientific collection of fish and other marine organisms, optical instrument deployments, and acoustic surveys.

Relevant Experience

Municipal Regional Stormwater Permit Monitoring Services – Contra Costa Clean Water Program

As project manager, Mr. Kocher is responsible for C.8 compliance monitoring to assist CCCWP with fulfilling the monitoring and reporting requirements of NPDES stormwater permit provisions for Regions 2 and 5. He oversees MRP 3.0 monitoring for pollutants of concern, LID monitoring, trash outfall monitoring, and pesticides and toxicity monitoring. Mr. Kocher participates in regional collaborations with representatives from the other Bay Area counties to streamline the monitoring

process by coordinating certain efforts and sharing the preparation of certain planning and reporting documents. For LID monitoring, Mr. Kocher is a key member of the BAMSC regional workgroup that develops monitoring methodologies in close collaboration with the Regional Water Board and a technical advisory group. Mr. Kocher reports to CCCWP managers, permittees, and representatives.

Municipal Regional Stormwater Permit Compliance Services – Alameda Countywide Clean Water Program

Since 2012, Mr. Kocher has served as project technical lead for ACCWP's C.8. POC monitoring. Projects include the operation of a fixed, automated stormwater monitoring station on San Leandro Creek; technical lead for portions of the Ettie Street Pump Station Diversion Pilot Study in Oakland; and principal author of a field guidance manual for watershed stormwater monitoring for use by Bay Area permittees and their monitoring contractors.

Stormwater Quality and Flow Monitoring for LID Implementation – Alameda County Public Works Agency

As project manager for this five-year Proposition 84 grant-funded parking lot BMP study at the Public Works building on Turner Court in Hayward, Mr. Kocher directed all aspects of the investigation—from preparation of the work plan and PAEP to implementation of influent/effluent sample collection to data analysis and interpretation. Mr. Kocher was the principal author of interim annual reports and of a comprehensive end-of-project report. He, along with his co-author, conducted statistical analyses to determine the extent and significance of pollutant removal efficiencies of two discrete treatment LID features and the aggregate runoff from all parking lot LID devices compared to pre-construction runoff quantity and quality.

TMDL Stormwater Quality Monitoring and BMP Effectiveness – Caltrans Districts 1, 4 and 5 (Central and Northern California)

As mandated by the California State Water Resources Control Board, the TMDL statewide study continues efforts by Caltrans to characterize load inputs to receiving waters and evaluate the effectiveness of treatment BMPs. As subconsultant task order manager, Mr. Kocher is responsible for site selection, equipment installation, monitoring readiness, staff training, storm sampling, data validation, and data reporting. He reviews and provides comments on the statewide quality assurance project plan (QAPP), sampling and analysis plan (SAP), and end-of-season technical memorandums. He provides stormwater monitoring expertise for equipment installation, maintenance, and operation of remote-controlled, flow-weighted sampling systems.

Combined Sewer System Monitoring – San Francisco Public Utilities Commission

As project manager, Mr. Kocher worked with SFPUC staff and their contractors to implement sampling studies that are required of the NPDES stormwater permit for their combined sewer system (CSS). Mr. Kocher designs and oversees the installation of automated sampling stations that collect samples from discharge structures when rainfall induced overflow occurs. He prepared sampling design documents, monitoring plans, and a QAPP to support these efforts.

Clean Watersheds for a Clean Bay, EPA Water Quality Improvement Grant - BASMAA

As subconsultant project manager, Mr. Kocher served as the technical lead for stormwater sampling, flow monitoring, and sediment quality BMP studies for Tasks 4 and 5 of the CW4CB projects throughout the Bay Area. For Task 4, Mr. Kocher coordinated sediment sampling for a comprehensive street sweeping study. For Task 5, Mr. Kocher designed the methods for flow monitoring and stormwater sampling for a variety of urban green stormwater infrastructure LID devices. He managed the implementation of influent/effluent stormwater monitoring for all Bay Area Task 5 locations.

Kevin Lewis, CESSWI, QSP

Senior Scientist

(831) 334-0018

Santa Cruz, CA

klewis@kinneticenv.com

Education

B.S., Earth Sciences, University of California, Santa Cruz, 2007

Certifications

Qualified Stormwater Pollution Prevention Plan Practitioner (QSP) 23275

Certified Erosion, Sediment and Stormwater Inspector (CESSWI) 3057

40 Hour HAZWOPER Training in accordance with OSHA 29 CFR 1910.120

8 Hour Confined Space Entry Training in accordance with OSHA 29 CFR 1910.146

California Rapid Assessment Method (CRAM) stream survey certification

Unified Stream Assessment (USA) certification

Kevin Lewis has over 17 years of professional experience performing stormwater and surface water quality monitoring, sediment reuse and disposal studies, and engineering and geologic projects. He performs these projects for federal (USACE), state (Caltrans), and local (municipalities) agencies in northern, central, and southern California. His water quality experience includes lead and support roles for several National Pollutant Discharge Elimination System (NPDES) Phase II stormwater transportation corridor and municipal permitted projects, surface water quality studies, receiving water quality sampling, and wastewater monitoring programs. He participates in offshore sediment sampling, GIS mapping, and on-site assembly and installation of hydrologic, water quality and seismic monitoring equipment. Mr. Lewis provides in-house project support with desktop-based site assessments to obtain site permissions and permitting. He has collaborated on and authored a range of reports detailing PCB and mercury sediment and water sampling in the San Francisco Bay Area and worked in data management and data processing for numerous pollutants of concern and pesticides and toxicity monitoring projects.

Mr. Lewis's experience includes PCBs source property sediment sampling and investigation; installation, operation, and maintenance of remote monitoring stations for stormwater BMP efficacy studies; calibration of water quality monitoring systems; installation and operation of stream rating equipment; and routine downloading of water quality, flow metering and tidal data. He has extensive experience in the collection of stormwater and sediment composite and grab samples, generation of field quality control samples, and field filtration for dissolved constituent analysis. He has performed on-site assembly and installation of inclinometers to monitor dam conditions and seismic stability at several dams, sample handling/processing and QA/QC oversight for dredge materials use and disposal studies.

Relevant Experience

Municipal Regional Stormwater Permit Monitoring Services – Contra Costa Clean Water Program

- Installation, maintenance, and operation of low impact development (LID) stormwater sampling and monitoring station
- PCBs source area investigation and sediment sampling; field and technical lead for annual sampling of street dirt and storm drain drop inlet monitoring
- PCBs source area identification and site-selection processes using satellite imagery, desktop analysis, and GIS data
- Manage personnel and coordinate MRP compliance monitoring for PCBs, mercury, and methylmercury sampling, receiving water limitations monitoring, LID, trash outfall, and pollutants of concern monitoring

- Perform bioassessment monitoring including benthic macroinvertebrate and algae sampling; physical habitat assessments; stream-walk surveys; continuous water-quality instrument deployments; chlorine sampling and water quality grab sampling
- Primary author of Urban Creek Status Monitoring Report; technical reviewer of 5-year Integrated Monitoring Report and Urban Creeks Monitoring Report appendices Conduct pesticides and toxicity monitoring, dry and wet seasons in water and sediment

Municipal Regional Stormwater Permit Monitoring Services – Alameda County

- Collection of settled fines and sediment core samples from BMP monitoring stations
- Field operations manager on installation, maintenance and operation of San Leandro Creek pollutants of concern stormwater sampling and monitoring station
- Conduct urban impact assessments along stream corridors to document areas of impact, such as illicit dumping and trash hot spots
- Manages and performs stream rating of San Leandro Creek

Clean Watersheds for a Clean Bay, EPA Water Quality Improvement Grant - BASMAA

- Equipment installation, calibration, and operation of temporary automated stormwater sampling systems
- Field sampling crew leader

Caltrans Tier-1 TMDL Monitoring – Central and Northern California

- Site selection and analysis, design, construction, operation, and maintenance of remote, semi-automated stormwater monitoring stations
- Coordinates with field sampling personnel and analytical laboratory managers
- Authors site-specific health and safety plans; post-storm technical memoranda; and assists with statewide end-of-season technical memoranda

northgate

RESUMES

AXEL RIEKE, PE, QSD/P, LEED AP BD+C
PRINCIPAL ENGINEER

Mr. Rieke is a California and Nevada-registered Professional Civil Engineer with over 30 years of experience in environmental consulting, stormwater compliance support, and managing as-needed service contracts in the San Francisco Bay Area. He has served as a project manager and lead engineer, having completed numerous projects ranging from stormwater management during construction to MRP compliance support with multi-year budgets. He has managed site investigations, groundwater and stormwater treatment, mass excavations and grading including storm drain relocations, construction site dewatering and storm water discharge compliance (NPDES, MRP, CGP, IGP), and hazardous waste storage and disposal including HMBP updates and CERS reporting. As the Corporate Health and Safety Officer, he is responsible for the maintenance and implementation of Northgate's Health and Safety Program. Mr. Rieke is a Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer/Practitioner (QSD/P), as well as an Accredited Professional with the United States Green Building Council for Leadership in Energy and Environmental Design specialized in Building Design and Construction (LEED AP BD+C) and is actively promoting a sustainable approach to stormwater management.

REPRESENTATIVE EXPERIENCE

- ***City of Oakland,*** Business Stormwater Inspection Program (BSIP) – Project Manager for BSIP assistance and currently planning for FY24/25 inspections of commercial and industrial businesses (e.g., IGP facilities) including program coordination, implementation, and reporting for compliance with the MRP Provision C.4 Industrial and Commercial Site Controls
- ***City of Berkeley,*** Project Manager for Environmental Compliance Support Including Stormwater and Hazardous Materials Management – Since 2013 Mr. Rieke has been managing annual preparation of HMBPs for City of Berkeley facilities that store hazardous material including underground and/or aboveground fuel storage tanks, waste-oil and other large-quantity petroleum storage, paints, solvents, batteries, pesticides, herbicides, asphalt, and other hazardous materials. On an annual basis he coordinated staff performing hazardous materials inventory during facility inspections and entering updates onto the California Environmental Reporting System (CERS) based on review of historic HMBP information, site reconnaissance, and interviews with site operations personnel to ensure complete facility coverage and understanding of facility operations. In 2017 Mr. Rieke managed the 5-year update to City Corporate Yard SWPPP per the Municipal Regional Permit (MRP), Provision C.2.f. Corporation Yard Best Management Practices (BMP) Implementation. He coordinated staff performing field inspections of storm water BMPs and regulatory reporting using Storm Water Multiple Application and Report Tracking System (SMARTS). In 2018 and 2019 Mr. Rieke assisted the City with Municipal Regional Permit reporting support. Managed GIS support for the Green Infrastructure planning component of the City's MRP 2018 Annual Report. Lead team creating GIS layers for micro-watersheds (approximately 800) in Berkeley based on georeferenced hydrology maps. Prepared technical memorandum summarizing GIS output data including PCB yields and GI reduction potentials by Micro-Watershed and Land Use Category**.**
- ***301 Industrial Road Remediation Project, San Carlos, California*** – Mr. Rieke served as the resident engineer at an 18-acre remediation project for the future construction of a major hospital complex in San Mateo County. He oversaw investigation and remediation of polychlorinated biphenyls (PCBs) impacted soil in a former transformer area. He coordinated pilot testing for injection of soil stabilization agents, onsite and in-situ soil mixing with chemical oxidants followed by lime treatment of petroleum

hydrocarbon impacted soils at a former gasoline underground storage tank area. Until project completion and receipt of a No-Further-Action letter from the RWQCB Mr. Rieke was the project QSD and provided regulatory compliance assistance by working as a liaison between the owner and the RWQCB storm water unit.

- ***Alameda County Flood Control and Water Conservation District, CA –*** Project Manager for as-needed service contract for NPDES Municipal Regional Stormwater Permit (MRP) compliance support including legal/regulatory guidance and technical support; conducting "Pollutants of Concern" related special studies; and support for annual reporting. Presented at District Clean Water Program round table to member agencies on Green Infrastructure planning using geographic information system (GIS) applications.
- ***Port of San Francisco, In-House Regulatory Specialist, CA –*** Managed the Port's Construction Runoff Control Program on a weekly assignment at the Port's office. Reviews developer erosion and sediment control plans and permit applications. Prepared permits that the Port issues to applicants. Performed compliance inspections at construction sites including the Pier 70 69-acre redevelopment. Reviewed tenant improvement and project post-construction stormwater management plans including green infrastructure and civil design for compliance with the National Pollutant Discharge Elimination System (NPDES) Phase II MS4 Permit. Made recommendations to the Port's Engineering Division's Building Permit Group and San Francisco Public Utilities Commission.
- ***Port of San Francisco, TMDL Implementation, CA –*** Project Manager for inspection of the Port's on-land sanitary sewer system within ¼ mile from the shore of Aquatic Park. The Clean Water Act 303(d) list identifies the park as an impaired water body subject to the San Francisco Bay Beaches Bacteria Total Maximum Daily Load (TMDL). TMDL implementation planning included inspection of the subject sewer system that consists of approximately 5,037 linear-feet (LF) gravity main and 918 LF pressurized main lines. The system was inspected via Closed Circuit Television (CCTV) to confirm the structural integrity and assess the condition of the pipe system. Mr. Rieke retained Pipe & Plant Solutions Inc. (PPSI), a specialty CCTV contractor, to deliver this turn-key assessment project. The results were summarized in a written report, GIS data, and CCTV file transmittal. The report conclusions were used in developing recommendations and performing repairs to meet TMDL requirements. In addition, Mr. Rieke supported Port staff with planning water quality monitoring and assessment of illicit discharges at MS4 outfalls near Aquatic Park.
- ***Port of San Francisco Tenant Industrial General Permit Compliance, CA –*** Project Manager for IGP compliance with support form QISP for Annual Comprehensive Facility Compliance Evaluation (ACFCE), inspections, monitoring including sampling and annual reporting. Made recommendations for modification to the SWPPP, BMPs or the monitoring program for IGP compliance.

EDUCATION

Diplom-Ingenieur (Dipl.-Ing.; equivalent to MS), Civil Engineering, Darmstadt University of Technology - Germany, 1999; BS, Civil Engineering, Darmstadt University of Technology - Germany, 1991

Continuing Education

Review of Civil Engineering, University of California, Berkeley, 2005

PROFESSIONAL HISTORY

Northgate Environmental Management, Inc., Civil Engineer, 2001–present
Various Consulting Firms in Germany 1989-2000

REGISTRATIONS/CERTIFICATIONS

Professional Engineer, California No. 71407
Leadership in Energy and Environmental Design Accredited Professional (LEED AP BD+C)
Qualified SWPPP Developer/Practitioner (QSD/P) No. 00772

KEVIN C. TORRES, MS
SENIOR SCIENTIST

Mr. Torres has 24 years of experience in the fields of stormwater compliance, hazardous materials business plans and assessment, water and sediment quality, Phase I environmental site assessments (ESAs), environmental impact reports (EIRs) and California Environmental Quality Act (CEQA) compliance, ecological risk assessments (ERAs), toxicology, and biology. He has supported municipalities with a variety of inspections, analyses, and reporting requirements to comply with the Municipal Regional Stormwater NPDES Permit (MRP), Phase II Small Municipal General Stormwater Permit (MGP), and Industrial General Permit (IGP). Mr. Torres has conducted five years of on-land visual trash assessments (OVTA) years per the MRP and performed multiple Phase I ESAs in accordance with ASTM and USEPA Standards. He has assessed environmental impacts and identified mitigation and measures for EIRs. Mr. Torres is familiar with environmental regulations and guidance for stormwater and hazardous materials permit compliance, California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), risk assessment, and site investigation (CERCLA, RCRA).

REPRESENTATIVE EXPERIENCE

- ***PCB Load Reduction Planning, Alameda Countywide Clean Water Program, CA –*** Mr. Torres assisted the Alameda Countywide Clean Water Program in planning for compliance with load reduction goals associated with stormwater permits and the total maximum daily load (TMDL) for PCBs entering San Francisco Bay. Mr. Torres conducted a review of sites impacted by historical releases of PCBs to summarize and assess potential sources of PCBs in stormwater runoff and potential reductions in loads from remedial actions. He conducted case study assessments for sites in which baseline (i.e., pre-remediation) and post-remediation loads of PCBs were estimated via sediment transport modeling, estimated PCB load reductions for case study sites, and recommended methodologies for assessing load reductions.
- ***Phase I Environmental Site Assessments –*** Mr. Torres has performed numerous Phase I environmental site assessments in accordance with 40 CFR Part 312, *Standards and Practices for All Appropriate Inquiry—Final Rule*, and the most recent version of ASTM E-1527-21 standard, including site history reviews, records reviews, site inspections, and report writing. Project sites have ranged from commercial properties to industrial properties, residential properties, wetlands, and former agricultural land under agencies including the City of Oakland, City of Berkeley, City of San Francisco, East Bay Municipal Utilities District, and Santa Clara Valley Water District.
- ***As-Needed Environmental Consulting, Hydrology, and Stormwater Services, City of Oakland, Oakland, CA –*** Mr. Torres provides stormwater compliance support to the City of Oakland (City), including assisting with the preparation of the City's Annual Reports for compliance with the MRP since 2016. Tasks include reporting facility inspections, enforcement actions, and discharge corrections for commercial and industrial businesses requiring stormwater inspections, and summarizing staff training under Provision C.4 Industrial and Commercial Site Controls. Mr. Torres also has completed trash cleanup credit calculations; compilation, review, and reporting of the City's execution of numerous other permit provisions; and annual report document production. Mr. Torres also supports the City's reporting of green infrastructure and other stormwater treatment

projects for new development and redevelopment under MRP Provision C.3, including data entry into an ArcGIS online tracking tool to facilitate estimation of pollutant load reductions. Since 2019 he has also conducted on-land visual trash assessments (OVTA) on streets and sidewalks to support estimates of trash load reduction by the City.

- ***As-Needed Environmental Consulting, Municipal General Stormwater Permit Compliance Support, Port of Oakland, Oakland, CA –*** Mr. Torres provides provide illicit discharge detection and elimination (IDDE) program and annual reporting support services support the Port complying with the provisions of the Statewide Phase II Small Municipal General Stormwater Permit (MGP). He conducts as needed inspections and visits to sites in response to reported spills and illicit discharges within 72 hours of notification, documents inspections, reinspects sites, coordinates with Port staff, tracks investigations and corrective actions, and provides status updates to the Port related to the Illicit Discharge Detection and Elimination Source Investigations and Corrective Actions MGP Provision F.5.d.3. Mr. Torres also provides annual reporting support under MGP Provisions F.5.h and F.5.j, including ongoing documentation and annual reporting of inspections and maintenance reports for bioretention facilities maintained by Port tenants.
- ***On-Call Environmental Consulting Services, City of Berkeley, Berkeley, CA –*** Mr. Torres provided on-call stormwater compliance support to the City of Berkeley. He conducted hazardous materials inspections for the City to update its hazardous materials business plan (HMBP). He reviewed historic HMBP information, conducted site visits to update current hazardous material storage, interviewed site operations personnel to ensure complete facility coverage and understanding of facility operations, identified and inventoried hazardous materials at multiple sites within the City, updated hazardous material maps, and assisted in uploading the HMBPs to the California Environmental Reporting System. He also assisted with the preparation of the City's 2016, 2017, and 2018 MRP Annual Reports by identifying and reporting public projects reviewed or planned for green infrastructure, identifying facilities as potential non-filers under the Industrial General Permit, and writing and compiling sections of the annual report.
- ***Hazardous Materials Compliance Support, Westlake Shopping Center, Daly City, California*** – Mr. Torres provides annual hazardous materials compliance support for Westlake Shopping Center, assisting Kimco Real Estate in correcting violations and attaining compliance with hazardous waste storage, handling, and disposal. These services include conducting hazardous materials inventories, performing an inspection of hazardous materials storage areas, producing a site plan, assisting the client with meeting employee training requirements, and updating and submitting the facility's HMBP.

EDUCATION

M.S., Ecology (Ecotoxicology emphasis), University of California, Davis, 2000
B.A., Integrative Biology, University of California, Berkeley, 1992

PROFESSIONAL HISTORY

Northgate Environmental Management, Inc., Senior Scientist, September 2014–present
Tetra Tech, Inc., Staff and Senior Scientist, 1993-1995, 1999-2013

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 its 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 must comply with the Davis-Bacon Act (40 U.S.C. § 3141 et seq.) and the requirements of 29 CFR Park 5 as may be applicable, including the provisions in 29 CFR § 5.5(a), which are attached hereto and incorporated herein by reference. 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. Consultant and Subcontractors/Subconsultants must insert the requirements in 29 CFR § 5.5(a) in full into subcontracts of any tier.

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 ("CWHSSA"), as set forth in 40 U.S.C. §§ 3701-3708, as supplemented by the regulations set forth in 29 CFR Part 5, including 29 CFR § 5.5(b), as may be amended from time to time, which are fully incorporated herein, including:

(A) **Overtime Requirements.** No Consultant or subcontractor contracting for any part of the Work which may require or involve the employment of laborers or mechanics will require or permit any such laborer or mechanic in any workweek in which he or she is employed on such Work to work in excess of 40 hours in such workweek 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 in such workweek.

(B) **Violation; Liability for Unpaid Wages; Liquidated Damages.** In the event of any violation of the clause set forth in (A), above, the Consultant and any subcontractor responsible therefore will be liable for the unpaid wages and interest from the date of the underpayment. In addition, such Consultant and subcontractor will be liable to the United States for liquidated damages. The liquidated damages will be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in (A) of this Section, in the sum of $32 (or as otherwise set forth in 29 CFR § 5.5(b)) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in (A) of this Section.

(C) **Withholding for Unpaid Wages and Liquidated Damages.**

(1) *Withhold Process.* The City may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the Contractor or any Subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this Section, any other Federal contract with the same Contractor, or any other federally assisted contract subject to the CWHSSA that is held by the same Contractor (as defined in 29 CFR § 5.2). The necessary funds may be withheld from the Contractor under this Contract, any other Federal contract with the same Contractor, or any other federally assisted contract that is subject to the CWHSSA and is held by the same Contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

(2) *Priority to Withheld Funds.* The Department of Labor has priority to funds withheld or to be withheld in accordance with 29 CFR § 5.5(a)(2)(i) or 29 CFR § 5.5(b)(3)(i), or both, over claims to those funds by: (a) a contractor's sureties, including without limitation performance bond sureties and payment bond sureties; (b) a contracting agency for its re-procurement costs; (c) a trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate; (d) a contractor's assignee(s); (e) a contractor's successor(s); or (f) a claim asserted under the Prompt Payment Act (31 U.S.C. §§ 3901–3907).

(D) **Subcontracts.** Contractor and Subcontractors must insert in any subcontracts the clauses set forth in this Section and a clause requiring Subcontractors to include these clauses in any lower tier subcontracts. Contractor is responsible for compliance by any Subcontractor or lower tier Subcontractor with the clauses set forth in this Section. In the event of any violations of these clauses, the Contractor and any Subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier Subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

(E) **Anti-Retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

(1) Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the CWHSSA or its implementing regulations in 29 CFR Part 5;
(2) Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or 29 CFR Part 5;
(3) Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or 29 CFR Part 5; or
(4) Informing any other person about their rights under CWHSSA or 29 CFR Part 5.

(F) **CWHSSA Required Records.** To the extent that the Contract is subject only to the CWHSSA and not to any of the other Laws referenced in 29 CFR § 5.1, Contractor and its Subcontractors must maintain regular payrolls and other basic records during the course of the Work and must preserve them for a period of three years after all the Work on the Contract is completed for all laborers and mechanics, including guards and watchpersons, working on the Contract. Such records must contain the name; last known address, telephone number, and email address; and social security number of each such worker; each worker's correct classification(s) of Work actually performed; hourly rates of wages paid; daily and weekly number of hours actually worked; deductions made; and actual wages paid. The records must be made available by the Contractor or Subcontractor for inspection, copying, or transcription by authorized representatives of the City and the Department of Labor, and the Contractor or Subcontractor will permit such representatives to interview workers during working hours on the job.

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), and all applicable standards, orders, and regulations issued pursuant thereto, which are fully incorporated into the Agreement by this reference, including requirements for reporting violations to the City, federal 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, Contractor and each subcontractor must comply with the requirements of the Federal Water Pollution Control Act (33 U.S.C. §§ 1251-1387), and all applicable standards, orders, and regulations issued pursuant thereto, which are fully incorporated into the Agreement by this reference, including requirements for reporting violations to the City, federal 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.** This Agreement is a covered transaction for purposes of 2 CFR Part 180 and 2 CFR Part 3000. Consultant is required to verify that none of 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, in addition to remedies available to City, 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 City. 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 who in turn will forward the disclosure(s) to the federal awarding agency.

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 of 1976 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 will consider small businesses, minority businesses, women's business enterprises, veteran-owned businesses, and labor surplus area firms, as set forth in 2 CFR § 200.321, when possible and subject to the limitations of law. Consideration means:

(A) **Solicitation Lists.** These business types are included on solicitation lists.

(B) **Soliciting Potential Sources.** These business types are solicited whenever they are deemed eligible as potential sources.

(C) **Maximizing Participation.** Dividing procurement transactions into separate procurements to permit maximum participation by these business types.

(D) **Establishing Delivery Schedules.** Establishing delivery schedules that encourage participation by these business types.

(E) **Organizational Assistance.** Utilizing organizations such as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

(F) **Lower-Tier Subcontracts.** Requiring Subcontractors to apply this Section to lower-tier subcontracts, if any.

12. **Prohibition on Covered Telecommunications.** Federal loan or grant funds must not be obligated or expended to procure or obtain covered telecommunications equipment or services, extend or renew a contract to procure or obtain covered telecommunications equipment or services, or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, as further specified in 2 CFR § 200.216, which is fully incorporated into the Agreement by this reference. "Covered telecommunications equipment or services" means any of the following: telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities); video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities); telecommunications or video surveillance services provided by such entities or using such equipment; or telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. The term "covered telecommunications equipment or services" also includes systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractor will include this provision in all subcontracts or purchase orders in connection with the work.

13. **Domestic Preferences for Procurements.** The City should, to the greatest extent practicable and consistent with laws, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States, as further specified in 2 CFR § 200.322, which is fully incorporated into the Agreement by this reference, including, but

not limited to, iron, aluminum, steel, cement, and other manufactured products, as specified therein. The requirements of 2 CFR § 200.322 must be included in all subcontracts and purchase orders for work or products under the federal award.

Attachment 1 to Exhibit C
Davis-Bacon Act Wage Determination

"REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

Daniel W. Simms
Director

Division of Wage Determinations

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Wage Determination No.: 2015-5623
Revision No.: 25
Date Of Last Revision: 12/23/2024

Note: Contracts subject to the Service Contract Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658.

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $17.75 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 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least $13.30 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 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

State: California

Area: California Counties of Alameda, Contra Costa

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		23.78
01012 - Accounting Clerk II		26.69
01013 - Accounting Clerk III		29.85
01020 - Administrative Assistant		46.70
01035 - Court Reporter		62.05
01041 - Customer Service Representative I		20.32
01042 - Customer Service Representative II		22.17
01043 - Customer Service Representative III		24.88
01051 - Data Entry Operator I		21.43
01052 - Data Entry Operator II		23.38
01060 - Dispatcher, Motor Vehicle		29.13
01070 - Document Preparation Clerk		20.57
01090 - Duplicating Machine Operator		20.57
01111 - General Clerk I		20.58
01112 - General Clerk II		22.46
01113 - General Clerk III		25.22

01120 - Housing Referral Assistant	31.71
01141 - Messenger Courier	23.05
01191 - Order Clerk I	21.34
01192 - Order Clerk II	23.29
01261 - Personnel Assistant (Employment) I	24.85
01262 - Personnel Assistant (Employment) II	27.79
01263 - Personnel Assistant (Employment) III	30.98
01270 - Production Control Clerk	33.35
01290 - Rental Clerk	22.10
01300 - Scheduler, Maintenance	25.43
01311 - Secretary I	25.43
01312 - Secretary II	28.45
01313 - Secretary III	31.71
01320 - Service Order Dispatcher	24.50
01410 - Supply Technician	46.70
01420 - Survey Worker	28.86
01460 - Switchboard Operator/Receptionist	22.24
01531 - Travel Clerk I	24.40
01532 - Travel Clerk II	26.57
01533 - Travel Clerk III	29.01
01611 - Word Processor I	26.14
01612 - Word Processor II	29.33
01613 - Word Processor III	32.81
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	30.09
05010 - Automotive Electrician	30.12
05040 - Automotive Glass Installer	28.50
05070 - Automotive Worker	28.50
05110 - Mobile Equipment Servicer	25.13
05130 - Motor Equipment Metal Mechanic	31.76
05160 - Motor Equipment Metal Worker	28.50
05190 - Motor Vehicle Mechanic	31.76
05220 - Motor Vehicle Mechanic Helper	23.22
05250 - Motor Vehicle Upholstery Worker	26.88
05280 - Motor Vehicle Wrecker	28.50
05310 - Painter, Automotive	30.12
05340 - Radiator Repair Specialist	28.50
05370 - Tire Repairer	21.61
05400 - Transmission Repair Specialist	31.76
07000 - Food Preparation And Service Occupations	
07010 - Baker	20.93
07041 - Cook I	22.93
07042 - Cook II	26.00
07070 - Dishwasher	19.01
07130 - Food Service Worker	19.17
07210 - Meat Cutter	22.03
07260 - Waiter/Waitress	18.03
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	29.69
09040 - Furniture Handler	15.94***
09080 - Furniture Refinisher	24.84
09090 - Furniture Refinisher Helper	19.15
09110 - Furniture Repairer, Minor	22.16
09130 - Upholsterer	25.97
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	19.40
11060 - Elevator Operator	20.06
11090 - Gardener	28.97
11122 - Housekeeping Aide	20.81
11150 - Janitor	20.81
11210 - Laborer, Grounds Maintenance	22.29
11240 - Maid or Houseman	21.68
11260 - Pruner	20.05
11270 - Tractor Operator	26.77
11330 - Trail Maintenance Worker	22.29

11360 - Window Cleaner	23.13
12000 - Health Occupations	
12010 - Ambulance Driver	24.06
12011 - Breath Alcohol Technician	36.06
12012 - Certified Occupational Therapist Assistant	46.60
12015 - Certified Physical Therapist Assistant	44.92
12020 - Dental Assistant	30.33
12025 - Dental Hygienist	66.08
12030 - EKG Technician	43.42
12035 - Electroneurodiagnostic Technologist	43.42
12040 - Emergency Medical Technician	24.06
12071 - Licensed Practical Nurse I	32.24
12072 - Licensed Practical Nurse II	36.06
12073 - Licensed Practical Nurse III	40.22
12100 - Medical Assistant	28.74
12130 - Medical Laboratory Technician	38.31
12160 - Medical Record Clerk	31.02
12190 - Medical Record Technician	34.70
12195 - Medical Transcriptionist	25.94
12210 - Nuclear Medicine Technologist	85.55
12221 - Nursing Assistant I	17.58***
12222 - Nursing Assistant II	19.78
12223 - Nursing Assistant III	21.58
12224 - Nursing Assistant IV	24.22
12235 - Optical Dispenser	28.22
12236 - Optical Technician	27.26
12250 - Pharmacy Technician	29.56
12280 - Phlebotomist	27.06
12305 - Radiologic Technologist	65.43
12311 - Registered Nurse I	49.13
12312 - Registered Nurse II	60.10
12313 - Registered Nurse II, Specialist	60.10
12314 - Registered Nurse III	72.70
12315 - Registered Nurse III, Anesthetist	72.70
12316 - Registered Nurse IV	87.14
12317 - Scheduler (Drug and Alcohol Testing)	44.69
12320 - Substance Abuse Treatment Counselor	29.86
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	25.45
13012 - Exhibits Specialist II	31.05
13013 - Exhibits Specialist III	37.98
13041 - Illustrator I	29.13
13042 - Illustrator II	36.07
13043 - Illustrator III	44.14
13047 - Librarian	45.23
13050 - Library Aide/Clerk	27.69
13054 - Library Information Technology Systems Administrator	40.84
13058 - Library Technician	29.38
13061 - Media Specialist I	29.47
13062 - Media Specialist II	32.97
13063 - Media Specialist III	36.75
13071 - Photographer I	23.80
13072 - Photographer II	26.63
13073 - Photographer III	33.00
13074 - Photographer IV	40.35
13075 - Photographer V	48.82
13090 - Technical Order Library Clerk	32.51
13110 - Video Teleconference Technician	31.24
14000 - Information Technology Occupations	
14041 - Computer Operator I	27.83
14042 - Computer Operator II	31.13
14043 - Computer Operator III	34.72
14044 - Computer Operator IV	38.58
14045 - Computer Operator V	42.72

14071 - Computer Programmer I	(see 1)
14072 - Computer Programmer II	(see 1)
14073 - Computer Programmer III	(see 1)
14074 - Computer Programmer IV	(see 1)
14101 - Computer Systems Analyst I	(see 1)
14102 - Computer Systems Analyst II	(see 1)
14103 - Computer Systems Analyst III	(see 1)
14150 - Peripheral Equipment Operator	27.83
14160 - Personal Computer Support Technician	38.58
14170 - System Support Specialist	43.12
15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	46.95
15020 - Aircrew Training Devices Instructor (Rated)	56.80
15030 - Air Crew Training Devices Instructor (Pilot)	68.08
15050 - Computer Based Training Specialist / Instructor	46.95
15060 - Educational Technologist	43.63
15070 - Flight Instructor (Pilot)	68.08
15080 - Graphic Artist	44.41
15085 - Maintenance Test Pilot, Fixed, Jet/Prop	68.08
15086 - Maintenance Test Pilot, Rotary Wing	68.08
15088 - Non-Maintenance Test/Co-Pilot	68.08
15090 - Technical Instructor	33.96
15095 - Technical Instructor/Course Developer	41.54
15110 - Test Proctor	27.42
15120 - Tutor	27.42
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations	
16010 - Assembler	21.57
16030 - Counter Attendant	21.57
16040 - Dry Cleaner	24.65
16070 - Finisher, Flatwork, Machine	21.57
16090 - Presser, Hand	21.57
16110 - Presser, Machine, Drycleaning	21.57
16130 - Presser, Machine, Shirts	21.57
16160 - Presser, Machine, Wearing Apparel, Laundry	21.57
16190 - Sewing Machine Operator	25.67
16220 - Tailor	26.70
16250 - Washer, Machine	22.60
19000 - Machine Tool Operation And Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	29.05
19040 - Tool And Die Maker	35.85
21000 - Materials Handling And Packing Occupations	
21020 - Forklift Operator	25.49
21030 - Material Coordinator	33.35
21040 - Material Expediter	33.35
21050 - Material Handling Laborer	22.25
21071 - Order Filler	20.93
21080 - Production Line Worker (Food Processing)	25.49
21110 - Shipping Packer	22.58
21130 - Shipping/Receiving Clerk	22.58
21140 - Store Worker I	20.55
21150 - Stock Clerk	26.68
21210 - Tools And Parts Attendant	25.49
21410 - Warehouse Specialist	25.49
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	44.10
23019 - Aircraft Logs and Records Technician	35.51
23021 - Aircraft Mechanic I	41.96
23022 - Aircraft Mechanic II	44.10
23023 - Aircraft Mechanic III	45.96
23040 - Aircraft Mechanic Helper	30.68
23050 - Aircraft, Painter	39.80
23060 - Aircraft Servicer	35.51
23070 - Aircraft Survival Flight Equipment Technician	39.80
23080 - Aircraft Worker	37.65
23091 - Aircrew Life Support Equipment (ALSE) Mechanic	37.65

I	
23092 - Aircrew Life Support Equipment (ALSE) Mechanic II	41.96
23110 - Appliance Mechanic	28.11
23120 - Bicycle Repairer	23.69
23125 - Cable Splicer	64.66
23130 - Carpenter, Maintenance	38.33
23140 - Carpet Layer	33.40
23160 - Electrician, Maintenance	50.38
23181 - Electronics Technician Maintenance I	38.82
23182 - Electronics Technician Maintenance II	41.03
23183 - Electronics Technician Maintenance III	43.26
23260 - Fabric Worker	37.83
23290 - Fire Alarm System Mechanic	33.34
23310 - Fire Extinguisher Repairer	34.29
23311 - Fuel Distribution System Mechanic	50.00
23312 - Fuel Distribution System Operator	39.53
23370 - General Maintenance Worker	29.52
23380 - Ground Support Equipment Mechanic	41.96
23381 - Ground Support Equipment Servicer	35.51
23382 - Ground Support Equipment Worker	37.65
23391 - Gunsmith I	34.29
23392 - Gunsmith II	38.88
23393 - Gunsmith III	43.34
23410 - Heating, Ventilation And Air-Conditioning Mechanic	35.79
23411 - Heating, Ventilation And Air Contidioning Mechanic (Research Facility)	37.61
23430 - Heavy Equipment Mechanic	40.35
23440 - Heavy Equipment Operator	51.60
23460 - Instrument Mechanic	45.53
23465 - Laboratory/Shelter Mechanic	41.11
23470 - Laborer	22.25
23510 - Locksmith	28.95
23530 - Machinery Maintenance Mechanic	40.96
23550 - Machinist, Maintenance	31.54
23580 - Maintenance Trades Helper	22.09
23591 - Metrology Technician I	45.53
23592 - Metrology Technician II	47.85
23593 - Metrology Technician III	49.87
23640 - Millwright	47.45
23710 - Office Appliance Repairer	30.30
23760 - Painter, Maintenance	30.71
23790 - Pipefitter, Maintenance	41.10
23810 - Plumber, Maintenance	38.96
23820 - Pneudraulic Systems Mechanic	43.34
23850 - Rigger	42.88
23870 - Scale Mechanic	38.88
23890 - Sheet-Metal Worker, Maintenance	43.27
23910 - Small Engine Mechanic	25.63
23931 - Telecommunications Mechanic I	38.73
23932 - Telecommunications Mechanic II	40.71
23950 - Telephone Lineman	46.82
23960 - Welder, Combination, Maintenance	29.52
23965 - Well Driller	36.77
23970 - Woodcraft Worker	43.34
23980 - Woodworker	34.29
24000 - Personal Needs Occupations	
24550 - Case Manager	25.47
24570 - Child Care Attendant	21.16
24580 - Child Care Center Clerk	26.40
24610 - Chore Aide	16.73***
24620 - Family Readiness And Support Services Coordinator	25.47
24630 - Homemaker	25.47

25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	55.09
25040 - Sewage Plant Operator	49.98
25070 - Stationary Engineer	55.09
25190 - Ventilation Equipment Tender	40.28
25210 - Water Treatment Plant Operator	49.98
27000 - Protective Service Occupations	
27004 - Alarm Monitor	50.29
27007 - Baggage Inspector	21.34
27008 - Corrections Officer	45.89
27010 - Court Security Officer	49.35
27030 - Detection Dog Handler	30.14
27040 - Detention Officer	45.89
27070 - Firefighter	52.80
27101 - Guard I	21.34
27102 - Guard II	30.14
27131 - Police Officer I	58.36
27132 - Police Officer II	64.84
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	24.54
28042 - Carnival Equipment Repairer	26.55
28043 - Carnival Worker	18.38
28210 - Gate Attendant/Gate Tender	24.72
28310 - Lifeguard	18.57
28350 - Park Attendant (Aide)	27.65
28510 - Recreation Aide/Health Facility Attendant	20.19
28515 - Recreation Specialist	34.26
28630 - Sports Official	22.03
28690 - Swimming Pool Operator	30.11
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	39.53
29020 - Hatch Tender	39.53
29030 - Line Handler	39.53
29041 - Stevedore I	37.27
29042 - Stevedore II	41.78
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (see 2)	56.27
30011 - Air Traffic Control Specialist, Station (HFO) (see 2)	38.81
30012 - Air Traffic Control Specialist, Terminal (HFO) (see 2)	42.74
30021 - Archeological Technician I	24.86
30022 - Archeological Technician II	27.80
30023 - Archeological Technician III	34.44
30030 - Cartographic Technician	34.44
30040 - Civil Engineering Technician	46.48
30051 - Cryogenic Technician I	38.13
30052 - Cryogenic Technician II	42.12
30061 - Drafter/CAD Operator I	24.86
30062 - Drafter/CAD Operator II	27.80
30063 - Drafter/CAD Operator III	30.99
30064 - Drafter/CAD Operator IV	38.15
30081 - Engineering Technician I	20.77
30082 - Engineering Technician II	23.30
30083 - Engineering Technician III	26.07
30084 - Engineering Technician IV	32.30
30085 - Engineering Technician V	39.51
30086 - Engineering Technician VI	47.80
30090 - Environmental Technician	34.94
30095 - Evidence Control Specialist	34.43
30210 - Laboratory Technician	33.89
30221 - Latent Fingerprint Technician I	45.41
30222 - Latent Fingerprint Technician II	50.16
30240 - Mathematical Technician	52.55
30361 - Paralegal/Legal Assistant I	26.57
30362 - Paralegal/Legal Assistant II	32.93
30363 - Paralegal/Legal Assistant III	40.28

30364 - Paralegal/Legal Assistant IV		48.73
30375 - Petroleum Supply Specialist		42.12
30390 - Photo-Optics Technician		35.89
30395 - Radiation Control Technician		42.12
30461 - Technical Writer I		40.74
30462 - Technical Writer II		49.84
30463 - Technical Writer III		60.29
30491 - Unexploded Ordnance (UXO) Technician I		35.77
30492 - Unexploded Ordnance (UXO) Technician II		43.27
30493 - Unexploded Ordnance (UXO) Technician III		51.87
30494 - Unexploded (UXO) Safety Escort		35.77
30495 - Unexploded (UXO) Sweep Personnel		35.77
30501 - Weather Forecaster I		38.13
30502 - Weather Forecaster II		46.38
30620 - Weather Observer, Combined Upper Air Or Surface Programs	(see 2)	30.99
30621 - Weather Observer, Senior	(see 2)	34.43
31000 - Transportation/Mobile Equipment Operation Occupations		
31010 - Airplane Pilot		43.27
31020 - Bus Aide		26.22
31030 - Bus Driver		36.45
31043 - Driver Courier		21.54
31260 - Parking and Lot Attendant		19.05
31290 - Shuttle Bus Driver		23.14
31310 - Taxi Driver		17.93
31361 - Truckdriver, Light		23.31
31362 - Truckdriver, Medium		24.93
31363 - Truckdriver, Heavy		30.17
31364 - Truckdriver, Tractor-Trailer		30.17
99000 - Miscellaneous Occupations		
99020 - Cabin Safety Specialist		21.10
99030 - Cashier		18.55
99050 - Desk Clerk		20.17
99095 - Embalmer		33.15
99130 - Flight Follower		35.77
99251 - Laboratory Animal Caretaker I		21.65
99252 - Laboratory Animal Caretaker II		23.43
99260 - Marketing Analyst		51.34
99310 - Mortician		29.47
99410 - Pest Controller		22.97
99510 - Photofinishing Worker		22.97
99710 - Recycling Laborer		38.60
99711 - Recycling Specialist		46.15
99730 - Refuse Collector		34.73
99810 - Sales Clerk		19.32
99820 - School Crossing Guard		25.31
99830 - Survey Party Chief		45.28
99831 - Surveying Aide		27.24
99832 - Surveying Technician		39.83
99840 - Vending Machine Attendant		19.07
99841 - Vending Machine Repairer		23.40
99842 - Vending Machine Repairer Helper		19.07

***Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75 per hour) or 13658 ($13.30 per hour). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 and 13658 are not currently being enforced as to contracts or contract-like instruments entered into with the federal government in connection with seasonal recreational services or seasonal recreational equipment rental for the general public on federal lands. The minimum wage requirements of Executive Order 14026 also are not currently being

enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors, applies to all contracts subject to the Service Contract 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 the 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.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: $5.36 per hour, up to 40 hours per week, or $214.40 per week or $929.07 per month

HEALTH & WELFARE EO 13706: $4.93 per hour, up to 40 hours per week, or $197.20 per week, or $854.53 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706, Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, 4 weeks after 15 years, and 5 weeks after 25 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of eleven paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Juneteenth National Independence Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) COMPUTER EMPLOYEES: This wage determination does not apply to any individual employed in a bona fide executive, administrative, or professional capacity, as defined in 29 C.F.R. Part 541. (See 41 C.F.R. 6701(3)). Because most Computer Systems Analysts and Computer Programmers who are paid at least $27.63 per hour (or at least $684 per week if paid on a salary or fee basis) likely qualify as exempt computer professionals under 29 U.S.C. 213(a)(1) and 29 U.S.C. 213(a)(17), this wage determination may not include wage rates for all occupations within those job families. In such instances, a conformance will be necessary if there are nonexempt employees in these job families working on the contract.

Job titles vary widely and change quickly in the computer industry, and are not determinative of whether an employee is an exempt computer professional. To be exempt, computer employees who satisfy the compensation requirements must also have a primary duty that consists of:

(1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

Any computer employee who meets the applicable compensation requirements and the above duties test qualifies as an exempt computer professional under both section 13(a)(1) and section 13(a)(17) of the Fair Labor Standards Act. (Field Assistance Bulletin No. 2006-3 (Dec. 14, 2006)). Accordingly, this wage determination will not apply to any exempt computer employee regardless of which of these two exemptions is utilized.

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

** HAZARDOUS PAY DIFFERENTIAL **

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving re-grading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to

this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of ""wash and wear"" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the ""Service Contract Act Directory of Occupations"", Fifth Edition (Revision 1), dated September 2015, unless otherwise indicated.

** REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE, Standard Form 1444 (SF-1444) **

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be paid to all employees performing in the classification from the first day of work on which contract work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or fully determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract. (See 29 CFR 4.6(b)(2)(v)). When multiple wage determinations are included in a contract, a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order the proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the U.S. Department of Labor, Wage and Hour Division, for review (See 29 CFR 4.6(b)(2)(ii)).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour Division's decision to the contractor.

6) Each affected employee shall be furnished by the contractor with a written copy of such determination or it shall be posted as a part of the wage determination (See 29 CFR 4.6(b)(2)(iii)).

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request, the ""Service Contract Act Directory of Occupations"" should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination (See 29 CFR 4.152(c)(1))."

Attachment 2 to Exhibit C
29 CFR § 5.5(a)

Title 29 —Labor
Subtitle A —Office of the Secretary of Labor
Part 5
—Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (Also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)
Subpart A —Davis-Bacon and Related Acts Provisions and Procedures

EDITORIAL NOTE ON SUBPART A OF PART 5

Editorial Note: Nomenclature changes to subpart A of part 5 appear at 61 FR 19984, May 3, 1996.

§ 5.5 Contract provisions and related matters.

(a) ***Required contract clauses.*** The Agency head will cause or require the contracting officer to require the contracting officer to insert in full, or (for contracts covered by the Federal Acquisition Regulation (48 CFR chapter 1)) by reference, in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the laws referenced by § 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided,* That such modifications are first approved by the Department of Labor):

(1) ***Minimum wages*** —

(i) ***Wage rates and fringe benefits.*** All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of this section, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(v) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph (a)(4) of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (a)(1)(iii) of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) ***Frequently recurring classifications.***

(A) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph (a)(1)(iii) of this section, provided that:

(*1*) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(*2*) The classification is used in the area by the construction industry; and

(*3*) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(B) The Administrator will establish wage rates for such classifications in accordance with paragraph (a)(1)(iii)(A)(*3*) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

(iii) ***Conformance.***

(A) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(*1*) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(*2*) The classification is used in the area by the construction industry; and

(*3*) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(C) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov,* refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(E) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs (a)(1)(iii)(C) and (D) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph (a)(1)(iii)(C) or (D) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iv) ***Fringe benefits not expressed as an hourly rate.*** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(v) ***Unfunded plans.*** If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(vi) ***Interest.*** In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

(2) ***Withholding*** —

(i) ***Withholding requirements.*** The [write in name of Federal agency or the recipient of Federal assistance] may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in paragraph (a) of this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work (or otherwise working in construction or development of the project under a development statute) all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph (a)(3)(iv) of this section, the [Agency] may on its own initiative and after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(ii) ***Priority to withheld funds.*** The Department has priority to funds withheld or to be withheld in accordance with paragraph (a)(2)(i) or (b)(3)(i) of this section, or both, over claims to those funds by:

(A) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(B) A contracting agency for its reprocurement costs;

(C) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(D) A contractor's assignee(s);

(E) A contractor's successor(s); or

(F) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.

(3) ***Records and certified payrolls*** —

(i) ***Basic record requirements*** —

(A) ***Length of record retention.*** All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(B) ***Information required.*** Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(C) ***Additional records relating to fringe benefits.*** Whenever the Secretary of Labor has found under paragraph (a)(1)(v) of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(D) ***Additional records relating to apprenticeship.*** Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

(ii) ***Certified payroll requirements*** —

(A) ***Frequency and method of submission.*** The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the [write in name of appropriate Federal agency] if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the certified payrolls to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the [write in name of agency]. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(B) ***Information required.*** The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph (a)(3)(i)(B) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the sponsoring government agency (or the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records).

(C) ***Statement of Compliance.*** Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(*1*) That the certified payroll for the payroll period contains the information required to be provided under paragraph (a)(3)(ii) of this section, the appropriate information and basic records are being maintained under paragraph (a)(3)(i) of this section, and such information and records are correct and complete;

(*2*) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(*3*) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(D) ***Use of Optional Form WH-347.*** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(C) of this section.

(E) ***Signature.*** The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(F) ***Falsification.*** The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(G) ***Length of certified payroll retention.*** The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

(iii) ***Contracts, subcontracts, and related documents.*** The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

(iv) ***Required disclosures and access*** —

(A) ***Required record disclosures and access to workers.*** The contractor or subcontractor must make the records required under paragraphs (a)(3)(i) through (iii) of this section, and any other documents that the [write the name of the agency] or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the [write the name of the agency] or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(B) ***Sanctions for non-compliance with records and worker access requirements.*** If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(C) ***Required information disclosures.*** Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the [write in name of appropriate Federal agency] if the agency is a party to the contract, or to the Wage and Hour Division of the Department of Labor. If the Federal agency is not such a party to the contract, the contractor, subcontractor, or both, must, upon request, provide the full Social Security number and last known address, telephone number, and email address of each covered worker to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the [write in name of agency], the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

(4) ***Apprentices and equal employment opportunity*** —

(i) ***Apprentices*** —

(A) ***Rate of pay.*** Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(B) ***Fringe benefits.*** Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(C) ***Apprenticeship ratio.*** The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph (a)(4)(i)(D) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph (a)(4)(i)(A) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(D) ***Reciprocity of ratios and wage rates.*** Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

(ii) ***Equal employment opportunity.*** The use of apprentices and journeyworkers under this part must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) ***Compliance with Copeland Act requirements.*** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) ***Subcontracts.*** The contractor or subcontractor must insert in any subcontracts the clauses contained in paragraphs (a)(1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the [write in the name of the Federal agency] may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate.

(7) ***Contract termination: debarment.*** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) ***Compliance with Davis-Bacon and Related Act requirements.*** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) ***Disputes concerning labor standards.*** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) ***Certification of eligibility.***

(i) By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

(iii) The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

(11) ***Anti-retaliation.*** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

(i) Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

(ii) Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

(iii) Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

(iv) Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

(b) ***Contract Work Hours and Safety Standards Act (CWHSSA).*** The Agency Head must cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1) through (5) of this section in full, or (for contracts covered by the Federal Acquisition Regulation) by reference, in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses must be inserted in addition to the clauses required by paragraph (a) of this section or 29 CFR 4.6. As used in this paragraph (b), the terms “laborers and mechanics” include watchpersons and guards.

(1) ***Overtime requirements.*** No contractor or subcontractor contracting for any part of the conract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek 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 forty hours in such workweek.

(2) ***Violation; liability for unpaid wages; liquidated damages.*** In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $33 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1).

(3) ***Withholding for unpaid wages and liquidated damages*** —

(i) ***Withholding process.*** The [write in the name of the Federal agency or the recipient of Federal assistance] may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this paragraph (b) on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

(ii) ***Priority to withheld funds.*** The Department has priority to funds withheld or to be withheld in accordance with paragraph (a)(2)(i) or (b)(3)(i) of this section, or both, over claims to those funds by:

(A) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(B) A contracting agency for its reprocurement costs;

(C) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(D) A contractor's assignee(s);

(E) A contractor's successor(s); or

(F) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.

(4) ***Subcontracts.*** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (b)(1) through (5) of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (5). In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

(5) ***Anti-retaliation.*** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

(i) Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

(ii) Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

(iii) Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

(iv) Informing any other person about their rights under CWHSSA or this part.

(c) ***CWHSSA required records clause.*** In addition to the clauses contained in paragraph (b) of this section, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other laws referenced by § 5.1, the Agency Head must cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor must maintain regular payrolls and other basic records during the course of the work and must preserve them for a period of 3 years after all the work on the prime contract is completed for all laborers and mechanics, including guards and watchpersons, working on the contract. Such records must contain the name; last known address, telephone number, and email address; and social security number of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid; daily and weekly number of hours actually worked; deductions made; and actual wages paid. Further, the Agency Head must cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph must be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview workers during working hours on the job.

(d) ***Incorporation of contract clauses and wage determinations by reference.*** Although agencies are required to insert the contract clauses set forth in this section, along with appropriate wage determinations, in full into covered contracts, and contractors and subcontractors are required to insert them in any lower-tier subcontracts, the incorporation by reference of the required contract clauses and appropriate wage determinations will be given the same force and effect as if they were inserted in full text.

(e) ***Incorporation by operation of law.*** The contract clauses set forth in this section (or their equivalent under the Federal Acquisition Regulation), along with the correct wage determinations, will be considered to be a part of every prime contract required by the applicable statutes referenced by § 5.1 to include such clauses, and will be effective by operation of law, whether or not they are included or incorporated by reference into such contract, unless the Administrator grants a variance, tolerance, or exemption from the application of this paragraph. Where the clauses and applicable wage determinations are effective by operation of law under this paragraph, the prime contractor must be compensated for any resulting increase in wages in accordance with applicable law.

(The information collection, recordkeeping, and reporting requirements contained in the following paragraphs of this section were approved by the Office of Management and Budget:

Paragraph	OMB Control No.
(a)(1)(ii)(B)	1235-0023
(a)(1)(ii)(C)	1235-0023
(a)(1)(iv)	1235-0023
(a)(3)(i)	1235-0023
(a)(3)(ii)(A)	1235-0023
	1235-0008
(c)	1235-0023

[48 FR 19540, Apr. 29, 1983, as amended at 51 FR 12265, Apr. 9, 1986; 55 FR 50150, Dec. 4, 1990; 57 FR 28776, June 26, 1992; 58 FR 58955, Nov. 5, 1993; 61 FR 40716, Aug. 5, 1996; 65 FR 69693, Nov. 20, 2000; 73 FR 77511, Dec. 19, 2008; 81 FR 43450, July 1, 2016; 82 FR 2225, 2226, Jan. 9, 2017; 83 FR 12, Jan 2, 2018; 84 FR 218, Jan. 23, 2019; 87 FR 2334, Jan. 14, 2022; 88 FR 2215, Jan. 13, 2023; 88 FR 57734, Aug. 23, 2023; 89 FR 1815, Jan. 11, 2024; 90 FR 1859, Jan. 10, 2025]