

STANDARD AGREEMENT

STD 213 (rev 9/01)

Division Of Procurement And Contracts (DPAC) A&E Boiler Revision Date 05/14/15

AGREEMENT NUMBER

43A0347

REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION (Hereinafter referred to as "Department" or "Caltrans")

CONSULTANT'S NAME

Brown and Caldwell (Hereinafter referred to as "the Consultant")

2. The term of this Agreement is from March 28, 2016 or upon Caltrans approval, whichever is later, through June 30, 2019

3. The maximum amount of this Agreement is: \$5,000,000.00
Five Million Dollars and No Cents

4. The parties agree to comply with the terms and conditions of the following exhibits/attachments which are by this reference made a part of the Agreement.

Exhibit A – Scope Of Work and Deliverables	9 Pages
Exhibit B – Budget Detail And Payment Provisions	8 Pages
Exhibit C – General Terms And Conditions 610 (GTC 610)	1 Page
Exhibit D – Special Terms And Conditions	23 Pages
Exhibit E – Additional Provisions	4 Pages
Attachment 1 – Scope Of Work	17 Pages
Attachment 2 – Cost Proposal	33 Pages
Attachment 3 – Sample Task Order Format	5 Pages
Attachment 4 – STD 840 DVBE Participation/GSPD-05-105 Bidders Declaration	4 Pages
Attachment 5 – Copy of Statement of Qualifications	291 Pages

Item shown with an Asterisk (*) is hereby incorporated by reference and made part of this Agreement as if attached hereto.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR (herein referred to as "the Consultant")

CONSULTANT'S NAME (if other than an individual, state whether a corporation, partnership, etc.)

Brown and Caldwell

BY (Authorized Signature)



DATE SIGNED (Do not type)

3/24/16

PRINTED NAME AND TITLE OF PERSON SIGNING

J. David Zuber

ADDRESS

11020 White Rock Road, Suite 200, Rancho Cordova, CA 95670

STATE OF CALIFORNIA

AGENCY NAME

Department of Transportation

BY (Authorized Signature)



DATE SIGNED (Do not type)

3/28/16

PRINTED NAME AND TITLE OF PERSON SIGNING

CHARLES GRAY, Branch Chief

ADDRESS

Division of Procurement and Contracts, MS 65
1727 30th Street, Sacramento, CA 95816California Department of General Services
Use Only☒ Exempt per: PCC 10430 (d)

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

I. SCOPE OF WORK

- A. The work to be performed under this Agreement is described in Attachment 1.
- B. The services shall be performed in Caltrans Districts 1, 2, 3, 4, 5, and 10. The specific location of the work to be performed within that area will be stated in each Task Order.
- C. CONFLICT OF INTEREST SUPPORT WORK
 - 1. For services in which the Consultant cannot perform the work free of conflict of interest as defined in this Agreement, the Consultant agrees that Caltrans may obtain these services from another qualified Consultant, whose contract includes the same scope of work, or in any other manner permitted by law.
 - 2. Caltrans may require the Consultant to perform work as described herein but located outside the geographic limits of this Agreement when the consultant contractor for another Caltrans District cannot perform the work free of conflict of interest. For such work, Caltrans will select a consultant to perform the same work by assignment of a Task Order in the following order of priority:
 - a. The consultant contract covers the same District, but not the same geographic area as this Agreement;
 - b. The consultant contract covers the closest area geographically to the geographic jurisdiction of this Agreement;
 - c. The consultant contract covers the next closest area geographically to the geographic jurisdiction of this Agreement; and so on.
 - 3. Should the consultant for priority number 1 not exist or be unable to perform the work free of conflict of interest, then Caltrans shall select the consultant for priority number 2 to perform the work, and so on.

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

- D. This Agreement will commence on **March 28, 2016** or upon approval by Caltrans, whichever is later and no work shall begin before that time. This Agreement is of no effect unless approved by Caltrans. The Consultant shall not receive payment for work performed prior to approval of the Agreement and before receipt of notice to proceed by the Caltrans Contract Manager. This Agreement shall expire on **June 30, 2019**. The services shall be provided during working hours, Monday through Friday, except holidays unless otherwise specified in a Task Order. The parties may amend this Agreement as permitted by law.
- E. All inquiries during the term of this Agreement will be directed to the project representatives identified below:

THE DEPARTMENT	THE CONSULTANT
Caltrans Contract Manager: Gilbert Ogaz	Consultant Contract Manager: Randy Marx
District/Division: Environmental Analysis/Stormwater, MS 27	Office/Branch:
Address: 1120 N Street Sacramento, CA 95814	Address: 11020 White Rock Road, Suite 200 Rancho Cordova, CA 95670
Phone: 916-653-2512	Phone: 916-853-5335
Fax: none	Fax: 916-635-8805
e-mail: gilbert.ogaz@dot.ca.gov	e-mail: rmarx@brwncald.com

F. Work Guarantee

Caltrans does not guarantee, either expressly or by implication, that any work or services will be required under this Agreement.

G. Licenses and Permits

1. The Consultant shall obtain at its expense all license(s) and permit(s) required by law for accomplishing any work required in connection with this Agreement.
2. In the event the Consultant fails to keep in effect at all times all required license(s) and permit(s), Caltrans may, in

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

addition to any other remedies it may have, terminate this Agreement upon occurrence of such event.

II. TASK ORDER

- A. Specific projects will be assigned by the Caltrans Contract Manager to the Consultant through issuance of Task Orders describing in detail the services to be performed. See sample Task Order format, Attachment 3.
- B. After a project to be performed under this Agreement is identified by Caltrans, Caltrans will prepare a draft Task Order, and a separate cost estimate. The draft Task Order will identify (with specificity):
 - 1. The purpose or goal of the Task Order, including the duties (if any) that are identified with Caltrans Work Breakdown System/Work Breakdown Structure (WBS) activity codes.
 - 2. The scope of services.
 - 3. The expected results.
 - 4. The project deliverables.
 - 5. The performance criteria or performance tests for the services (which demonstrate that the project deliverables and schedule to submit deliverables satisfy the purpose or goal of the Task Order).
 - 6. The performance period, the Task Order term, project schedule, and/or due dates for milestones/deliverables.
 - 7. Any milestone or tollgate deliverables (including, but not limited to, any deliverables that shall be delivered and accepted prior to subsequent work being performed).
 - 8. The Contract Number, the Caltrans Contract Manager, the Task Order Number, the Caltrans Project Coordinator, and the Requestor.

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

C. Task Order Assignment Process:

1. The draft Task Order will be delivered to the Consultant for review. The Consultant shall return the draft Task Order to the Caltrans Contract Manager within no more than three (3) calendar days after receipt unless the time frame is extended by the Caltrans Contract Manager. The draft Task Order returned to Caltrans shall clarify the purpose or goal, deliverables, expected results, and project schedule, or other items.
2. The Consultant shall also provide a cost estimate, including, at a minimum, the names of the individuals proposed for work on the individual tasks, the individuals' classifications, the duties the individuals shall perform along with the Caltrans activity codes (WBS) for such duties, a written estimate of the number of hours per staff person under each duty or activity, any anticipated reimbursable expenses, an estimate of DBE or DVBE utilization under each individual task, and total dollar amount, which shall be based on rates in the Consultant's Cost Proposal, Attachment 2. The Consultant agrees that each cost estimate shall be the product of a good faith effort exercise of engineering judgment. The schedule for Task Orders shall be identified in the Task Order. No Task Order will be written with a term that extends beyond the expiration date of this Agreement.
3. Task Orders may be negotiated for a Firm Fixed Price or for specific rates of compensation, both of which must be based on the labor and other rates set forth in the Consultant's Cost Proposal, Attachment 2.
4. After agreement has been reached on the Task Order items, the finalized Task Order shall be signed by both Caltrans and the Consultant. If Caltrans and the Consultant are unable to reach agreement, Caltrans may terminate this Agreement in accordance with the provisions of Exhibit D, section III, Termination. Task Orders are not valid until approved by Caltrans and subsequently signed by both parties. No payment shall be due or made for any work performed on an unsigned Task Order, and Caltrans shall not pay for any work described on the unsigned Task Order.

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

5. Once the parties reach agreement, each Task Order shall be signed first by the Consultant Contract Manager, and subsequently, by the Caltrans Contract Manager, the Caltrans Functional Manager, and the Caltrans Task Order Manager. A Task Order is of no force or effect until returned to Caltrans and signed by an authorized representative of Caltrans.
- D. The Consultant shall only perform work that is authorized and described in a written Task Order that has been signed by the parties and approved by Caltrans. No expenditures are authorized on a project and work shall not commence until a Task Order for that project has been executed by Caltrans. No payment will be made for any work performed prior to approval or after the expiration date of the Task Order.
- E. If the 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.
- F. The total amount payable by Caltrans for an individual Task Order shall not exceed the amount set forth in the Task Order. Task Orders and/or Task Order amendments require written agreement by the Consultant and Caltrans and approval by the Caltrans Contract Manager.
- G. If applicable, when a subsequent agreement for the same or similar scope of work is executed within three (3) months prior to the termination of this Agreement, no additional Task Orders shall be executed under this Agreement upon the effective date of the subsequent agreement.
- H. Task Orders may not be used to amend this Agreement and may not exceed the scope of work under this Agreement.
- I. All personnel to be used in the Task Order (by name or job classification) shall only be individuals identified in the Consultant's Cost Proposal unless a substitution of personnel has been approved in advance by the Caltrans Contract Manager as set forth in the "General Requirements" section of Attachment 1.
- J. At the Caltrans Contract Manager's direction, the Caltrans Task Order Manager shall assist the Caltrans Contract Manager in the monitoring

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

and verification of the Consultant's performance and deliverables. The Caltrans Contract Manager shall have the ultimate responsibility and authority to verify the Consultant's performance, cost, schedule, and deliverables, and verification that the acceptance and performance criteria and/or performance tests are satisfied. The Caltrans Contract Manager shall verify that the acceptance and performance criteria and/or performance tests are satisfied prior to written acceptance for payment.

- K. The following items shall be included in Task Orders:
 - 1. The Consultant employee's headquarters and/or primary residence as defined in the Caltrans Travel Guide shall be identified in the Task Order for travel purposes or for the purpose of determining appropriate travel reimbursement.
 - 2. The Caltrans Contract Manager's prior written approval is required for all domestic or international travel.
- L. The Consultant shall notify Caltrans at least forty-eight (48) hours before fieldwork is to begin, unless otherwise specified in the Task Order.
- M. Schedule of Performance and Time Requirements/Task Order Schedules
 - 1. Task Orders shall be issued and executed throughout the duration of this Agreement. Task Orders shall be completed in the timeframe identified in the Task Order and prior to the expiration of this Agreement.
 - 2. Services and deliverables identified in a Task Order shall be completed and delivered in the time required by the respective Task Order and in accordance with the terms of this Agreement.
- N. Additional standards related to the Scope of Work in this Agreement for specific work may be included in the Task Order. If such additional standards conflict with the standards specified in this Agreement, the standards specified in this Agreement shall prevail over the Task Order standards.

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

- O. The Consultant shall make every effort to choose the most cost effective alternatives while performing the work under this Agreement. Utilizing the most cost-effective alternatives includes, but is not limited to, personnel assignments, overtime, travel, per diem and any reimbursable Other Direct Cost (ODC) items. Cost effectiveness without sacrificing quality is of paramount importance.
- P. The Caltrans Contract Manager has the sole authority and responsibility to make and approve amendments and revisions to the Scope of Work, schedule, cost or deliverables in a Task Order.

III. CONSULTANT REPORTS AND/OR MEETINGS

A. Monthly Progress Report

- 1. The Consultant shall submit progress reports at least once a month. The report should be sufficiently detailed for the Caltrans Contract Manager to determine if the Consultant is performing to expectations and is on schedule, to provide communication of interim findings and to afford occasions for airing difficulties or special problems encountered so remedies can be developed. Separate detail shall be provided for each on-going Task Order.
- 2. The Consultant shall submit a progress report for each Task Order to the Caltrans Contract Manager in coordination with the Caltrans Task Order Manager on or prior to the first (1st) day of each month during which the Task Order is active. The Caltrans Contract Manager may alter the submittal date of the report to coordinate with the Consultant's administrative processes. This report shall contain the following elements:
 - a. Time frame of the reporting period.
 - b. Work completed in the reporting period (activities and accomplishments).
 - c. Work to be completed in the time period after the reporting period.
 - d. Total amount of Task Order authority.
 - e. Expenditures in this progress report period.

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

- f. Total expenditures to date.
 - g. Total expended but not yet invoiced to Caltrans.
 - h. Remaining Task Order authority.
 - i. For each milestone, task and deliverable:
 - (1) The budgeted cost.
 - (2) The actual cost to date.
 - (3) The actual cost to date as a percent of the budgeted cost.
 - (4) The percent of the milestone/task/deliverable that has been completed.
 - (5) A schedule of Task Order milestones (including tollgate milestones), the current status of progress toward each milestone (including, but not limited to, on schedule, off schedule with correction in place, or out of schedule with no current correction), and a schedule of deliverables.
 - (6) The total number of hours worked by the Consultants' and Subconsultants' personnel by use of the Caltrans Work Breakdown Structure (WBS) level element(s). The WBS is included in the Guide to Project Delivery Workplan Standards, which can be found at <http://www.dot.ca.gov/hq/projmgmt/guidance.htm>.
 - j. Projected travel costs for the time period after the reporting period with detail about the personnel involved, the purpose of the travel, location of travel and the cost.
 - k. Comments about other issues that may impact the Task Order's services (e.g. a staff shortage that may delay the timely completion of a deliverable) or cost.
 - l. If applicable, progress reports shall include actual DBE or DVBE participation on a monthly and cumulative basis.
3. When applicable, progress reports shall indicate an estimated percentage of work completed and a corresponding estimate of budget spent for work deliverables. The estimate of work completion and budget spent shall be for the same time period.

EXHIBIT A
SCOPE OF WORK AND DELIVERABLES

4. Monthly Progress Reports shall cover the same time period as the monthly invoices.

B. Meetings

1. The Consultant's Contract Manager shall meet with the Caltrans Contract Manager, in person or via teleconference, a minimum of once per month or an "as needed" basis as determined by the Caltrans Contract Manager to review and discuss procedures and progress on the Agreement.
2. The Consultant Contract Manager shall be responsible for drafting of the minutes of the meetings and submitting them to the Caltrans Contract Manager within one (1) week of the meeting for review and comment. The Consultant Contract Manager shall distribute a final version of meeting minutes within two (2) calendar days of final approval. The minutes/notes shall indicate issues discussed and the resolution of issues and/or the required action items.
3. Project Coordination Meetings (focus meetings) may be called by Caltrans or the Consultant at any time that any party requires discussion of Project issues. The Consultant shall prepare the minutes of the meeting and submit them to Caltrans three (3) calendar days after the meeting.
4. Prior to completion of the Agreement, the Consultant shall hold a final meeting with the Caltrans Contract Manager to present findings, conclusions, and recommendations and shall submit a comprehensive final report on the Task Orders in the Agreement, as applicable.

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

I. FUNDING REQUIREMENTS

- A. It is mutually understood between the parties that this Agreement may have been written before ascertaining the availability of congressional or legislative 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 Caltrans by the United States Government or the California State Legislature for the purpose of this program. In addition, this Agreement is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress or the State Legislature that may affect the provisions, terms, or funding of this Agreement in any manner.
- C. It is mutually agreed that if the Congress or the State Legislature does not appropriate sufficient funds for the program, this Agreement shall be amended to reflect any reduction in funds.
- D. Caltrans has the option to terminate the Agreement under the 30-day termination clause pursuant to Exhibit D, section III.
- E. Pursuant to Government Code, Section 927.13(d), no late payment penalty shall accrue during any time period for which there is no Budget Act in effect, nor on any payment or refund that is the result of a federally mandated program or that is directly dependent upon the receipt of federal funds by a state agency.

II. COMPENSATION AND PAYMENT

- A. The Consultant will be reimbursed for hours worked at the hourly rates specified in the Consultant's Cost Proposal (see Attachment 2). The specified hourly rates shall include direct salary costs, employee benefits, overhead, and fee. These rates are not adjustable for the performance period set forth in this Agreement.

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

- B. In addition, the Consultant will be reimbursed for direct costs, other than salary costs, that are identified in an executed Task Order.
- C. Transportation and subsistence costs to be reimbursed shall be the actual costs incurred, but not to exceed the rates stipulated in the "Caltrans Travel Guide, Consultant/Contractors Travel Policy." See <http://www.dot.ca.gov/hq/asc/travel/ch12.htm>. When prevailing wages apply to the services described in Attachment 1, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination. See <http://www.dir.ca.gov>.
- D. Progress payments:
 - 1. Progress payments will be made monthly in arrears based on services provided at specific hourly rates and allowable direct cost incurred for Task Orders negotiated with specific rates of compensation. Progress payments for Firm Fixed Price Task Orders will be based on the percentage of work completed.
 - 2. To determine allowable incurred Subconsultant costs that are eligible for reimbursement, in addition to reimbursement for actual costs that are incurred, Caltrans will allow Subconsultant costs that are treated by the Consultant as accrued due to such costs having been billed to the Consultant and recognized by the Consultant and Caltrans as valid, undisputed, due and payable.
 - 3. By submitting accrued but unpaid Subconsultant costs for reimbursement, the Consultant agrees that within ten (10) days of receipt of reimbursement, the full amount submitted as a reimbursable accrued Subconsultant cost shall be paid to the Subconsultant.
- E. The Consultant shall not commence performance nor will payment be made for any work performed prior to approval of this Agreement by the State and written notification to proceed has been issued by the Caltrans

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

Contract Manager, nor will any payment be made for work performed after the expiration date of this Agreement.

- F. The Consultant will be reimbursed in arrears for services satisfactorily rendered and approved by the Caltrans Contract Manager, as promptly as fiscal procedures will permit upon receipt by the Caltrans Contract Manager of itemized invoices in triplicate. Separate invoices itemizing all costs are required for all work performed under each Task Order.
- G. Invoices shall be submitted showing the Caltrans Work Breakdown Structure (WBS) level element for each billable hour increment and/or detail of work performed on each milestone, on each project as applicable. Task Orders and invoicing shall include, but are not limited to, the WBS elements listed for defined/related services and products. The WBS is included in the Guide to Project Delivery Workplan Standards, which can be found at <http://www.dot.ca.gov/hq/projmgmt/guidance.htm>. Incomplete invoices shall be returned unpaid to the Consultant for correction. Caltrans shall not pay disputed portions of invoices.
- H. The sample invoice format can be found at <http://caltrans-opac.ca.gov/aeinfo.htm>. Invoices shall reference this Agreement number, project title, and Task Order number. Invoices shall be submitted no later than 45 calendar days after completion of each billing period. Any credit, as provided under this Agreement, due Caltrans must be reimbursed by the Consultant prior to the expiration or termination of this Agreement. Invoices shall be mailed to the Caltrans Contract Manager or Consultant Service Unit at the following address:

DEPARTMENT OF TRANSPORTATION
Environmental Analysis/Stormwater, MS-27
Attention: Gilbert Ogaz
1120 N Street
Sacramento, CA 95814

- I. Task Orders will be encumbered with various types of funding. 49 CFR 18.23 requires that federal funds must be expended within 90 days of the expiration of the funding period. In addition, the encumbrances for state and local funds can also be lost if not expended within specified time

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

frames. Accordingly, the invoices for approved monthly services must be submitted by the Consultant and received by the Caltrans Contract Manager within 45 calendar days of the completion of the approved monthly services specified in each Task Order so that encumbered funds can be expended. If Caltrans does not receive invoices from the Consultant by the required deadline, and this results in a loss of funding, Caltrans will reduce the payment on the invoices in the amount of the loss.

- J. The final Task Order invoice shall state the final cost and all credits due Caltrans. The final invoice should be submitted within 60 calendar days after Caltrans Contract Manager notifies the Consultant Contract Manager of completion of the services. Should Caltrans dispute any of the costs billed in the final Task Order invoice, Caltrans shall pay the undisputed portions of the invoice as provided in this Section II. Caltrans will not pay for charges that are in dispute until final resolution of the cost-related disputes.
- K. Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.
- L. The total amount payable by Caltrans, for all Task Orders resulting from this Agreement, shall not exceed **\$5,000,000.00**. It is understood and agreed that this total is an estimate, and that the actual amount of work requested by Caltrans may be less. There is no guarantee, either expressed or implied, as to the actual dollar amount that will be authorized under this Agreement through Task Orders. In no event shall Task Orders be issued that will exceed this maximum.
- M. Any written report prepared as a requirement of this Agreement shall contain, in a separate section of such written report, the number and dollar amounts of all agreements and subagreements relating to the preparation of those reports if the combined costs for work by nonemployees of the State exceed \$5,000.00.
- N. Prime Consultant's Indirect Cost Rates (ICR) indicated in Attachment 2, Cost Proposal, are based on 48 CFR, Part 31.

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

- O. Attachment 2, Cost Proposal, is subject to a Certified Public Accountant (CPA) Indirect Cost (Overhead) Audit Workpaper Review and/or audit. Caltrans, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. Attachment 2 shall be adjusted by the Consultant and approved by the Caltrans Contract Manager to conform to the Workpaper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the Consultant to incorporate the Workpaper 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, per Exhibit D, section III.
1. During a Caltrans' review of the indirect cost rate (ICR) audit workpapers created by a Consultant's independent CPA, Caltrans 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 Caltrans identifies significant issues during the review and is unable to issue a cognizant approval letter, Caltrans will reimburse the Consultant at a provisional ICR until a FAR compliant ICR [e.g. 48 CFR, Part 31; GAGAS (Generally Accepted Audited Standards); CAS (Cost Accounting Standards), if applicable; in accordance with procedures and guidelines of the AASHTO Audit Guide; and other applicable procedures and guidelines] is received and approved by Caltrans. Provisional rates will be as follows:
 - a. If the proposed rate is less than 150% - the provisional rate reimbursed will be 90% of the proposed rate.
 - b. If the proposed rate is between 150% and 200% - the provisional rate reimbursed will be 85% of the proposed rate.
 - c. If the proposed rate is greater than 200% - the provisional rate reimbursed will be 75% of the proposed rate.
 2. If Caltrans is unable to issue a cognizant approval letter per paragraph O.1. above, Caltrans may require Consultant to submit a revised independent CPA-audited ICR and audit report within three

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

(3) months of the effective date of the management letter. Caltrans 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 O, or if Caltrans 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 provisional ICR that was established upon initial rejection of the ICR and set forth in paragraph O.1. above for all rendered services. In this event, this provisional ICR will become the actual and final ICR for reimbursement purposes under this Agreement.
4. The Consultant may submit to Caltrans a final invoice only when all of the following items have occurred: (1) Caltrans approves or rejects the original or revised independent CPA-audited ICR; (2) all work under this Agreement has been completed to the satisfaction of Caltrans; and, (3) Caltrans has issued its final ICR review letter. The Consultant must submit its final invoice to Caltrans no later than 60 days after occurrence of the last of these three items.

The provisional ICR will apply to this contract and all other contracts executed between Caltrans and the Consultant, either as a prime or subconsultant, with the same fiscal period ICR.

- P. Caltrans, at its sole discretion, may review and/or audit and approve either the Independent CPA's ICR documentation for the Consultant, or the Consultant's and/or Subconsultants' in-house developed ICRs at any time before the execution of this Agreement, while this Agreement is in effect, or after expiration of this Agreement up to the time limit set forth in Exhibit D, section XII, Retention of Records/Audits.
- Q. Limitations: Use of the rate(s) contained in this Agreement is subject to any statutory or administrative limitations and is applicable to a given contract only to the extent that funds are available. Acceptance of the rate(s) agreed to herein is predicated upon the following conditions:
 1. That no costs other than those incurred by the Consultant or allocated to the Consultant were included in its indirect

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

cost pool as finally accepted and that such costs are legal obligations of the Consultant and allowable under the governing cost principles.

2. That the same costs that have been treated as indirect costs have not been claimed as direct costs.
3. That similar types of costs have been accorded consistent accounting treatment to all clients (state, federal, local government, commercial/private) under similar circumstances, and
4. That the information provided by the Consultant which was used as a basis for acceptance of the rate(s) agreed to herein is not subsequently found to be materially inaccurate.

The elements of indirect cost and the type of distribution base(s) used in computing provisional rates are subject to revision when final rates are established. Also, the rates cited in this Agreement are subject to audit.

- R. At the discretion of Caltrans, the indirect cost rate(s) and related Independent CPA workpapers may be reviewed by Caltrans Division of Audits & Investigations (A&I) to verify the accuracy and the CPA's compliance with 48 CFR, Part 31 and related laws and regulations, compliance with Government Auditing Standards, and to determine if the audit report format is acceptable.
- S. Any subagreement in excess of \$25,000.00, entered into as a result of this Agreement, shall contain all of the provisions of this clause.

III. COST PRINCIPLES

- A. The Consultant agrees that Title 48 Code of Federal Regulations (CFR), Part 31, Contract Cost Principles and Procedures (48 CFR 31 et seq.), shall be used to determine the allowability of individual terms of cost.
- B. The Consultant also agrees to comply with Federal procedures in accordance with Title 2, Code of Federal Regulations, Part 200, Uniform

EXHIBIT B
BUDGET DETAIL AND PAYMENT PROVISIONS

Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR 200).

- C. Any costs for which payment has been made to the Consultant that are determined by subsequent audit to be unallowable under 48 CFR 31 or 2 CFR 200 are subject to repayment by the Consultant to Caltrans.
- D. When a Consultant or Subconsultant is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2, Code of Federal Regulations, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.
- E. Any subagreement in excess of \$25,000.00, entered into as a result of this Agreement, shall contain all the provisions of this clause.

EXHIBIT C
GENERAL TERMS AND CONDITIONS

NOTE: In this Exhibit C – GTC 610, the General Terms and Conditions are included in this Agreement by reference and made part of this Agreement as if attached hereto. See <http://www.dgs.ca.gov/ols/Resources/StandardContractLanguage.aspx>.

The following language is to be included in lieu of the Standard Indemnification Clauses used in DGS GTC – 610 General Terms and Conditions.

Indemnification

The Consultant agrees to indemnify, defend, and hold harmless Caltrans, its officers, agents, and employees from any and all claims, demands, costs, or liability arising from or connected with the services provided hereunder due to negligent or intentional acts, errors, or omissions of the Consultant. The Consultant will reimburse Caltrans for any expenditure, including reasonable attorney fees, incurred by Caltrans in defending against claims ultimately determined to be due to negligent or intentional acts, errors, or omissions of the Consultant.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

I. AMENDMENT (CHANGE IN TERMS)

- A. No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties, and approved as required. No oral understanding or agreement not incorporated in Agreement is binding on any of the parties.
- B. The Consultant shall only commence work covered by an amendment after the amendment is executed and notification to proceed has been provided by the Caltrans Contract Manager.
- C. There shall be no change in the Consultant's Contract Manager or members of the project team, as listed in the cost proposal, which is a part of this Agreement, without prior written approval by the Caltrans Contract Manager. If the Consultant obtains approval from the Caltrans Contract Manager to add or substitute personnel, the Consultant must provide the Personnel Request Form, a copy of the SF330 or resume for the additional or substituted personnel, along with a copy of the certified payroll for that person.

II. DISPUTES

- A. The Consultant shall continue with the responsibilities under this Agreement during any work dispute. Any dispute concerning a question of fact arising under this Agreement that is not disposed of by agreement shall be decided by a committee consisting of the Caltrans Contract Manager and the Caltrans Contract Officer who may consider written or verbal information submitted by the Consultant.
- B. Any dispute not resolved by the committee consisting of the Caltrans Contract Manager and Caltrans Contract Officer may be reviewed by the Consultant Claims Review Committee (CCRC). The CCRC will consist of the Division Chief of Project Delivery (Chairperson), Deputy Director of Administration and the Chief Counsel of Legal Services or their designees. Additional members or their designees may serve on the committee.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

- C. No later than 30 calendar days after Caltrans Contract Manager notifies the Consultant Contract Manager that all deliverables necessary to complete the plans, specifications and estimate (PS&E) have been completed, the Consultant may request review by the CCRC of unresolved claims or disputes that are not resolved by the Caltrans Contract Manager and Caltrans Contract Officer under subsection II.A. above. The request for review will be submitted in writing through the Caltrans Contract Officer to the Chairperson, CCRC. A meeting by the CCRC will be scheduled after the Chairperson concurs. After the meeting, the CCRC will make recommendations to the Deputy Director of the functional program area, who will make the final decision for Caltrans.
- D. Neither the pendency of a dispute nor its consideration by the committee will excuse the Consultant from full and timely performance in accordance with the terms of this Agreement.

III. TERMINATION

This section regarding termination is in addition to GTC 610.

- A. Caltrans reserves the right to terminate this Agreement immediately in the event of breach or failure of performance by the Consultant, any Subconsultant, and by extension, the Consultant's Independent CPA, or upon 30 calendar days written notice to the Consultant if terminated for the convenience of Caltrans.
- B. Caltrans may terminate this Agreement and be relieved of any payments except as provided for under early termination should the Consultant fail to perform the requirements of this Agreement at the time and in the manner herein provided. In the event of such termination, Caltrans may proceed with the work in any manner deemed proper by Caltrans. All costs to Caltrans shall be deducted from any sum due the Consultant under this Agreement and the balance, if any, shall be paid to the Consultant upon demand.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

IV. EARLY TERMINATION OF THIS AGREEMENT OR TASK ORDER(S),
OR SUSPENSION OF THIS AGREEMENT

General Conditions

- A. In the event this Agreement is terminated, suspended, or a Task Order is terminated for the convenience of Caltrans, the Consultant shall be paid for the percentage of the work completed, relative to the total work effort called for under this Agreement, and for termination costs. No billable costs will be considered payable under the Agreement during suspension.
- B. Within 30 calendar days of the date the Consultant is notified of the early termination of Task Order(s) issued against this Agreement for the convenience of Caltrans, the Consultant shall prepare and submit to the Caltrans Contract Manager, for approval, two (2) separate supplemental cost proposals:
 - 1. A final revised cost proposal for all project-related costs for the revised termination date, and
 - 2. A cost proposal specifically addressing the termination settlement costs only.

V. CONSULTANT'S DELIVERABLES UNDER EARLY TERMINATION

The Consultant shall provide all project-related documents and correspondence required as part of the Scope of Work/Deliverables or included in Task Orders. Project-related documents shall be described, listed, and identified as part of the final revised cost proposal. Project-related documents shall include all documents that are in complete and final form and which have been accepted as complete by Caltrans, or documents in draft and/or incomplete form for those deliverables, which are in progress by the Consultant and have not been accepted as complete. All documents must be received and accepted before the settlement cost invoice is paid.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

VI. INVOICE SUBMITTAL UNDER EARLY TERMINATION

Separate final invoices for project-related costs and termination settlement costs shall be submitted no later than 30 calendar days after the date the Consultant is notified of acceptance of the final cost proposals by the Caltrans Contract Manager. Invoices shall be submitted in accordance with EXHIBIT B. The invoice for termination settlement costs shall include the following, to the extent they are applicable: lease termination costs for equipment and facilities approved under the terms of this Agreement; equipment salvage costs for equipment valued over \$500.00; rental costs for unexpired leases, less the residual value of the lease; cost of alterations and reasonable restorations required by the lease; settlement expenses, e.g., accounting, legal, clerical, storage, transportation, protection and disposition of property acquired or produced under this Agreement, indirect costs, such as payroll taxes, fringe benefits, occupancy costs, and immediate supervision costs related to wages and salaries, incurred as settlement costs.

VII. TERMINATION ISSUES FOR SUBCONSULTANTS, SUPPLIERS, AND SERVICE PROVIDERS

The Consultant shall notify any Subconsultant and service or supply vendor providing services under this Agreement of the early termination date of this Agreement. Failure to notify any Subconsultant and service or supply vendor shall result in the Consultant being liable for the termination costs incurred by any Subconsultant and service or supply vendor for work performed under this Agreement, except those specifically agreed to in the termination notice to the Consultant.

VIII. COST PRINCIPLES UNDER EARLY TERMINATION

Termination settlement expenses will be reimbursed in accordance with 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31. Subpart 31.205-42 (c) dealing with initial costs is not applicable to Architectural and Engineering Agreement terminations.

IX. DISPUTES UNDER EARLY TERMINATION CONDITIONS

Disputes under early termination conditions shall be resolved in accordance with this Exhibit.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

X. CONSULTANT CLAIMS AGAINST THIS AGREEMENT OR TASK ORDER(S) UNDER EARLY TERMINATION

The Consultant agrees to release Caltrans from any and all further claims for services performed arising out of this Agreement or its early termination, upon acceptance by the Consultant of payment in the total amount agreed upon as full and final payment of its costs from performance and early termination of this Agreement or Task Order(s).

XI. NON-DISCRIMINATION

This section regarding non-discrimination is in addition to GTC 610.

- A. During the performance of this Agreement, the Consultant and its Subconsultants shall not unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave, and denial of pregnancy disability leave. Consultants and Subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. The Consultant and Subconsultants shall comply with the provision of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Agreement by reference and made a part hereof as if set forth in full. The 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.
- B. The Consultant shall include the nondiscrimination and compliance provisions of this clause in all subagreements to perform work under this Agreement.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

- C. In the event of the Consultant's noncompliance with the nondiscrimination provisions of this Agreement, the Department shall impose such Agreement sanctions as it or any Federal funding agency may determine to be appropriate, including, but not limited to:
1. Withholding of payments to the Consultant under the Agreement until the Consultant complies, and/or
 2. Cancellation, termination or suspension of the Agreement, in whole or in part.

XII. RETENTION OF RECORD/AUDITS

- A. For the purpose of determining compliance with Government Code Section 8546.7, the Consultant, Subconsultants, and Caltrans 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 the Consultant's Independent CPA, shall make such workpapers and materials available at their respective offices at all reasonable times during the Agreement period and for three (3) years from the date of final payment under the Agreement. Caltrans, the State 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 the Consultant, Subconsultants, and the 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.
- B. Any subagreement in excess of \$25,000.00, entered into as a result of this Agreement, shall contain all the provisions of this clause.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

XIII. SUBCONTRACTING

- A. Nothing contained in this Agreement or otherwise, shall create any contractual relation between the State and any Subconsultants, and no subagreement shall relieve the Consultant of its responsibilities and obligations hereunder. The Consultant agrees to be as fully responsible to the State for the acts and omissions of its Subconsultants 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 the Consultant. The Consultant's obligation to pay its Subconsultants is an independent obligation from the State's obligation to make payments to the Consultant.
- B. The 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 the Caltrans Contract Manager, except that which is expressly identified in the Consultant's Cost Proposal.
- C. Any subagreement in excess of \$25,000, 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. Contractor shall pay its Subconsultants within ten (10) calendar days from receipt of each payment made to the Consultant by the State.
- E. Any substitution of Subconsultants must be approved in writing by the Caltrans Contract Manager in advance of assigning work to a substitute Subconsultant.

XIV. EQUIPMENT PURCHASE

- A. Prior authorization in writing by the Caltrans Contract Manager shall be required before the Consultant enters into any non-budgeted purchase order or subagreement exceeding \$500.00 for supplies, equipment, or Consultant services. The Consultant shall provide an evaluation of the necessity or desirability of incurring such costs.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

- B. For purchase of any item, service or consulting work not covered in the Consultant's Cost Proposal and exceeding \$500.00, with prior authorization by the Caltrans Contract Manager, three (3) competitive quotations must be submitted with the request or the absence of bidding must be adequately justified.
- C. The Consultant shall maintain an inventory record for each piece of non-expendable equipment purchased or built with funds provided under the terms of this Agreement. The inventory record of each piece of such equipment shall include the date acquired, total cost, serial number, model identification (on purchased equipment), and any other information or description necessary to identify said equipment. Non-expendable equipment so inventoried are those items of equipment that have a normal life expectancy of one (1) year or more and an approximate unit price of \$5,000.00 or more. In addition, theft-sensitive items of equipment costing less than \$5,000.00 shall be inventoried. A copy of the inventory record must be submitted to Caltrans on request by Caltrans.
- D. Any equipment purchased by the Consultant will be returned to Caltrans at the end of this Agreement or, if not returned to Caltrans, it will be disposed of as agreed to by both parties. Both Caltrans and Consultant agree to comply with State Administrative Manual, Section 3520, Disposal of Surplus Personal Property, if Caltrans determines that Caltrans will not retain the equipment.
- E. 49 CFR, Part 18 requires a credit to Federal funds when participating equipment with a fair market value greater than \$5,000.00 is credited to the project.
- F. Any subagreement entered into as a result of this Agreement shall contain all the provisions of this clause.

XV. INSPECTION OF WORK

The Consultant and any Subconsultants shall permit Caltrans and the FHWA to review and inspect the project activities at all reasonable times during the performance period of this Agreement including review and inspection on a daily basis.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

XVI. SAFETY

- A. The Consultant shall comply with OSHA regulations applicable to the Consultant regarding necessary safety equipment or procedures. The Consultant shall comply with safety instructions issued by the District Safety Officer and other State representatives. The Consultant's personnel shall wear white hard hats and orange safety vests at all times while working on the construction project site.
- B. Pursuant to the authority contained in Section 591 of the Vehicle Code, Caltrans has determined that within such areas as are within the limits of the project and are open to public traffic, the Consultant shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. The 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.
- C. The Consultant or Subconsultant(s) must have a Division of Occupational Safety and Health (CAL-OSHA) permit(s) as outlined in California Labor Code Sections 6500 and 6705, prior to the initiation of any practice, work, method, operation, or process related to the construction or excavation of trenches which are five feet or deeper.
- D. Any subagreement, entered into as a result of this Agreement, shall contain all of the provisions of this clause.

XVII. INSURANCE

- A. The Consultant shall furnish to Caltrans Certificates of Insurance for the minimum coverage set forth below. The Consultant shall be fully responsible for all policy deductibles and any self-insured retention. All insurance shall be with an insurance company with an A.M. Best's Financial Strength Rating of A- or better with a Financial Size Category of VI or better.
- B. Required Coverages and Limits:
 - 1. Workers Compensation (statutory) and Employers Liability Insurance:

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

\$1,000,000 for bodily injury for each accident

\$1,000,000 policy limit for bodily injury by disease

\$1,000,000 for each employee for bodily injury by disease

If there is an exposure of injury to the Consultant's employees under the U.S. Longshoremen's and Harbor Workers' Compensation Act, the Jones Act, or under laws, regulations, or statutes applicable to maritime employees, coverage shall be included for such injuries or claims.

If work is performed on State owned or controlled property the policy shall contain a waiver of subrogation in favor of the State. The waiver of subrogation endorsement shall be provided in addition to the certificate of insurance.

2. Commercial General Liability Insurance with limits no less than:

\$1,000,000 per occurrence

\$2,000,000 products completed operations aggregate

\$2,000,000 general aggregate

The policy's general aggregate shall apply separately to the Consultant's work under this Agreement by evidencing a per project aggregate endorsement separately attached to the certificate of insurance.

The policy shall include coverage for liabilities arising out of premises, operations, independent consultants, products, completed operations, personal & advertising injury, and liability assumed under an insured Agreement. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Consultant's limit of liability. The policy must include:

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

Caltrans, State of California, its officers, agents, employees and servants are included as additional insureds, but only with respect to work performed under this Agreement.

This endorsement must be supplied under form acceptable to the Office of Risk and Insurance Management.

3. Automobile liability, including owned, non-owned and hired autos, with limits not less than \$1,000,000 combined single limit per accident. The same additional insured designation and endorsement required for general liability is to be provided for this coverage.
4. A \$1,000,000 umbrella or excess liability shall include premises/operations liability, products/completed operations liability, and auto liability coverage. The umbrella or excess policy shall contain a clause stating that it takes effect (drops down) in the event the primary limits are impaired or exhausted.
5. Professional Liability insurance with limits no less than:

\$1,000,000 per claim

\$2,000,000 in the aggregate

The policy's retroactive date must be shown on the certificate and must be before this contract is executed or before the beginning of contract work.

Additionally, the Consultant shall maintain, or make a good faith effort to maintain, the Professional Liability insurance for a period of three (3) years after its performance under this Agreement.

- C. The insurance above shall be maintained in effect at all times during the term of this Agreement. If the insurance expires during the term of the Agreement, a new certificate must be submitted to the Caltrans Contract Manager not less than ten (10) days prior to the expiration of insurance. Failure to maintain the required coverage shall be sufficient grounds for Caltrans to terminate this Agreement for cause, in addition to any other remedies Caltrans may have available. Inadequate or lack of insurance does not negate the Consultant's obligations under the Agreement.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

- D. The Consultant shall provide to the Caltrans Contract Manager within five (5) business days following receipt by Consultant a copy of any cancellation or non-renewal of insurance required by this Agreement. In the event Consultant fails to keep in effect at all times the specified insurance coverage, Caltrans may, in addition to any other remedies it may have, terminate this Agreement upon the occurrence of such event, subject to the provisions of the Agreement.
- E. Any required endorsements requested by Caltrans must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- F. Any required insurance contained in this Agreement shall be primary and not in excess of or contributory to any other insurance carried by Caltrans.
- G. Caltrans will not be responsible for any premiums or assessments on the policy.
- H. For Agreements with hazardous activities, new certificates of insurance are subject to the approval of DGS, and the Consultant agrees that no work or services shall be performed prior to such approval.
- I. The Consultant shall require all Subconsultants to carry insurance based on the cost of the subcontract and the potential risk to Caltrans of the subcontracted work. Notwithstanding any coverage requirements for Subconsultants, the Consultant shall be responsible for ensuring sufficient insurance coverage for all work performed under the Agreement, including the work of Subconsultants.

XVIII. DAMAGES DUE TO ERRORS AND OMISSIONS

- A. Architect-Engineer Consultants shall be responsible for the professional quality, technical accuracy, and coordination of all services required under this Agreement. A firm may be liable for Caltrans costs resulting from errors or deficiencies in designs furnished under its Agreement.
- B. When a modification to a construction contract is required because of an error or deficiency in the services provided under this A&E Agreement,

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

the Caltrans Contract Officer (with the advice of technical personnel and legal counsel) shall consider the extent to which the A&E Consultant may be reasonably liable.

- C. The Caltrans Contract Officer shall enforce the liability and collect the amount due, if the recoverable cost will exceed the administrative cost involved or is otherwise in Caltrans' interest. The Caltrans Contract Officer shall include in the Agreement file a written statement of the reasons for the decision to recover or not to recover the costs from the firm.

XIX. OWNERSHIP OF PROPRIETARY PROPERTY

For the purposes of this section (Ownership of Proprietary Property) the following definitions shall apply:

Work: As delineated in Attachment 1 (Scope of Work) of the Agreement.

Work Product: As defined as Deliverable in Attachment 1 (Scope of Work) of the Agreement, including but not limited to, all Work and Deliverables conceived or made, or made hereafter conceived or made, either solely or jointly with others during the term of this Agreement and during a period of six (6) months after the termination thereof, which relates to the Work commissioned or performed under this Agreement.

Inventions: Any idea, design, concept, technique, invention, discovery, improvement or development regardless of patentability made solely by the Consultant or jointly with the Consultant's Subcontractor and/or the Consultant's Subcontractor's employee's with one or more employees of the Department of Transportation (hereinafter referred to as "Caltrans"), during the term of this Agreement and in performance of any Work under this Agreement, provided that either the conception or reduction to practice thereof occurs during the term of this Agreement and in performance of Work issued under this Agreement.

A. Ownership of Work Product and Rights

1. Ownership of Work Product

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

All Work Product derived by the Work performed by the Consultant, its employees or by any of the Consultant's Subcontractor's employees under this Agreement, shall be owned by Caltrans and shall be considered works made for hire by the Consultant's Subcontractor for Caltrans. Caltrans shall own all United States and international copyrights in the Work Product.

As such, all Work Product shall contain, in a conspicuous place, a copyright designation consisting of a "c" in a circle followed by the four-digit year in which the Work Product was produced, followed by the words "California Department of Transportation." For example, a Work Product created in the year 2014 would contain the copyright designation © 2014 California Department of Transportation.

2. Vesting of Copyright Rights

Consultant, its employees or any of Consultant's Subcontractor's employees agrees to perpetually assign, and upon creation of each Work Product automatically assigns, to Caltrans, its successors and assigns, ownership of all United States and international copyrights in each and every Work Product, insofar as any such Work Product, by operation of law, may not be considered work made for hire by the Consultant's Subcontractor from Caltrans. From time to time upon Caltrans' request, the Consultant's Subcontractor and/or its employees, shall confirm such assignments by execution and delivery of such assignments, confirmations or assignment, or other written instruments as Caltrans may request. Caltrans, its successors and assigns, shall have the right to obtain and hold in its or their own name(s) all copyright registrations and other evidence of rights that may be available for Work Product. Consultant hereby agrees to waive all moral rights relating to identification of authorship restriction or limitation on use, or subsequent modifications of the Work.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

B. Inventions

1. Vesting of Patent Rights

The Consultant, its employees and any Consultant's Subcontractor hereby agrees to assign to Caltrans, its successors, and assigns, all Inventions, together with the right to seek protection by obtaining patent rights therefore and to claim all rights or priority there under, and the same shall become and remain Caltrans' property regardless of whether such protection is sought. The Consultant, its employees and Consultant's Subcontractor shall promptly make a complete written disclosure to Caltrans of each Invention not otherwise clearly disclosed to Caltrans in the pertinent Work Product, specifically pointing out features or concepts that the Consultant, its employees and Consultant's Subcontractor believes to be new or different. The Consultant, its employees and Consultant's Subcontractor shall, upon Caltrans' request and at Caltrans' expense, cause patent applications to be filed thereon, through solicitors designated by Caltrans, and shall sign all such applications over to Caltrans, its successors, and assigns. The Consultant, its employees and Consultant's Subcontractor shall give Caltrans and its solicitors all reasonable assistance in connection with the preparation and prosecution of any such patent applications and shall cause to be executed all such assignments or other instruments or documents as Caltrans may consider necessary or appropriate to carry out the intent on this Agreement.

2. Agency

In the event that Caltrans is unable for any reason whatsoever to secure the Consultant's, its employees' and/or Consultant's Subcontractor's signature to any lawful or necessary document required or desirable to apply for or prosecute any United States application (including renewals or divisions thereof), Consultant, its employees and Consultant's Subcontractor hereby irrevocably designates and appoints Caltrans and its duly authorized officers and agents, as its agent and attorney-in-fact, to act for and on Consultant, its employees and Consultant's Subcontractor's behalf and stead, to execute and file such applications and to do all other lawfully

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

permitted acts to further the prosecution and issuance of any copyrights, trademarks or patents thereon with the same legal force and effect as if executed by Consultant, its employees and/or Consultant's Subcontractor. Caltrans shall have no obligations to file any copyright, trademark or patent applications.

3. Avoidance of Infringement

In performing services under this Agreement, Consultant and its employees agree to avoid designing or developing any items that infringe one or more patents or other intellectual property rights of any third party. If Consultant or its employees becomes aware of any such possible infringement in the course of performing any Work under this Agreement, Consultant or its employees shall immediately notify Caltrans in writing.

C. Additional Provisions

Subcontractors

Consultant shall affirmatively bind by contract any of its subcontractors or service vendors (hereinafter "Consultant's Subcontractor") providing services under this Agreement to conform to the provisions of Exhibit D, section XIX. Consultant's Subcontractor shall then provide the signed contract to the Consultant, who shall provide it to the Caltrans Contract Manager prior to the commencement of any work. In performing services under this Agreement, Consultant's Subcontractor agrees to avoid designing or developing any items that infringe one or more patents or other intellectual property rights of any third party. If Consultant's Subcontractor becomes aware of any such possible infringement in the course of performing any Work under this Agreement, Consultant's Subcontractor shall immediately notify the Consultant in writing, Consultant will then immediately notify Caltrans in writing.

XX. OWNERSHIP OF DATA

- A. Upon completion of all work under this Agreement, all intellectual property rights, ownership and title to all reports, documents, plans,

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

specifications, and estimates produced as part of this Agreement will automatically be vested in Caltrans and no further agreement will be necessary to transfer ownership to Caltrans. The Consultant shall furnish Caltrans all necessary copies of data needed to complete the review and approval process.

- B. It is understood and agreed that all calculations, drawings and specifications, whether in hard copy or machine readable form, are intended for one-time use in the construction of the project for which this Agreement has been entered into.
- C. The Consultant is not liable for claims, liabilities or losses arising out of, or connected with, the modification or misuse by Caltrans of the machine readable information and data provided by the Consultant under this Agreement; further, the Consultant is not liable for claims, liabilities or losses arising out of, or connected with, any use by Caltrans of the project documentation on other projects, for additions to this project, or for the completion of this project by others, excepting only such use as may be authorized, in writing, by the Consultant.
- D. Any subagreement in excess of \$25,000.00, entered into as a result of this Agreement, shall contain all of the provisions of this clause.

XXI. CLAIMS FILED BY DEPARTMENT'S CONSTRUCTION CONTRACTOR

- A. If claims are filed by the Caltrans construction contractor relating to work performed by the Consultant's personnel and additional information or assistance from the Consultant's personnel is required in order to evaluate or defend against such claims, the Consultant agrees to make its personnel available for consultation with Caltrans construction contract administration and legal staff and for testimony, if necessary, at depositions and at trial or arbitration proceedings.
- B. The Consultant's personnel that Caltrans considers essential to assist in defending against construction contractor claims will be made available on reasonable notice from Caltrans. Consultation or testimony will be reimbursed at the same rates, including travel costs, that are being paid for the Consultant's personnel services under this Agreement.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

- C. Services of the Consultant's personnel in connection with Caltrans' construction contract claims will be performed pursuant to a written supplement, if necessary, extending the termination date of this Agreement in order to finally resolve the claims.
- D. Any subagreement in excess of \$25,000.00, entered into as a result of this Agreement, shall contain all of the provisions of this clause.

XXII. CONFIDENTIALITY OF DATA

- A. All financial, statistical, personal, technical, or other data and information relative to Caltrans' operations, which is designated confidential by Caltrans and made available to the Consultant in order to carry out this Agreement, shall be protected by the Consultant from unauthorized use and disclosure.
- B. Permission to disclose information on one occasion or public hearing held by Caltrans relating to this Agreement shall not authorize the Consultant to further disclose such information or disseminate the same on any other occasion.
- C. The Consultant shall not comment publicly to the press or any other media regarding this Agreement or Caltrans' actions on the same, except to Caltrans' 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. The 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 Caltrans and receipt of Caltrans' written permission.
- E. All information related to the construction estimate is confidential and shall not be disclosed by the Consultant to any entity, other than Caltrans.
- F. Any subagreement, entered into as a result of this Agreement, shall contain all of the provisions of this clause.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

XXIII. STANDARD OF CARE

Consultant represents that it possesses all necessary training, licenses, experience, and certifications to perform the Scope of Work, and shall perform all services in accordance with the degree of skill and care ordinarily used by competent practitioners of the same professional discipline under similar circumstances, and localities, taking into consideration the contemporary state of the practice and the project conditions.

XXIV. EVALUATION OF CONSULTANT

The Consultant's performance will be evaluated by Caltrans. A copy of the evaluation will be sent to the Consultant for comments. The evaluation, together with the comments, shall be retained by Caltrans.

XXV. STATEMENT OF COMPLIANCE

The Consultant's signature affixed herein and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Consultant has, unless exempt, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

XXVI. DEBARMENT AND SUSPENSION CERTIFICATION

A. The Consultant's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that the 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

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

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

XXVII. CONFLICT OF INTEREST

- A. During the term of this Agreement, the Consultant shall disclose any financial, business, or other relationship with Caltrans or the California Transportation Commission that may have an impact upon the outcome of this Agreement or any ensuing Caltrans construction project. The Consultant shall also list current clients who may have a financial interest in the outcome of this Agreement or any ensuing Caltrans construction project which will follow.
- B. The 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.
- C. The Consultant hereby certifies that neither the Consultant nor any firm affiliated with the Consultant will bid on any construction contract or on any Agreement to provide construction inspection for any construction project resulting from this Agreement. An affiliated firm is one, which is subject to the control of the same persons, through joint ownership or otherwise.
- D. Except for Subconsultants whose services are limited to providing surveying or materials testing information, no Subconsultant who has provided design services in connection with this Agreement shall be eligible to bid on any construction contract or on any Agreement to provide construction inspection for any construction project resulting from this Agreement.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

- E. All consultant personnel are required to complete security and privacy awareness training each year. See <http://itsecurity.dot.ca.gov/training>.
- F. Any subagreement in excess of \$25,000.00, entered into as a result of this Agreement, shall contain all of the provisions of this clause.

XXVIII. REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION

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

XXIX. PROHIBITION OF EXPENDING STATE OR FEDERAL FUNDS FOR LOBBYING

- A. The Consultant certifies, to the best of his or her knowledge and belief, that:
 - 1. No State or Federal appropriated funds have been paid or will be paid, by or on behalf of the Consultant, to any person for influencing or attempting to influence an officer or employee of any 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 of any State or Federal agreement, the making of any State or Federal grant, the making of any State or Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any State or Federal agreement, grant, loan, or cooperative agreement.
 - 2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal Agreement, grant, loan, or cooperative agreement, the 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 Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000.00 and not more than \$100,000.00 for each such failure.
- C. The Consultant also agrees by signing this document that he or she shall require that the language of this certification be included in all lower tier subagreements, which exceed \$100,000.00, and that all such subrecipients shall certify and disclose accordingly.

XXX. CONSULTANT CODE OF BUSINESS ETHICS AND CONDUCT (Dec. 2007)

A. Definition

United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

B. Code of Business Ethics and Conduct

- 1. Within 30 calendar days after contract award, the Consultant shall:
 - a. Have a written code of business ethics and conduct; and
 - b. Provide a copy of the code to each employee engaged in performance of the contract.

EXHIBIT D
SPECIAL TERMS AND CONDITIONS

2. The Consultant shall promote compliance with its code of business ethics and conduct.

C. Awareness Program and Internal Control System for Other Than Small Businesses

This paragraph C does not apply if the Consultant has represented itself as a small business concern pursuant to the award of this contract. The Consultant shall establish within 90 days after contract award:

1. An ongoing business ethics and business conduct awareness program; and
2. An internal control system.
 - a. The Consultant's internal control system shall:
 - (1) Facilitate timely discovery of improper conduct in connection with Government contracts; and
 - (2) Ensure corrective measures are promptly instituted and carried out.
 - b. For example, the Consultant's internal control system should provide for:
 - (1) Periodic reviews of company business practices, procedures, policies, and internal controls for compliance with the Consultant's code of business ethics and conduct and the special requirements of Government contracting.
 - (2) An internal reporting mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports;
 - (3) Internal and/or external audits, as appropriate; and
 - (4) Disciplinary action for improper conduct.

D. Subcontracts

The Consultant shall include the substance of this clause, including this paragraph 4, in subcontracts, except when the subcontract:

1. Is for the acquisition of a commercial item; or
2. Is performed entirely outside the United States.

EXHIBIT E
ADDITIONAL PROVISIONS

I. DISABLED VETERANS BUSINESS ENTERPRISE (DVBE)
PARTICIPATION WITH GOALS

A. The Consultant has complied with the requirements of Public Contract Code Section 10115 et. seq. The DVBE participation commitment for this Agreement is nine percent (9%) of the Agreement amount. Participation by DVBE Prime and Subconsultants shall be in accordance with the information contained in the Bidder/Proposer DVBE information Form STD 840 attached to and made a part hereof.

B. Substitutions of DVBE's

The Consultant must use the DVBE Subconsultants and/or suppliers contained in the solicitation response to Caltrans, unless a substitution has been preapproved in writing by the Caltrans Contract Manager. No substitutions are to be made without receipt of prior written approval from the Caltrans Contract Manager. Failure to obtain approval of substitute Consultants before work is performed, supplies are delivered or services are rendered may result in payment being denied by Caltrans.

C. At a minimum, the Consultant's substitution request must include:

1. A written explanation of the substitution reason; and if applicable, the Consultant must also include the reason a non-DVBE Subconsultant is proposed for use.
2. The Consultant must also include a written description of the substitute business enterprise; include their business status as a sole proprietorship, partnership, corporation, or other entity, and the firm's DVBE certification status, if any.
3. A written notice detailing a clearly defined portion of the work identified both as a task and as a percentage share/dollar amount of this overall Agreement that the substitute firm will perform.

EXHIBIT E
ADDITIONAL PROVISIONS

- D. Prior to the approval of the Prime Consultant's substitution request, the Caltrans Contract Manager must give a written notice to the Subconsultant being substituted by the Prime Consultant. A copy of the notice sent by the Caltrans Contract Manager must be forwarded to the Division of Procurement and Contracts (DPAC) Office. The notice must do all of the following:
1. Give the reason the Prime Consultant is requesting substitution of the listed Subconsultant;
 2. Give the listed Subconsultant five (5) working days within which to submit written objections to the Caltrans Contract Manager and a copy to the Contract Office (DPAC).
 3. Notify the Subconsultant that if a written objection is not received or received past the due date, such failure will constitute consent to the substitution; and
 4. The notice shall be served by certified or registered mail to the last known address of the listed Subconsultant.

The listed Subconsultant, who has been so notified, shall have five (5) working days within which to submit written objections to the substitution to the Caltrans Contract Manager. Failure to submit a written objection shall constitute the listed Subconsultant's consent to the substitution.

- E. If written objections are filed by the listed Subconsultant, DPAC will render a written decision. DPAC shall give written notice of at least five (5) working days to the listed Subconsultant of a hearing by Caltrans on Consultant's request for substitution.
- F. Caltrans may consent to the substitution of another Subconsultant in any of the following situations:
1. When the listed Subconsultant becomes bankrupt, insolvent, or goes out of business.

EXHIBIT E
ADDITIONAL PROVISIONS

2. When the listed Subconsultant fails or refuses to perform his or her subagreement.
 3. When the listed Subconsultant is not licensed pursuant to any applicable licensing requirement of any regulatory agency of the State of California.
 4. When Caltrans or the Caltrans Contract Manager determines that the work performed by the listed Subconsultant is substantially unsatisfactory and not in substantial accordance with the plans and specifications, Agreement requirements, or that the Subconsultant is substantially delaying or disrupting the progress of the work.
 5. DVBE's substituted after award must be certified at the time of the substitution.
- G. The request for substitution and Caltrans' approval or disapproval is not to be construed as an excuse for non-compliance with any other provision of law, including but not limited to, the subletting and subcontracting Fair Practices Act (Section 4100 et. seq. of the Public Contract Code) or any other Agreement requirements relating to the substitution of Subconsultants. Failure to adhere to the DVBE participation in the performance of this Agreement may be cause for Agreement termination and recovery of damages under the rights and remedies due Caltrans.
- H. Any DVBE firm acting/working under subcontract must be responsible for providing materials, supplies, equipment, or services and must carry out its responsibility by actually performing, managing, or supervising the work involved that is normal for its business services and functions.
- I. The Consultant shall maintain records of all subagreements entered into with DVBE Subconsultants including records of materials purchased from DVBE suppliers. Such records shall show the name and address of each DVBE Subconsultant or supplier and the total dollar amount paid to each one. Upon completion of this Agreement, a summary of these records shall be prepared and certified correct by the Consultant or his

EXHIBIT E
ADDITIONAL PROVISIONS

authorized representative and the summary shall be furnished to the Caltrans Contract Manager.

SCOPE OF WORK/DELIVERABLES

1. Location of Work

The Consultant shall provide environmental engineering services in Caltrans Districts 1, 2, 3, 4, 5, and 10. The specific location of the work to be performed within that area will be stated in each Task Order.

2. Scope of Work/Deliverables

A. Project Description

On an “as needed” basis the Consultant shall provide technical and professional services that will enable compliance with State and Federal water quality regulations in the districts listed above as follows:

- Assist District staff in achieving current compliance with the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit obligations and other waste discharge requirements that may be prescribed by a Regional Water Quality Control Board or the State Water Resources Control Board (SWRCB).
- Develop or review draft current compliance plans or technical reports related to water quality. As requested, evaluate the implementation of compliance plans or technical reports.

B. Description of Required Services

The Caltrans Contract Manager will assign specific tasks to the Consultant by issuing Task Orders. Task Orders may include but are not limited to the following tasks:

1. Provide expert water-quality related assistance for
 - Facilities that are required to have Facility Pollution Prevention Plan (FPPP) per the Caltrans MS4 permit or Storm Water Pollution Prevention Plan (SWPPP) per the SWRCB’s Industrial General Permit, and
 - Other Caltrans-owned properties or facilities

This assistance may include, but not be limited to,

- Developing and reviewing FPPPs, Water Pollution Control Plan (WPCP), or SWPPPs for Caltrans facilities not directly related to the support of a capital project,
- Performing life-cycle cost studies related to the Caltrans water-quality related activities, and
- Evaluating Best Management Practices (BMPs) trends.

2. When regulatory enforcement actions occur, provide onsite guidance and assistance to Maintenance, Construction, Equipment, Engineering Services, Traffic Operations, Right of Way, and other appropriate District staff on storm water pollution prevention and control concepts and practices in a manner consistent with the Caltrans Storm Water Management Plan (SWMP), the Caltrans NPDES MS4 permit, and any other applicable waste discharge requirements.
3. Conduct investigations when an Illicit Connection/Illegal Discharge (IC/ID) or illegal dumping is suspected into the Caltrans right-of-way or from the Caltrans right-of-way. Report investigative findings and recommend corrective actions to the District staff.
4. As part of the Caltrans Stormwater Quality Assurance Program and Enforcement Response Program, assist Caltrans staff in tracking status of corrective actions arising from the Caltrans self-audit reviews of construction activities, maintenance activities, maintenance facilities, and other Caltrans-owned properties or facilities. Based on the audit review findings, recommend improvements in storm water and non-storm water management practices or measures to correct identified storm water and non-storm water issues.
5. Perform field surveying, data collection, and research of Caltrans documentation to assist the Caltrans in developing and maintaining inventories of the Caltrans drainage conveyance systems, treatment BMPs, and design pollution prevention BMPs.
6. Assist District NPDES staff with municipal coordination activities with local and regional agencies.
7. As deemed necessary by the contract manager, cooperate and coordinate with the Caltrans other PEPT consultants who cover other areas of the state relating to work described in this Agreement.

C. Personnel

1. The Consultant shall, throughout the life of the Agreement for this scope of work, retain within the Consultant's firm, or through sub-consultants, a staff of people who are qualified to perform each of the tasks that are listed in the Task Orders. The Consultant's personnel shall be capable of performing their work with minimal instructions.
2. The Consultant shall not alter the originally proposed staff and project organization without written approval from the Caltrans Contract Manager.
3. The Consultant shall furnish a Project Manager from the Prime firm to coordinate the Consultant's operations under the Agreement. The Consultant's Project Manager shall

be accessible to the Caltrans Contract Manager at all times during the Caltrans normal working hours. The Consultant's Project Manager shall be responsible for all matters that are related to the Consultant's personnel and operations including but not limited to:

- a. Review, monitor, train and direct Consultant's personnel.
 - b. Assign qualified personnel to perform Task Order work.
 - c. Administer personnel actions.
 - d. Maintaining project files.
 - e. Developing, organizing, facilitating, and attending scheduled coordination meetings and preparation and distribution of meeting minutes.
 - f. Implement and maintain quality control procedures to manage conflicts, insure product accuracy and identify critical reviews and milestones.
 - g. Overseeing that all safety measures are in place.
4. The Consultant shall furnish a Task Order Manager for each Task Order.
 5. Each Task Order Manager shall be accessible to the Caltrans Contract Manager and the Caltrans Task Order Managers at all times during the Caltrans normal working hours while each Task Order work is underway.

D. License, Registration & Certification Requirement

1. The Consultant's Project Manager shall have a minimum of 5 years as a licensed professional in a discipline, such as a Civil Engineer, Landscape Architect or Engineering Geologist, registered to practice in the State of California with qualifying or certificate of experience to fulfill the work requirements.
2. The Task Order Manager shall be a Civil Engineer, Landscape Architect, or Engineering Geologist who is licensed to practice in the State of California to perform the tasks described in the Task Order, and shall have at least five years of relevant experience. In addition, each task order manager shall be a certified Qualified SWPPP Developer as prescribed in *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (NPDES NO. CAS000002)*, Section VII.B.1, adopted by the California State Water Resources Control Board on September 2, 2009. Although it is not required, Caltrans desires that each Task Order Manager be a Certified Professional in Erosion and Sediment Control by EnviroCert International, Inc.
3. The Consultant's staff, while in the field, shall perform under the direction of the Task Order Manager or a Civil Engineer who is licensed in the State of California.

E. Task Orders

1. The Caltrans Contract Manager will assign tasks to the Consultant by issuing Task Orders. The Task Order will identify the task order purpose, scope of services, expected results, project deliverables, period of performance, and project schedule.
2. The Task Order will designate a Task Order Manager from Caltrans, a Task Order Manager from the Consultant, and the Consultant's primary staff that the Consultant assigns to the Task Order.
3. Caltrans will provide to the Consultant electronic templates of Task Order formats and required boilerplate language along with scope and schedule.
4. Specific projects will be assigned by the Caltrans Contract Manager to the Consultant through issuance of Task Orders describing in detail the services to be performed. The Caltrans Contract Manager has the sole authority and responsibility to make amendments and revisions to the scope, schedule, cost or deliverables in a Task Order.
5. Prior to commencing any specific task, a written Task Order shall be prepared for the specific work to be accomplished. Each Task Order shall be agreed to and signed by the Consultant Contract Manager and the Caltrans Contract Manager.
6. The Consultant shall only perform work that is authorized and described on written Task Order that is signed by both Caltrans and the Consultant.
7. The Consultant shall maintain a complete project file for each Task Order performed under the Agreement. This file shall be made available to the Caltrans Contract Manager or designees during normal work hours and shall be transferred to Caltrans upon completion of work under the Task Order in electronic format and will be submitted on portable media.
8. Caltrans will identify all work to be performed under this Agreement through preparation of a draft Task Order, less the cost estimate. The draft Task Order will identify (with specificity):
 - a. purpose or goal of the Task Order,
 - b. scope of services,
 - c. expected results,
 - d. project deliverables,
 - e. performance criteria or performance tests for the services (which demonstrate that the project deliverables satisfy the purpose or goal of the Task Order),
 - f. the Task Order term, dates of service or project schedule, and/or due dates,
 - g. any milestone or tollgate deliverables (i.e. any deliverables that must be delivered and accepted prior to subsequent work being performed); and sufficient data to tie

the Task Order to the Contract (including contract number, name of Caltrans Contract Manager, and name of Requestor).

9. Upon receipt of the Task Order, the Consultant shall review the Task Order and prepare a written estimate of the number of hours per staff person, the anticipated reimbursable expenses, and the total dollar amount. The Consultant shall return the draft Task Order to Caltrans within no more than ten (10) calendar days after receipt.
10. The cost estimate shall be in the format prescribed in the draft Task Order. The Consultant will provide a good-faith cost estimate using their professional judgment. Provided agreement is reached on the negotiable items, the finalized Task Order shall be signed by both Caltrans and the Consultant. If Caltrans and the Consultant are unable to reach agreement, the work described in the draft Task Order shall not be performed by the Consultant and Caltrans shall not pay for any work described on the Task Order.
11. Provided there is a signed and valid Task Order, the Consultant will be reimbursed for actual hours worked at the hourly rates specified in Attachment 2, Cost Proposal. The specified hourly rates shall include direct salary costs, employee benefits, and overhead. In addition, the Consultant will be reimbursed for actual direct costs, other than salary costs, that are identified in an executed Task Order. Provided the Agreement expressly permits for such reimbursement, reimbursement for transportation and subsistence costs shall not exceed the rates to be paid non-represented/excluded State employees under current State Department of Personnel Administration rules detailed in the Caltrans Travel and Expense Guide; and if the Agreement does not expressly permit for reimbursement, no reimbursement shall be made. Travel Expense Claims (TEC) shall be in the Caltrans' approved format. All personnel to be used in the Task Order shall be identified in the Cost Proposal.
12. Task Orders are not valid until approved by Caltrans and subsequently signed by both parties. No payment will be due or made for any work performed on an unsigned Task Order, and Caltrans shall not pay for any work described on the unsigned Task Order.
13. The Consultant shall not commence performance of work or services on a Task Order until it has been approved by Caltrans and notification to proceed has been issued by the Caltrans Contract Manager. No payment will be due or made for any work performed prior to written approval of the work product by the Contract Manager or after the period of performance of the Task Order.
14. If the 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.
15. If applicable, when a subsequent agreement for the same or similar scope of work is executed within three (3) months prior to the termination of this Agreement, no

additional Task Orders shall be executed under this Agreement upon the effective date of the subsequent agreement.

16. Task Orders may not be used to amend this Agreement and may not exceed the scope of work under this Agreement.
17. The Consultant shall begin the required work within five (5) working days after receiving a fully executed Task Order unless otherwise specified in the Task Order. Once the work begins, the work shall be prosecuted diligently until all required work has been completed satisfactorily.
18. Unless otherwise specified in the Task Order, the Consultant shall notify the Caltrans Contract Manager at least forty-eight (48) hours before fieldwork is to begin.
19. Unless otherwise specified in the Task Order or otherwise directed by the Caltrans Contract Manager, the normal work week shall consist of forty (40) hours. Overtime may be required. However, overtime shall be worked only when directed in writing by the Caltrans Contract Manager or specifically required by the Task Order, and will only be paid to persons covered by the Fair Labor Standards Act.
20. Projects may have complex and overlapping schedules and therefore Project work may have overlapping and parallel (not serial order) schedules; therefore, when required to complete the work in the Task Order, the Consultant will coordinate activities and work closely with multiple planners, engineers and project managers working for the Department, as well as planning, engineering and construction firms contracted by the Department.
21. The Caltrans Contract Manager may designate a Task Order Manager to manage a specific Task Order. The Caltrans Contract Manager, in cooperation with the Project Coordinator, shall decide all questions which may arise as to the quality or acceptability of deliverables and work performed for this agreement.
22. The Consultant will assist the Caltrans Contract Manager to monitor and verify the Consultant's satisfaction of the Consultant's duties and obligations under the Agreement, the delivery of all work product and deliverables, and satisfaction of all applicable schedules, milestones, tollgates, and performance tests and criteria. It is the responsibility of the Consultant to notify the Caltrans Contract Manager that the work is complete and ready for review inspection at a milestone, tollgate or other non-final review covering the entire Task Order. Work covering the complete Task Order is subject to final review and approval by the Caltrans Contract Manager or his/her designee. The Caltrans Contract Manager shall have the ultimate responsibility and authority to determine whether the Consultant satisfied the Consultant duties and obligations under the Agreement, including specifically whether the Consultant delivered all work product and deliverables and whether the Consultant work product and deliverables satisfied all

of the applicable contract requirements (including acceptance criteria or tests). Prior to the final approval for the complete Task Order, approval of work constitutes approval for payment and not transference or termination of the Consultant's responsibility to perform work in accordance with the terms of the Agreement. Any work that needs corrections shall be at the Consultant's sole cost and expense in a timely manner, which may be expressly agreed upon in writing by the parties.

a. The following shall apply to negotiated Task Orders:

- i. Transportation and subsistence costs to be reimbursed shall be the actual costs incurred, but not to exceed the rates stipulated in the Caltrans "Caltrans Travel Guide, Contractor/contractors Travel Policy". See: <http://www.dot.ca.gov/hq/asc/travel/Contractor.htm>
- ii. The Consultant's employee's headquarters and/or primary residence as defined in the Caltrans Travel Guide will be established in the Task Order.
- iii. Caltrans Contract Manager prior written approval is required for all domestic and/or international travel.

F. Availability and Work Hours.

1. The Consultant shall begin the required work within five (5) working days after receiving a fully executed Task Order unless the Task Order specifies a later starting date. Once the work begins, the Consultant shall perform the work diligently.
2. The Consultant shall notify Caltrans in writing at least 48 hours before it begins field work, unless the Task Order specifies some other notification date.
3. The normal work week shall consist of a maximum of forty (40) hours unless otherwise specified in the Task Order.
4. The Consultant's staff shall work overtime only when directed to do so in writing by the Caltrans Contract Manager or as specifically required by each Task Order.
5. The Consultant shall obtain approval from the Resident Engineer prior to entering any Caltrans project construction site.
6. The Consultant shall obtain approval from the Facility Manager prior to conducting activities within a maintenance station or other Caltrans facility.

G. Deliverables

1. The Consultant shall submit the deliverables in a Task Order to the address specified in the Task Order. The Consultant may submit the monthly Task Order progress report via electronic mail.
2. The Consultant shall provide services in close liaison with the Department.
3. Caltrans will exercise its review and approval functions through its Contract Manager and/or Task Manager at key points as specified in a Task Order. Caltrans will perform milestone reviews for the specific products and deliverables that are listed in each Task Order.
4. If a Task Order is scheduled to take less than six (6) months, the Consultant shall prepare a work plan with a listing of tasks, milestones, a budget, and a target completion date.
5. If a Task Order is scheduled to last for six (6) months or longer, the Consultant shall prepare and update a critical path method network diagram for the Task Order. The network diagram shall show a deliverables schedule as well as other relevant data that are needed for the Consultant's work control and Caltrans review of the Consultant's work. The relevant data shall include a list of activities with a budgeted cost, milestones, and a target completion date for each activity.
6. The Consultant shall obtain Caltrans written approval for each deliverable that a Task Order identifies. Each Task Order shall specify the format and content requirements for the deliverables in that Task Order.
7. The Consultant shall submit studies, reports, plans, and other deliverables as required by Task Orders and this Agreement, to Caltrans in draft as scheduled and Caltrans will direct revisions prior to the Consultant's final submittal. The Task Order will specify the schedule for Caltrans review of the Consultant's submittals.
8. The Consultant has total responsibility for the accuracy and completeness of the deliverables as specified in the Task Order. The deliverables will be reviewed by Caltrans for conformity with Project standards. Reviews by Caltrans do NOT include detailed review or checking of major components, related details or accuracy of information. The responsibility for accuracy and completeness of such items remains solely that of the Consultant.
9. As directed by a Task Order, the Consultant shall prepare engineering plans that conform to the most current editions of the Caltrans Plans Preparation Manual and the CADD Users Manual. Caltrans will reject plans that are not in conformance with the Caltrans manuals. At Caltrans request, the Consultant shall submit original plan sets together

with any reports, drawings, studies, memoranda, and other data that pertain to a Task Order.

10. The Consultant shall submit a compact disk, DVD disk, or USB hard drive which contains electronic copies of pertinent files for each report that the Consultant has prepared. The electronic copies shall meet the following criteria:
 - a. Text-based documents shall be submitted as an Adobe® Portable Document Format (“pdf”) file using Adobe Acrobat Professional version XI or later software. The pdf file shall be inclusive of all graphics (e.g., page orientation, photographs or other images, charts, and tables) and be suitable for printing in final form. The pdf file shall:
 - Contain functioning bookmarks, indexes, tables of contents or other hyperlinks as required by the Task Order.
 - Be configured (e.g., bookmarks, thumbnails, annotations, signatures, and security settings) as required by the Task Order.
 - Be optimized for use by Adobe Acrobat Reader XI.
 - b. Text-based documents shall also be submitted in Microsoft Word format, version 2013. The document shall include of all graphics (e.g., photographs, image graphics, charts, and tables). Photographs shall be in “jpeg” file format. Other image graphics shall be in “gif” format unless otherwise specified.
 - c. All graphics (e.g., photographs or other drawings) shall be submitted separately from the pdf and Microsoft Word documents in archive-type file formats (e.g., photographs and bitmapped drawings as “tif”, Microstation drawings as “dgn”, and vector drawings as “ai”) unless otherwise specified. The intent of this section is for the Consultant to provide Caltrans with a copy of each graphic in an uncompressed file format for archive purposes. The Consultant may suggest alternative formats that are compatible with this goal.
 - d. Spreadsheet files shall be submitted in Microsoft Excel format, version 2013.
 - e. Database files shall be submitted in Microsoft Access format, version 2013.
 - f. The Consultant shall provide appropriate documentation for the contents of all electronic media.
 - g. The Consultant shall not format electronic files as “view only” or “read only” unless so specified in the Task Order.
11. A Task Order may require the Consultant to use software and electronic formats other than those indicated above as needed to accomplish the objectives of the Task Order.

12. The Consultant shall adhere to a prescribed document numbering system that Caltrans has developed for the Storm Water Program. The Consultant shall obtain and use the assigned document number(s) for each study, report or technical memorandum and shall either incorporate this number into the title or display this number on the title page of the document.
13. Caltrans will provide the Consultant with a basic distribution list and/or labels for mailing or distributing documents.
14. The Consultant shall provide to Caltrans five (5) hardcopies of each report, study, and technical memorandum that the Consultant prepares. The Task Order will specify the number of additional copies of these documents that the Consultant shall produce for distribution as per the Task Order.
15. On April 15 and October 15 of each year, the Consultant shall submit to Caltrans a list of all the documents that it has prepared under the terms of this Agreement. This semiannual list shall include, at a minimum, the following information:
 - a. Reference number as per above
 - b. Title of the document
 - c. Synopsis of the document [no more than three (3) sentences]
 - d. Date on which the document was completed
 - e. Author of the document (Consultant, Caltrans, or subconsultant)
 - f. Status of document (draft or final)
 - g. Agreement under which the Consultant prepared the document
 - h. Task Order under which the Consultant prepared the document
 - i. Purpose of the Task Order (as described on the first page of the Task Order, e.g., "Measurable Objective from the SWMP")
16. If the Consultant fails to submit the required deliverable items as set forth in a Task Order, Caltrans shall have the right to withhold payment and/or to terminate the Agreement for this scope of work.
17. The Consultant shall submit a progress report for each Task Order to the Caltrans Contract Manager and Task Order Manager on or prior to the fifteenth (15th) day of each

month during which the Task Order is active. The Caltrans Contract Manager may alter the submittal date of the report to coordinate with the Consultant's administrative processes. This report shall contain the following elements:

- a. Time frame of the reporting period
- b. Work completed in the reporting period (activities and accomplishments), and percentage of work completed
- c. Work to be completed in the time period after the reporting period
- d. Total dollar amount of Task Order authority
- e. Expenditures in this progress report period
- f. Total expenditures to date and the percentage of the total dollar authority used to date (including the amount not yet invoiced to Caltrans)
- g. Total expended but not yet invoiced to Caltrans
- h. Remaining Task Order dollar authority
- i. For each milestone, task and deliverable: the budgeted cost, the actual cost to date, the actual cost to date as a percent of the budgeted cost, and the percent of the milestone/task/deliverable that has been completed
- j. Projected travel costs for the time period after the reporting period with detail about the staff involved, the purpose of the travel, location of travel and the cost
- k. Comments about other issues that may impact the Task Order's services (e.g., a staff shortage that could delay the timely completion of a deliverable) or cost.

H. General Requirements

1. The Consultant's Contract Manager shall cooperate and coordinate with Caltrans, the Federal Highway Administration, and any of the Caltrans contractors and consultants that are working on a project. The Task Order may also require the Consultant's Contract Manager to coordinate with local agencies, other state agencies, Native American tribal governments, utility companies, railroads, and other agencies.
2. Caltrans does not intend to relieve the Consultant of professional responsibility during performance of this Agreement. If the Consultant believes that a better solution to a

problem is possible, the Consultant shall promptly notify the Caltrans Contract Manager of these concerns and the reasons therefor.

3. The Consultant may directly contact governmental regulatory agencies and others for the purpose of obtaining information, expertise, and assistance in developing baseline data and resource inventories. The Consultant shall maintain a written record of all such contacts and shall transmit copies of those records to Caltrans on a regular basis.
4. The Consultant shall include the Caltrans Contract Manager in written communications to other Caltrans personnel for any clarification on the scope of work.
5. Caltrans is responsible for all final consultation, both informal and formal, with local, state and federal agencies regarding water quality issues. The Consultant shall assist Caltrans in such consultations as specified in each Task Order and as directed by the Caltrans Contract Manager.
6. For Task Order work performed on any property that Caltrans does not own or control, the Consultant shall be responsible for obtaining all necessary approvals and permits. The Consultant shall identify all necessary approvals and permits, prepare signature-ready permit applications, and track the status of permit applications, as specified in each Task Order.
7. The Consultant shall perform all work in conformance with applicable federal, state, and local statutes, regulations, standards and guidelines, including, but not limited to, the following:
 - a. California Health and Safety Code
 - b. California Water Code
 - c. 40 CFR (Code of Federal Regulations) 122.26
 - d. Caltrans Standard Specifications
 - e. Caltrans Storm Water Management Plan
 - f. California Public Contract Code
 - g. Caltrans Standard Plans
 - h. California Business and Professions Code
 - i. California Code of Regulations

- j. Caltrans Maintenance Manual
 - k. Caltrans National Pollutant Discharge Elimination System (NPDES) permit
8. Caltrans Contract Manager shall decide all questions that pertain to the quality and acceptability of the deliverables that are furnished by the Consultant and the work that the Consultant performs under this agreement.
 9. From Consultant's separate and independent electronic mail system, the Consultant shall have the capability to send to and receive from Caltrans electronic mail system and file transfer protocol system, including attachments for word processing, photographs, spreadsheets, and databases.
 10. The Consultant shall provide to Caltrans the final cost proposal as approved by the Caltrans. As a supplement to the cost proposal, the Consultant shall submit job descriptions for all of the staff that it and its subconsultants propose to use for this Agreement. This cost proposal shall be in printed hard copy and in an electronic file. When the Consultant proposes to add staff to this cost proposal, the Consultant shall submit Personnel Request Form, along with SF330 resume, and certified payroll along with an updated cost proposal to Caltrans. The Caltrans Contract Manager may request that the update be for either the incremental change or the total amount. The Consultant shall provide the electronic copy of the cost proposal and subsequent proposed changes to the cost proposal in Microsoft Excel format, version 2013.
 11. Caltrans will not reimburse the Consultant for costs to relocate its staff to the service area of this Agreement. Caltrans will not reimburse the Consultant for long-term per diem costs, unless preapproved by the Caltrans Contract Manager. Caltrans will not reimburse the Consultant for out-of-state travel without prior approval from the Caltrans Contract Manager.
 12. The Consultant shall obtain the Caltrans Contract Manager's approval prior to making presentations at non-Caltrans sponsored conferences or workshops for any services provided under this agreement.

I. Quality Control

1. The Consultant shall have a quality control plan in effect during the entire time that it is performing work under the Agreement for this scope of work. The Consultant shall provide a printed hard copy and electronic file of its quality control program and shall identify critical quality control reviews within each Task Order schedule.
2. The Consultant's quality control plan shall establish a process whereby:

- a. All draft and final reports are reviewed for accuracy, completeness, and readability before submittal to Caltrans.
 - b. Calculations and plans are independently checked, corrected and back-checked.
 - c. All job-related correspondence and memoranda are routed and received by affected persons and then filed in the appropriate Task Order file.
 - d. Field activities are routinely verified for accuracy and completeness, such that any discovered deficiencies do not become systemic or affect the result of a Task Order deliverable.
3. The Consultant shall be responsible for the quality, accuracy, and completeness of all reports, plans, specifications or estimates that the Consultant prepares.
4. The Consultant shall be responsible for the detailed review of all design components and related details, and the accuracy with which the Consultant depicts such designs on the plans and the details.
5. The Consultant shall not incorporate materials or equipment of single or sole source origin into the prepared materials without written approval from Caltrans.
6. Plans, estimates, designs, calculations, reports, and other documents that the Consultant furnishes to Caltrans under each Task Order shall be of a quality that is acceptable to the Caltrans Contract Manager.
7. Calculations, drawings, designs, estimates, reports, and other documents that the Consultant furnishes to Caltrans under a Task Order are of acceptable quality when they are:
 - a. neat in appearance
 - b. well organized
 - c. technically and grammatically correct
 - d. checked by designated reviewers (Caltrans and Consultant personnel)
 - e. approved by the Contract Manager
8. The Consultant shall identify the preparer and the designated reviewer for each document that the Consultant furnishes to Caltrans under each Task Order. The Consultant shall comply with all applicable state and federal standards and requirements.

9. The minimum standard of appearance, organization, and content of the drawings and reports shall be that of similar types published by Caltrans. See Caltrans website for examples of recent reports: <http://www.dot.ca.gov/hq/env/stormwater/index.htm>.
10. The page which identifies the preparer of engineering reports, the title sheet for specifications, and each sheet of plans shall each bear the professional seal, certificate number, registration classification, expiration date of the certificate, and the signature of licensed engineer(s) responsible for their preparation.
11. The Consultant shall maintain a complete project file for each Task Order that it performs. The Consultant shall make this file available to the Caltrans Contract Manager or designees during Caltrans normal work hours and shall transfer this file to Caltrans upon completion of work under the Task Order.

J. Health and Safety

1. The Consultant shall be responsible for the health and safety of its employees, subconsultants, and subconsultants' employees.
2. The Consultant shall comply with all applicable occupational health and safety standards, rules and regulations that are established by the State of California and the federal government, and the safety instructions that Caltrans issues for performance of Task Order work. Under no circumstance shall the Consultant's safety policies be less stringent than Caltrans.
3. The Consultant shall prepare a health and safety plan to cover all field tasks associated with each Task Order. These plans shall be updated and modified for each stage of work or on an annual basis. For a particular Task Order, Caltrans may require that this plan be prepared by a person that shall either have a bachelor degree in industrial hygiene or be certified by the American Board of Industrial Hygiene.
4. When working within the Caltrans right-of-way, the Consultant shall adhere to the safety provisions in Chapter 8 of the Caltrans Maintenance Manual which is available from the Caltrans website at this URL: <http://www.dot.ca.gov/hq/maint/manual/maintman.htm>. When working on a construction site, the Consultant shall adhere to the safety provisions in the project's Code of Safe Practices.

K. Materials Furnished by Caltrans

Caltrans will furnish the following materials to the Consultant in electronic format or provide internet links for the Consultant to download the materials:

1. Caltrans manuals, standards, forms, and other policies and procedures as listed above
2. Caltrans Storm Water Management Plan
3. Caltrans NPDES permit from the State Water Resources Control Board
4. Appropriate background material for each Task Order
5. Caltrans Encroachment Permit. If a Caltrans encroachment permit is required for a Task Order, Caltrans will issue that permit without charge to the Consultant. The Consultant shall arrange with appropriate Caltrans staff before entering Caltrans property. A copy of the Agreement for this service or the Task Order shall be with the Consultant while on Caltrans property.
6. Electronic templates of Task Order formats
7. Caltrans Storm Water Quality Handbook, Project Planning and Design Guide
8. Caltrans Storm Water Quality Handbook, Storm Water Pollution Prevention Plan, and Water Pollution Control Program Preparation Manual
9. Caltrans Construction Code of Safe Practices
10. Caltrans Highway Maintenance Manual (Chapter F, Maintenance Storm Water Management Program and Chapter 8, Protection of Workers)
11. Caltrans Storm Water Quality Handbook, Maintenance Staff Guide
12. Appropriate topographic maps and as-built drawings for each Task Order
13. California Manual on Uniform Traffic Control Devices

L. Equipment and Materials Furnished by the Consultant

The Consultant shall provide all necessary tools, instruments, and safety equipment that are required to accurately, efficiently and safely perform the work identified in this Agreement.

M. Report Identification Requirements

Consultant-prepared reports shall not contain any references to the firm's name, including logos, acknowledgements, or credits. The Consultant may utilize an internal filing number or other methodology while a document is in its draft stages and when distribution of a document is

internal to Caltrans Division of Environmental Analysis. When the Consultant distributes a draft document beyond Caltrans Division of Environmental Analysis, the Consultant shall remove all reference numbers, other than Caltrans alpha-numeric system, prior to distribution. All copyright interests will be assigned to Caltrans.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Randy Marx, PE, CPESC, QSP (Sacramento)	\$259.26	N/C	11/18/15	12/31/15	0.0%	\$84.35	N/A
Vice President	\$263.14	N/C	01/01/16	12/31/16	1.5%	\$85.62	N/A
Project Manager; Task Order Manager	\$267.09	N/C	01/01/17	12/31/17	1.5%	\$86.90	N/A
(exempt, salaried)	\$272.11	N/C	01/01/18	12/31/18	1.88%	\$88.53	N/A
	\$276.88	N/C	01/01/19	12/31/19	1.75%	\$90.08	N/A
Una Adkins (Walnut Creek)	\$100.72	N/C	11/18/15	12/31/15	0.0%	\$32.77	N/A
Engineer Technician III	\$102.23	N/C	01/01/16	12/31/16	1.5%	\$33.26	N/A
Health & Safety, Maintenance, Storm Drain	\$103.77	N/C	01/01/17	12/31/17	1.5%	\$33.76	N/A
System Inventory (SDSI)	\$105.72	N/C	01/01/18	12/31/18	1.88%	\$34.40	N/A
(exempt, salaried)	\$107.57	N/C	01/01/19	12/31/19	1.75%	\$35.00	N/A
Jeffrey Bold, PhD, CPESC, CPSS, QSP (Davis)	\$202.79	N/C	11/18/15	12/31/15	0.0%	\$65.98	N/A
Managing Scientist	\$205.84	N/C	01/01/16	12/31/16	1.5%	\$66.97	N/A
Enforcement and Prevention Assistance Lead	\$208.92	N/C	01/01/17	12/31/17	1.5%	\$67.97	N/A
(exempt, salaried)	\$212.85	N/C	01/01/18	12/31/18	1.88%	\$69.25	N/A
	\$216.58	N/C	01/01/19	12/31/19	1.75%	\$70.46	N/A
Chris Clark (Sacramento)	\$179.25	N/C	11/18/15	12/31/15	0.0%	\$58.32	N/A
Senior System Analyst	\$181.94	N/C	01/01/16	12/31/16	1.5%	\$59.19	N/A
Tracking and Data Management	\$184.67	N/C	01/01/17	12/31/17	1.5%	\$60.08	N/A
(exempt, salaried)	\$188.14	N/C	01/01/18	12/31/18	1.88%	\$61.21	N/A
	\$191.43	N/C	01/01/19	12/31/19	1.75%	\$62.28	N/A
Karen Cole (Sacramento)	\$139.26	N/C	11/18/15	12/31/15	0.0%	\$45.31	N/A
Systems Developer	\$141.35	N/C	01/01/16	12/31/16	1.5%	\$45.99	N/A
Tracking and Data Management	\$143.47	N/C	01/01/17	12/31/17	1.5%	\$46.68	N/A
(exempt, salaried)	\$146.17	N/C	01/01/18	12/31/18	1.88%	\$47.56	N/A
	\$148.73	N/C	01/01/19	12/31/19	1.75%	\$48.39	N/A
Lowell Cottle, CESSWI, QSP (Willits)	\$125.77	N/C	11/18/15	12/31/15	0.0%	\$40.92	N/A
Senior Scientist	\$127.66	N/C	01/01/16	12/31/16	1.5%	\$41.53	N/A
Water Quality Assistance and Compliance	\$129.57	N/C	01/01/17	12/31/17	1.5%	\$42.16	N/A
(exempt, salaried)	\$132.01	N/C	01/01/18	12/31/18	1.88%	\$42.95	N/A
	\$134.32	N/C	01/01/19	12/31/19	1.75%	\$43.70	N/A
Tina Crawford (Sacramento)	\$115.87	N/C	11/18/15	12/31/15	0.0%	\$37.70	N/A
GIS Specialist II	\$117.61	N/C	01/01/16	12/31/16	1.5%	\$38.27	N/A
Enforcement Response Assistance, Tracking and Data Management, SDSI	\$119.38	N/C	01/01/17	12/31/17	1.5%	\$38.84	N/A
(exempt, salaried)	\$121.62	N/C	01/01/18	12/31/18	1.88%	\$39.57	N/A
	\$123.75	N/C	01/01/19	12/31/19	1.75%	\$40.26	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Ron Crites (Davis)	\$247.82	N/C	11/18/15	12/31/15	0.0%	\$80.63	N/A
Chief Engineer	\$251.54	N/C	01/01/16	12/31/16	1.5%	\$81.84	N/A
Water Quality Assistance and Compliance	\$255.31	N/C	01/01/17	12/31/17	1.5%	\$83.07	N/A
(exempt, salaried)	\$260.11	N/C	01/01/18	12/31/18	1.88%	\$84.63	N/A
	\$264.66	N/C	01/01/19	12/31/19	1.75%	\$86.11	N/A
Ralph Dodge (Sunnyvale)	\$192.04	N/C	11/18/15	12/31/15	0.0%	\$62.48	N/A
Supervising Scientist	\$194.92	N/C	01/01/16	12/31/16	1.5%	\$63.42	N/A
Construction	\$197.84	N/C	01/01/17	12/31/17	1.5%	\$64.37	N/A
(exempt, salaried)	\$201.56	N/C	01/01/18	12/31/18	1.88%	\$65.58	N/A
	\$205.09	N/C	01/01/19	12/31/19	1.75%	\$66.73	N/A
Michael Flake, PE, QSD (Walnut Creek)	\$265.99	N/C	11/18/15	12/31/15	0.0%	\$86.54	N/A
Vice President	\$269.98	N/C	01/01/16	12/31/16	1.5%	\$87.84	N/A
Task Order Manager	\$274.03	N/C	01/01/17	12/31/17	1.5%	\$89.16	N/A
(exempt, salaried)	\$279.18	N/C	01/01/18	12/31/18	1.88%	\$90.83	N/A
	\$284.06	N/C	01/01/19	12/31/19	1.75%	\$92.42	N/A
Nathan Foged, PE (Seattle, WA)	\$179.04	N/C	11/18/15	12/31/15	0.0%	\$58.25	N/A
Supervising Engineer	\$181.72	N/C	01/01/16	12/31/16	1.5%	\$59.12	N/A
Water Quality Assistance and Compliance	\$184.45	N/C	01/01/17	12/31/17	1.5%	\$60.01	N/A
(exempt, salaried)	\$187.91	N/C	01/01/18	12/31/18	1.88%	\$61.14	N/A
	\$191.20	N/C	01/01/19	12/31/19	1.75%	\$62.21	N/A
Chuck Frey (Sacramento)	\$148.67	N/C	11/18/15	12/31/15	0.0%	\$48.37	N/A
Principal Soil Scientist	\$150.90	N/C	01/01/16	12/31/16	1.5%	\$49.10	N/A
Storm Drain System Inventory	\$153.16	N/C	01/01/17	12/31/17	1.5%	\$49.83	N/A
(exempt, salaried)	\$156.04	N/C	01/01/18	12/31/18	1.88%	\$50.77	N/A
	\$158.77	N/C	01/01/19	12/31/19	1.75%	\$51.66	N/A
Valerie Fuchs, PhD, PE, QSD (Seattle, WA)	\$110.13	N/C	11/18/15	12/31/15	0.0%	\$35.83	N/A
Water Resources Engineer	\$111.78	N/C	01/01/16	12/31/16	1.5%	\$36.37	N/A
Water Quality Assistance and Compliance	\$113.45	N/C	01/01/17	12/31/17	1.5%	\$36.91	N/A
(exempt, salaried)	\$115.59	N/C	01/01/18	12/31/18	1.88%	\$37.61	N/A
	\$117.61	N/C	01/01/19	12/31/19	1.75%	\$38.27	N/A
Jenny Gain, PE, QSD (Walnut Creek)	\$178.51	N/C	11/18/15	12/31/15	0.0%	\$58.08	N/A
Principal Engineer	\$181.19	N/C	01/01/16	12/31/16	1.5%	\$58.95	N/A
Task Order Manager, Water Quality	\$183.91	N/C	01/01/17	12/31/17	1.5%	\$59.84	N/A
Assistance and Compliance	\$187.37	N/C	01/01/18	12/31/18	1.88%	\$60.96	N/A
(exempt, salaried)	\$190.65	N/C	01/01/19	12/31/19	1.75%	\$62.03	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Matt Gerhardt, PhD, PE (Walnut Creek)	\$231.47	N/C	11/18/15	12/31/15	0.0%	\$75.31	N/A
Managing Engineer	\$234.94	N/C	01/01/16	12/31/16	1.5%	\$76.44	N/A
Water Quality Assistance and Compliance	\$238.47	N/C	01/01/17	12/31/17	1.5%	\$77.59	N/A
(exempt, salaried)	\$242.95	N/C	01/01/18	12/31/18	1.88%	\$79.04	N/A
	\$247.20	N/C	01/01/19	12/31/19	1.75%	\$80.43	N/A
Rene Guillen, PE, QSD (Walnut Creek)	\$99.18	N/C	11/18/15	12/31/15	0.0%	\$32.27	N/A
Engineer III	\$100.67	N/C	01/01/16	12/31/16	1.5%	\$32.75	N/A
Water Quality Assistance and Compliance	\$102.18	N/C	01/01/17	12/31/17	1.5%	\$33.25	N/A
(exempt, salaried)	\$104.10	N/C	01/01/18	12/31/18	1.88%	\$33.87	N/A
	\$105.92	N/C	01/01/19	12/31/19	1.75%	\$34.46	N/A
Aren Hansen, PE, PMP (Walnut Creek)	\$178.27	N/C	11/18/15	12/31/15	0.0%	\$58.00	N/A
Principal Engineer	\$180.94	N/C	01/01/16	12/31/16	1.5%	\$58.87	N/A
Task Order Manager, Enforcement and	\$183.66	N/C	01/01/17	12/31/17	1.5%	\$59.75	N/A
Prevention Assistance, Storm Drain	\$187.11	N/C	01/01/18	12/31/18	1.88%	\$60.88	N/A
System Inventory	\$190.38	N/C	01/01/19	12/31/19	1.75%	\$61.94	N/A
(exempt, salaried)							
Seppi Henneman, PE (Walnut Creek)	\$115.44	N/C	11/18/15	12/31/15	0.0%	\$37.56	N/A
Engineer III	\$117.18	N/C	01/01/16	12/31/16	1.5%	\$38.12	N/A
Water Quality Assistance and Compliance	\$118.93	N/C	01/01/17	12/31/17	1.5%	\$38.70	N/A
(exempt, salaried)	\$121.17	N/C	01/01/18	12/31/18	1.88%	\$39.42	N/A
	\$123.29	N/C	01/01/19	12/31/19	1.75%	\$40.11	N/A
Sayra Hurley, PE, QSD (Sacramento)	\$167.54	N/C	11/18/15	12/31/15	0.0%	\$54.51	N/A
Principal Engineer	\$170.05	N/C	01/01/16	12/31/16	1.5%	\$55.33	N/A
Task Order Manager, Encroachment and	\$172.60	N/C	01/01/17	12/31/17	1.5%	\$56.16	N/A
Right of Way Lead	\$175.85	N/C	01/01/18	12/31/18	1.88%	\$57.21	N/A
(exempt, salaried)	\$178.93	N/C	01/01/19	12/31/19	1.75%	\$58.21	N/A
Amy Hwang (Walnut Creek)	\$95.53	N/C	11/18/15	12/31/15	0.0%	\$31.08	N/A
Engineer II	\$96.96	N/C	01/01/16	12/31/16	1.5%	\$31.55	N/A
Storm Drain System Inventory	\$98.41	N/C	01/01/17	12/31/17	1.5%	\$32.02	N/A
(exempt, salaried)	\$100.26	N/C	01/01/18	12/31/18	1.88%	\$32.62	N/A
	\$102.02	N/C	01/01/19	12/31/19	1.75%	\$33.19	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Alexander Johnson, PE (San Diego)	\$207.44	N/C	11/18/15	12/31/15	0.0%	\$67.49	N/A
IT Program Manager	\$210.55	N/C	01/01/16	12/31/16	1.5%	\$68.50	N/A
Tracking and Data Management, Storm	\$213.71	N/C	01/01/17	12/31/17	1.5%	\$69.53	N/A
Drain System Inventory	\$217.72	N/C	01/01/18	12/31/18	1.88%	\$70.84	N/A
(exempt, salaried)	\$221.53	N/C	01/01/19	12/31/19	1.75%	\$72.08	N/A
Chris Knoche, PG, QSD (Walnut Creek)	\$186.17	N/C	11/18/15	12/31/15	0.0%	\$60.57	N/A
Principal Scientist	\$188.96	N/C	01/01/16	12/31/16	1.5%	\$61.48	N/A
Construction, Enforcement and Prevention	\$191.79	N/C	01/01/17	12/31/17	1.5%	\$62.40	N/A
Assistance	\$195.40	N/C	01/01/18	12/31/18	1.88%	\$63.57	N/A
(exempt, salaried)	\$198.82	N/C	01/01/19	12/31/19	1.75%	\$64.69	N/A
David Korfas, CPESC, QSD, ToR	\$198.31	N/C	11/18/15	12/31/15	0.0%	\$64.52	N/A
(Sacramento)	\$201.28	N/C	01/01/16	12/31/16	1.5%	\$65.49	N/A
Supervising Scientist	\$204.30	N/C	01/01/17	12/31/17	1.5%	\$66.47	N/A
Construction Lead, Enforcement and	\$208.14	N/C	01/01/18	12/31/18	1.88%	\$67.72	N/A
Prevention Assistance, Encroachment	\$211.78	N/C	01/01/19	12/31/19	1.75%	\$68.90	N/A
and Right of Way							
(exempt, salaried)							
Richard Mattucci (Carson City, NV)	\$180.73	N/C	11/18/15	12/31/15	0.0%	\$58.80	N/A
Managing Engineer	\$183.44	N/C	01/01/16	12/31/16	1.5%	\$59.68	N/A
Water Quality Assistance and Compliance	\$186.19	N/C	01/01/17	12/31/17	1.5%	\$60.58	N/A
(exempt, salaried)	\$189.69	N/C	01/01/18	12/31/18	1.88%	\$61.72	N/A
	\$193.01	N/C	01/01/19	12/31/19	1.75%	\$62.80	N/A
Rhys McDonald (Walnut Creek)	\$199.51	N/C	11/18/15	12/31/15	0.0%	\$64.91	N/A
Supervising Scientist	\$202.50	N/C	01/01/16	12/31/16	1.5%	\$65.88	N/A
Water Quality Assistance and Compliance	\$205.54	N/C	01/01/17	12/31/17	1.5%	\$66.87	N/A
(exempt, salaried)	\$209.40	N/C	01/01/18	12/31/18	1.88%	\$68.13	N/A
	\$213.06	N/C	01/01/19	12/31/19	1.75%	\$69.32	N/A
David Morrow (Sacramento)	\$152.51	N/C	11/18/15	12/31/15	0.0%	\$49.62	N/A
Principal Engineer	\$154.80	N/C	01/01/16	12/31/16	1.5%	\$50.36	N/A
Task Order Manager, Maintenance	\$157.12	N/C	01/01/17	12/31/17	1.5%	\$51.12	N/A
(exempt, salaried)	\$160.07	N/C	01/01/18	12/31/18	1.88%	\$52.08	N/A
	\$162.88	N/C	01/01/19	12/31/19	1.75%	\$52.99	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Amy Neal, PE, QSD (Walnut Creek)	\$146.79	N/C	11/18/15	12/31/15	0.0%	\$47.76	N/A
Principal Engineer	\$149.00	N/C	01/01/16	12/31/16	1.5%	\$48.48	N/A
Task Order Manager, Water Quality	\$151.23	N/C	01/01/17	12/31/17	1.5%	\$49.20	N/A
Assistance and Compliance Lead	\$154.07	N/C	01/01/18	12/31/18	1.88%	\$50.13	N/A
(exempt, salaried)	\$156.77	N/C	01/01/19	12/31/19	1.75%	\$51.01	N/A
Chris Peters, PE, QSD (Walnut Creek)	\$206.97	N/C	11/18/15	12/31/15	0.0%	\$67.34	N/A
Supervising Engineer	\$210.08	N/C	01/01/16	12/31/16	1.5%	\$68.35	N/A
Task Order Manager, Water Quality	\$213.23	N/C	01/01/17	12/31/17	1.5%	\$69.38	N/A
Assistance and Compliance	\$217.24	N/C	01/01/18	12/31/18	1.88%	\$70.68	N/A
(exempt, salaried)	\$221.04	N/C	01/01/19	12/31/19	1.75%	\$71.92	N/A
Peter Ross (Sacramento)	\$166.00	N/C	11/18/15	12/31/15	0.0%	\$54.01	N/A
Senior IT Analysis/Developer	\$168.49	N/C	01/01/16	12/31/16	1.5%	\$54.82	N/A
Tracking and Data Management,	\$171.02	N/C	01/01/17	12/31/17	1.5%	\$55.64	N/A
Storm Drain System Inventory	\$174.24	N/C	01/01/18	12/31/18	1.88%	\$56.69	N/A
(exempt, salaried)	\$177.29	N/C	01/01/19	12/31/19	1.75%	\$57.68	N/A
Allan Scott (Sacramento)	\$258.24	N/C	11/18/15	12/31/15	0.0%	\$84.02	N/A
Manager, Information Services	\$262.12	N/C	01/01/16	12/31/16	1.5%	\$85.28	N/A
Tracking and Data Management Lead,	\$266.05	N/C	01/01/17	12/31/17	1.5%	\$86.56	N/A
Storm Drain System Inventory Lead	\$271.05	N/C	01/01/18	12/31/18	1.88%	\$88.19	N/A
(exempt, salaried)	\$275.79	N/C	01/01/19	12/31/19	1.75%	\$89.73	N/A
Cabe Silverhame, PG, CPESC, QSD	\$164.56	N/C	11/18/15	12/31/15	0.0%	\$53.54	N/A
(Willits)	\$167.03	N/C	01/01/16	12/31/16	1.5%	\$54.34	N/A
Senior Geologist	\$169.53	N/C	01/01/17	12/31/17	1.5%	\$55.16	N/A
Construction, Enforcement and Prevention	\$172.72	N/C	01/01/18	12/31/18	1.88%	\$56.20	N/A
Assistance	\$175.74	N/C	01/01/19	12/31/19	1.75%	\$57.18	N/A
(exempt, salaried)							
Chris Wilfong, CPESC, QSD (Sacramento)	\$147.53	N/C	11/18/15	12/31/15	0.0%	\$48.00	N/A
Senior Scientist	\$149.74	N/C	01/01/16	12/31/16	1.5%	\$48.72	N/A
Enforcement and Prevention Assistance,	\$151.99	N/C	01/01/17	12/31/17	1.5%	\$49.45	N/A
Storm Drain System Inventory	\$154.85	N/C	01/01/18	12/31/18	1.88%	\$50.38	N/A
(exempt, salaried)	\$157.56	N/C	01/01/19	12/31/19	1.75%	\$51.26	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18
			FEE %	7.40%			

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Wellington Yee, CPESC, QSD (Davis)	\$189.95	N/C	11/18/15	12/31/15	0.0%	\$61.80	N/A
Supervising Scientist	\$192.80	N/C	01/01/16	12/31/16	1.5%	\$62.73	N/A
Enforcement and Prevention Assistance,	\$195.69	N/C	01/01/17	12/31/17	1.5%	\$63.67	N/A
Maintenance Lead, Encroachment and	\$199.37	N/C	01/01/18	12/31/18	1.88%	\$64.86	N/A
Right of Way, Storm Drain System Inventory (exempt, salaried)	\$202.86	N/C	01/01/19	12/31/19	1.75%	\$66.00	N/A
Chris Silva (Davis)	\$82.77	N/C	11/18/15	12/31/15	0.0%	\$26.93	N/A
Geologist I	\$84.01	N/C	01/01/16	12/31/16	1.5%	\$27.33	N/A
(exempt, salaried)	\$85.27	N/C	01/01/17	12/31/17	1.5%	\$27.74	N/A
Hired on 12/07/2015	\$86.88	N/C	01/01/18	12/31/18	1.88%	\$28.27	N/A
	\$88.40	N/C	01/01/19	12/31/19	1.75%	\$28.76	N/A
Stephanie Attaran (Walnut Creek)	\$79.05	N/C	11/18/15	12/31/15	0.0%	\$25.72	N/A
Marketing Coordinator I	\$80.24	N/C	01/01/16	12/31/16	1.5%	\$26.11	N/A
(exempt, salaried)	\$81.44	N/C	01/01/17	12/31/17	1.5%	\$26.50	N/A
	\$82.97	N/C	01/01/18	12/31/18	1.88%	\$27.00	N/A
	\$84.42	N/C	01/01/19	12/31/19	1.75%	\$27.47	N/A
Aubrie Koenig (Sacramento)	\$85.20	N/C	11/18/15	12/31/15	0.0%	\$27.72	N/A
Marketing Coordinator II	\$86.48	N/C	01/01/16	12/31/16	1.5%	\$28.14	N/A
(exempt, salaried)	\$87.77	N/C	01/01/17	12/31/17	1.5%	\$28.56	N/A
	\$89.42	N/C	01/01/18	12/31/18	1.88%	\$29.09	N/A
	\$90.99	N/C	01/01/19	12/31/19	1.75%	\$29.60	N/A
Michael Schmidt (Walnut Creek)	\$82.99	N/C	11/18/15	12/31/15	0.0%	\$27.00	N/A
Engineer I	\$84.23	N/C	01/01/16	12/31/16	1.5%	\$27.41	N/A
(exempt, salaried)	\$85.49	N/C	01/01/17	12/31/17	1.5%	\$27.82	N/A
	\$87.10	N/C	01/01/18	12/31/18	1.88%	\$28.34	N/A
	\$88.63	N/C	01/01/19	12/31/19	1.75%	\$28.83	N/A
Evan Greer (Walnut Creek)	\$116.86	N/C	11/18/15	12/31/15	0.0%	\$38.02	N/A
Engineer I	\$118.61	N/C	01/01/16	12/31/16	1.5%	\$38.59	N/A
(exempt, salaried)	\$120.39	N/C	01/01/17	12/31/17	1.5%	\$39.17	N/A
	\$122.65	N/C	01/01/18	12/31/18	1.88%	\$39.91	N/A
	\$124.80	N/C	01/01/19	12/31/19	1.75%	\$40.60	N/A
Colin Hoffman (Walnut Creek)	\$94.67	N/C	11/18/15	12/31/15	0.0%	\$30.80	N/A
Engineer I	\$96.09	N/C	01/01/16	12/31/16	1.5%	\$31.26	N/A
(exempt, salaried)	\$97.53	N/C	01/01/17	12/31/17	1.5%	\$31.73	N/A
	\$99.36	N/C	01/01/18	12/31/18	1.88%	\$32.33	N/A
	\$101.10	N/C	01/01/19	12/31/19	1.75%	\$32.89	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Kenneth Klittich, PE (Walnut Creek)	\$131.18	N/C	11/18/15	12/31/15	0.0%	\$42.68	N/A
Engineer III	\$133.15	N/C	01/01/16	12/31/16	1.5%	\$43.32	N/A
(exempt, salaried)	\$135.15	N/C	01/01/17	12/31/17	1.5%	\$43.97	N/A
	\$137.69	N/C	01/01/18	12/31/18	1.88%	\$44.80	N/A
	\$140.10	N/C	01/01/19	12/31/19	1.75%	\$45.58	N/A
Marvin Llave (Walnut Creek)	\$112.31	N/C	11/18/15	12/31/15	0.0%	\$36.54	N/A
Engineer I	\$113.99	N/C	01/01/16	12/31/16	1.5%	\$37.09	N/A
(exempt, salaried)	\$115.70	N/C	01/01/17	12/31/17	1.5%	\$37.64	N/A
	\$117.88	N/C	01/01/18	12/31/18	1.88%	\$38.35	N/A
	\$119.94	N/C	01/01/19	12/31/19	1.75%	\$39.02	N/A
Alison Nojima (Walnut Creek)	\$100.41	N/C	11/18/15	12/31/15	0.0%	\$32.67	N/A
Engineer I	\$101.92	N/C	01/01/16	12/31/16	1.5%	\$33.16	N/A
(exempt, salaried)	\$103.45	N/C	01/01/17	12/31/17	1.5%	\$33.66	N/A
	\$105.39	N/C	01/01/18	12/31/18	1.88%	\$34.29	N/A
	\$107.24	N/C	01/01/19	12/31/19	1.75%	\$34.89	N/A
Kelsi Oshiro (Walnut Creek)	\$97.00	N/C	11/18/15	12/31/15	0.0%	\$31.56	N/A
Engineer II	\$98.46	N/C	01/01/16	12/31/16	1.5%	\$32.03	N/A
(exempt, salaried)	\$99.93	N/C	01/01/17	12/31/17	1.5%	\$32.51	N/A
	\$101.81	N/C	01/01/18	12/31/18	1.88%	\$33.13	N/A
	\$103.59	N/C	01/01/19	12/31/19	1.75%	\$33.70	N/A
Zachary Partin (Walnut Creek)	\$111.54	N/C	11/18/15	12/31/15	0.0%	\$36.29	N/A
Engineer II	\$113.21	N/C	01/01/16	12/31/16	1.5%	\$36.83	N/A
(exempt, salaried)	\$114.91	N/C	01/01/17	12/31/17	1.5%	\$37.39	N/A
	\$117.07	N/C	01/01/18	12/31/18	1.88%	\$38.09	N/A
	\$119.12	N/C	01/01/19	12/31/19	1.75%	\$38.76	N/A
Mary Lou Romero Urbina (Walnut Creek)	\$89.38	N/C	11/18/15	12/31/15	0.0%	\$29.08	N/A
Engineer I	\$90.72	N/C	01/01/16	12/31/16	1.5%	\$29.52	N/A
(exempt, salaried)	\$92.08	N/C	01/01/17	12/31/17	1.5%	\$29.96	N/A
	\$93.81	N/C	01/01/18	12/31/18	1.88%	\$30.52	N/A
	\$95.45	N/C	01/01/19	12/31/19	1.75%	\$31.06	N/A
Elizabeth Velasco (Sacramento)	\$125.40	N/C	11/18/15	12/31/15	0.0%	\$40.80	N/A
Engineer III	\$127.28	N/C	01/01/16	12/31/16	1.5%	\$41.41	N/A
(exempt, salaried)	\$129.19	N/C	01/01/17	12/31/17	1.5%	\$42.03	N/A
	\$131.62	N/C	01/01/18	12/31/18	1.88%	\$42.82	N/A
	\$133.92	N/C	01/01/19	12/31/19	1.75%	\$43.57	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18
			FEE %	7.40%			

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Deanna Tanner (Walnut Creek)	\$93.16	\$93.16	11/18/15	12/31/15	0.0%	\$30.31	N/A
Word Processor IV	\$94.56	\$94.56	01/01/16	12/31/16	1.5%	\$30.76	N/A
(non-exempt)	\$95.98	\$95.98	01/01/17	12/31/17	1.5%	\$31.23	N/A
	\$97.78	\$97.78	01/01/18	12/31/18	1.88%	\$31.81	N/A
	\$99.49	\$99.49	01/01/19	12/31/19	1.75%	\$32.37	N/A
Yasmin Yadoo (Walnut Creek)	\$67.34	\$67.34	11/18/15	12/31/15	0.0%	\$21.91	N/A
Office/Support Services IV	\$68.35	\$68.35	01/01/16	12/31/16	1.5%	\$22.24	N/A
(non-exempt)	\$69.38	\$69.38	01/01/17	12/31/17	1.5%	\$22.57	N/A
	\$70.68	\$70.68	01/01/18	12/31/18	1.88%	\$23.00	N/A
	\$71.92	\$71.92	01/01/19	12/31/19	1.75%	\$23.40	N/A
Colin Casey (Sacramento)	\$95.93	N/C	11/18/15	12/31/15	0.0%	\$31.21	N/A
Engineer II	\$97.37	N/C	01/01/16	12/31/16	1.5%	\$31.68	N/A
(exempt, salaried)	\$98.83	N/C	01/01/17	12/31/17	1.5%	\$32.15	N/A
	\$100.68	N/C	01/01/18	12/31/18	1.88%	\$32.76	N/A
	\$102.45	N/C	01/01/19	12/31/19	1.75%	\$33.33	N/A
May Huang (Davis)	\$120.30	N/C	11/18/15	12/31/15	0.0%	\$39.14	N/A
Engineer III	\$122.10	N/C	01/01/16	12/31/16	1.5%	\$39.73	N/A
(exempt, salaried)	\$123.94	N/C	01/01/17	12/31/17	1.5%	\$40.32	N/A
	\$126.27	N/C	01/01/18	12/31/18	1.88%	\$41.08	N/A
	\$128.48	N/C	01/01/19	12/31/19	1.75%	\$41.80	N/A
Hiran Seshan (Walnut Creek)	\$110.83	N/C	11/18/15	12/31/15	0.0%	\$36.06	N/A
Engineer III	\$112.50	N/C	01/01/16	12/31/16	1.5%	\$36.60	N/A
(exempt, salaried)	\$114.18	N/C	01/01/17	12/31/17	1.5%	\$37.15	N/A
	\$116.33	N/C	01/01/18	12/31/18	1.88%	\$37.85	N/A
	\$118.37	N/C	01/01/19	12/31/19	1.75%	\$38.51	N/A
Quy (Mai) Phan (Sacramento)	\$84.52	\$84.52	11/18/15	12/31/15	0.0%	\$27.50	N/A
Project Analyst	\$85.79	\$85.79	01/01/16	12/31/16	1.5%	\$27.91	N/A
(non-exempt)	\$87.08	\$87.08	01/01/17	12/31/17	1.5%	\$28.33	N/A
	\$88.72	\$88.72	01/01/18	12/31/18	1.88%	\$28.86	N/A
	\$90.27	\$90.27	01/01/19	12/31/19	1.75%	\$29.37	N/A
Susan Sicora (Walnut Creek)	\$125.89	N/C	11/18/15	12/31/15	0.0%	\$40.96	N/A
Supervising Illustrator	\$127.78	N/C	01/01/16	12/31/16	1.5%	\$41.57	N/A
(exempt, salaried)	\$129.70	N/C	01/01/17	12/31/17	1.5%	\$42.20	N/A
	\$132.14	N/C	01/01/18	12/31/18	1.88%	\$42.99	N/A
	\$134.45	N/C	01/01/19	12/31/19	1.75%	\$43.74	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	128.71	+	18.01	=	186.18
OVERTIME	39.46	+	128.71	+	18.01	=	186.18

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Dawn Schock (Sacramento)	\$83.60	\$83.60	11/18/15	12/31/15	0.0%	\$27.20	N/A
Word Processor IV	\$84.86	\$84.86	01/01/16	12/31/16	1.5%	\$27.61	N/A
(non-exempt)	\$86.13	\$86.13	01/01/17	12/31/17	1.5%	\$28.02	N/A
	\$87.75	\$87.75	01/01/18	12/31/18	1.88%	\$28.55	N/A
	\$89.28	\$89.28	01/01/18	12/31/19	1.75%	\$29.05	N/A
Iris Uresti (Davis)	\$94.82	\$94.82	11/18/15	12/31/15	0.0%	\$30.85	N/A
Word Processor IV	\$96.24	\$96.24	01/01/16	12/31/16	1.5%	\$31.31	N/A
(non-exempt)	\$97.69	\$97.69	01/01/17	12/31/17	1.5%	\$31.78	N/A
	\$99.52	\$99.52	01/01/18	12/31/18	1.88%	\$32.38	N/A
	\$101.26	\$101.26	01/01/18	12/31/19	1.75%	\$32.95	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
Part-time plus - NORMAL/OT	26.66	+	128.71	+	18.01	=	173.38
Part-time minus - OVERTIME/OT	12.07	+	128.71	+	18.01	=	158.79
	FEE % 7.40%						

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
David Lightle, CPESC (Walnut Creek)	\$125.07	\$125.07	11/18/15	12/31/15	0.0%	\$45.00	N/A
Principal Scientist	\$126.95	\$126.95	01/01/16	12/31/16	1.5%	\$45.68	N/A
Water Quality Assistance and Compliance	\$128.85	\$126.95	01/01/17	12/31/17	1.5%	\$46.36	N/A
(part-time minus, hourly)	\$131.28	\$131.28	01/01/18	12/31/18	1.88%	\$47.23	N/A
	\$133.57	\$133.57	01/01/19	12/31/19	1.75%	\$48.06	N/A
Monica Morris (Willits)	N/C	N/C	11/18/15	12/31/15	0.0%	N/A	N/A
Senior Scientist	\$117.44	\$117.44	01/01/16	12/31/16	1.5%	\$40.00	N/A
(part-time plus, hourly)	\$119.21	\$119.21	01/01/17	12/31/17	1.5%	\$40.60	N/A
Hired on 2/12/16	\$121.45	\$121.45	01/01/18	12/31/18	1.88%	\$41.36	N/A
	\$123.57	\$123.57	01/01/19	12/31/19	1.75%	\$42.09	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	39.46	+	103.60	+	19.62	=	162.68
OVERTIME	39.46	+	103.60	+	19.62	=	162.68

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Ralph Dodge (Sunnyvale)	\$176.27	N/C	11/18/15	12/31/15	0.0%	\$62.48	N/A
Supervising Scientist	\$178.91	N/C	01/01/16	12/31/16	1.5%	\$63.42	N/A
Construction	\$181.60	N/C	01/01/17	12/31/17	1.5%	\$64.37	N/A
(exempt, salaried)	\$185.01	N/C	01/01/18	12/31/18	1.88%	\$65.58	N/A
	\$188.25	N/C	01/01/19	12/31/19	1.75%	\$66.73	N/A
Sayra Hurley, PE, QSD (Sacramento)	\$153.78	N/C	11/18/15	12/31/15	0.0%	\$54.51	N/A
Principal Engineer	\$156.09	N/C	01/01/16	12/31/16	1.5%	\$55.33	N/A
Task Order Manager, Encroachment and	\$158.43	N/C	01/01/17	12/31/17	1.5%	\$56.16	N/A
Right of Way Lead	\$161.41	N/C	01/01/18	12/31/18	1.88%	\$57.21	N/A
(exempt, salaried)	\$164.23	N/C	01/01/19	12/31/19	1.75%	\$58.21	N/A
Chris Knoche, PG, QSD (Walnut Creek)	\$170.88	N/C	11/18/15	12/31/15	0.0%	\$60.57	N/A
Principal Scientist	\$173.44	N/C	01/01/16	12/31/16	1.5%	\$61.48	N/A
Construction, Enforcement and Prevention	\$176.04	N/C	01/01/17	12/31/17	1.5%	\$62.40	N/A
Assistance	\$179.35	N/C	01/01/18	12/31/18	1.88%	\$63.57	N/A
(exempt, salaried)	\$182.49	N/C	01/01/19	12/31/19	1.75%	\$64.69	N/A
David Korfas, CPESC, QSD, ToR	\$182.02	N/C	11/18/15	12/31/15	0.0%	\$64.52	N/A
(Sacramento)	\$184.75	N/C	01/01/16	12/31/16	1.5%	\$65.49	N/A
Supervising Scientist	\$187.52	N/C	01/01/17	12/31/17	1.5%	\$66.47	N/A
Construction Lead, Enforcement and	\$191.05	N/C	01/01/18	12/31/18	1.88%	\$67.72	N/A
Prevention Assistance, Encroachment	\$194.39	N/C	01/01/19	12/31/19	1.75%	\$68.90	N/A
and Right of Way							
(exempt, salaried)							
Cabe Silverhame, PG, CPESC, QSD (Willits)	\$151.05	N/C	11/18/15	12/31/15	0.0%	\$53.54	N/A
Senior Geologist	\$153.31	N/C	01/01/16	12/31/16	1.5%	\$54.34	N/A
Construction, Enforcement and	\$155.61	N/C	01/01/17	12/31/17	1.5%	\$55.16	N/A
Prevention Assistance	\$158.54	N/C	01/01/18	12/31/18	1.88%	\$56.20	N/A
(exempt, salaried)	\$161.31	N/C	01/01/19	12/31/19	1.75%	\$57.18	N/A
Chris Wilfong, CPESC, QSD (Sacramento)	\$135.42	N/C	11/18/15	12/31/15	0.0%	\$48.00	N/A
Senior Scientist	\$137.45	N/C	01/01/16	12/31/16	1.5%	\$48.72	N/A
Enforcement and Prevention Assistance,	\$139.51	N/C	01/01/17	12/31/17	1.5%	\$49.45	N/A
Storm Drain System Inventory	\$142.13	N/C	01/01/18	12/31/18	1.88%	\$50.38	N/A
(exempt, salaried)	\$144.62	N/C	01/01/19	12/31/19	1.75%	\$51.26	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	22.31	+	80.45	+	19.72	=	122.48
OVERTIME	0.00	+	0.00	+	0.00	=	0.00

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Christian Kocher (Soquel)	\$137.85	N/C	11/18/15	12/31/15	0.0%	\$57.69	N/A
Senior Scientist	\$139.91	N/C	01/01/16	12/31/16	1.5%	\$58.56	N/A
Water Quality Assistance and Compliance	\$142.01	N/C	01/01/17	12/31/17	1.5%	\$59.43	N/A
(exempt, salaried)	\$144.68	N/C	01/01/18	12/31/18	1.88%	\$60.55	N/A
	\$147.21	N/C	01/01/19	12/31/19	1.75%	\$61.61	N/A
Kevin Lewis, CESSWI, QSP (Soquel)	\$74.67	N/C	11/18/15	12/31/15	0.0%	\$31.25	N/A
Senior Staff Scientist	\$75.79	N/C	01/01/16	12/31/16	1.5%	\$31.72	N/A
Water Quality Assistance and Compliance	\$76.93	N/C	01/01/17	12/31/17	1.5%	\$32.19	N/A
(exempt, salaried)	\$78.37	N/C	01/01/18	12/31/18	1.88%	\$32.80	N/A
	\$79.74	N/C	01/01/19	12/31/19	1.75%	\$33.37	N/A
Calvin Sandlin, CESSWI, QSP (Soquel)	\$74.67	N/C	11/18/15	12/31/15	0.0%	\$31.25	N/A
Senior Staff Scientist	\$75.79	N/C	01/01/16	12/31/16	1.5%	\$31.72	N/A
Storm Drain System Inventory	\$76.93	N/C	01/01/17	12/31/17	1.5%	\$32.19	N/A
(exempt, salaried)	\$78.37	N/C	01/01/18	12/31/18	1.88%	\$32.80	N/A
	\$79.74	N/C	01/01/19	12/31/19	1.75%	\$33.37	N/A
Catherine Dobbins (Soquel)	\$72.38	N/C	11/18/15	12/31/15	0.0%	\$30.29	N/A
Project Direct Support III	\$73.46	N/C	01/01/16	12/31/16	1.5%	\$30.74	N/A
Support Staff	\$74.56	N/C	01/01/17	12/31/17	1.5%	\$31.21	N/A
(exempt, salaried)	\$75.97	N/C	01/01/18	12/31/18	1.88%	\$31.79	N/A
	\$77.29	N/C	01/01/19	12/31/19	1.75%	\$32.35	N/A
Bradley Haeger (Soquel)	\$68.10	\$87.25	11/18/15	12/31/15	0.0%	\$28.50	N/A
Senior Staff Scientist II	\$69.12	\$88.56	01/01/16	12/31/16	1.5%	\$28.93	N/A
Water Quality Assistance and Compliance	\$70.16	\$89.89	01/01/17	12/31/17	1.5%	\$29.36	N/A
(non-exempt, hourly)	\$71.48	\$91.58	01/01/18	12/31/18	1.88%	\$29.91	N/A
	\$72.73	\$93.18	01/01/19	12/31/19	1.75%	\$30.44	N/A
Anjuli Hansen (Soquel)	\$39.43	\$50.51	11/18/15	12/31/15	0.0%	\$16.50	N/A
Project Direct Support I	\$40.02	\$51.27	01/01/16	12/31/16	1.5%	\$16.75	N/A
Support Staff	\$40.62	\$52.04	01/01/17	12/31/17	1.5%	\$17.00	N/A
(non-exempt, hourly)	\$41.38	\$53.02	01/01/18	12/31/18	1.88%	\$17.32	N/A
	\$42.11	\$53.95	01/01/19	12/31/19	1.75%	\$17.62	N/A
Alessandro Hnatt (Soquel)	\$160.83	N/C	11/18/15	12/31/15	0.0%	\$67.31	N/A
Senior Scientist/President	\$163.25	N/C	01/01/16	12/31/16	1.5%	\$68.32	N/A
Assistant Task Order Manager	\$165.69	N/C	01/01/17	12/31/17	1.5%	\$69.34	N/A
(exempt, salaried)	\$168.81	N/C	01/01/18	12/31/18	1.88%	\$70.65	N/A
	\$171.76	N/C	01/01/19	12/31/19	1.75%	\$71.88	N/A

* = For full-time employees, OT = Loaded Straight + Actual + Actual (.172)

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	22.31	+	80.45	+	19.72	=	122.48
OVERTIME	0.00	+	0.00	+	0.00	=	0.00

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Steen Trump (McKinleyville)	\$89.03	N/C	11/18/15	12/31/15	0.0%	\$37.26	N/A
Senior Scientist/Regional Manager	\$90.37	N/C	01/01/16	12/31/16	1.5%	\$37.82	N/A
Task Order Manager	\$91.72	N/C	01/01/17	12/31/17	1.5%	\$38.39	N/A
(exempt, salaried)	\$93.45	N/C	01/01/18	12/31/18	1.88%	\$39.11	N/A
	\$95.08	N/C	01/01/19	12/31/19	1.75%	\$39.79	N/A
Alaya Vautier (Soquel)	\$65.71	\$84.19	11/18/15	12/31/15	0.0%	\$27.50	N/A
Staff Scientist	\$66.70	\$85.45	01/01/16	12/31/16	1.5%	\$27.91	N/A
Support Staff	\$67.70	\$86.73	01/01/17	12/31/17	1.5%	\$28.33	N/A
(exempt, salaried)	\$68.97	\$88.36	01/01/18	12/31/18	1.88%	\$28.86	N/A
	\$70.18	\$89.91	01/01/19	12/31/19	1.75%	\$29.37	N/A
Peter Wilde (Soquel)	\$94.77	N/C	11/18/15	12/31/15	0.0%	\$39.66	N/A
Senior Scientist/Assistant Vice President	\$96.19	N/C	01/01/16	12/31/16	1.5%	\$40.25	N/A
Data Management and Analysis	\$97.63	N/C	01/01/17	12/31/17	1.5%	\$40.86	N/A
(exempt, salaried)	\$99.46	N/C	01/01/18	12/31/18	1.88%	\$41.63	N/A
	\$101.21	N/C	01/01/19	12/31/19	1.75%	\$42.36	N/A
Roger Cansler (Willits)	\$83.30	N/C	11/18/15	12/31/15	0.0%	\$34.86	N/A
Senior Staff Scientist II	\$84.55	N/C	01/01/16	12/31/16	1.5%	\$35.38	N/A
Water Quality Assistance and Compliance	\$85.81	N/C	01/01/17	12/31/17	1.5%	\$35.91	N/A
(exempt, salaried)	\$87.43	N/C	01/01/18	12/31/18	1.88%	\$36.59	N/A
	\$88.96	N/C	01/01/19	12/31/19	1.75%	\$37.23	N/A

* = For full-time employees, OT = Loaded Straight + Actual + Actual (.172)

2

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	80.45	+	19.72	=	100.17
OVERTIME	0.00	+	0.00	+	0.00	=	0.00

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Travis Deem, CPESC, QSD (Soquel)	\$85.99	\$112.87	11/18/15	12/31/15	0.0%	\$40.00	N/A
Senior Scientist	\$87.28	\$114.57	01/01/16	12/31/16	1.5%	\$40.60	N/A
Construction	\$88.59	\$116.28	01/01/17	12/31/17	1.5%	\$41.21	N/A
(non-exempt, hourly)	\$90.26	\$118.47	01/01/18	12/31/18	1.88%	\$41.98	N/A
	\$91.84	\$120.54	01/01/19	12/31/19	1.75%	\$42.72	N/A
Armand Ruby (Soquel)	\$182.74	N/C	11/18/15	12/31/15	0.0%	\$85.00	N/A
Senior Scientist	\$185.48	N/C	01/01/16	12/31/16	1.5%	\$86.28	N/A
Water Quality Assistance and Compliance	\$188.26	N/C	01/01/17	12/31/17	1.5%	\$87.57	N/A
(non-exempt, hourly)	\$191.80	N/C	01/01/18	12/31/18	1.88%	\$89.22	N/A
	\$195.15	N/C	01/01/19	12/31/19	1.75%	\$90.78	N/A
Lucas Aldinger (Sacramento)	\$51.60	\$67.72	11/18/15	12/31/15	0.0%	\$24.00	N/A
Staff Scientist I	\$52.37	\$68.74	01/01/16	12/31/16	1.5%	\$24.36	N/A
Support Staff	\$53.16	\$69.77	01/01/17	12/31/17	1.5%	\$24.73	N/A
(non-exempt, hourly)	\$54.15	\$71.08	01/01/18	12/31/18	1.88%	\$25.19	N/A
	\$55.10	\$72.33	01/01/19	12/31/19	1.75%	\$25.63	N/A
Christopher Atkins (Santa Rosa)	\$43.00	\$56.44	11/18/15	12/31/15	0.0%	\$20.00	N/A
Field Technician II	\$43.64	\$57.28	01/01/16	12/31/16	1.5%	\$20.30	N/A
Support Staff	\$44.30	\$58.14	01/01/17	12/31/17	1.5%	\$20.60	N/A
(non-exempt, hourly)	\$45.13	\$59.24	01/01/18	12/31/18	1.88%	\$20.99	N/A
	\$45.92	\$60.27	01/01/19	12/31/19	1.75%	\$21.36	N/A
Derek Bond (McKinleyville)	\$43.00	\$56.44	11/18/15	12/31/15	0.0%	\$20.00	N/A
Field Technician II	\$43.64	\$57.28	01/01/16	12/31/16	1.5%	\$20.30	N/A
Support Staff	\$44.30	\$58.14	01/01/17	12/31/17	1.5%	\$20.60	N/A
(non-exempt, hourly)	\$45.13	\$59.24	01/01/18	12/31/18	1.88%	\$20.99	N/A
	\$45.92	\$60.27	01/01/19	12/31/19	1.75%	\$21.36	N/A
Bryan Atkinson (McKinleyville)	\$51.60	\$67.72	11/18/15	12/31/15	0.0%	\$24.00	N/A
Field Scientist II	\$52.37	\$68.74	01/01/16	12/31/16	1.5%	\$24.36	N/A
Support Staff	\$53.16	\$69.77	01/01/17	12/31/17	1.5%	\$24.73	N/A
(non-exempt, hourly)	\$54.15	\$71.08	01/01/18	12/31/18	1.88%	\$25.19	N/A
	\$55.10	\$72.33	01/01/19	12/31/19	1.75%	\$25.63	N/A
Tamara Trump (McKinleyville)	\$37.62	\$49.38	11/18/15	12/31/15	0.0%	\$17.50	N/A
Field Technician I	\$38.19	\$50.12	01/01/16	12/31/16	1.5%	\$17.76	N/A
Support Staff	\$38.76	\$50.87	01/01/17	12/31/17	1.5%	\$18.03	N/A
(non-exempt, hourly)	\$39.49	\$51.83	01/01/18	12/31/18	1.88%	\$18.37	N/A
	\$40.18	\$52.74	01/01/19	12/31/19	1.75%	\$18.69	N/A

* = For part-time employees, OT = Loaded Straight + $\frac{\text{Actual} + \text{Actual} (.172)}{2}$

2

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	80.45	+	19.72	=	100.17
OVERTIME	0.00	+	0.00	+	0.00	=	0.00

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Adam Wainscoat (Truckee)	\$47.30	\$62.08	11/18/15	12/31/15	0.0%	\$22.00	N/A
Field Specialist I	\$48.01	\$63.01	01/01/16	12/31/16	1.5%	\$22.33	N/A
Support Staff	\$48.73	\$63.96	01/01/17	12/31/17	1.5%	\$22.66	N/A
(non-exempt, hourly)	\$49.64	\$65.16	01/01/18	12/31/18	1.88%	\$23.09	N/A
	\$50.51	\$66.30	01/01/19	12/31/19	1.75%	\$23.50	N/A
Nathan Ruby (Soquel)	\$47.30	\$62.08	11/18/15	12/31/15	0.0%	\$22.00	N/A
Field Specialist I	\$48.01	\$63.01	01/01/16	12/31/16	1.5%	\$22.33	N/A
Support Staff	\$48.73	\$63.96	01/01/17	12/31/17	1.5%	\$22.66	N/A
(non-exempt, hourly)	\$49.64	\$65.16	01/01/18	12/31/18	1.88%	\$23.09	N/A
	\$50.51	\$66.30	01/01/19	12/31/19	1.75%	\$23.50	N/A
Larry Soll (McKinleyville)	\$47.30	\$62.08	11/18/15	12/31/15	0.0%	\$22.00	N/A
Field Scientist II	\$48.01	\$63.01	01/01/16	12/31/16	1.5%	\$22.33	N/A
Support Staff	\$48.73	\$63.96	01/01/17	12/31/17	1.5%	\$22.66	N/A
non-exempt, hourly	\$49.64	\$65.16	01/01/18	12/31/18	1.88%	\$23.09	N/A
	\$50.51	\$66.30	01/01/19	12/31/19	1.75%	\$23.50	N/A

* = For part-time employees, OT = Loaded Straight + $\frac{\text{Actual} + \text{Actual} (.172)}{2}$

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	160.00	+	0.00	=	160.00
OVERTIME	0.00	+	160.00	+	0.00	=	160.00

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Khalil Abusaba, PhD (Oakland)	\$211.02	N/C	11/18/15	12/31/15	0.0%	\$75.57	N/A
Senior Associate Scientist	\$214.19	N/C	01/01/16	12/31/16	1.5%	\$76.70	N/A
Water Quality Assistance and Compliance	\$217.40	N/C	01/01/17	12/31/17	1.5%	\$77.85	N/A
(exempt, salaried)	\$221.49	N/C	01/01/18	12/31/18	1.88%	\$79.32	N/A
	\$225.36	N/C	01/01/19	12/31/19	1.75%	\$80.71	N/A
Brad Dickson (Oakland)	\$170.50	N/C	11/18/15	12/31/15	0.0%	\$61.06	N/A
Associate Engineer - Environmental	\$173.06	N/C	01/01/16	12/31/16	1.5%	\$61.98	N/A
Enforcement and Prevention Assistance,	\$175.66	N/C	01/01/17	12/31/17	1.5%	\$62.91	N/A
Maintenance	\$178.96	N/C	01/01/18	12/31/18	1.88%	\$64.09	N/A
(exempt, salaried)	\$182.09	N/C	01/01/19	12/31/19	1.75%	\$65.21	N/A
James Honniball, CPESC, QSD, ToR (Oakland)	\$136.83	N/C	11/18/15	12/31/15	0.0%	\$49.00	N/A
Associate Scientist - Environmental	\$138.88	N/C	01/01/16	12/31/16	1.5%	\$49.74	N/A
Water Quality Assistance and Compliance	\$140.96	N/C	01/01/17	12/31/17	1.5%	\$50.48	N/A
(exempt, salaried)	\$143.61	N/C	01/01/18	12/31/18	1.88%	\$51.43	N/A
	\$146.13	N/C	01/01/19	12/31/19	1.75%	\$52.33	N/A
Emily Sportsman, PGeo (Oakland)	\$138.25	N/C	11/18/15	12/31/15	0.0%	\$49.51	N/A
Senior 1 Geochemist	\$140.33	N/C	01/01/16	12/31/16	1.5%	\$50.25	N/A
Water Quality Assistance and Compliance	\$142.43	N/C	01/01/17	12/31/17	1.5%	\$51.01	N/A
(exempt, salaried)	\$145.11	N/C	01/01/18	12/31/18	1.88%	\$51.97	N/A
	\$147.65	N/C	01/01/19	12/31/19	1.75%	\$52.87	N/A
Micah Swann (Oakland)	\$69.00	\$81.36	11/18/15	12/31/15	0.0%	\$24.71	N/A
Technical Professional - Geologist	\$70.04	\$82.58	01/01/16	12/31/16	1.5%	\$25.08	N/A
Water Quality Assistance and Compliance	\$71.09	\$83.81	01/01/17	12/31/17	1.5%	\$25.46	N/A
(non-exempt, hourly)	\$72.42	\$85.39	01/01/18	12/31/18	1.88%	\$25.94	N/A
	\$73.69	\$86.88	01/01/19	12/31/19	1.75%	\$26.39	N/A
Michael S. Barnes (Oakland)	\$145.62	N/C	11/18/15	12/31/15	0.0%	\$52.15	N/A
Associate Scientist - Environmental	\$147.81	N/C	01/01/16	12/31/16	1.5%	\$52.93	N/A
Support Staff	\$150.03	N/C	01/01/17	12/31/17	1.5%	\$53.73	N/A
(exempt, salaried)	\$152.85	N/C	01/01/18	12/31/18	1.88%	\$54.74	N/A
	\$155.52	N/C	01/01/19	12/31/19	1.75%	\$55.69	N/A
Darryl M Berberi-Hill (Oakland)	\$73.83	\$87.05	11/18/15	12/31/15	0.0%	\$26.44	N/A
Tech Prof 1 - Geology	\$74.94	\$88.36	01/01/16	12/31/16	1.5%	\$26.84	N/A
Technician	\$76.06	\$89.68	01/01/17	12/31/17	1.5%	\$27.24	N/A
(non-exempt, hourly)	\$77.49	\$91.37	01/01/18	12/31/18	1.88%	\$27.75	N/A
	\$78.85	\$92.97	01/01/19	12/31/19	1.75%	\$28.24	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	160.00	+	0.00	=	160.00
OVERTIME	0.00	+	160.00	+	0.00	=	160.00

FEE % 7.40%

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Robert J. Godfrey (Oakland)	\$77.88	\$91.83	11/18/15	12/31/15	0.0%	\$27.89	N/A
Tech Prof 1 - Environmental Engineer	\$79.05	\$93.20	01/01/16	12/31/16	1.5%	\$28.31	N/A
Technician	\$80.23	\$94.60	01/01/17	12/31/17	1.5%	\$28.73	N/A
(non-exempt, hourly)	\$81.74	\$96.38	01/01/18	12/31/18	1.88%	\$29.27	N/A
	\$83.17	\$98.07	01/01/19	12/31/19	1.75%	\$29.79	N/A
Stephen Korbay Jr. (Petaluma)	\$91.95	N/C	11/18/15	12/31/15	0.0%	\$32.93	N/A
Tech Prof 3 - Environmental	\$93.33	N/C	01/01/16	12/31/16	1.5%	\$33.42	N/A
Technician	\$94.73	N/C	01/01/17	12/31/17	1.5%	\$33.93	N/A
(exempt, part-time)	\$96.51	N/C	01/01/18	12/31/18	1.88%	\$34.56	N/A
	\$98.20	N/C	01/01/19	12/31/19	1.75%	\$35.17	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	40.00	+	50.00	+	60.00	=	150.00
OVERTIME	0.00	+	0.00	+	0.00	=	0.00
			FEE %	7.40%			

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Chris Bowles, PhD, PE (West Sacramento)	\$193.64	N/C	11/18/15	12/31/15	0.0%	\$72.12	N/A
President	\$196.55	N/C	01/01/16	12/31/16	1.5%	\$73.20	N/A
Water Quality Assistance and Compliance	\$199.50	N/C	01/01/17	12/31/17	1.5%	\$74.30	N/A
(exempt, salaried)	\$203.25	N/C	01/01/18	12/31/18	1.88%	\$75.70	N/A
	\$206.80	N/C	01/01/19	12/31/19	1.75%	\$77.02	N/A
Chris Campbell (West Sacramento)	\$167.81	N/C	11/18/15	12/31/15	0.0%	\$62.50	N/A
Director	\$170.33	N/C	01/01/16	12/31/16	1.5%	\$63.44	N/A
Water Quality Assistance and Compliance	\$172.88	N/C	01/01/17	12/31/17	1.5%	\$64.39	N/A
(exempt, salaried)	\$176.13	N/C	01/01/18	12/31/18	1.88%	\$65.60	N/A
	\$179.22	N/C	01/01/19	12/31/19	1.75%	\$66.75	N/A
Kevin Coulton, PE (West Sacramento)	\$174.87	N/C	11/18/15	12/31/15	0.0%	\$65.13	N/A
Senior Eco-Engineer II	\$177.50	N/C	01/01/16	12/31/16	1.5%	\$66.11	N/A
Water Quality Assistance and Compliance	\$180.16	N/C	01/01/17	12/31/17	1.5%	\$67.10	N/A
(exempt, salaried)	\$183.55	N/C	01/01/18	12/31/18	1.88%	\$68.36	N/A
	\$186.76	N/C	01/01/19	12/31/19	1.75%	\$69.56	N/A
F. Douglas Shields, Jr, PhD, PE (West Sacramento)	\$233.60	N/C	11/18/15	12/31/15	0.0%	\$87.00	N/A
Senior Scientific Advisor	\$237.10	N/C	01/01/16	12/31/16	1.5%	\$88.31	N/A
Water Quality Assistance and Compliance	\$240.66	N/C	01/01/17	12/31/17	1.5%	\$89.63	N/A
(exempt, salaried)	\$245.18	N/C	01/01/18	12/31/18	1.88%	\$91.31	N/A
	\$249.47	N/C	01/01/19	12/31/19	1.75%	\$92.91	N/A
Sam Diaz, PE (West Sacramento)	\$125.20	N/C	11/18/15	12/31/15	0.0%	\$46.63	N/A
Senior Eco-Engineer I	\$127.08	N/C	01/01/16	12/31/16	1.5%	\$47.33	N/A
Water Quality Assistance and Compliance	\$128.99	N/C	01/01/17	12/31/17	1.5%	\$48.04	N/A
(exempt, salaried)	\$131.41	N/C	01/01/18	12/31/18	1.88%	\$48.94	N/A
	\$133.71	N/C	01/01/19	12/31/19	1.75%	\$49.80	N/A
Sridhar Ponangi, PE (West Sacramento)	\$120.21	N/C	11/18/15	12/31/15	0.0%	\$44.77	N/A
Senior Eco-Engineer I	\$122.01	N/C	01/01/16	12/31/16	1.5%	\$45.44	N/A
Water Quality Assistance and Compliance	\$123.84	N/C	01/01/17	12/31/17	1.5%	\$46.12	N/A
(exempt, salaried)	\$126.17	N/C	01/01/18	12/31/18	1.88%	\$46.99	N/A
	\$128.38	N/C	01/01/19	12/31/19	1.75%	\$47.81	N/A
William L'Hommedieu (West Sacramento)	\$69.70	N/C	11/18/15	12/31/15	0.0%	\$25.96	N/A
Eco-Hydrologist I	\$70.75	N/C	01/01/16	12/31/16	1.5%	\$26.35	N/A
Water Quality Assistance and Compliance	\$71.81	N/C	01/01/17	12/31/17	1.5%	\$26.74	N/A
(exempt, salaried)	\$73.16	N/C	01/01/18	12/31/18	1.88%	\$27.25	N/A
	\$74.44	N/C	01/01/19	12/31/19	1.75%	\$27.72	N/A
Rafael Rodriguez (West Sacramento)	\$58.08	N/C	11/18/15	12/31/15	0.0%	\$21.63	N/A
Eco-Hydrologist I	\$58.95	N/C	01/01/16	12/31/16	1.5%	\$21.95	N/A
Water Quality Assistance and Compliance	\$59.83	N/C	01/01/17	12/31/17	1.5%	\$22.28	N/A
(exempt, salaried)	\$60.96	N/C	01/01/18	12/31/18	1.88%	\$22.70	N/A
	\$62.02	N/C	01/01/19	12/31/19	1.75%	\$23.10	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	29.36	+	108.71	+	0.00	=	138.07
OVERTIME	0.00	+	0.00	+	0.00	=	0.00
			FEE %	7.40%			

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Duncan Geddes, QSD/QSP (San Francisco)	\$120.61	N/C	11/18/15	12/31/15	0.0%	\$47.17	N/A
Stormwater Compliance Inspector	\$122.42	N/C	01/01/16	12/31/16	1.5%	\$47.88	N/A
Enforcement and Prevention Assistance	\$124.25	N/C	01/01/17	12/31/17	1.5%	\$48.60	N/A
(non-exempt, hourly)	\$126.59	N/C	01/01/18	12/31/18	1.88%	\$49.51	N/A
	\$128.80	N/C	01/01/19	12/31/19	1.75%	\$50.38	N/A
Wynn Jason (WJ) Paculba (Willits)	\$94.60	N/C	11/18/15	12/31/15	0.0%	\$37.00	N/A
Senior Environmental Technician	\$96.02	N/C	01/01/16	12/31/16	1.5%	\$37.56	N/A
Storm Water Compliance Technician	\$97.46	N/C	01/01/17	12/31/17	1.5%	\$38.12	N/A
(non-exempt, hourly)	\$99.30	N/C	01/01/18	12/31/18	1.88%	\$38.83	N/A
	\$101.03	N/C	01/01/19	12/31/19	1.75%	\$39.51	N/A
David Koffman (San Francisco)	\$115.06	N/C	11/18/15	12/31/15	0.0%	\$45.00	N/A
Storm Water Compliance Technician	\$116.79	N/C	01/01/16	12/31/16	1.5%	\$45.68	N/A
Stormwater Compliance Inspector	\$118.54	N/C	01/01/17	12/31/17	1.5%	\$46.36	N/A
(non-exempt, hourly)	\$120.77	N/C	01/01/18	12/31/18	1.88%	\$47.23	N/A
	\$122.88	N/C	01/01/19	12/31/19	1.75%	\$48.06	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	98.00	+	0.00	+	0.00	=	98.00
OVERTIME	98.00	+	0.00	+	0.00	=	98.00
			FEE %	7.40%			

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Matthew McKamey, PE QSD (Santa Rosa)	\$180.75	N/C	11/18/15	12/31/15	0.0%	\$85.00	N/A
Principal Engineer	\$183.47	N/C	01/01/16	12/31/16	1.5%	\$86.28	N/A
Construction	\$186.22	N/C	01/01/17	12/31/17	1.5%	\$87.57	N/A
(exempt, salaried)	\$189.72	N/C	01/01/18	12/31/18	1.88%	\$89.22	N/A
	\$193.04	N/C	01/01/19	12/31/19	1.75%	\$90.78	N/A
Michael McKamey, PE QSD (Santa Rosa)	\$170.12	N/C	11/18/15	12/31/15	0.0%	\$80.00	N/A
Construction Coordinator	\$172.67	N/C	01/01/16	12/31/16	1.5%	\$81.20	N/A
Construction	\$175.26	N/C	01/01/17	12/31/17	1.5%	\$82.42	N/A
(exempt, salaried)	\$178.56	N/C	01/01/18	12/31/18	1.88%	\$83.97	N/A
	\$181.68	N/C	01/01/19	12/31/19	1.75%	\$85.44	N/A
Lonnie Wise (Santa Rosa)	\$116.96	N/C	11/18/15	12/31/15	0.0%	\$55.00	N/A
Engineering Technician	\$118.71	N/C	01/01/16	12/31/16	1.5%	\$55.83	N/A
Construction	\$120.49	N/C	01/01/17	12/31/17	1.5%	\$56.66	N/A
(exempt, salaried)	\$122.76	N/C	01/01/18	12/31/18	1.88%	\$57.73	N/A
	\$124.91	N/C	01/01/19	12/31/19	1.75%	\$58.74	N/A
Dorcas Wheeler (Santa Rosa)	\$63.80	N/C	11/18/15	12/31/15	0.0%	\$30.00	N/A
Part-time Administrative	\$64.75	N/C	01/01/16	12/31/16	1.5%	\$30.45	N/A
Project Coordinator	\$65.72	N/C	01/01/17	12/31/17	1.5%	\$30.91	N/A
(non-exempt, part-time)	\$66.96	N/C	01/01/18	12/31/18	1.88%	\$31.49	N/A
	\$68.13	N/C	01/01/19	12/31/19	1.75%	\$32.04	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	N/A	+	N/A	+	N/A	=	121.00
OVERTIME	N/A	+	N/A	+	N/A	=	121.00
	FEE %		7.40%				

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Jorge Beltran, PE, QSD (Sacramento)	\$101.33	N/C	11/18/15	12/31/15	0.0%	\$42.69	N/A
Water Resources Engineer, Hydrologist, GIS	\$102.85	N/C	01/01/16	12/31/16	1.5%	\$43.33	N/A
Enforcement and Prevention Assistance	\$104.39	N/C	01/01/17	12/31/17	1.5%	\$43.98	N/A
(exempt, salaried)	\$106.35	N/C	01/01/18	12/31/18	1.88%	\$44.81	N/A
	\$108.21	N/C	01/01/19	12/31/19	1.75%	\$45.59	N/A
Douglas Wathen, CESSWI, QSD (Sacramento)	\$58.86	N/C	11/18/15	12/31/15	0.0%	\$24.80	N/A
Water Quality Monitor/Field Stormwater Inspector	\$59.75	N/C	01/01/16	12/31/16	1.5%	\$25.17	N/A
Construction	\$60.64	N/C	01/01/17	12/31/17	1.5%	\$25.55	N/A
(exempt, salaried)	\$61.78	N/C	01/01/18	12/31/18	1.88%	\$26.03	N/A
	\$62.86	N/C	01/01/19	12/31/19	1.75%	\$26.49	N/A
Michael Wathen, CPESC, CESSWI, QSD (Sacramento)	\$116.37	N/C	11/18/15	12/31/15	0.0%	\$49.03	N/A
Water Quality Monitor/Field Stormwater Inspector	\$118.12	N/C	01/01/16	12/31/16	1.5%	\$49.77	N/A
Construction	\$119.89	N/C	01/01/17	12/31/17	1.5%	\$50.51	N/A
(exempt, salaried)	\$122.15	N/C	01/01/18	12/31/18	1.88%	\$51.46	N/A
	\$124.28	N/C	01/01/19	12/31/19	1.75%	\$52.36	N/A
Shelby Zuppan, CPESC, QSD (Sacramento)	\$69.83	N/C	11/18/15	12/31/15	0.0%	\$29.42	N/A
Field Stormwater Inspector, Hydrologist	\$70.88	N/C	01/01/16	12/31/16	1.5%	\$29.86	N/A
Construction	\$71.94	N/C	01/01/17	12/31/17	1.5%	\$30.31	N/A
(exempt, salaried)	\$73.29	N/C	01/01/18	12/31/18	1.88%	\$30.88	N/A
	\$74.58	N/C	01/01/19	12/31/19	1.75%	\$31.42	N/A
Scott Berkebile, PE, QSD/P (Carlsbad)	\$146.07	N/C	11/18/15	12/31/15	0.0%	\$61.54	N/A
Ser. Civil Engineer/Storm Water Manager	\$148.26	N/C	01/01/16	12/31/16	1.5%	\$62.46	N/A
Task Order Manager	\$150.48	N/C	01/01/17	12/31/17	1.5%	\$63.40	N/A
(exempt, salaried)	\$153.31	N/C	01/01/18	12/31/18	1.88%	\$64.59	N/A
	\$155.99	N/C	01/01/19	12/31/19	1.75%	\$65.72	N/A
Gerald Montgomery, CPESC, QSD/P (Carlsbad)	\$154.28	N/C	11/18/15	12/31/15	0.0%	\$65.00	N/A
Project Manager	\$156.59	N/C	01/01/16	12/31/16	1.5%	\$65.98	N/A
Principal-in-charge, Quality Assurance/Quality Control	\$158.94	N/C	01/01/17	12/31/17	1.5%	\$66.96	N/A
(exempt, salaried)	\$161.93	N/C	01/01/18	12/31/18	1.88%	\$68.22	N/A
	\$164.77	N/C	01/01/19	12/31/19	1.75%	\$69.42	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	42.64	+	0.00	+	98.19	=	140.83
OVERTIME	42.64	+	0.00	+	98.19	=	140.83
	FEE %		7.40%				

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Amber Christian, CPESC, QSD (Sacramento)	\$124.15	N/C	11/18/15	12/31/15	0.0%	\$48.00	N/A
SWPPP Inspector	\$126.01	N/C	01/01/16	12/31/16	1.5%	\$48.72	N/A
Construction	\$127.91	N/C	01/01/17	12/31/17	1.5%	\$49.45	N/A
(non-exempt)	\$130.31	N/C	01/01/18	12/31/18	1.88%	\$50.38	N/A
	\$132.59	N/C	01/01/19	12/31/19	1.75%	\$51.26	N/A
Gary Mohler, PE, QSD (Sacramento)	\$127.88	N/C	11/18/15	12/31/15	0.0%	\$49.44	N/A
SWPPP Inspector	\$129.80	N/C	01/01/16	12/31/16	1.5%	\$50.18	N/A
Construction	\$131.74	N/C	01/01/17	12/31/17	1.5%	\$50.93	N/A
(non-exempt)	\$134.22	N/C	01/01/18	12/31/18	1.88%	\$51.89	N/A
	\$136.57	N/C	01/01/19	12/31/19	1.75%	\$52.80	N/A
Stephen Walters, PE, QSD (Sacramento)	\$161.66	N/C	11/18/15	12/31/15	0.0%	\$62.50	N/A
SWPPP Inspector	\$164.08	N/C	01/01/16	12/31/16	1.5%	\$63.44	N/A
Construction	\$166.54	N/C	01/01/17	12/31/17	1.5%	\$64.39	N/A
(exempt, salaried)	\$169.67	N/C	01/01/18	12/31/18	1.88%	\$65.60	N/A
	\$172.64	N/C	01/01/19	12/31/19	1.75%	\$66.75	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	0.00	+	128.21	=	128.21
OVERTIME	0.00	+	0.00	+	128.21	=	128.21
	FEE %		7.40%				

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Joy Denny, PE, QSD (Sacramento)	\$186.25	N/C	11/18/15	12/31/15	0.0%	\$75.99	N/A
Engineering Manager	\$189.04	N/C	01/01/16	12/31/16	1.5%	\$77.13	N/A
(exempt, salaried)	\$191.88	N/C	01/01/17	12/31/17	1.5%	\$78.29	N/A
	\$195.49	N/C	01/01/18	12/31/18	1.88%	\$79.76	N/A
	\$198.91	N/C	01/01/19	12/31/19	1.75%	\$81.15	N/A
Juan Zuniga, PE, CPESC, QSD (Sacramento)	\$136.76	N/C	11/18/15	12/31/15	0.0%	\$55.80	N/A
SWPPP Inspector	\$138.82	N/C	01/01/16	12/31/16	1.5%	\$56.64	N/A
(non-exempt)	\$140.90	N/C	01/01/17	12/31/17	1.5%	\$57.49	N/A
	\$143.55	N/C	01/01/18	12/31/18	1.88%	\$58.57	N/A
	\$146.06	N/C	01/01/19	12/31/19	1.75%	\$59.59	N/A
Geno Alarid, QSP/CESSWI (Sacramento)	\$101.47	N/C	11/18/15	12/31/15	0.0%	\$41.40	N/A
SWPPP Inspector	\$102.99	N/C	01/01/16	12/31/16	1.5%	\$42.02	N/A
(non-exempt)	\$104.54	N/C	01/01/17	12/31/17	1.5%	\$42.65	N/A
	\$106.50	N/C	01/01/18	12/31/18	1.88%	\$43.45	N/A
	\$108.37	N/C	01/01/19	12/31/19	1.75%	\$44.21	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	0.00	+	0.00	=	143.78
OVERTIME	0.00	+	0.00	+	0.00	=	143.78
	FEE %		7.40%				

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Mike Broadwater, CPESC, QSD, ToR (Sacramento)	\$182.51	N/C	11/18/15	12/31/15	0.0%	\$69.71	N/A
Stormwater Specialist	\$185.25	N/C	01/01/16	12/31/16	1.5%	\$70.76	N/A
Enforcement and Prevention Assistance	\$188.03	N/C	01/01/17	12/31/17	1.5%	\$71.82	N/A
(exempt, salaried)	\$191.57	N/C	01/01/18	12/31/18	1.88%	\$73.17	N/A
	\$194.92	N/C	01/01/19	12/31/19	1.75%	\$74.45	N/A
Tore Finnemyhr, CESSWI, QSP (Lathrop)	\$136.36	N/C	11/18/15	12/31/15	0.0%	\$52.08	N/A
Stormwater Specialist	\$138.40	N/C	01/01/16	12/31/16	1.5%	\$52.86	N/A
Construction	\$140.48	N/C	01/01/17	12/31/17	1.5%	\$53.65	N/A
(non-exempt, hourly)	\$143.12	N/C	01/01/18	12/31/18	1.88%	\$54.66	N/A
	\$145.62	N/C	01/01/19	12/31/19	1.75%	\$55.62	N/A
Jim Flanagan, CESSWI, QSP (San Luis Obispo)	\$128.29	N/C	11/18/15	12/31/15	0.0%	\$49.00	N/A
Stormwater Specialist	\$130.22	N/C	01/01/16	12/31/16	1.5%	\$49.74	N/A
Construction	\$132.17	N/C	01/01/17	12/31/17	1.5%	\$50.48	N/A
(non-exempt, hourly)	\$134.65	N/C	01/01/18	12/31/18	1.88%	\$51.43	N/A
	\$137.01	N/C	01/01/19	12/31/19	1.75%	\$52.33	N/A
Wesley Pipes, PE, QSD (Emeryville)	\$154.47	N/C	11/18/15	12/31/15	0.0%	\$59.00	N/A
Stormwater Specialist	\$156.79	N/C	01/01/16	12/31/16	1.5%	\$59.89	N/A
Construction	\$159.14	N/C	01/01/17	12/31/17	1.5%	\$60.78	N/A
(non-exempt, hourly)	\$162.13	N/C	01/01/18	12/31/18	1.88%	\$61.93	N/A
	\$164.97	N/C	01/01/19	12/31/19	1.75%	\$63.01	N/A
Darrah Ramsbotham, PE, QSP (Murphys)	\$151.86	N/C	11/18/15	12/31/15	0.0%	\$58.00	N/A
Stormwater Specialist	\$154.13	N/C	01/01/16	12/31/16	1.5%	\$58.87	N/A
Construction	\$156.45	N/C	01/01/17	12/31/17	1.5%	\$59.75	N/A
(non-exempt, hourly)	\$159.39	N/C	01/01/18	12/31/18	1.88%	\$60.88	N/A
	\$162.18	N/C	01/01/19	12/31/19	1.75%	\$61.94	N/A
Dave Sluga, PE, CPESC, QSD, ToR (Sacramento)	\$170.18	N/C	11/18/15	12/31/15	0.0%	\$65.00	N/A
Stormwater Specialist	\$172.74	N/C	01/01/16	12/31/16	1.5%	\$65.98	N/A
Enforcement and Prevention Assistance	\$175.33	N/C	01/01/17	12/31/17	1.5%	\$66.96	N/A
(non-exempt, hourly)	\$178.62	N/C	01/01/18	12/31/18	1.88%	\$68.22	N/A
	\$181.75	N/C	01/01/19	12/31/19	1.75%	\$69.42	N/A
David Skinner, CPESC, CMS4S, QSD (Sacramento)	N/C	N/C	11/18/15	12/31/15	0.0%	N/A	N/A
Stormwater Specialist	\$115.86	N/C	01/01/16	12/31/16	1.5%	\$44.25	N/A
Enforcement and Prevention Assistance	\$117.59	N/C	01/01/17	12/31/17	1.5%	\$44.91	N/A
(non-exempt, hourly)	\$119.80	N/C	01/01/18	12/31/18	1.88%	\$45.76	N/A
Hired on 02/01/2016	\$121.90	N/C	01/01/19	12/31/19	1.75%	\$46.56	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	0.00	+	0.00	+	0.00	=	143.78
OVERTIME	0.00	+	0.00	+	0.00	=	143.78
			FEE %		7.40%		

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Tyler Clark (Sacramento)	\$78.55	N/C	11/18/15	12/31/15	0.0%	\$30.00	N/A
Stormwater Specialist	\$79.72	N/C	01/01/16	12/31/16	1.5%	\$30.45	N/A
Construction	\$80.92	N/C	01/01/17	12/31/17	1.5%	\$30.91	N/A
(non-exempt, hourly)	\$82.44	N/C	01/01/18	12/31/18	1.88%	\$31.49	N/A
Hired on 07/06/2015	\$83.88	N/C	01/01/19	12/31/19	1.75%	\$32.04	N/A
Mayra Ochoa (Emeryville)	\$78.55	N/C	11/18/15	12/31/15	0.0%	\$30.00	N/A
Stormwater Specialist	\$79.72	N/C	01/01/16	12/31/16	1.5%	\$30.45	N/A
Construction	\$80.92	N/C	01/01/17	12/31/17	1.5%	\$30.91	N/A
(non-exempt, hourly)	\$82.44	N/C	01/01/19	12/31/18	1.88%	\$31.49	N/A
Hired on 03/09/2015	\$82.34	N/C	01/01/18	12/31/19	1.75%	\$31.45	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	71.72	+	64.12	+	0.00	=	135.84
OVERTIME	71.72	+	64.12	+	0.00	=	135.84
			FEE %		7.40%		

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Andrew Chin (Walnut Creek)	\$87.28	\$87.28	11/18/15	12/31/15	0.0%	\$34.46	N/A
Associate Engineer	\$88.59	\$88.59	01/01/16	12/31/16	1.5%	\$34.98	N/A
Water Quality Assistance and Compliance	\$89.92	\$89.92	01/01/17	12/31/17	1.5%	\$35.50	N/A
(exempt, salaried)	\$91.61	\$91.61	01/01/18	12/31/18	1.88%	\$36.17	N/A
	\$93.22	\$93.22	01/01/19	12/31/19	1.75%	\$36.80	N/A
Robert Lawrence, PE, GE (Roseville)	\$163.32	N/C	11/18/15	12/31/15	0.0%	\$64.48	N/A
Senior Geotechnical Engineer	\$165.77	N/C	01/01/16	12/31/16	1.5%	\$65.45	N/A
Water Quality Assistance and Compliance	\$168.26	N/C	01/01/17	12/31/17	1.5%	\$66.43	N/A
(exempt, salaried)	\$171.42	N/C	01/01/18	12/31/18	1.88%	\$67.68	N/A
	\$174.42	N/C	01/01/19	12/31/19	1.75%	\$68.86	N/A
Analette Ochoa, PE, QSD, ToR (Walnut Creek)	\$186.37	N/C	11/18/15	12/31/15	0.0%	\$73.58	N/A
Supervising Engineer	\$189.17	N/C	01/01/16	12/31/16	1.5%	\$74.68	N/A
Maintenance, Water Quality Assistance and Compliance	\$192.01	N/C	01/01/17	12/31/17	1.5%	\$75.80	N/A
(exempt, salaried)	\$195.62	N/C	01/01/18	12/31/18	1.88%	\$77.23	N/A
	\$199.04	N/C	01/01/19	12/31/19	1.75%	\$78.58	N/A
Cuyler Stapelmann (Walnut Creek)	\$67.43	\$67.43	11/18/15	12/31/15	0.0%	\$26.62	N/A
Staff Environmental Scientist	\$68.44	\$68.44	01/01/16	12/31/16	1.5%	\$27.02	N/A
Water Quality Assistance and Compliance	\$69.46	\$69.46	01/01/17	12/31/17	1.5%	\$27.42	N/A
(exempt, salaried)	\$70.77	\$70.77	01/01/18	12/31/18	1.88%	\$27.94	N/A
	\$72.01	\$72.01	01/01/19	12/31/19	1.75%	\$28.43	N/A
Alvin Yim, CPSWQ, QSD (Walnut Creek)	\$87.34	\$87.34	11/18/15	12/31/15	0.0%	\$34.48	N/A
Associate Engineer	\$88.65	\$88.65	01/01/16	12/31/16	1.5%	\$35.00	N/A
Construction	\$89.97	\$89.97	01/01/17	12/31/17	1.5%	\$35.52	N/A
(exempt, salaried)	\$91.67	\$91.67	01/01/19	06/30/19	1.88%	\$36.19	N/A
	\$91.55	\$91.55	01/01/18	12/31/19	1.75%	\$36.14	N/A
Stacie Lackler (Walnut Creek)	\$73.07	\$73.07	11/18/15	12/31/15	0.0%	\$28.85	N/A
Staff Engineer	\$74.17	\$74.17	01/01/16	12/31/16	1.5%	\$29.28	N/A
Water Quality Assistance and Compliance	\$75.28	\$75.28	01/01/17	12/31/17	1.5%	\$29.72	N/A
(non-exempt, hourly)	\$76.70	\$76.70	01/01/18	12/31/18	1.88%	\$30.28	N/A
	\$78.04	\$78.04	01/01/19	12/31/19	1.75%	\$30.81	N/A
Sonia Leung, EIT (Walnut Creek)	\$87.66	\$87.66	11/18/15	12/31/15	0.0%	\$34.61	N/A
Associate Engineer	\$88.98	\$88.98	01/01/16	12/31/16	1.5%	\$35.13	N/A
Water Quality Assistance and Compliance	\$90.31	\$90.31	01/01/17	12/31/17	1.5%	\$35.66	N/A
(exempt, salaried)	\$92.01	\$92.01	01/01/19	06/30/19	1.88%	\$36.33	N/A
	\$91.89	\$91.89	01/01/18	12/31/19	1.75%	\$36.28	N/A

For footnotes for labor, see page 28.

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	71.72	+	64.12	+	0.00	=	135.84
OVERTIME	71.72	+	64.12	+	0.00	=	135.84
		FEE %	7.40%				

BILLING INFORMATION

CALCULATION INFORMATION

Name/Classification	Loaded Hourly Billing Rates		Effective Date of Hourly Rate		% Escalation Increase	Actual Hourly Rate and/or Average Hourly Rate	Hourly Range for Class
	Straight	Overtime	From	To			
Patrick Yim, EIT (Walnut Creek)	\$69.20	\$69.20	11/18/15	12/31/15	0.0%	\$27.32	N/A
Staff Engineer	\$70.24	\$70.24	01/01/16	12/31/16	1.5%	\$27.73	N/A
Construction	\$71.29	\$71.29	01/01/17	12/31/17	1.5%	\$28.15	N/A
(exempt, salaried)	\$72.63	\$72.63	01/01/18	12/31/18	1.88%	\$28.67	N/A
	\$73.90	\$73.90	01/01/19	12/31/19	1.75%	\$29.18	N/A
Amanda Kahn, GIT (Roseville)	N/C	N/C	11/18/15	12/31/15	0.0%	N/A	N/A
Staff Geologist	\$79.15	\$79.15	01/01/16	12/31/16	1.5%	\$31.25	N/A
Water Quality Assistance and Compliance	\$80.34	\$80.34	01/01/17	12/31/17	1.5%	\$31.72	N/A
(non-exempt, hourly)	\$81.85	\$81.85	01/01/18	12/31/18	1.88%	\$32.32	N/A
Hired on 01/04/2016	\$83.28	\$83.28	01/01/19	12/31/19	1.75%	\$32.88	N/A
Scott Elder (Walnut Creek)	\$53.42	\$53.42	11/18/15	12/31/15	0.0%	\$21.09	N/A
Staff Environmental Scientist	\$54.22	\$54.22	01/01/16	12/31/16	1.5%	\$21.41	N/A
Water Quality Assistance and Compliance	\$55.03	\$55.03	01/01/17	12/31/17	1.5%	\$21.73	N/A
(non-exempt, hourly)	\$56.07	\$56.07	01/01/18	12/31/18	1.88%	\$22.14	N/A
	\$57.05	\$57.05	01/01/19	12/31/19	1.75%	\$22.52	N/A
Flannery Banks (Walnut Creek)	\$90.70	\$90.70	11/18/15	12/31/15	0.0%	\$35.81	N/A
Associate Engineer	\$92.06	\$92.06	01/01/16	12/31/16	1.5%	\$36.35	N/A
Water Quality Assistance and Compliance	\$93.45	\$93.45	01/01/17	12/31/17	1.5%	\$36.89	N/A
(exempt, salaried)	\$95.20	\$95.20	01/01/19	06/30/19	1.88%	\$37.59	N/A
	\$95.08	\$95.08	01/01/18	12/31/19	1.75%	\$37.54	N/A

For footnotes for labor, see page 28.

Footnotes for Labor Sheets (for Prime and all Subs)

1. Contract Manager's pre-approval is required for any addition of staff not listed on the cost proposal. The billing rates for these employees, including those that fall under general classifications, will be calculated and reimbursed based on their actual hourly rate on **11/18/2015**. Future escalations, if any, will be calculated and reimbursed in accordance with the percentage escalations agreed to in this cost proposal.
2. Hourly rates for new employees hired after the date of this cost proposal will not exceed (or shall be in line with) the rates of similar personnel listed on this cost proposal having similar experience.
3. The annual salary escalation rates are subject to post award audit. The escalation rates in the cost proposal are the maximums. The allowed annual salary escalation is either the historical annual salary escalation given by the Firm as audited by the State or the listed rates above, whichever is lower.
4. N/C denotes No Charge. Salaried staff will not be invoiced for more than 40 hours for work week.
5. No charge for all in-house accounting and administrative support work, including invoice preparation.
6. Fiscal year ending (see FY ending below) overhead rate is utilized for preparing this cost proposal.
 - a. BC: Audited Overhead for FY ending Sept. 30, 2014.
 - b. ADH: Unaudited Overhead for FY ending Dec. 31, 2014.
 - c. AMEC: Audited Overhead for FY ending Dec. 31, 2014.
 - d. CBEC: Utilized a Provisional Overhead rate (voluntarily offered) for FY ending Dec. 31, 2014.
 - e. Leland Saylor: Unaudited Overhead for FY ending Dec. 31, 2014.
 - f. M3: Unaudited Overhead for FY ending Dec. 31, 2014.
 - g. Montgomery & Associates: Utilized a Provisional Overhead rate (voluntarily offered) for FY ending Dec. 31, 2014.
 - h. NV5: Audited Overhead for FY ending Dec. 31, 2014.
 - i. NV5 - Mendoza: Audited Overhead for FY ending Dec. 31, 2014.
 - j. Vali Cooper: Audited Overhead for FY ending Dec. 31, 2014.
 - k. WRECO: Audited Overhead for FY ending Dec. 31, 2014.
7. No charge will be invoiced for per diem or travel time cost related to staff relocation.
8. The Consultant employee's headquarters and/or primary residence as defined in the Caltrans Travel Guide will be established in the Task Order. Travel time charges shall be as defined in the Caltrans Travel Guide.
9. Time sheets shall be authorized by the employee and approved by the field supervisor or their representative and submitted with the monthly invoices.

SCHEDULE OF OTHER DIRECT COST ITEMS								
Brown and Caldwell			ADH Environmental			AMEC Foster Wheeler		
DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST
Special Tooling			Special Tooling			Special Tooling		
Printing and Reproductions			Printing and Reproductions			Printing and Reproductions		
A. Black and White Copying		Included in APC*	A. Black and White Copying		N/A	A. Black and White Copying		N/A
B. Color Copying/Printing		Included in APC*	B. Color Copying/Printing		N/A	B. Color Copying/Printing		N/A
C. Outside Services		Included in APC*	C. Outside Services		Actual	C. Outside Services		Actual
D. Postage/Shipping		Included in APC*	D. Postage/Shipping		Actual	D. Postage/Shipping		Actual
Specialized Equipment			Specialized Equipment			Specialized Equipment		
A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3
B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3
Travel			Travel			Travel		
A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5
Tools of the Trade			Tools of the Trade			Tools of the Trade		
Computer			Computer			Computer		
A. Personal Computer		Included in APC*	A. Personal Computer		N/A	A. Personal Computer		N/A
B. CADD Computer		Included in APC*	B. CADD Computer		N/A	B. CADD Computer		N/A
C. Field Computer		Included in APC*	C. Field Computer		N/A	C. Field Computer		N/A
Vehicle Expenses			Vehicle Expenses			Vehicle Expenses		
A. Company Vehicles	Mile	\$0.45	A. Company Vehicles		Footnote 2	A. Company Vehicles		Footnote 2
B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2
C. Field Truck	Mile	\$0.45	C. Field Truck		Footnote 2	C. Field Truck		Footnote 2
Communications			Communications			Communications		
A. Facsimile		Included in APC*	A. Facsimile		N/A	A. Facsimile		N/A
B. Telephone		Included in APC*	B. Telephone		N/A	B. Telephone		N/A
C. Cell Phone - (field staff only)		Included in APC*	C. Cell Phone - (field staff only)		N/A	C. Cell Phone - (field staff only)		N/A

NOTE: The Associated Project Costs (APC) rate is a special overhead rate that allocates cost on a direct hour basis. It parallels our indirect overhead rate that allocates general overhead cost on a direct labor cost basis. We have segregated costs for network infrastructure and IS support, computer and CAD, along with telecommunications, reproduction and mail - into a special cost pool on the basis that these costs were more closely tied to labor effort than dollars. The application of \$6.68 per labor hour is an accurate amount based on this cost pool divided by total home office direct hours.

For footnotes to ODCs, see page 33.

SCHEDULE OF OTHER DIRECT COST ITEMS								
cbec eco engineering			Leland Saylor Associates			M3 Integrated Services, Inc.		
DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST
Special Tooling			Special Tooling			Special Tooling		
Printing and Reproductions			Printing and Reproductions			Printing and Reproductions		
A. Black and White Copying		N/A	A. Black and White Copying		N/A	A. Black and White Copying		N/A
B. Color Copying/Printing		N/A	B. Color Copying/Printing		N/A	B. Color Copying/Printing		N/A
C. Outside Services		Actual	C. Outside Services		Actual	C. Outside Services		Actual
D. Postage/Shipping		Actual	D. Postage/Shipping		Actual	D. Postage/Shipping		Actual
Specialized Equipment			Specialized Equipment			Specialized Equipment		
A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3
B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3
Travel			Travel			Travel		
A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5
Tools of the Trade			Tools of the Trade			Tools of the Trade		
Computer			Computer			Computer		
A. Personal Computer		N/A	A. Personal Computer		N/A	A. Personal Computer		N/A
B. CADD Computer		N/A	B. CADD Computer		N/A	B. CADD Computer		N/A
C. Field Computer		N/A	C. Field Computer		N/A	C. Field Computer		N/A
Vehicle Expenses			Vehicle Expenses			Vehicle Expenses		
A. Company Vehicles		Footnote 2	A. Company Vehicles		Footnote 2	A. Company Vehicles		Footnote 2
B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2
C. Field Truck		Footnote 2	C. Field Truck		Footnote 2	C. Field Truck		Footnote 2
Communications			Communications			Communications		
A. Facsimile		N/A	A. Facsimile		N/A	A. Facsimile		N/A
B. Telephone		N/A	B. Telephone		N/A	B. Telephone		N/A
C. Cell Phone - (field staff only)		N/A	C. Cell Phone - (field staff only)		N/A	C. Cell Phone - (field staff only)		N/A

For footnotes to ODCs, see page 33.

SCHEDULE OF OTHER DIRECT COST ITEMS								
Montgomery & Associates			NV5, Inc.			NV5, Inc. - Mendoza		
DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST
Special Tooling			Special Tooling			Special Tooling		
Printing and Reproductions			Printing and Reproductions			Printing and Reproductions		
A. Black and White Copying		N/A	A. Black and White Copying		N/A	A. Black and White Copying		N/A
B. Color Copying/Printing		N/A	B. Color Copying/Printing		N/A	B. Color Copying/Printing		N/A
C. Outside Services		Actual	C. Outside Services		Actual	C. Outside Services		Actual
D. Postage/Shipping		Actual	D. Postage/Shipping		Actual	D. Postage/Shipping		Actual
Specialized Equipment			Specialized Equipment			Specialized Equipment		
A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3
B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3
Travel			Travel			Travel		
A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5
Tools of the Trade			Tools of the Trade			Tools of the Trade		
Computer			Computer			Computer		
A. Personal Computer		N/A	A. Personal Computer		N/A	A. Personal Computer		N/A
B. CADD Computer		N/A	B. CADD Computer		N/A	B. CADD Computer		N/A
C. Field Computer		N/A	C. Field Computer		N/A	C. Field Computer		N/A
Vehicle Expenses			Vehicle Expenses			Vehicle Expenses		
A. Company Vehicles		Footnote 2	A. Company Vehicles		Footnote 2	A. Company Vehicles		Footnote 2
B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2
C. Field Truck		Footnote 2	C. Field Truck		Footnote 2	C. Field Truck		Footnote 2
Communications			Communications			Communications		
A. Facsimile		N/A	A. Facsimile		N/A	A. Facsimile		N/A
B. Telephone		N/A	B. Telephone		N/A	B. Telephone		N/A
C. Cell Phone - (field staff only)		N/A	C. Cell Phone - (field staff only)		N/A	C. Cell Phone - (field staff only)		N/A

For footnotes to ODCs, see page 33.

ADM 2033 ODCs (Rev. 10/12)

Brown and Caldwell

Contract # 43A0347

Vali Cooper & Associates, Inc.			WRECO		
DESCRIPTION OF ITEMS	UNIT	COST	DESCRIPTION OF ITEMS	UNIT	COST
Special Tooling			Special Tooling		
Printing and Reproductions			Printing and Reproductions		
A. Black and White Copying		N/A	A. Black and White Copying		N/A
B. Color Copying/Printing		N/A	B. Color Copying/Printing		N/A
C. Outside Services		Actual	C. Outside Services		Actual
D. Postage/Shipping		Actual	D. Postage/Shipping		Actual
Specialized Equipment			Specialized Equipment		
A. Equipment Rental		Footnote 3	A. Equipment Rental		Footnote 3
B. Field Supplies		Footnote 3	B. Field Supplies		Footnote 3
Travel			Travel		
A. Travel and Per diem		Footnotes 1, 2, 4 and 5	A. Travel and Per diem		Footnotes 1, 2, 4 and 5
Tools of the Trade			Tools of the Trade		
Computer			Computer		
A. Personal Computer		N/A	A. Personal Computer		N/A
B. CADD Computer		N/A	B. CADD Computer		N/A
C. Field Computer		N/A	C. Field Computer		N/A
Vehicle Expenses			Vehicle Expenses		
A. Company Vehicles		Footnote 2	A. Company Vehicles		Footnote 2
B. Personal Vehicles		Footnote 2	B. Personal Vehicles		Footnote 2
C. Field Truck		Footnote 2	C. Field Truck		Footnote 2
Communications			Communications		
A. Facsimile		N/A	A. Facsimile		N/A
B. Telephone		N/A	B. Telephone		N/A
C. Cell Phone - (field staff only)		N/A	C. Cell Phone - (field staff only)		N/A

For footnotes to ODCs, see page 33.

Footnotes for the ODCs Sheet (for Prime and all Subs)

1. The Consultant employee's headquarters and/or primary residence as defined in the Caltrans Travel Guide will be established in the Task Order.
2. Pre-approved travel and per-diem costs will be reimbursed in conformance with the current Department of Transportation Travel and Expense Guide for Consultants. No charge will be invoiced for employee relocation cost.
3. When \$500 or greater, pre-approved actual costs are competitive prices from appropriate vendors in their respective industries, and supported by receipts. These items will be reimbursed at actual cost with supporting documentation (invoice).
4. Parking, tolls and local transportation costs resulting from commuting to and from the employee's residence to the long-term job site as assigned in the Task Order are not reimbursable.
5. The Department will not reimburse the Consultant for costs to relocate its staff to the geographic area of the contract as stated in Project Description. The Department will not reimburse the Consultant for any per diem costs for staff relocation.
6. ODC items claimed are in compliance with 48 Code of Federal Regulation, Chapter 1, Part 31 (Federal Acquisition Regulation – FAR cost principles) and are consistent with the firm's company-wide allocation policies and charging practices with all clients including federal government, state governments, local agencies and private clients.
7. Proposed items should be consistently billed directly to all clients (Commercial entities, Federal Govt., State Govt., and Local Govt. Agency), and not just when the client will pay for them as a direct cost.
8. Items when incurred for the same purpose, in like circumstance, should not be included in any indirect cost pool or in the overhead rate.
9. For those items listed here as "tools of the trade" that is part of indirect cost and not applicable as a direct cost, is denoted as Not Applicable (NA).
10. Mobilization costs of all equipment and associated personnel, with the exception of specialized equipment and special tooling, will not be reimbursed.

State of California, Department of Transportation (Caltrans)

AGREEMENT NO. _____ **TASK ORDER NO.** _____

DATE:

CONSULTANT FIRM:

PROJECT TITLE:

PROJECT ID:

I. Task Order Description

(Describe Project. If the Agreement is for a firm fixed price, state whether the task order is for “Additional Design Services” or for “Additional Construction Support Services.”)

II. Scope of Services

(Include task order scope of work, expected results, and task order deliverables.)

III. Reports and/or Meetings

Shall be in accordance with Exhibit A of the Agreement.

IV. Period of Performance

Work under this Task Order shall begin on (Date) and terminate on (Date)

V. Task Schedule

(Outline here or attach as separate page.)

VI. Cost

- A. The Consultant will be paid in accordance with Exhibit A, Item II - Task Orders; Exhibit B, Item II, - Compensation & Payments; the Consultant’s Cost Proposal referenced as Attachment 2 to this Agreement No. (Insert No.), and with the attached Task Order Cost Estimate.
- B. In addition, the Consultant will be paid for actual direct costs, other than salary costs, that are identified in the attached cost estimate pursuant to Exhibit B, Item II, – Compensation and Payments, Paragraph B, and the Consultant’s Cost Proposal referenced as Attachment 2 of this Agreement No. (Insert No.).

State of California, Department of Transportation (Caltrans)

AGREEMENT NO. _____ TASK ORDER NO. _____

- C. The total amount payable by the State under this Task Order shall not exceed \$
(AMOUNT).

VII. Project Coordinator

The Project Coordinator from the Department for this Task Order will be
_____.

VIII. Conflict of Interest Certification

Department personnel signing below certify that they have read, understand, and will comply with Deputy Directive DD-09-R3 and Government Code 19990 regarding incompatible activities and conflict of interest by State employees.

IX. Approval Signatures

I certify that this Task Order and attachments comply with the provisions of Agreement No. (insert no.) and are necessary for the satisfactory completion of the product(s) contracted for, and that sufficient funding has been encumbered to pay for this work.

(Type name)
CALTRANS CONTRACT MANAGER

I certify that this Task Order and any Attachments are within the scope of the project and are necessary for the successful completion of the project.

(Type name)
CALTRANS PROJECT MANAGER

I certify that this Task Order and any Attachments are within the scope of the project and are necessary for the successful completion of the project, and the appropriate Project Manager approval has been obtained.

(Type name)
CALTRANS FUNCTIONAL MANAGER

I, **type name**, certify by signing below that I have read the “Description of Services” for this Agreement and in my expert opinion:

State of California, Department of Transportation (Caltrans)

AGREEMENT NO. _____ TASK ORDER NO. _____

1. The work described in this Task Order is included in the required services and
2. The work described in this Task Order is an Architectural and Engineering (A&E) service, as defined in Government Code 4525 (d) through (f).

IN WITNESS WHEREOF, this Task Order has been executed under the provisions of Agreement No. (Insert No.) between the State of California, Department of Transportation, and (Consultant Name). By signature below, the parties hereto agree that all terms and conditions of this Task Order No. (Insert No.) and Agreement No. (Insert No.) shall be in full force and effect.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

(CONSULTANT'S BUSINESS NAME)

By: _____
(Type Name)

By: _____
(Type Name)

Title: _____

Title: _____

CALTRANS SUPERVISING OR PRINCIPAL TRANSPORTATION ENGINEER
CALTRANS SUPERVISING OR PRINCIPAL BRIDGE ENGINEER
CALTRANS SUPERVISING TRANSPORTATION ELECTRICAL ENGINEER
CALTRANS SUPERVISING TRANSPORTATION SURVEYOR
CALTRANS SUPERVISING OR PRINCIPAL LANDSCAPE ARCHITECT
CALTRANS SUPERVISING EQUIPMENT ENGINEER
CALTRANS SUPERVISING MECHANICAL & ELECTRICAL ENGINEER
CALTRANS SUPERVISING TELECOMMUNICATIONS ENGINEER
CALTRANS SUPERVISING ENGINEERING GEOLOGIST
CALTRANS SUPERVISING ENVIRONMENTAL PLANNER
CALTRANS SUPERVISING TRANSPORTATION PLANNER

Date: _____

Date: _____

TASK ORDER REQUEST

Contract Number: _____ Date: _____

Submitted By: _____

Proposed Consultant: _____

Project Description _____

C0-RTE-KP _____ - _____ - _____ Project(s) ID: _____

Personnel Needed

(Classification) Date Needed _____ How long? _____

Total hours per Consultant _____ Straight Time _____ Overtime _____

(Classification) Date Needed _____ How long? _____

Total hours per Consultant _____ Straight Time _____ Overtime _____

(Classification) Date Needed _____ How long? _____

Total hours per Consultant _____ Straight Time _____ Overtime _____

(Classification) Date Needed _____ How long? _____

Total hours per Consultant _____ Straight Time _____ Overtime _____

Who will supervise the listed personnel? _____

Where do the listed personnel report? _____

Special Conditions or Comments

Requested by:

Approval Recommended:

Name and Title Date

Name and Title Date

Approved by:

Name and Title Date

Brown and Caldwell
Agreement Number 43A0347
Attachment 3
Page 5 of 5

Date _____ Contract No. _____ Task Order No. _____

Consultant Firm

To: _____

The Consultant named above hereby requests the Department of Transportation (Caltrans) Contract Manager's approval for the staff actions listed below. A Standard Form 330, or a Resume for each individual listed is attached.

[illegible]

DATE _____

DATE _____

NOTE: THE APPROVED FORM SHALL BE INCLUDED WITH YOUR INVOICE COST DECLARATIONS

STATE OF CALIFORNIA – GENERAL SERVICES PROCUREMENT DIVISION

DOCUMENTATION OF DISABLED VETERAN BUSINESS ENTERPRISE PROGRAM REQUIREMENTS

STD. 840 (REV. 8/2009)

A. Designation Of Option – Check the appropriate box(es) to indicate the option(s) with which you choose to comply, complete the applicable sections and attach the required supporting documentation. You are advised to read all instructions carefully prior to completing this form. Remember that only California certified DVBEs who can provide related goods and/or services may be used to satisfy these program solicitation requirements. DVBEs must perform a commercially useful function. During contract performance, all requests for substituting DVBE subcontractors must be made in accordance with the provisions of California Code of Regulations, Title 2, §1896.64(c).

☒ **OPTION A – I commit to meeting the full DVBE Agreement participation requirement.**

Complete: STD. 840, Section A (check the box on this form) and
Bidder Declaration form GSPD-05-105 (located elsewhere in the solicitation)

☐ **OPTION B – I submit a copy of my firm's "Notice of Approved DVBE Business Utilization Plan."**

Complete: STD. 840, Section A (check the box on this form) and
Bidder Declaration form GSPD-05-105 (located elsewhere in the solicitation)

STATE OF CALIFORNIA – GENERAL SERVICES PROCUREMENT DIVISION

DOCUMENTATION OF DISABLED VETERAN BUSINESS ENTERPRISE PROGRAM REQUIREMENTS

STD 840 (REV. 8/2009)

Date Contacted 5/15/2015	DVBE Company Name Leland Saylor Associates		
DVBE Contact Name & Reference # Brad Saylor DVBE/SB No. 298	Telephone Number (415)291-3200 ext.	Fax Number (415)291-3201	E-mail (if available) bsaylor@lelandsaylor.com
Street Address, City, State, and Zip Code 101 Montgomery Street, Suite 800 San Francisco, CA 94104			
☒ DVBE was selected and is listed on the GSPD-05-105 ☐ DVBE Approved BUP is Attached.			

Date Contacted 5/17/2015	DVBE Company Name M3 Integrated Services, Inc.		
DVBE Contact Name & Reference # Matt McKamey DVBE/SB No. 1697620	Telephone Number (707)495-6774 ext.	Fax Number (707)595-5298	E-mail (if available) matt@m3-co.com
Street Address, City, State, and Zip Code 320 Tesconi Circle Suite M Santa Rosa, CA 95401			
☒ DVBE was selected and is listed on the GSPD-05-105 ☐ DVBE Approved BUP is Attached.			

Date Contacted / /	DVBE Company Name		
DVBE Contact Name & Reference #	Telephone Number () - ext.	Fax Number () -	E-mail (if available)
Street Address, City, State, and Zip Code			
☐ DVBE was selected and is listed on the GSPD-05-105 ☐ DVBE Approved BUP is Attached.			

DVBE Program Requirements Supplier Checklist (Rev. 2-28-2005)

Please do not submit this checklist with your bid. It is provided for your use only. Checking every box of your elected compliance option does not guarantee that your bid will be deemed compliant.

☒ **OPTION A: COMMITMENT TO DVBE AGREEMENT PARTICIPATION**

- ☒ STD. 840 included with bid
- ☒ Designated the Commitment Option in Section A – Checked the first box of the form STD. 840
- ☒ Bidder Declaration form GSPD-05-105 completed and included with bid
- ☒ Proposed DVBE participation meets the 5% requirement (unless a different percentage is specified)

☐ **OPTION B: BUSINESS UTILIZATION PLAN (BUP)** *If this solicitation specifies higher participation goals than the bidder's utilization plan, the bidder is required to meet these goals.*

- ☐ **Prior to the bid due date** – Submitted a BUP to DGS-PD and received approval
- ☐ STD. 840 included with bid
- ☐ Designated the BUP Option in Section A – Checked the third box of the form STD. 840
- ☐ Attached a copy of the BUP Approval letter from DGS-PD
- ☐ Bidder Declaration form GSPD-05-105 completed and included with bid

BIDDER DECLARATION

1. Prime bidder information (Review attached Bidder Declaration Instructions prior to completion of this form):

- a. Identify current California certification(s) (MB, SB, SB/NVSA, DVB/E):** _____ **or None** ☒ (If "None," go to Item #2)
- b. Will subcontractors be used for this contract? Yes** ☒ **No** _____ (If yes, indicate the distinct element of work your firm will perform in this contract e.g., list the proposed products produced by your firm, state if your firm owns the transportation vehicles that will deliver the products to the State, identify which solicited services your firm will perform, etc.). Use additional sheets, as necessary.
- All services in this contract.

c. If you are a California certified DVB/E:

- (1) Are you a broker or agent? **Yes** _____ **No** _____
- (2) If the contract includes equipment rental, does your company own at least 51% of the equipment provided in this contract (quantity and value)? **Yes** _____ **No** _____ **N/A** _____

2. If no subcontractors will be used, skip to certification below. Otherwise, list all subcontractors for this contract. (Attach additional pages if necessary):

Subcontractor Name, Contact Person, Phone Number & Fax Number	Subcontractor Address & Email Address	CA Certification (MB, SB, DVB/E or None)	Work performed or goods provided for this contract	Corresponding % of bid price	Good Standing?	51% Rental?
ADH Environmental David Skinner T 530.524.2633 F 831.477.0895	3065 Porter Street, Suite 101 Soquel, CA 95073 dskinner@adhenvironmental.com	SB No. 29006	Field compliance services.	7%	Yes	NA
Artec Foster Wheeler Environment & Infrastructure, Inc. Khaili Abusaba T 510.663.4232 F 510.663.4141	180 Grand Avenue, Suite 1100 Oakland, CA 94612 khaili.abusaba@artecfw.com	None	Construction site and maintenance facility compliance. Water quality studies.	5%	Yes	NA
cbec, inc., eco engineering Chris Bowles T 916.231.6052 F 916.669.8886	2544 Industrial Boulevard West Sacramento, CA 95691 c.bowles@cbecoeng.com	SB No. 53516	Hydromodification and erosion control services.	2%	Yes	NA

APPROVED / MET GOAL

CONTRACT EVALUATION MANAGER
1-26-2012

CERTIFICATION: By signing the bid response, I certify under penalty of perjury that the information provided is true and accurate.

Subcontractor Name, Contact Person, Phone Number & Fax Number	Subcontractor Address & Email Address	CA Certification (MB, SB, DVBE or None)	Work performed or goods provided for this contract	Corresponding % of bid price	Good Standing?	51% Rental?
Leland Saylor Associates Brad Saylor T 415.291.3200 F 415.291.3201	101 Montgomery Street, Ste. 800 San Francisco, CA 94104 bsaylor@lelandsaylor.com	DVBE/SB No. 298	Field compliance services and Facility Pollution Prevention Plans.	7%	Yes	NA
M3 Integrated Services, Inc. Matt McKamey T 707.495.6774 F 707.595.5298	320 Tesconi Circle Suite M Santa Rosa, CA 95401 matt@m3-co.com	DVBE/SB No. 1697620	Stormwater best management practice implementation.	2%	Yes	NA
Montgomery & Associates, Inc. Elizabeth Gaylord T 916.476.4903 F 916.706.3037	1100 Corporate Way, Suite 140 Sacramento, CA 95831 liz@montgomery-assoc.com	SB No. 1663340	Permit enforcement and stormwater compliance services.	5%	Yes	NA
NV5, Inc. Joy Denny T 916.200.8011 F 916.379.0907	2525 Natomas Park Drive, Suite 300 Sacramento, CA 95833 Joy.Denny@NV5.com	None	Field construction inspections. Corrective action tracking.	3%	Yes	NA
Vall Cooper & Associates, Inc. Michael Broadwater T 714.749.0070 F 916.925.0954	1760 Creekside Oaks Drive, Suite 140 Sacramento, CA 95833 Mike.Broadwater@vallcooper.com	None	Field construction inspections. Corrective action tracking.	7%	Yes	NA
WRECO Analette Ochoa T 925.941.0017 F 925.941.0018	1243 Alpine Road, Suite 108 Walnut Creek, CA 94596 analette_ochoa@wreco.com	SB No. 60800	Stormwater compliance services and geotechnical support.	5%	Yes	NA

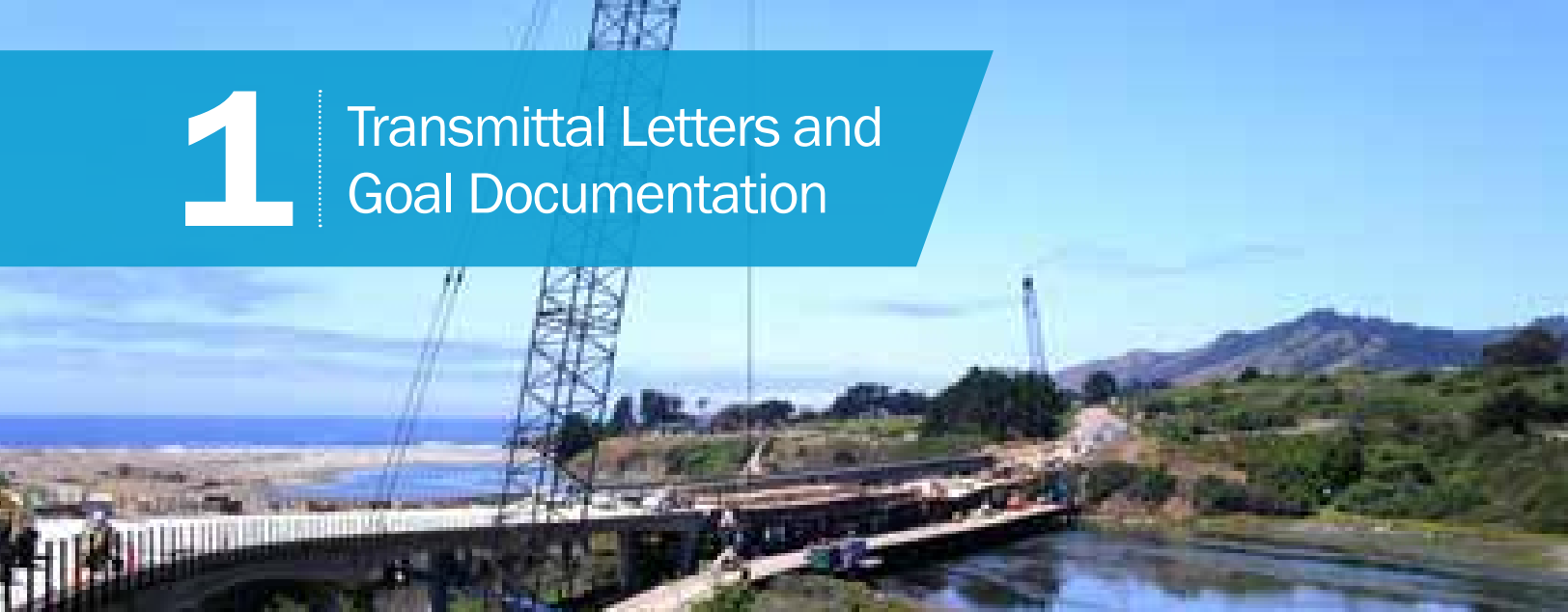
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts



December 18, 2015 | RFQ No. 43A0347



1 Transmittal Letters and Goal Documentation



District 1 Local Knowledge

- ✓ 2 Local Offices
- ✓ 96 FPPPs Prepared
- ✓ 5 Assistance Requests
- ✓ 333 SDSI Miles Inventoried



Cabe Silverhame

Willits, CA

- ✓ Nine years of full-time D1 construction reform



Lowell Cottle

Willits, CA

- ✓ Five years supporting Willits Bypass site



10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670
T: 916.444.0123
F: 916.635.8805
www.browncaldwell.com



December 18, 2015

Ms. Michelle Melton
State of California
Department of Transportation
Administration
Division of Procurement and Contracts, MS 65
1727 30th Street
Sacramento, CA 95816-7006

Dear Ms. Melton,

The California Department of Transportation (Caltrans) has a sophisticated Stormwater Program to protect water quality and comply with the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System Permit (Permit). To support the Program and achieve compliance in the Northern Districts, Caltrans needs a field savvy on-call consultant who can quickly marshal the right resources and identify workable solutions to keep projects moving.

Brown and Caldwell (BC) is poised to provide responsive, expert stormwater services to achieve Permit compliance through enforcement, prevention, and tracking. BC has supported Caltrans' Stormwater Program since its inception in 1995. For this new contract, Caltrans will benefit from the continuity of the key team members who have helped Caltrans achieve compliance, as well as the addition of experts and resources to help meet the evolving needs of the new Construction General Permit (CGP) and Statewide Stormwater Management Plan (SWMP). Our understanding of your Stormwater Program objectives and challenges, combined with the BC team's proven ability to deliver expert compliance assistance to the Northern Districts, will help you address all scope areas of the Request for Qualifications.

We understand your new emphasis for this support, as reflected in the title of this contract, and will partner with you to provide effective Permit compliance, reduced enforcement action liability, and efficient tracking of Permit compliance objectives.

Our new strategies to benefit Caltrans' compliance efforts include:



Permit Enforcement

Leverage new Headquarter's Construction Compliance Evaluation Plan (CCEP) Program for District compliance. BC led development of new CCEP self audit program tools such as standardized inspection checklists, site prioritization of high risk sites, corrective action documentation, and best management practice (BMP) trend analyses, to meet U.S. Environmental Protection Agency Findings of Violation and Order for Compliance (USEPA Order) mandates. We can tailor these tools to construction site reviews at the district level to increase consistency, Permit compliance, and focus on high risk sites.

Develop tools to implement the Enforcement Response Program (ERP). Your ERP contains four levels of progressive procedures for corrective action of findings at construction sites and maintenance facilities. Our field-focused staff can develop project-specific ERP tools to help Resident Engineers and Division of Maintenance achieve compliance.

**Prevention of
Regulatory Agency
Enforcement Actions**

Focused support based on Notice of Violation (NOV) causes to reduce liability. From our work assisting Caltrans responding to significant Northern California NOVs received over the past decade, we know the common causes of field-related non-compliance as well as appropriate preventative measures. We will leverage this knowledge to focus compliance efforts and reduce future liability.

**Compliance
Tracking**

Establish SharePoint site to transfer data seamlessly to the Caltrans Stormwater Portal. We propose developing a SharePoint site to facilitate data migration to the Stormwater Portal. Our information technology experts are also Caltrans stormwater specialists, who can work with the Portal gatekeepers to provide data analyses that promote Program accomplishments.

Develop tracking procedures to maximize Total Maximum Daily Load (TMDL) compliance units. We can apply our experience with the Storm Drain System Inventory (SDSI), Project Planning Design Guide (PPDG), and Treatment BMP Inventory to develop a map-based database that will support maximum and defensible TMDL compliance credits for Caltrans.

One size does not fit all. Our team understands that stormwater compliance needs differ between Caltrans divisions and districts as local conditions can require varying compliance strategies. We also recognize that the vast majority of enforcement actions occur at construction sites. We will leverage this local insight to provide targeted support, appropriate strategies, and practical solutions.

While our strong understanding of Caltrans' guidance documents is critical for this contract, what sets our team apart is our deep bench of field savvy stormwater specialists. Our field staff have been your eyes and ears at Northern California construction sites since the 2004 inception of the predecessor Northern California District Assistance contracts. Caltrans will benefit by the local understanding these field staff bring under this new contract. We have taken a lead role in preparing compliance documents for Maintenance and Right of Way (ROW) divisions. When Caltrans has faced enforcement actions, such as the Sonora Bypass NOV, we worked with you to prepare technical reports that helped reduce fines and penalties. In fact, knowing Caltrans needs quick action, we have initiated work on all 53 Assistance Requests assigned us within 24 hours of notice and have never missed a deadline.

We have retained our existing key subconsultants and added strategic new firms to meet all contract needs. Our leadership team on this contract will bring unmatched technical excellence and focus to all areas of the scope of work.

Team Disclosure

Michael Flake separated from Caltrans on August 21, 2006, as a Supervising Transportation Engineer. Sayra Hurley separated from Caltrans on May 6, 2002, as a Transportation Engineer. Based on Section 10411 of the California Public Contract Code, both Michael and Sayra are eligible to contractually provide the services defined in RFQ 43A0347.

Business Goals

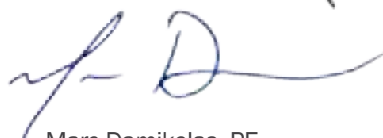
As on previous contracts, BC is committed to meeting Small Business (SB) goals and Disabled Veteran Business Enterprise (DVBE) mandates. BC will exceed the 5 percent DVBE participation requirement and achieve the 25 percent SB participation goal, as specified in the following table:

Subconsultant Name	DVBE and SB Status	Estimated % of Work
ADH Environmental	SB	7%
Amec Foster Wheeler Environment & Infrastructure, Inc.	NA	5%
cbec, inc., eco engineering	SB	2%
Leland Saylor Associates	DVBE and SB	7%
M3 Integrated Services, Inc.	DVBE and SB	2%
Montgomery & Associates, Inc.	SB	5%
NV5, Inc.	NA	3%
Vali Cooper & Associates, Inc.	NA	7%
WRECO	SB	5%
Total DVBE Commitment		9%
Total SB Commitment		28%

BC certifies the information presented in this Statement of Qualifications is truthful, accurate, and complete as of the submittal date. I, Marc Damikolas, Senior Vice President of Brown and Caldwell, am authorized to obligate the firm to perform Contract No. 43A0347. Our project team has great personal and professional interest in this project, and we look forward to continuing our strong working relationship with Caltrans.

We look forward to discussing this contract and can be reached at 916.853.5335 (Randy) or 213.271.2226 (Marc).

Best regards,
BROWN AND CALDWELL



Marc Damikolas, PE
Senior Vice President



Randy Marx, PE, CPESC, QSD
Project Manager

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

☐ Determined that no potential conflict of interest exists.

☒ Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

BC is currently a Contractor on the following Caltrans Agreements: Contract No. 43A0321 (subconsultant), Contract No. 03A2360 (prime), Contract No. 04A4426 (prime), Contract No. 04A4312 (subconsultant), and Contract No. 43A0325 (prime).

While unlikely, each of these Agreements may have potential conflicts of interest. For example, a BC construction inspector working under our support to District 1 at the Willits Bypass site (No. 03A2360) may have a conflict with a BC inspector under the Permit Enforcement, Prevention and Tracking Contract, Northern Districts, who HQ has sent to the Willits site to perform a certain task.

Describe measures proposed to mitigate the potential conflict(s):

At the beginning of each Contract No. 43A0347 task order, BC will disclose to both the Contract and Task Order Manager work we (BC and our subconsultants) are performing under other Caltrans Agreements to determine whether any conflict of interest would be a concern. If potential conflicts are determined, BC and Caltrans will agree on a staffing plan that satisfies any of these concerns. We will not start work on any task order until this process occurs.

Signature

December 18, 2015

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Randy Marx, PE, CPESC, QSD | Vice President

Name & Title

916.853.5335

Phone

Solicitation # 43A0347 Firm Name Brown and Caldwell

BIDDER DECLARATION

1. Prime bidder information (Review attached Bidder Declaration Instructions prior to completion of this form):

- a. Identify current California certification(s) (MB, SB, SB/NVSA, DVBE):** _____ **or None** X (If "None", go to Item #2)
- b. Will subcontractors be used for this contract?** **Yes** X **No** ____ (If yes, indicate the distinct element of work your firm will perform in this contract e.g., list the proposed products produced by your firm, state if your firm owns the transportation vehicles that will deliver the products to the State, identify which solicited services your firm will perform, etc.). Use additional sheets, as necessary.

All services in this contract.

- c. If you are a California certified DVBE:** (1) Are you a broker or agent? **Yes** ____ **No** ____
(2) If the contract includes equipment rental, does your company own at least 51% of the equipment provided in this contract (quantity and value)? **Yes** ____ **No** ____ **N/A** ____

2. If no subcontractors will be used, skip to certification below. Otherwise, list all subcontractors for this contract. (Attach additional pages if necessary):

Subcontractor Name, Contact Person, Phone Number & Fax Number	Subcontractor Address & Email Address	CA Certification (MB, SB, DVBE or None)	Work performed or goods provided for this contract	Corresponding % of bid price	Good Standing?	51% Rental?
ADH Environmental David Skinner T 530.524.2633 F 831.477.0895	3065 Porter Street, Suite 101 Soquel, CA 95073 dskinner@adhenvironmental.com	SB No. 29006	Field compliance services.	7%	Yes	NA
Amec Foster Wheeler Environment & Infrastructure, Inc. Khalil Abusaba T 510.663.4232 F 510.663.4141	180 Grand Avenue, Suite 1100 Oakland, CA 94612 khalil.abusaba@amecfw.com	None	Construction site and maintenance facility compliance. Water quality studies.	5%	Yes	NA
cbec, inc., eco engineering Chris Bowles T 916.231.6052 F 916.669.8886	2544 Industrial Boulevard West Sacramento, CA 95691 c.bowles@cbecoeng.com	SB No. 53516	Hydromodification and erosion control services.	2%	Yes	NA

CERTIFICATION: By signing the bid response, I certify under penalty of perjury that the information provided is true and correct.

Subcontractor Name, Contact Person, Phone Number & Fax Number	Subcontractor Address & Email Address	CA Certification (MB, SB, DVBE or None)	Work performed or goods provided for this contract	Corresponding % of bid price	Good Standing?	51% Rental?
Leland Saylor Associates Brad Saylor T 415.291.3200 F 415.291.3201	101 Montgomery Street, Ste. 800 San Francisco, CA 94104 bsaylor@lelandsaylor.com	DVBE/SB No. 298	Field compliance services and Facility Pollution Prevention Plans.	7%	Yes	NA
M3 Integrated Services, Inc. Matt McKamey T 707.495.6774 F 707.595.5298	320 Tesconi Circle Suite M Santa Rosa, CA 95401 matt@m3-co.com	DVBE/SB No. 1697620	Stormwater best management practice implementation.	2%	Yes	NA
Montgomery & Associates, Inc. Elizabeth Gaylord T 916.476.4903 F 916.706.3037	1100 Corporate Way, Suite 140 Sacramento, CA 95831 lizz@montgomery-assoc.com	SB No. 1663340	Permit enforcement and stormwater compliance services.	5%	Yes	NA
NV5, Inc. Joy Denny T 916.200.8011 F 916.379.0907	2525 Natomas Park Drive, Suite 300 Sacramento, CA 95833 Joy.Denny@NV5.com	None	Field construction inspections. Corrective action tracking.	3%	Yes	NA
Vali Cooper & Associates, Inc. Michael Broadwater T 714.749.0070 F 916.925.0954	1760 Creekside Oaks Drive, Suite 140 Sacramento, CA 95833 Mike.Broadwater@valicooper.com	None	Field construction inspections. Corrective action tracking.	7%	Yes	NA
WRECO Analette Ochoa T 925.941.0017 F 925.941.0018	1243 Alpine Road, Suite 108 Walnut Creek, CA 94596 analette_ochoa@wreco.com	SB No. 60800	Stormwater compliance services and geotechnical support.	5%	Yes	NA

STATE OF CALIFORNIA – GENERAL SERVICES PROCUREMENT DIVISION

DOCUMENTATION OF DISABLED VETERAN BUSINESS ENTERPRISE PROGRAM REQUIREMENTS

STD. 840 (REV. 8/2009)

A. Designation Of Option – Check the appropriate box(es) to indicate the option(s) with which you choose to comply, complete the applicable sections and attach the required supporting documentation. You are advised to read all instructions carefully prior to completing this form. Remember that only California certified DVBEs who can provide related goods and/or services may be used to satisfy these program solicitation requirements. DVBEs must perform a commercially useful function. During contract performance, all requests for substituting DVBE subcontractors must be made in accordance with the provisions of California Code of Regulations, Title 2, §1896.64(c).

☒ **OPTION A – I commit to meeting the full DVBE Agreement participation requirement.**

Complete: STD. 840, Section A (check the box on this form) and
Bidder Declaration form GSPD-05-105 (located elsewhere in the solicitation)

☐ **OPTION B – I submit a copy of my firm's "Notice of Approved DVBE Business Utilization Plan."**

Complete: STD. 840, Section A (check the box on this form) and
Bidder Declaration form GSPD-05-105 (located elsewhere in the solicitation)

STATE OF CALIFORNIA – GENERAL SERVICES PROCUREMENT DIVISION

DOCUMENTATION OF DISABLED VETERAN BUSINESS ENTERPRISE PROGRAM REQUIREMENTS

STD 840 (REV. 8/2009)

Date Contacted 5/15/2015	DVBE Company Name Leland Saylor Associates		
DVBE Contact Name & Reference # Brad Saylor DVBE/SB No. 298	Telephone Number (415)291-3200 ext.	Fax Number (415)291-3201	E-mail (if available) bsaylor@lelandsaylor.com
Street Address, City, State, and Zip Code 101 Montgomery Street, Suite 800 San Francisco, CA 94104			
☒ DVBE was selected and is listed on the GSPD-05-105 ☐ DVBE Approved BUP is Attached.			

Date Contacted 5/17/2015	DVBE Company Name M3 Integrated Services, Inc.		
DVBE Contact Name & Reference # Matt McKamey DVBE/SB No. 1697620	Telephone Number (707)495-6774 ext.	Fax Number (707)595-5298	E-mail (if available) matt@m3-co.com
Street Address, City, State, and Zip Code 320 Tesconi Circle Suite M Santa Rosa, CA 95401			
☒ DVBE was selected and is listed on the GSPD-05-105 ☐ DVBE Approved BUP is Attached.			

Date Contacted / /	DVBE Company Name		
DVBE Contact Name & Reference #	Telephone Number () - ext.	Fax Number () -	E-mail (if available)
Street Address, City, State, and Zip Code			
☐ DVBE was selected and is listed on the GSPD-05-105 ☐ DVBE Approved BUP is Attached.			

DVBE Program Requirements Supplier Checklist (Rev. 2-28-2005)

Please do not submit this checklist with your bid. It is provided for your use only. Checking every box of your elected compliance option does not guarantee that your bid will be deemed compliant.

☒	OPTION A: COMMITMENT TO DVBE AGREEMENT PARTICIPATION
☒	STD. 840 included with bid
☒	Designated the Commitment Option in Section A – Checked the first box of the form STD. 840
☒	Bidder Declaration form GSPD-05-105 completed and included with bid
☒	Proposed DVBE participation meets the 5% requirement (unless a different percentage is specified)
☐	OPTION B: BUSINESS UTILIZATION PLAN (BUP) <i>If this solicitation specifies higher participation goals than the bidder's utilization plan, the bidder is required to meet these goals.</i>
☐	Prior to the bid due date – Submitted a BUP to DGS-PD and received approval
☐	STD. 840 included with bid
☐	Designated the BUP Option in Section A – Checked the third box of the form STD. 840
☐	Attached a copy of the BUP Approval letter from DGS-PD
☐	Bidder Declaration form GSPD-05-105 completed and included with bid

ADH Environmental

- Commitment Letter
- Conflict of Interest Disclosure
- SB Certification



Strategy • Analysis • Solutions

November 30, 2015

Randy Marx, PE, PMP, CPESC, QSD/QSP
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Re: Letter of Commitment
Permit Enforcement, Prevention and Tracking Northern Districts

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above-referenced solicitation, ADH Technical Services, Inc. dba ADH Environmental (ADH), a California Department of General Services Microbusiness (OSDS Reference No. 29006), is pleased to offer its commitment to provide environmental consulting services as may be required during the term of the contract. ADH is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

ADH does not have any former Caltrans employees. ADH is currently working on A&E On-Call Professional and Technical Stormwater Quality Assurance Services No. 43A0321 that may have potential for conflict of interest. ADH will ensure proposed key personnel will not perform field reviews on projects that are being serviced under this contract.

For the duration of the contract, the contact person for our firm is as follows:

David Skinner, Regional Manager Redding, California
530-524-2633
dskinner@adhenvironmental.com

We appreciate the opportunity to work with Brown and Caldwell on this contract. Please contact me if you require additional information.

Sincerely,

ADH Environmental

A handwritten signature in blue ink, appearing to read "D. Skinner", is shown within a rectangular box.

David J. Skinner
Regional Manager

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

_____ Determined that no potential conflict of interest exists.

 X Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s): ADH is currently working on A&E On-Call Professional and Technical Stormwater Quality Assurance Services No. 43A0321 as a sub-contractor to Vali Cooper. This may have potential for conflict of interest as the Quality Assurance contract is intended to provide reviews of construction activities.

Describe measures proposed to mitigate the potential conflict(s):

ADH will ensure proposed key personnel will not perform field reviews on projects that are being serviced under this contract by ADH Environmental personnel.



Signature

11-30-15
Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

David Skinner, Regional Manager
Name & Title

530-524-2633
Phone

Solicitation # 43A0347

Firm Name ADH Environmental



U.S. SMALL BUSINESS ADMINISTRATION
WASHINGTON, D.C. 20416

September 13, 2008

Alessandro Hratt, President
ADH Technical Services, Inc.
2425 Porter Street, Suite 13
Soquel, California 95073

Dear Mr. Hratt:

Congratulations! Your firm has been certified as a Participant in the U.S. Small Business Administration's (SBA) 8(a) Business Development Program. Your nine (9) year program term begins on the date of this letter.

Additionally, your firm has been certified as a Small Disadvantaged Business (SDB) in the Federal Government's SDB program. Your term of participation in the SDB program is concurrent with your 8(a) Business Development certification.

During participation in the 8(a) Business Development Program, you will receive business development assistance from an assigned Business Development Specialist in the San Francisco District Office located at 455 Market Street, 6th Floor, San Francisco, California 94105-2420. The phone number is 415/744-6820. The District office will also be able to provide you with information on the SDB program and its benefits.

Your firm will become eligible to receive 8(a) Business Development contracts after you submit a business plan using SBA Form 1010C and receive SBA's approval of the plan. We are sending a copy of this certification letter to the SBA San Francisco District Office. That office will send you the business plan form.

SBA requires that the 8(a) participant's President or Chief Executive Officer sign a Participation Agreement to show that he or she understands the conditions of 8(a) program participation. Please read the Agreement carefully, sign and date one copy and return it to the SBA San Francisco District Office at the address shown in the third paragraph above. The second copy is for your records.

Even though your firm's approved North American Industry Classification System (NAICS) Code is 541620, your firm may be awarded contracts under other NAICS Codes, as long as the firm is qualified to perform the required service or task. In this regard, please note that contracts awarded under 8(a) Business Development Program authority generally result from the self-marketing efforts of participating firms. While your firm's acceptance into the 8(a) Business Development Program is not a guarantee of contract support, SBA will make every effort to assist you in your marketing efforts.

During your participation in the 8(a) Business Development Program, I encourage you to take advantage of the Mentor-Protégé Program, the Federal Surplus Property Program and the extensive management and technical training available to you. Your local SBA District Office can provide additional information on these programs.

If you have not already done so, we strongly suggest that you acquire access to e-mail to enhance your communication abilities with public and private sector buyers. Also, you should consider setting up a merchant account with a credit card company, which will give you the ability to accept credit card orders for your goods and services from over 1,000 Federal buying offices. Finally, registration in the Department of Defense's Central Contractor Registration (CCR) database is a requirement to receive federal contracts. Therefore, if you have not already done so, you must register your firm, including completion of the SBA supplemental pages, in the CCR registry found online at <http://www.ccr.gov>.

I welcome you as an 8(a) Business Development Program participant and wish you every possible success.

Sincerely,



Joseph P. Lodo
Associate Administrator
Office of Business Development

Amec Foster Wheeler Environment & Infrastructure, Inc.

- Commitment Letter
- Conflict of Interest Disclosure



December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Letter of Commitment
Stormwater Permit Enforcement, Prevention, and Tracking Services for
Northern Districts
RFQ No. 43A0347

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above-referenced solicitation, Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler) is pleased to offer its commitment to provide water quality monitoring, construction site inspection, and data quality assurance services as may be required during the term of the contract. Amec Foster Wheeler is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

Amec Foster Wheeler does not have any former Caltrans employees.

For the duration of the contract, the contact person for our firm is as follows:

Name and Title: Dr. Khalil E. Phelan Abusaba

Phone No.: 510-663-4232

Email Address: Khalil.abusaba@amecfw.com

We look forward to working with Brown and Caldwell on this contract. Please contact me if you require additional information.

Respectfully,
Amec Foster Wheeler Environment & Infrastructure, Inc.

Kenneth Conner, PE, PMP, QSD/QSP
Bay Area Manager

Amec Foster Wheeler Environment & Infrastructure, Inc.
180 Grand Avenue, Suite 1100
Oakland, California 94612-3066
USA
Tel (510) 663-4100
Fax (510) 663-4141
amecfw.com

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

 X Determined that no potential conflict of interest exists.

 Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

Describe measures proposed to mitigate the potential conflict(s):



Signature

12-18-15

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Khalil Phelan Abusaba, Senior Associate Scientist

Name & Title

510-663-4232

Phone

Solicitation # 43A0347

Firm Name Amec Foster Wheeler

cbec, inc., eco engineering

- Commitment Letter
- Conflict of Interest Disclosure
- SB Certifications



Hydrology | Hydraulics | Stormwater Management | Design | Field Services

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Subject: Letter of Commitment
Stormwater Permit Enforcement, Prevention, and Tracking Services for
Northern Districts
RFQ No. 43A0347

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above referenced solicitation, cbec, inc. eco engineering (cbec), a certified California Small Business (No. 53516, certificate attached), is pleased to offer its commitment to provide hydrology, hydraulics, hydromodification planning (HMP), Storm Water Pollution Prevention Plan (SWPPP) and Low Impact Development (LID) services, geomorphology, design and field services, as may be required during the term of the contract. cbec is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

cbec does not have any former Caltrans employees.

For the duration of the contract, the contact person for our firm is as follows:

Name and Title: Chris Bowles, President

Phone No.: 916-231-6052 ext 220

E-mail Address: c.bowles@cbecoeng.com

We look forward to the opportunity of working with Brown and Caldwell on this contract. Please contact me if you need additional information.

Sincerely,

Chris Bowles, PE, PhD, President
cbec, inc. eco engineering

20440 Industrial Blvd, Suite 100, Sacramento, CA 95831-1000
1-800-231-6052 • 916-231-6052 • www.cbecoeng.com

Environmental and water solutions for the water resources industry

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

☒ Determined that no potential conflict of interest exists.

☐ Determined a potential conflict of interest as follows:

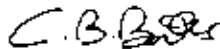
Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

Not Applicable

Describe measures proposed to mitigate the potential conflict(s):

Not Applicable



December 18, 2015

Signature

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Not Applicable

Name & Title

Phone

Solicitation: No. 43A0347

Firm Name: cbec, inc. eco engineering

California Certification Report

53516 - CBEC, INC., ECO-ENGINEERING - MB

Legal Business Name	CBEC, INC., ECO-ENGINEERING		
Doing Business As	CBEC, INC., ECO-ENGINEERING		
Address	2544 Industrial Blvd.	Phone	(916) 231-6052
	WEST SACRAMENTO, CA 95691	FAX	
Email	c.bowles@cbecoeng.com		
Web Page	http://cbecoeng.com		
Active Certifications	SB (micro) Nov 5, 2013 - Nov 30, 2017		
Business Types	Service; Non-Manufacturer;		
Classifications	[771116] Environmental rehabilitation		
	[811015] Civil engineering		
	[811518] Oceanography and hydrology		
Keywords	water creek hydro geomorphology hydrology hydraulic hydrodynamic survey GIS bathymetry topography		
	modeling design field services		

[This page left intentionally blank.]

Leland Saylor Associates

- Commitment Letter
- Conflict of Interest Disclosure
- DVBE and SB Certifications



101 Montgomery St, Suite 800
San Francisco, CA 94104
TEL: 415-291-3200
FAX: 415-291-3201
www.lelandsaylor.com

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Letter of Commitment, Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts, RFQ No. 43A0347

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above referenced solicitation, Leland Saylor Associates, a certified California Small Business/Disabled Veteran Business Enterprise (No.298), is pleased to offer its commitment to provide Stormwater Compliance services as may be required during the term of the contract. Leland Saylor Associates is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract. Leland Saylor Associates, does not have any former Caltrans employees.

For the duration of the contract, the contact person for our firm is as follows:

Name and Title: Brad Saylor, Vice President
Mailing Address: 101 Montgomery Street, Ste. 800, San Francisco, CA 94104
Phone No.: (415) 291-3200
Fax Number: (415) 291-3201
Email Address bsaylor@lelandsaylor.com, lsullivan@lelandsaylor.com

We look forward to working with Brown and Caldwell on this contract. Please contact me if you need additional information.

Sincerely,



Brad Saylor
Vice President

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

 x Determined that no potential conflict of interest exists.

 Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

Describe measures proposed to mitigate the potential conflict(s):



December 14, 2015

Signature

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Brad Saylor, Vice President

415-291-3200

Name & Title

Phone

Solicitation #43A0347

Firm Name Leland Saylor Associates



[Home](#)
[Search](#)
[Bids](#)
[Orders](#)
[Tools](#)
[CRM](#)
[Agency List](#)

[Support](#)
[Logout](#)

CALIFORNIA PROFILE

BidSync Supplier Name	Leland Saylor Associates	Supplier Number	298
Legal Business Name	LELAND SAYLOR ASSOCIATES	DBA Business Name	LELAND SAYLOR & ASSOCIATES
Address	101 MONTGOMERY STREET, STE 800 SAN FRANCISCO, CA 94104	Phone	(415) 291-3200
Email	lsaylor@lelandsaylor.com	FAX	(415) 291-3201
Web Page	http://www.lelandsaylor.com		
Number of Employees	25		
Business Types	Service		
Service Areas	Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba,		
Keywords	Cost Estimating, Quantity Surveying, Project Controls, Scheduling, Construction Management Services, Inspection, Risk Management, Quality Assurance/Quality Control, Project Management, Stormwater Monitoring, Sampling, SWPPP, WPCP, Urban Runoff, Stormwater		
Classifications	771017 - Environmental advisory services 771018 - Environmental auditing 771019 - Pollution investigation services 771215 - Air pollution 771216 - Soil pollution 771217 - Water pollution 801016 - Project management 801616 - Business facilities oversight 811015 - Civil engineering 811016 - Mechanical engineering 811022 - Transportation engineering		
View Options	View Application		
Edit Options	Amend Application		

<https://www.bidsync.com/DPXBisCASB?ac=listcerts>

6/3/2014

BidSync: California Certifications

Page 2 of 2

Active Certifications

TYPE	STATUS	STATUS DATE	FROM	TO	ACTIONS
SB	Approved	Mar 3, 2014	Mar 25, 2013	Mar 31, 2016	
DVBE	Approved	Mar 3, 2014	Apr 22, 2013	Mar 31, 2016	

Certification History

TYPE	STATUS	STATUS DATE	FROM	TO
DVBE	Expired	Apr 23, 2013	Mar 20, 2012	Apr 30, 2013
SB	Expired	Mar 25, 2013	Feb 6, 2012	Apr 30, 2013
DVBE	Expired	Apr 1, 2012	Mar 28, 2011	Mar 31, 2012
SB (Micro)	Expired	Feb 6, 2012	Mar 24, 2010	Mar 31, 2012
DVBE	Expired	Mar 30, 2011	Mar 25, 2010	Mar 31, 2011
DVBE	Expired	Mar 30, 2010	Apr 10, 2009	Mar 30, 2010
SB	Expired	Mar 24, 2010	Mar 20, 2009	Mar 30, 2010
DVBE	Expired	Apr 10, 2009	Mar 7, 2008	Apr 10, 2009
SB	Expired	Mar 20, 2009	May 23, 2008	Mar 20, 2009
DVBE	Expired	Jan 19, 2007	Jan 19, 2007	Jan 31, 2008
DVBE	Expired	Jan 31, 2005	Jan 31, 2005	Dec 31, 2006
DVBE	Expired	Dec 30, 2002	Feb 6, 2003	Jan 31, 2005
DVBE	Expired	Dec 31, 1999	Dec 31, 1999	Dec 31, 2002
DVBE	Expired	Jan 3, 1995	Jan 3, 1995	Dec 31, 1999

[Home](#) [Bid Search](#) [Bids](#) [Orders](#) [My account](#) [Privacy](#) [Terms](#) [Logout](#)
Customer Support - vendorsupport@bidsync.com or 800-990-9339

Copyright © 1999-2014 - BidSync - All rights reserved.

<https://www.bidsync.com/DPXBisCASB?ac=listcerts>

6/3/2014

M3 Integrated Services, Inc.

- Commitment Letter
- Conflict of Interest Disclosure
- DVBE and SB Certifications



November 30, 2015

Randy Marx, PE, PMP, CPESC, QSD
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Letter of Commitment
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts
RFQ No. 430347

Dear Mr. Marx,

In response to your request for participation as a subcontractor for the above referenced solicitation, M3 Integrated Services, Inc., a certified California Disabled Veteran Business Enterprise and Small Business (No.1697620), is pleased to offer its commitment to provide engineering and stormwater monitoring services as may be required during the term of the contract. M3 Integrated Services, Inc. is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

M3 Integrated Services, Inc. does not employ any current or former Caltrans employees.

M3 Integrated Services, Inc. is not currently working on contracts or projects that have potential conflict of interest with Caltrans contract.

For the duration of the contract, the contact person for our firm is as follows:

Name and Title: Matt McKamey, Project Manager
Phone No.: 707.495.6774
Email Address: matt@m3-co.com

We look forward to the opportunity of working with Brown and Caldwell on this contract. Please contact me if your need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matt McKamey', with a stylized flourish at the end.

Matt McKamey, PE
M3 Integrated Services, Inc.

M3 Integrated Services, Inc., 320 Tesconi Circle Suite M Santa Rosa, California 95401
Office: (707) 495-6774 web: www.m3-co.com

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

☒ Determined that no potential conflict of interest exists.

☐ Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

Describe measures proposed to mitigate the potential conflict(s):

Matt McHenry
Signature

12-14-15
Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Name & Title

Phone

Solicitation # 43A0347 Firm Name M3 Integrated Services, Inc

RFO No. 43A0347 | 1 - 23

[This page left intentionally blank.]

Montgomery & Associates, Inc.

- Commitment Letter
- Conflict of Interest Disclosure
- SB Certification



December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Letter of Commitment
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts
RFQ No. 43A0347

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above referenced solicitation, Montgomery & Associates, Inc., a certified California Small Business Enterprise (No.1663340), is pleased to offer its commitment to provide Stormwater Consulting services as may be required during the term of the contract. Montgomery & Associates, Inc. is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract. Montgomery & Associates, Inc. does not have any former Caltrans employees.

For the duration of the contract, the contact person for our firm is as follows:

Elizabeth Gaylord, CPESC, QSD/P - President
1100 Corporate Way, Suite 140, Sacramento, CA 95831
Phone: (916) 476-4903
Lizz@montgomery-assoc.com
Fax: (916) 706-3037

We look forward to working with Brown and Caldwell on this contract. Please contact me if you need additional information.

Sincerely,

Montgomery & Associates, Inc. (M&A)

Elizabeth Gaylord, CPESC, QSD/QSP
President

1100 Corporate Way | Suite 140 | Sacramento, CA 95831 | 916.476.4903 | 916.706.3037
350 Tenth Avenue | 10th Floor | San Diego, CA 92101 | 619.344.2667 | 619.344.2501
2173 Salk Avenue | Suite 250 | Carlsbad, CA 92008 | 760.579.7331 | 760.579.7332
Montgomery-assoc.com

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

Montgomery & Associates, Inc. hereby indicates that it has, to the best of its knowledge and belief:

 X Determined that no potential conflict of interest exists.

 Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

Describe measures proposed to mitigate the potential conflict(s):



Signature

12/1/2015

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Elizabeth Gaylord, CPESC, QSD | President

916.476.4903

Name & Title

Phone

Solicitation # 43A0347 Firm Name Montgomery & Associates, Inc.



MONTGOMERY & ASSOCIATES INC - #1663340

Supplier Profile

Legal Business Name MONTGOMERY & ASSOCIATES INC

Doing Business As MONTGOMERY & ASSOCIATES INC

Address 1100 Corporate Way Suite 140
SACRAMENTO, CA 95831

Phone (916) 476-4903

FAX (916) 706-3037

Email lizz@montgomery-assoc.com

Web Page <http://www.montgomery-assoc.com>

Business Types Service

Service Areas Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba,

Keywords Storm Water Pollution Prevention Services- including inspection, training, Stormwater Pollution Prevention plan development (SWPPP), Construction Management Services, Inspection Services, Environmental Consulting

Classifications 721410 - Highway and road construction services
771015 - Environmental impact assessment
771017 - Environmental advisory services
771018 - Environmental auditing
771217 - Water pollution
801015 - Business and corporate management consultation services

Active Certifications

TYPE	STATUS	FROM	TO
SB (Micro)	Approved	Jul 11, 2013	Jul 31, 2017

Certification History

TYPE	STATUS	FROM	TO
SB (Micro)	Expired	Jul 19, 2011	Jul 31, 2013

California Certification Report - p. 1 - Generated on Dec 1, 2015

California Certification Report

1663340 - MONTGOMERY & ASSOCIATES INC - MB

Legal Business Name	MONTGOMERY & ASSOCIATES INC		
Doing Business As	MONTGOMERY & ASSOCIATES INC		
Address	1100 Corporate Way Suite 140	Phone	(916) 476-4903
	SACRAMENTO, CA 95831	FAX	(916) 706-3037
Email	lizz@montgomery-assoc.com		
Web Page	http://www.montgomery-assoc.com		
Active Certifications	SB (micro) Jul 11, 2013 - Jul 31, 2017		
Business Types	Service;		
Classifications	[721410] Highway and road construction services		
	[771015] Environmental impact assessment		
	[771017] Environmental advisory services		
	[771018] Environmental auditing		
	[771217] Water pollution		
	[801015] Business and corporate management consultation services		
Keywords	Storm Water Pollution Prevention Services- including inspection, training, Stormwater Pollution Prevention plan development (SWPPP), Construction Management Services, Inspection Services, Environmental Consulting		

NV5, Inc.

- Commitment Letter
- Former Caltrans Employee Disclosure
- Conflict of Interest Disclosure



November 30, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Letter of Commitment for Stormwater Permit Enforcement, Prevention, Tracking Services for Northern Districts (RFQ No. 43a0347)

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above referenced solicitation, NV5 is pleased to offer its commitment to provide construction inspection and SWPPP inspection and monitoring services as may be required during the term of the contract. NV5 is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

The following NV5 staff proposed for this contract has previously worked as an employee of the State of California, Department of Transportation:

Individual's Full Name	Separation Date	Functional Responsibility
Juan Zuniga, PE	April 2000	Transportation Engineer, Range C

For the duration of the contract, the contact person for our firm is as follows:

Joy Denny, PE
8795 Folsom Boulevard, Suite 102
Sacramento, CA 95826
(916) 200-8011
Joy.Denny@NV5.com
(916) 379-0907 (fax)

We look forward to working with Brown and Caldwell on this contract. Please contact me if you need additional information.

Sincerely,
NV5, Inc.

A handwritten signature in blue ink that appears to read 'Todd' followed by a stylized flourish.

Todd George, P.E.
COO, Civil Program Management

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

 X Determined that no potential conflict of interest exists.

 Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

Describe measures proposed to mitigate the potential conflict(s):

NV5 and its' subsidiaries understand the serious nature of Conflicts of Interest (COI), both real and perceived. To minimize any issues, NV5's Potential COI Mitigation Plan focuses on three main types of potential conflicts – non-construction management related contracts, construction management related contracts, and personal.

- **Non-construction management:** this type of potential COI could arise on contracts through which work is conducted by two separate NV5 branches – design and construction management. For example, NV5's design branch might design a new interchange for which our construction management branch might in turn provide inspection services during construction.
- **Construction management:** this type of potential COI could arise when our construction management staff works on the same project under separate contracts. For example, NV5's construction management branch might first provide inspection services for an interchange that is administered by a local agency and then provide inspection services for the oversight agency on the same project.
- **Personal:** this type of potential COI could arise when staff working on a contract might have the opportunity to influence other project staff that might be family or friends.

NV5's project managers play an important role in minimizing conflicts of interest. Every project manager is responsible for verifying that there are no COIs at the beginning of a contract. They are required to review all proposed work, identify potential COIs, discuss potential COIs with the owner(s), and prepare a mitigation plan, as necessary. They are also responsible for coordinating with other projects managers within the company as new contracts begin – this process ensures that compliance with NV5's Potential COI Mitigation Plan is maintained.



December 3, 2015

Signature

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Todd George, PE | COO, Civil Program Management

559.661.5226

Name & Title

Phone

Solicitation # 43A0347 Firm Name NV5

Vali Cooper & Associates, Inc.

- Commitment Letter
- Former Caltrans Employee Disclosure
- Conflict of Interest Disclosure



December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Letter of Commitment
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts (RFQ No. 43A0347)

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above referenced solicitation, Vali Cooper & Associates, Inc. (VC&A) is pleased to offer its commitment to support the Brown & Caldwell team for A/E Stormwater Permit Enforcement, Prevention and Tracking Services for Caltrans' Northern Districts providing Project and Facility Stormwater Plan Assistance, Regulatory Enforcement Response, Quality Assurance Program and Enforcement - Tracking and Corrective Actions, and Field Data Collection - Drainage & BMPs. The firm will utilize qualified personnel from the Emeryville, San Luis Obispo, Murphys, Sacramento and Lathrop offices as may be required during the term of the contract. VC&A is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

VC&A has listed any former Caltrans employees below.

Staff Member Name	Separation Date from Caltrans	Functional Responsibility while with Caltrans (last 24 months of employment)
Michael Broadwater, CPESC, QSD/P, ToR	June/ 1995	Transportation Engineer, Range C
David Sluga, PE, CPESC, QSD/P, ToR	May/ 1997	Transportation Engineer, Range D

We have identified the following projects as potential conflicts of interest.

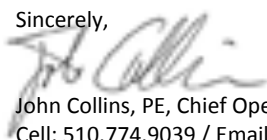
Contract	Prime	Description	EA
43A0321	VC&A	On-Call Professional and Technical Stormwater Quality Assurance Services, Statewide, District 43 Caltrans	Various
VCA201117	VC&A	On-Call CM and Inspection Services, San Joaquin COG	Various
202-S1499	VC&A	CM and Inspection – US 50/Silva Valley Parkway, El Dorado County	n/a
127-S1611	VC&A	On-Call CM and Inspection, El Dorado County	Various
06A1739 and 06A2016	NV5	On-Call CM and Inspection, District 10 Caltrans	Various
03A2086	VC&A	On-Call CM and Inspection, District 2 Caltrans	Various
03A1811	VC&A	On-Call CM and Inspection, District 3 Caltrans	Various
04A4339	VC&A	On-Call CM and Inspection, District 4 Caltrans	Various
06A1737	VC&A	On-Call CM and Inspection, District 5 Caltrans	Various

For the duration of the contract, the contact person for our firm is as follows:

Michael Broadwater, CPESC, QSD/P, ToR, Senior Vice President
1760 Creekside Oaks Drive, Suite 140, Sacramento, CA 95833
Cellphone: 714.749.0070 Fax: 916.925.0954
Mike.Broadwater@valicooper.com

We look forward to working with Brown and Caldwell on this contract. I, John Collins, PE, am authorized to commit the firm. Please contact me if you need additional information.

Sincerely,



John Collins, PE, Chief Operations Officer
Cell: 510.774.9039 / Email: john.collins@valicooper.com

1760 CREEKSIDE OAKS DRIVE, SUITE 140 ❖ SACRAMENTO, CA 95833 ❖ (916) 925-0952 ❖ FAX: (916) 925-0954

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

_____ Determined that no potential conflict of interest exists.

 X Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

- VC&A has a prime contract with District 43 for On-Call Professional and Technical Stormwater Quality Assurance Services, Statewide.
- VC&A has prime contracts in District 2, 3, 4, and 5 for On-Call Construction Management and Inspection
- VC&A has a prime contract with San Joaquin Council of Government (SJCOG) for CM and Inspection on Various Caltrans projects in District 10.
- VC&A is a Subconsultant to NV5 on two District 10 On-Call CM and Inspection Contracts
- VC&A has a prime contract with El Dorado County for two projects – Silva Valley CM and Inspection and On-Call CM and Inspection Services with some projects having Caltrans oversight.

Describe measures proposed to mitigate the potential conflict(s):

To avoid or mitigate potential conflicts, VC&A will not have the same staff working at the same site under different contracts if there is a perception of a conflict.



Signature

December 11, 2015

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

John Collins, COO

Name & Title

510.446.8301

Phone

Solicitation # 43A0347 Firm Name Vali Cooper & Associates, Inc.

WRECO

- Commitment Letter
- Former Caltrans Employee Disclosure
- Conflict of Interest Disclosure
- SB Certification



1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Subject: Letter of Commitment
Stormwater Permit Enforcement, Prevention, and Tracking Services for
Northern Districts
RFQ No. 43A0347

Dear Mr. Marx:

In response to your request for participation as a subcontractor for the above referenced solicitation, WRECO is a certified California Small Business (No.60800). We are pleased to offer our commitment to provide best management practice (BMP) design, Storm Water Pollution Prevention Plan consultation, field BMP implementation and construction site stormwater compliance, and geotechnical support services as may be required during the term of the contract. WRECO is also committed to assigning our proposed key personnel to the project and task orders for the duration of the contract.

As requested, WRECO identifies the following proposed team member as a former Caltrans employee:

Name	Last Date of Employment at Caltrans	Functional Responsibility Held Within Last 24 Months of Employment
Analette Ochoa, P.E., QSD/P, ToR	December 2006	Storm Water Coordinator, District 4

For the duration of the contract, the contact person for our firm is as follows:

Ms. Analette Ochoa, P.E., QSD/P, ToR, Senior Associate
1243 Alpine Road, Suite 108, Walnut Creek, CA 94596
(925) 941-0017 x206
analette_ochoa@wreco.com

We look forward to working with Brown and Caldwell on this contract. Please contact me if you need additional information.

Sincerely,
WRECO

A handwritten signature in blue ink, appearing to read 'Han-Bin Liang'.

Han-Bin Liang, Ph.D., P.E., QSD/P
President



Civil Engineering | Environmental Compliance | Geotechnical Engineering | Water Resources

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST FORM for On-call A&E

The Proposer hereby indicates that it has, to the best of its knowledge and belief:

 X Determined that no potential conflict of interest exists.

 Determined a potential conflict of interest as follows:

Use at least one form for each firm and attach additional documentation as necessary.

Describe nature of the potential conflict(s):

N/A

Describe measures proposed to mitigate the potential conflict(s):

N/A



Signature

11/30/2015

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with Department of Transportation contract personnel.

Han-Bin Liang, Ph.D., P.E., President

Name & Title

(925) 941-0017

Phone

Solicitation # 43A0347

Firm Name WRECO

5/30/2014

BidSync: The State of California: WRECO



WRECO - #60800

SUPPLIER PROFILE

Legal Business Name	WRECO		
Doing Business As	WRECO		
Address	1243 ALPINE ROAD, SUITE 108 WALNUT CREEK, CA 94596	Phone	(925) 941-0017
		FAX	(925) 941-0018
Email	hanbin_liang@wreco.com		
Web Page	http://www.wreco.com		
Business Types	Service		
Service Areas	Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba,		
Keywords	HYDROLOGY, HYDRAULICS, WATER RESOURCES, CIVIL ENGINEERING, STORM WATER MANAGEMENT, WATER QUALITY, DRAINAGE, UTILITY ENGINEERING, FLOODPLAIN ANALYSIS, CREEK RESTORATION, QSD, QSP, COASTAL ENGINEERING, NUMERICAL AND PHYSICAL MODELING, BIOLOGICAL, WETLANDS		
Classifications	811015 - Civil engineering		

Active Certifications

TYPE	STATUS	FROM	TO
SB	Approved	Nov 1, 2013	Nov 30, 2016

Certification History

TYPE	STATUS	FROM	TO
SB	Expired	Oct 10, 2012	Oct 31, 2013
SB	Expired	Nov 23, 2011	Nov 30, 2012
SB (Micro)	Expired	Dec 8, 2009	Dec 31, 2011
SB	Expired	Jan 12, 2009	Jan 31, 2010

[This page left intentionally blank.]

2

General Services Administration Standard Form SF330



District 2 Local Knowledge

- ✓ Local Office
- ✓ 33 FPPPs Prepared
- ✓ 7 Assistance Requests
- ✓ 67 SDSI Miles Inventoried



David Skinner

Redding, CA

- ✓ Four years of full-time D2 construction reviews



Sections A - C



Contract Information

Architect-Engineer Qualifications

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (City and State)

Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts

2. PUBLIC NOTICE DATE

November 18, 2015

3. SOLICITATION OR PROJECT NUMBER

43A0347

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Randy Marx, PE, CPESC, QSD

5. NAME OF FIRM

Brown and Caldwell

6. TELEPHONE NUMBER

916.853.5335

7. FAX NUMBER

916.635.8805

8. EMAIL ADDRESS

RMarx@BrwnCald.com

C. PROPOSED TEAM (Complete this Section for the Prime Contractor and all Key Subcontractors.)

	(Check)			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	JV PARTNER	SUB-CONTRACTOR			
a.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	1590 Drew Avenue, Suite 210 Davis, CA 95618	Prime Consultant
b.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	10540 White Rock Road, Suite 180 Rancho Cordova, CA 95670	Prime Consultant
c.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	9665 Chesapeake Drive, Suite 201 San Diego, CA 92123	Prime Consultant
d.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	1257 Lakeside Drive, Suite 100 Sunnyvale, CA 94085	Prime Consultant
e.	☒	☐	☐	Brown and Caldwell ☐ Branch Office	201 North Civic Drive Walnut Creek, CA 94596	Prime Consultant
f.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	350 Bittenbender Lane Willits, CA 95490	Prime Consultant
g.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	3264 Goni Road, Suite 153 Carson City, NV 89706-7925	Prime Consultant
h.	☒	☐	☐	Brown and Caldwell ☒ Branch Office	701 Pike Street, Suite 1200 Seattle, WA 98101	Prime Consultant
Subconsultants						
i.	☐	☐	☒	ADH Environmental ☐ Branch Office	3065 Porter Street, Suite 101 Soquel, CA 95073	Subconsultant
j.	☐	☐	☒	ADH Environmental ☒ Branch Office	2720 Central Avenue, Suite F McKinleyville, CA 95519	Subconsultant
k.	☐	☐	☒	ADH Environmental ☒ Branch Office	2650 Larkspur Lane, Suite G Redding, CA 96002	Subconsultant
l.	☐	☐	☒	Amec Foster Wheeler Environment and Infrastructure, Inc. ☒ Branch Office	180 Grand Avenue, Suite 1100 Oakland, CA 94612	Subconsultant
m.	☐	☐	☒	cbec, inc., eco engineering ☐ Branch Office	2544 Industrial Boulevard West Sacramento, CA 95691	Subconsultant
n.	☐	☐	☒	Leland Saylor Associates ☐ Branch Office	101 Montgomery Street, Suite 800 San Francisco, CA 94105	Subconsultant

o.	☐	☐	☒	M3 Integrated Services, Inc. ☐ Branch Office	320 Tesconi Circle, Suite M Santa Rosa, CA 95401	Subconsultant
p.	☐	☐	☒	Montgomery & Associates, Inc. ☐ Branch Office	7311 Greenhaven Drive, Suite 207 Sacramento, CA 95831	Subconsultant
q.	☐	☐	☒	NV5, Inc. ☒ Branch Office	2525 Natomas Park Drive, Suite 300 Sacramento, CA 95833	Subconsultant
r.	☐	☐	☒	Vali Cooper & Associates, Inc. ☐ Branch Office	2000 Powell Street, Suite 550 Emeryville, CA 94608	Subconsultant
s.	☐	☐	☒	Vali Cooper & Associates, Inc. ☒ Branch Office	183 D'Arcy Parkway Lathrop, CA 95207	Subconsultant
t.	☐	☐	☒	Vali Cooper & Associates, Inc. ☒ Branch Office	230 Big Trees Road, Suite 3 Murphys, CA 95247-9594	Subconsultant
u.	☐	☐	☒	Vali Cooper & Associates, Inc. ☒ Branch Office	1760 Creekside Oaks Drive, Suite 140 Sacramento, CA 95833	Subconsultant
v.	☐	☐	☒	Vali Cooper & Associates, Inc. ☒ Branch Office	4251 South Higuera Street, Suite 800-B San Luis Obispo, CA 93401	Subconsultant
w.	☐	☐	☒	WRECO ☒ Branch Office	8331 Sierra College Boulevard, Suite 208 Roseville, CA 95661	Subconsultant
x.	☐	☐	☒	WRECO ☐ Branch Office	1243 Alpine Road, Suite 108 Walnut Creek, CA 94596	Subconsultant

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☒ (Attached)

Section D



Organizational Chart

Organizational Chart of Proposed Team



STORMWATER PERMIT ENFORCEMENT,
PREVENTION, AND TRACKING SERVICES
FOR NORTHERN DISTRICTS
RFQ NO. 43A0347

PROJECT MANAGER

Randy Marx, PE, CPESC, QSD

HEALTH AND SAFETY

Una Adkins

TASK ORDER MANAGERS

Randy Marx, PE, CPESC, QSD
Michael Flake, PE, QSD
Jenny Gain, PE, QSD
Aren Hansen, PE, PMP, QSD

Sayra Hurley, PE, QSD
David Morrow, PE, QSD
Amy Neal, PE, QSD
Chris Peters, PE, QSD

CONSTRUCTION

David Korfass, CPESC, QSD, ToR

- Ralph Dodge
- Chris Knoche, PG, QSD
- Cabe Silverhame, PG, CPESC, QSD
- Travis Deem, CPESC, QSD (ADH)
- David Skinner, CPESC, QSD (ADH)
- Matthew McKamey, PE, QSD (M3)
- Michael McKamey (M3)
- Lonnie Wise (M3)
- Douglas Wathen, CESSWI, QSD (M&A)
- Michael Wathen, CPESC, CESSWI, QSD (M&A)
- Shelby Zuppan, CPESC, QSD (M&A)
- Amber Christian, CPESC, QSD (NV5)
- Gary Mohler, PE, QSD (NV5)
- Stephen Walters, PE, QSD (NV5)
- Tore Finnemyhr, CPESC, QSD, ToR (VC&A)
- Jim Flannigan, CESSWI, QSP (VC&A)
- Wesley Pipes, PE, QSD (VC&A)
- Darrah Ramsbotham, PE, QSP (VC&A)
- Alvin Yim, CPSWQ, QSD (WRECO)

ENFORCEMENT AND PREVENTION
ASSISTANCE

Jeff Bold, Ph.D., CPESC, CPSS, QSD

- Tina Crawford
- Aren Hansen, PE, PMP, QSD
- Chris Knoche, PG, QSD
- David Korfass, CPESC, QSD, ToR
- Cabe Silverhame PG, CPESC, QSD
- Chris Wilfong, CPESC, QSD
- Wellington Yee, CPESC, QSD
- Brad Dickson, ChE (AMEC)
- Duncan Geddes, PG, QSD (LSA)
- Jorge Beltran, PE, QSD (M&A)
- Joy Denny, PE, QSD (NV5)
- Juan Zuniga, PE, CPESC, QSD (NV5)
- Mike Broadwater, CPESC, QSD, ToR (VC&A)
- Dave Sluga, PE, CPESC, QSD, ToR (VC&A)

MAINTENANCE

Wellington Yee, CPESC, QSD

- Una Adkins
- David Morrow, PE, QSD
- Chris Wilfong, CPESC, QSD
- Wynn Paculba (LSA)
- Brad Dickson, ChE (AMEC)
- Analette Ochoa, PE, QSD, ToR (WRECO)

ENCROACHMENT AND RIGHT OF WAY

Sayra Hurley, PE, QSD

- David Korfass, CPESC, QSD, ToR
- Wellington Yee, CPESC, QSD

TRACKING AND DATA MANAGEMENT

Allan Scott

- Chris Clark
- Tina Crawford
- Karen Cole
- Alexander Johnson, PE
- Peter Ross

WATER QUALITY ASSISTANCE AND
COMPLIANCE

Amy Neal, PE, QSD

- Lowell Cottle, CESSWI, QSP
- Ron Crites, PE
- Nathan Foged
- Valerie Fuchs, Ph.D., PE, QSD
- Jenny Gain, PE, QSD
- Matt Gerhardt, Ph.D., PE
- Rene Guillen, PE, QSD
- Seppi Henneman, PE
- David Lightle, CPESC
- Richard Mattucci
- Rhys McDonald
- Chris Peters, PE, QSD
- Christian Kocher (ADH)
- Kevin Lewis, CESSWI, QSP (ADH)
- Armand Ruby (ADH)
- Steen Trump, CESSWI, QSP (ADH)
- Peter Wilde (ADH)
- Khalil Abusaba, Ph.D. (AMEC)
- James Honniball, CPESC, QSD, ToR (AMEC)
- Emily Sportsman, PG (AMEC)
- Micah Swann (AMEC)
- Chris Bowles, Ph.D., PE (cbec)
- Chris Campbell (cbec)
- Kevin Coulton, PE (cbec)
- Douglas Shields, Ph.D., PE (cbec)
- Andrew Chin (WRECO)
- Robert Lawrence PE, GE (WRECO)
- Han-Bin Liang, Ph.D., PE, QSD (WRECO)
- Analette Ochoa, PE, QSD, ToR (WRECO)
- Cuyler Stapelmann (WRECO)

STORM DRAIN SYSTEM INVENTORY

Allan Scott

- Una Adkins
- Tina Crawford
- Chuck Frey
- Aren Hansen, PE, PMP, QSD
- David Hart
- Amy Hwang
- Alexander Johnson, PE
- Peter Ross
- Chris Wilfong, CPESC, QSD
- Wellington Yee, CPESC, QSD
- Calvin Sandlin, CESSWI, QSP (ADH)

SUBCONSULTANTS

ADH Environmental (ADH)

Amec Foster Wheeler Environment & Infrastructure, Inc. (AMEC)

cbec, inc., eco engineering (cbec)

Leland Saylor Associates (LSA)

M3 Integrated Services, Inc. (M3)

Montgomery & Associates, Inc. (M&A)

NV5, Inc. (NV5)

Vali Cooper & Associates, Inc. (VC&A)

WRECO (WRECO)

STATUS

PERCENTAGE

SB 7%

NA 5%

SB 2%

DVBE/SB 7%

DVBE/SB 2%

SB 5%

NA 3%

NA 7%

SB 5%

[This page left intentionally blank.]

Section E



Resumes of Proposed Key Personnel

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Randy Marx, PE, CPESC, QSD	Project Manager, Task Order Manager	a. TOTAL 38 years	b. WITH CURRENT FIRM 13 years

15. FIRM NAME AND LOCATION *(City and State)*

Brown and Caldwell – Rancho Cordova, California

16. EDUCATION *(Degree and Specialization)*M.S., Environmental Engineering
B.A., Human Biology**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*Professional Civil Engineer, California No. C31936, 1980
Certified Professional in Erosion and Sediment Control (CPESC),
No. 7061, 2012
Qualified SWPPP Developer and Practitioner (QSD), No. 23292,
2012**18. OTHER PROFESSIONAL QUALIFICATIONS** *(Publications. Organizations. Training. Awards. etc.)*

Randy has a strong understanding of the Caltrans Stormwater Program through his committed support role to the program since 1999 (at BC 2002 to present, and URS 1999 to 2002). He has served as the Project Manager on all four Northern California Stormwater District Assistance contracts since 2004 and successfully managed more than 75 Caltrans task orders. Randy has demonstrated his technical abilities and training skills through training program instruction for the Caltrans Stormwater Program, the Navy, McClellan AFB, Lawrence Livermore Laboratories and the University of California at Davis Hazardous Waste Certificate Program. Randy also represented Caltrans at StormCon with a paper and presentation on a District 4 Maintenance BMP Study.

Additionally, Randy brings a detailed understanding of California environmental regulatory programs from 11 years at the Cal-EPA (5 years at the SWRCB and 6 years at the Department of Toxic Substances Control). Randy will leverage leadership and stakeholder relationship skills garnered through current positions on the Board of Directors for the Sacramento Groundwater Association, Sacramento Regional Water Authority, and the Fair Oaks Water District. Randy understands legislative and legal processes as demonstrated by his testimony to the California Assembly Subcommittee on Groundwater and other expert witness testimony experience. During his undergraduate and graduate studies at Stanford University, Randy researched treatment of chlorinated organics in groundwater.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 43A0308. Northern California Stormwater District Assistance, Caltrans, Sacramento, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope. size. cost. etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Project Manager. Randy has been the Project Manager for the duration of this contract, as well as all predecessor (to the Permit Enforcement, Prevention, and Tracking Contract) Northern California Stormwater District Assistance contracts since 2004. The general purpose of this contract is to assist Caltrans district and DEA staff in achieving compliance with the NPDES MS4 permit obligations. Randy performs all aspects of contract management, including contract terms and cost negotiation, task order negotiations, contract compliance activities, staffing, subcontractor oversight, budget tracking, schedule management, personnel management, DVBE goal attainment, and quality control. Randy served as TO Manager on eight of the 10 task orders executed under Contract 43A0308. Six of the task orders provided construction field assistance to Districts 1, 2, 3, 3 Southeast, 4, and 10. Other task orders included a life-cycle study of stormwater-related construction site costs, expansion of the Storm Drain System Inventory (SDSI), and an effort to streamline and improve the CEM forms Caltrans contractors at construction sites use to document stormwater compliance. Randy's team has managed 53 short-term compliance assistance requests (under all four Northern California Stormwater District Assistance contracts) for both the Construction and Maintenance Divisions to supply in-field assistance for a variety of stormwater-related concerns, including regulatory agency enforcement support, SWPPP review, erosion control assistance, hazardous waste management, slope stabilization, and BMP implementation. <i>Project Fee: \$8,000,000</i> <i>Involvement: January 2013 to December 2015</i>		
(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 43A0234 Northern California Stormwater District Assistance, Caltrans, Sacramento, California	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope. size. cost. etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Project Manager. Randy performed all contract management activities described above under the Contract No. 43A0308 project description. Randy managed six Facility Pollution Prevention Plans (FPPPs) task orders resulting in the preparation of 344 FPPPs. Randy's team prepared a Technical Report to address requirements of a letter from the San Francisco Bay RWQCB to District 4, requiring submittal of an inventory of Caltrans pump stations. Under this contract, Randy prepared and delivered presentations to the Caltrans SuperSWAT meetings. He also managed a Seed Testing task order to provide		

assurance that Caltrans was obtaining quality seed from vendors for use in erosion control at construction sites. This task order also verified the effectiveness of existing seed application methods, field practices, and protocols and procedures. Randy also managed a study to develop statistical procedures for construction site project selection for the CCEP program. This statistical process was used by Caltrans to focus site reviews to maximize resources. <i>Project Fee: \$15,000,000</i> <i>Involvement: February 2008 to February 2013</i>				
c.	(1) TITLE AND LOCATION (City and State) Contract No. 43A0175 Northern California Stormwater District Assistance, Caltrans, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2009</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2009	CONSTRUCTION (if applicable) NA
	PROFESSIONAL SERVICES 2009	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Randy performed all contract management activities described above under the Contract No. 43A0308 project description. Randy managed a task order to conduct and document quality control seed testing statewide on Caltrans projects to verify the effectiveness of existing application methods, field practices, and protocols and procedures. Randy oversaw a number of projects at the Devil's Slide construction site. These projects included a report providing recommendations for erosion control BMPs at the Soils Disposal Site, a technical report provided in response to a RWQCB NOV, ongoing construction inspections related to stormwater issues, a project to collect native plant seed and revegetate slopes for erosion control, an estimation of released quantities of eroded soil and sediments at the Frog Pond, and a stormwater Sampling and Analysis Plan. <i>Project Fee: \$5,250,000</i> <i>Involvement: April 2006 to March 2009</i>				
d.	(1) TITLE AND LOCATION (City and State) Contract No. 43A0134 Northern California Stormwater District Assistance, Caltrans, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2006</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2006	CONSTRUCTION (if applicable) NA
	PROFESSIONAL SERVICES 2006	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. As the Project Manager for the initial Northern California Stormwater District Assistance Contract, Randy performed all contract management activities described above under the Contract No. 43A0308 project description. Randy managed the initial development and implementation of a statewide SDSI. This effort included development of a statewide database and procedures to guide the SDSI. The effort also included establishing and maintaining an inventory of Treatment BMPs. He also managed the preparation of a Vactor™ and materials storage management study that provided BMP recommendations to improve material and waste management at 65 locations in District 4. Another task order Randy managed provided support to District 4 to evaluate BMP compliance at construction sites. This support enabled sites to maintain compliance with the Permit and CGP. An assistance request managed by Randy provided recommendations for changes in construction BMPs at the Sonora Bypass construction site to correct deficiencies that were causing discharges. <i>Project Fee: \$11,000,000</i> <i>Involvement: January 2004 to March 2006</i>				
e.	(1) TITLE AND LOCATION (City and State) Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services Construction Compliance Evaluation Plan Support, Caltrans, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm BC Project Manager. Since 2004, Randy has been involved with the Caltrans Self-Audit Program. His involvement began with attendance at bi-monthly meetings with Caltrans staff and other consultant staff involved in these construction and maintenance compliance monitoring programs to assist in strategy discussions related to effective program implementation. Randy then supported this program as a subconsultant to Parsons Brinckerhoff from 2007 to 2012. From 2012 to the present, Randy has been managing BC's support to Vali Cooper & Associates (VC&A). In this role, Randy has collaborated with VC&A, as well as with Caltrans staff involved in managing and executing this contract. Randy oversaw the preparation of the construction site administrative and field BMP checklists so that IQA reviewers can identify the standards that drive findings. Randy, working closely with the Caltrans Contract Manager, developed the IQA review form that documents both findings and corrective actions to meet and SWMP and USEPA Order mandates for Caltrans to provide documentation of corrective actions. Randy was also the author of the CCEP, which provides guidance to the self-audit program for compliance with the SWMP and USEPA Order. Randy has been involved in the preparation of annual Year-End Performance Reports (YEPRs) since 2008. The YEPRs identify and analyze trends in findings that can be used to focus reviews. Randy also oversaw the development of the Access database currently used to track all program data. <i>Project Fee: \$500,000</i> <i>Involvement: February 2004 to December 2015</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Una Adkins	13. ROLE IN THIS CONTRACT Health and Safety, Maintenance, Storm Drain System Inventory	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 20 years </td> <td> b. WITH CURRENT FIRM 11 years </td> </tr> </table>		a. TOTAL 20 years	b. WITH CURRENT FIRM 11 years
a. TOTAL 20 years	b. WITH CURRENT FIRM 11 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.A., Studio Arts B.A., French Intensive Program in Workplace Health and Safety, University of California Davis, 2014		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Una has air and water monitoring, vegetation assessment, and inspection experience directly related to Caltrans projects. She prepares Fieldwork Safety Plans for all Caltrans projects staffed out of the BC Sacramento, Davis, and Walnut Creek offices.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0234 Facility Pollution Prevention Plans, Caltrans, Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2012 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Manager. Una was part of a team that inspected 344 Caltrans maintenance stations, equipment service facilities, border agricultural protection stations, commercial vehicle enforcement facilities, and safety roadside rest areas within Caltrans Districts 1, 2, 3, 4, 5, and 10 in response to the U.S. EPA Administrative Audit. Inspections were conducted and FPPPs were developed based on observed hazardous materials, site drainage, and best management/waste management practices. <i>Project Fee: \$153,900</i> <i>Involvement: September 2011 to September 2012</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0234 District 4 Construction Assistance, Caltrans, San Francisco Bay Area, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2010 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Water Monitor. BC provided emergency support for the Caltrans emergency improvement project to the Russian River Bridge on SR 128. This project implemented bank stabilization and riparian habitat improvements to protect the west approach of the Russian River Bridge on SR-128 from further erosion. Stabilization was achieved through constructing redirective rock vanes and planting willow and cottonwood. To expedite completion, crews worked daily, including weekends. Una was a member of a team that monitored water for turbidity, pH, and temperature. <i>Project Fee: \$3,278,000</i> <i>Involvement: September 2010 to September 2010</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans District 1, Willits, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Bioretention Basin Maintenance. Una is part of a team that performs stormwater sampling and bioretention system maintenance to keep the bioretention areas operational in a manner consistent with the site Water Quality Management Plan and the project Comprehensive Protocols Guidance Manual. Una has assisted in the installation and monitoring of water quality sites, stream profiling, daily alignment inspections and reports, and office support. Una prepared the Fieldwork Safety Plan and annual updates. <i>Project Fee: \$4,000,000</i> <i>Involvement: September 2012 to Present</i>					

(1) TITLE AND LOCATION (City and State) Contract 43A0308 Treatment Best Management Practices/Storm Drain Inventory System Program, Caltrans, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm d. Field Staff. Member of a team that conducted an inventory of Caltrans stormwater treatment devices. The project involved mapping locations and attributes of storm drain features, including inlets, outfalls, discharge points and tributary drainage areas. The team collected data using field laptops with GPS and customized GIS data collection software. Project Fee: \$1,000,000 Involvement: July 2015 to November 2015				
(1) TITLE AND LOCATION (City and State) Contract No. 43A0325 San Francisco Oakland Bay Bridge Bioretention Pilot Project, Caltrans, Oakland, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Bioretention Basin Maintenance. Una is part of a team that performs stormwater sampling and bioretention system maintenance to keep the bioretention areas operational in a manner consistent with the site Water Quality Management Plan and the project Comprehensive Protocols Guidance Manual. Tasks include conducting infiltration tests, vegetation monitoring, monthly inspections, oversee maintenance crew, and writing quarterly Technical Memos. Una prepared the Fieldwork Safety Plan and annual updates. Project Fee: \$1,789,000 Involvement: May 2012 to Present				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Jeff Bold, Ph.D., CPESC, CPSS, QSP	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance Lead	14. YEARS EXPERIENCE	
		a. TOTAL 25 years	b. WITH CURRENT FIRM 10 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Davis, California

16. EDUCATION *(Degree and Specialization)*
Ph.D., Soil Science
M.S., Soil Fertility
B.S., Plant Science (Agronomy)

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Certified Professional in Erosion and Sediment Control (CPESC), No. 5948, 2010
Certified Professional Soil Scientist (CPSS), No. 24689, 1998
Qualified SWPPP Developer and Practitioner (QSD), No. 25424, 2015

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Jeff is a published expert in soil and water quality and member of the Soil Science Society of America. Jeff has developed and delivered a course on Soil Erosion and the CGP to Caltrans Districts 1, 2, 3, 4, 5, 7, 10, and 12. Jeff uses field sampling, modeling and soil amendments to stabilize, revegetate, and restore soils at construction projects. Jeff has applied his expertise to support compliance with the Caltrans Permit on numerous projects, including previous work for Caltrans.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract Nos. 43A0325 and 43A0288 North Coast Sediment Inventory, Caltrans, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead. The 2012 Caltrans NPDES Permit requires that Caltrans conduct a sediment inventory as part of their Total Maximum Daily Load (TMDL) requirements from construction activities associated with Caltrans highways by October 1, 2014. Jeff designed the technical approach and completed the integration of geographic information systems (GIS) and soil erosion modeling. Jeff used this expertise to estimate the sediment loss to 17 individual watersheds in the North Coast. In 2015, Jeff updated the 2014 Sediment Inventory by conducting field inspections throughout the 117 miles of areas "prone to erosion" then revising the RUSLE2 modeling based on more accurate input data. Project Fee: \$275,000 Involvement: May 2014 to November 2015		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Water Pollution Control Assistance – North, Sonora Bypass Notice of Violation, Caltrans, California	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead for Runoff Evaluation. BC assisted District 10 in responding to a Central Valley RWQCB Notice of Violation (NOV) at the Sonora Bypass construction site. Early rains led to runoff and sediment discharge in areas that were inadequately stabilized. The NOV required Caltrans to estimate the total rainfall runoff from approximately 8.5 acres of disturbed soil. Jeff completed the runoff estimate using the U.S. Department of Agriculture methods described in the "Urban Hydrology for Small Watersheds." The original Water Board fine to Caltrans was over \$4,000,000. By providing an accurate assessment of runoff volume, BC helped reduce the amount of the fine and renegotiate the terms to allow Caltrans to provide road construction work in lieu of a fine. Project Fee: \$71,000 Involvement: February 2013 to October 2013		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 0482906 Devil's Slide Disposal Site Soil Erosion Evaluation, Caltrans District 4, Pacifica, California	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Manager. Jeff conducted a soil erosion evaluation of a large constructed tailings pile (currently >1 acre) for the disposal of tunnel spoils generated by the 4,200-foot tunnel being constructed to bypass a dangerous portion of Highway 1. In 2008, heavy rains caused massive erosion that resulted in the loss of approximately one-third of the completed tailings pile surface, including 2 feet of finished topsoil and vegetation (approximately 1,275 tons of soil). The loss of this stabilized, vegetated topsoil on the 1V:1.5H disposal site was devastating and the slope had to be rebuilt. In June 2008, Jeff initiated a field evaluation of soils, geology, climate, and design of the disposal site. He was supported by Caltrans District 4 field and laboratory staff in conducting field compaction testing and other soil physical analyses of the topsoil and subsurface fill. To supplement soil testing, he completed a grid that encompassed the entire disposal site. He		

then quantified dimensions of each grid element, topsoil and subsurface fill erosion, erosion control material and vegetation throughout the disposal cell. From this analysis, Jeff identified causal factors of the erosion event that included soil characteristics, rainfall intensity, construction techniques, and design elements that resulted in the unintentional formation of a slip plane. He recommended increasing the frequency of terraces to reduce effective slope length, implementing more durable soil erosion control measures, roughening the compacted fill/native soil interface, modifying the vegetation plan to increase deep rooted species, and improving vegetation establishment techniques through irrigation and soil amendments. <i>Project Fee: \$754,000</i> <i>Involvement: June 2008 to September 2010</i>		
(1) TITLE AND LOCATION (City and State) Contract 43A0299 Construction Compliance Evaluation Plan and Annual Maintenance and Operation Compliance Review Plan, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Lead. Jeff assisted Caltrans to update the 2008 Construction Compliance Evaluation Plan (CCEP) and the Annual Maintenance and Operation Compliance Review Plan (AMOCRP) to address new requirements in the MS4 Permit, including findings from the October 2010 USEPA Order. He assisted Construction, Maintenance, and Division of Environmental d. Analysis to update these documents. Jeff applied his knowledge of the 2009 CGP, Risk Level Determination of erosivity and sensitive receiving water bodies, to modify the CCEP and AMOCRP. Both the 2012 CCEP and the AMOCRP must comply with the new MS4 Permit and the most recent SWMP completed in draft form in July 2012. The scope and schedule for the 2012 CCEP and AMOCRP was challenging as both documents needed to be completed, reviewed, and approved by Caltrans in approximately 3 months during the development of the comprehensive SWMP document. Jeff provided input into the CCEP following 2012 to provide input on electronic forms that included photodocumentation and signature by the responsible party. <i>Project Fee: \$744,754</i> <i>Involvement: April 2011 to June 2014</i>		
(1) TITLE AND LOCATION (City and State) Contract Nos. 43A0299 and 43A0321 Year-End Performance Reports, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Task Manager. The Year-End Performance Report (YEPR) is an annual programmatic evaluation of Caltrans stormwater compliance on construction sites throughout the state. The YEPR presents a summary of construction compliance data collected by independent quality assurance (IQA) inspectors who review anywhere from 100 to 350 Caltrans construction sites throughout the state. These inspectors review stormwater BMPs, require documentation for every construction site they visit, and develop a Construction Project Stormwater Review Program (CPSRP). Jeff developed the first YEPR under the 2008 CCEP covering the July 1, 2008 to June 30, 2009 construction season. Jeff continued to produce YEPR documents for Caltrans Annual Reports ending in 2010, 2011, 2012, 2013 and 2014. From 2009 to 2014, Jeff used the data from the CPSRP to produce figures, tables and 12 to 15 pages of data analysis (text) summarizing Caltrans' construction compliance for that year as compared to previous years. In 2015 Jeff provided a support role, assisting the development of a new format for the YEPR compatible with the revised CCEP. e. <i>Project Fee: \$200,000</i> <i>Involvement: January 2010 to April 2015</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Chris Clark	13. ROLE IN THIS CONTRACT Tracking and Data Management	14. YEARS EXPERIENCE a. TOTAL 28 years	b. WITH CURRENT FIRM 2 years

15. FIRM NAME AND LOCATION *(City and State)*

Brown and Caldwell – Rancho Cordova, California

16. EDUCATION *(Degree and Specialization)*

NA

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Chris is a senior systems analyst with more than 28 years of information technology experience that spans many projects, platforms, languages, and database systems. He has extensive experience developing, deploying, and upgrading business intelligence solutions, including enterprise reporting, performance dashboards, and data warehouses. His experience also includes enterprise application development using various technologies. His training includes: Microsoft SQL Server/Business Intelligence Training (Microsoft, 2012) – Database administration, data analysis and integration, developing and deploying data warehouses, implementing data models and reports. System Engineer Development Program (EDS, 1993) – software, database applications, and online systems development. Chris' experience will be useful to Caltrans under the tracking tasks of this contract.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	Enterprise Application Integration, City of Sacramento Department of Utilities, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead. Chris is the technical lead on the EAI project, responsible for the development of a new data warehouse using Microsoft SQL Server 2012 and SQL Server Integration Services as the database and ETL (extract, transform and load) platform. This data warehouse consolidates information extracted from multiple systems such as Granite XP (CCTV inspection data), Maintenance Connection, Azteca CityWorks and ESRI ArcGIS server. Chris' responsibilities also include the development of interactive web-based tools such as maps (e.g. waste water condition) and reports (e.g. pumping capacity) using Latitude Geographics Geocortex, SAP Business Objects XI and Microsoft Reporting Services. These tools consume the data warehouse information and are integrated into a SharePoint 2010 site providing the client with a single point of access to information from multiple business processes within the Department of Utilities. <i>Project Fee: \$478,000</i> <i>Involvement: April 2013 to Present</i>		
b.	EchoWater Project Asset Management Design Database Development, Sacramento Regional County Sanitation District (Regional San), Elk Grove, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Lead Application/Database Developer. Chris is responsible for the technical development and implementation of the asset management design database and associated data and user interfaces. This system will allow input from multiple source systems, provide a web interface for asset data updates and provide web based QA/QC reporting capabilities. The core functions of the system are to collect and validate asset related data, ensure the data meets the target system business rules, and automate the upload to the computerized maintenance management system (Maximo). <i>Project Fee: \$1,900,000</i> <i>Involvement: November 2013 to Present</i>		
c.	Executive Dashboard Development and Implementation, Los Angeles Bureau of Sanitation, California	2015	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Lead Application/Database Developer. Chris led development of a new executive performance dashboard utilizing Microsoft SharePoint technologies and features. The dashboard is used to create, manage and report on key performance data that can be shared among all operating and support divisions with LASAN. The dashboard provides web based access to approximately 20 performance KPIs for the LA Bureau of Sanitation. <i>Project Fee: \$130,000</i> <i>Involvement: December 2014 to July 2015</i>		

(1) TITLE AND LOCATION <i>(City and State)</i> Chambers Creek Wastewater Treatment Plant Asset Management Design Database Development, Pierce County, Washington	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Lead Application/Database Developer. Chris is responsible for the technical development and implementation of the asset management design database and associated data and user interfaces. This system will allow input from multiple source files and provide web based QA/QC reporting capabilities. The core functions of the system are to collect and validate asset, maintenance and space parts related data, ensure the data meets the target system business rules, and simplify the upload to the computerized maintenance management system (Hansen). <i>Project Fee: \$26,200,000</i> <i>Involvement: March 2014 to Present</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Karen Cole	13. ROLE IN THIS CONTRACT Tracking and Data Management	14. YEARS EXPERIENCE a. TOTAL 22 years b. WITH CURRENT FIRM 15 years	

15. FIRM NAME AND LOCATION *(City and State)*

Brown and Caldwell – Rancho Cordova, California

16. EDUCATION *(Degree and Specialization)*

B.S., Biology

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Karen is an experienced programmer in SQL Server, EQuIS, Access, Visual Basic, Oracle, T-SQL, PL/SQL, Visual FoxPro, Delphi, and UNIX. She has proven expertise in database design, development and management. She has extensive reporting experience from multiple platforms and in multiple formats including Caltrans, Environmental Protection Agency (EPA) Regions 2 and 5, New York State Department of Environmental Conservation, Environmental Restoration Program Information Management System, and GeoTracker.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Construction Compliance Evaluation Plan Program, Caltrans, Statewide, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Data Manager. Karen manages monthly CCEP review data in Access CCEP Tool. Database Developer. Caltrans is required to conduct self audits of construction sites and maintenance facilities as a condition of the NPDES Permit. As a subconsultant to Vali Cooper & Associates, BC is authoring key documents, including the CCEP and construction BMP checklists. To support the CCEP program, Karen prepared an Access database that is used to track collected information for all CCEP reviews. <i>Project Fee: \$500,000</i> <i>Involvement: April 2015 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Yerington Mine Site OU-3 Remedial Investigation, BP Corporation Atlantic Richfield, Yerington, Nevada	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Data Management Lead. Karen is supervising the management of project analytical data in SQL Server database. She is auditing the data management team and process for compliance with the Data Management Plan and auditing project data for data quality compliance with the Data Management Plan. She is reporting data summaries for client deliverables and supervising data quality assessment summaries for regulator reporting. Systems Developer. Karen supervised the migration of a historical data set to an SQL Server database. She designed weather data reporting calculations and tables and assisted in the design and development of automated weather data validation routines. <i>Project Fee: \$1,547,000</i> <i>Involvement: January 2013 to December 2014</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Groundwater System Improvement Study Groundwater Database Development, Los Angeles Department of Water and Power, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Database Developer. The purpose of this task was to provide an independent study to identify, characterize, and evaluate emerging water quality constituents for the San Fernando Basin (SFB). Specifically, this task helped identify data gaps that need to be filled for conformance with the California Division of Drinking Water's Policy 97-005 requirements for future groundwater enhancement and/or treatment projects in the SFB. Another goal of this task was to develop a soil and groundwater database (GW Database) and Geographic Information System (GIS) for the SFB Groundwater System Improvement Study (GSIS) that is web-enabled, user friendly, and available to the entire project team. Karen was the database developer. <i>Project Fee: \$900,000</i> <i>Involvement: April 2013 to October 2015</i>		

	(1) TITLE AND LOCATION (City and State) Contract No. 43A0099, TO 10 Caples Lake Maintenance Station, Caltrans District 10, Amador County, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) NA
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Data Manager. Karen created and submitted GeoTracker files in compliance with California SWRCB requirements. <i>Project Fee: \$189,514</i> <i>Involvement: April 2005 to June 2005</i>		
	(1) TITLE AND LOCATION (City and State) Contract No. 43A0099 Peddler Hill Maintenance Station, Caltrans District 10, Amador County, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) NA
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Data Manager. Karen created and submitted GeoTracker files in compliance with California SWRCB requirements. <i>Project Fee: \$66,361</i> <i>Involvement: April 2005 to June 2005</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Lowell Cottle, CESSWI, QSP	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 18 years</td> <td>b. WITH CURRENT FIRM 3 years</td> </tr> </table>		a. TOTAL 18 years	b. WITH CURRENT FIRM 3 years
a. TOTAL 18 years	b. WITH CURRENT FIRM 3 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Willits, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.A., Environmental Geography A.S., Natural/Marine Science		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Erosion, Sediment, and Stormwater Inspector (CESSWI), No. 3055, 2012 Qualified SWPPP Practitioner (QSP), No 23223, 2012			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Lowell has supported multiple Caltrans monitoring projects through site selection, installation, and operation and maintenance of remote monitoring and sampling equipment; sample collection and documentation; installation and operation of stream rating equipment; compilation and management of collected field data; preparation of post-storm technical memoranda; preparation of daily and monthly monitoring reports; and training and leading field crews.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03A19923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans District 1, Willits, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Water Quality Monitor/Field Activity Leader/Site Safety Officer. During the initial phase of this project, Lowell provided onsite equipment and sampling procedure training, helped with equipment design and installation, water quality monitoring site selection, performed monthly mitigation sampling and field work, conducted storm event sampling, and organized all crews, lab, and needed equipment. During construction, Lowell is responsible for collecting water quality data and flow data from multiple streams within the Willits area to evaluate stream conditions and mitigation site success prior to, during, and after construction. He also identifies and determines causality of changes in stream conditions, especially if related to construction activities; write diary entries and reports related to water quality data and nearby operations that may have affected stream conditions; provide leadership and guidance to field staff in implementing monitoring activities and equipment maintenance; maintaining monitoring equipment and assemble monitoring stations and install supporting equipment to access monitoring stations situated within and nearby receiving waters; and present collected data, findings, and recommendations to clients, decision-making bodies, and regulatory agencies, responsible for water quality regulatory compliance Inspections for the 401 and 404 permit. <i>Project Fee: \$4,000,000</i> <i>Involvement: August 2010 to September 2012</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Water Pollution Control Assistance – North, Willits Bypass Notice of Violation, Caltrans, Willits, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Scientist. On September 9, 2014, the North Coast RWQCB issued a 13267 Investigative Order R1-2014-0053 (Order) to Caltrans District 1. The Order directed Caltrans to submit two technical reports pertaining to rainfall runoff events and stormwater discharges to South Haehl Creek. Lowell, as an onsite staffer, used his knowledge of the site to provide technical expertise, site details, rain data, and water quality monitoring data. This data supported BC's Technical Report prepared to respond to the RWQCB's NOV. <i>Project Fee: \$68,700</i> <i>Involvement: October 2014 to November 2014</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Areas of Special Biological Significance Monitoring, Caltrans, North and Central Coast, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2009</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2009	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2009	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Field Crew Leader. From 2005 through 2008, under two multi-year contracts, ADH supported Caltrans as a subcontractor on the central and northern California ASBS sites. For this monitoring project, stormwater was collected at three edge-of-pavement (EOP) highway locations that are tributary to selected ASBS for up to 13 events over three storm seasons. Lowell's responsibilities included site selection, installation, operation, maintenance, and demobilization of remote monitoring stations; installation and operation of remote water level loggers and operation of stream discharge velocity measurement equipment; low-flow stream measurements using Marsh-McBirney flow meter; composite and grab sampling of stormwater					

runoff and ocean receiving water; mobilization of sample processing equipment and supplies; sample handling/processing and adherence to QA/QC procedures; sample labeling and chain-of-custody documentation; flow and meteorological data collection from storm event monitoring; and field documentation. <i>Project Fee: \$3,175,000</i> <i>Involvement: October 2007 to May 2009</i>				
(1) TITLE AND LOCATION (City and State) Open/Gap Graded Asphalt Pavements, Stormwater Best Management Practices Effectiveness Monitoring, Caltrans, Central and Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2012</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA			
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Senior Scientist. A pilot study was planned to evaluate stormwater runoff water quality by comparing open-graded and gap-graded pavements (test sites) to that of conventional (dense-graded) pavements (control sites). The objective of this project was to investigate the impacts of three types of asphalt pavement on water quality. Lowell was responsible for seven site locations from Mendocino to San Luis Obispo County. His responsibilities included: maintenance, operation and demobilization of semi-automated flow-weighted stormwater monitoring stations; storm event monitoring, including composite and grab sampling; and supervising field crews during monitoring. <i>Involvement: March 2011 to May 2012</i>			
(1) TITLE AND LOCATION (City and State) Ornamental Roadside Vegetated Treatment Study, Caltrans, Central and Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2012</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA			
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Senior Scientist. The ORVTS Pilot Study evaluated how certain groundcover vegetation species treated highway runoff in comparison to existing grasses within the Caltrans rights-of-way (ROW). For this 3-year BMP pilot study, automated samplers and flow meters were used to collect flow-weighted composite samples from adjacent test and control monitoring locations for laboratory analyses. Up to eight storm events were sampled at each of the five monitoring locations. Lowell's responsibilities included supervising field crews during monitoring, storm control, and conducting a migratory bird survey for decommission construction of the project site. <i>Project Fee: \$152,315 Involvement: March 2012 to May 2012</i>			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Tina Crawford	13. ROLE IN THIS CONTRACT Enforcement Response Assistance, Tracking and Data Management, Storm Drain System Inventory	14. YEARS EXPERIENCE	
		a. TOTAL 14 years	b. WITH CURRENT FIRM 4 years

15. FIRM NAME AND LOCATION *(City and State)*
 Brown and Caldwell – Rancho Cordova, California

16. EDUCATION <i>(Degree and Specialization)</i> B.A., Geography	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
 Tina specializes in managing environmental data and integrating relational data with geographic information system (GIS) for complex analyses. She has expertise in planning and managing GIS field mapping, and creating and publishing map services, groundwater elevation contouring, and risk analysis based on data comparison queries. She uses a variety of data and spatial software applications, including ESRI Arcinfo (GIS), Spatial Analyst and 3D Analyst, ArcSDE, ArcServer and ArcIMS; AutoCAD Map 2014, and Microsoft Access.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA

a. **(3) BRIEF DESCRIPTION** *(Brief scope, size, cost, etc.) AND SPECIFIC ROLE* ☒ *Check if project performed with current firm*
 GIS Specialist. BC performed Quality Assurance/Quality Control and related activities to meet the requirements of an NPDES Permit and USEPA Order. Tina is consolidating the data with the Phase I SDSI data in the data repository, and developing electronic deliverables to facilitate use of the SDSI data by Caltrans. Tina leads our SDSI GIS Team that performs all mapping activities on the SDSI project.
 Project Fee: \$1,000,000
 Involvement: March 2013 to Present

(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 District 10 Ferguson Slide In Stream Monitoring, Caltrans, Mariposa County, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA

b. **(3) BRIEF DESCRIPTION** *(Brief scope, size, cost, etc.) AND SPECIFIC ROLE* ☒ *Check if project performed with current firm*
 GIS Specialist. BC installed monitoring locations to test for in-stream surface water turbidity and pH monitoring while Caltrans and the Federal Highway Administration restored state route 140. Tina created figures of monitoring stations 1 and 2, communication tower and the site location.
 Project Fee: \$636,000
 Involvement: March 2013 to Present

(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0288 and 43A0325 North Coast Sediment Inventory 2013 to 2014, Caltrans, North Coast, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA

c. **(3) BRIEF DESCRIPTION** *(Brief scope, size, cost, etc.) AND SPECIFIC ROLE* ☒ *Check if project performed with current firm*
 GIS Specialist. BC prepared an inventory of sources of excess sediment and quantified the discharge or threatened discharge in the North Coast Regional Water Quality Control Board (NC-RWQCB). Tina researched watersheds and TMDL data from various sources. This research combined with the RUSLE 2 results data resulted in comprehensive maps included in the technical memorandums.
 Project Fee: \$151,000
 Involvement: July 2014 to November 2015

(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Water Pollution Control Assistance – North, Sonora Bypass Notice of Violation, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA

d. **(3) BRIEF DESCRIPTION** *(Brief scope, size, cost, etc.) AND SPECIFIC ROLE* ☒ *Check if project performed with current firm*
 GIS Specialist. On December 20, 2012, the Central Valley RWQCB issued Caltrans a NOV to both Department and Teichert Inc. based on stormwater inspections of the Phase II Sonora Bypass construction project from October 16, 2012 to December 5, 2012. The CVRWQCB issued a second NOV on January 18, 2013 for the period from December 21, 2012 to

January 14, 2013. The NOVs required a technical memorandum of all stormwater discharge events from the two periods. Tina imported data from GPS and mapped various areas using topography and aerial photography that were used to create figures summarizing discharge locations, disturbed soil area, and best management practices. <i>Project Fee: \$597,000</i> <i>Involvement: March 2013 to June 2013</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0308 Water Pollution Control Assistance – North, Willits Bypass Notice of Violation, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm GIS Specialist. On September 9, 2014, the North Coast Regional Water Quality Control Board (NCRWQCB) issued a 13267 Investigative Order R1-2014-0053 (Order) to the California Department of Transportation District 1 (Caltrans). The Order directed Caltrans to submit two technical reports pertaining to rainfall runoff events and storm water discharges to South Haehl Creek. Tina mapped drainage flows, detention ponds, sediment traps, permanent drainage systems, and final outfalls to Haehl creeks. Tina used these features to create figures of the storm water discharges during the rainfall runoff events described above. <i>Project Fee: \$68,700</i> <i>Involvement: October 2014 to November 2014</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Ron Crites, PE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 46 years	b. WITH CURRENT FIRM 18 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Davis, California

16. EDUCATION <i>(Degree and Specialization)</i> Engineer's Degree, Sanitary Engineering M.S., Sanitary Engineering B.S., Civil Engineering	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 21532, 1972 Professional Civil Engineer, Oregon No. 13506, 1987 Professional Civil Engineer, Hawaii No. 7795, 1993

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Ron has conducted numerous evaluations and designs of natural systems and constructed wetlands for water quality improvement and water reuse. His expertise is in studies, designs, monitoring, and operations advice for pretreatment, land application, and reuse. His project experience includes supporting wastewater system design review for Caltrans rest areas, and providing technical support for using constructed wetlands to mitigate stormwater impacts and for developing SWPPPs.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. C07-00114V Wastewater System Design Review and Recommendations for Shandon and Sunbeam Caltrans Rest Areas, San Luis Obispo and Imperial Counties, California	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Advisor. Caltrans was upgrading wastewater facilities at multiple rest stops throughout the state. As part of the upgrade, University of California at Davis contracted BC to provide Caltrans with completed pilot studies, data analysis, and development of design manuals for roadside rest areas. Projects included evaluations and development of passive systems for removal of nitrogen from restroom wastewater, development of systems for restricted and unrestricted water reuse at rest areas, development of anoxic constructed wetland technology, and urine separation systems for nitrogen control. BC provided wastewater systems design assistance and review of plans and specifications for highway rest stops in San Luis Obispo and Imperial counties. The wastewater systems included septic tank effluent pumping systems, recirculating gravel filters, and denitrification wetlands. Ron conducted design reviews and provided comments on the wood-chip media used to support denitrification to achieve a low nitrate effluent. <i>Project Fee: \$35,000</i> <i>Involvement: July 2007 to September 2010</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> North Shore Wastewater Alternatives Study, City and County of Honolulu, Hawaii	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Leader. Ron advised the Honolulu team on the use of small and decentralized wastewater treatment. The North Shore of Oahu is served by decentralized wastewater systems. A public outreach program was conducted to determine the residents' interest in alternative technologies, which ranged from cluster systems to small constructed wetlands. The plan identified 10 conceptual alternatives to handling wastewater that range the full gamut of cost, size and complexity. The technical team used a core working group's input and technical assessment information to determine which of these conceptual alternatives were better suited for a given service area. The plan also identified alternatives for managing wastewater systems where entities like homeowner associations, private maintenance companies, established management districts or municipal agencies can be responsible for regulatory compliance, operation and maintenance. <i>Project Fee: \$2,600,000</i> <i>Involvement: June 2006 to July 2012</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Stormwater Pollution Prevention Plan, Kingsburg, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Ron managed the preparation of a SWPPP for the raisin processing facility. <i>Project Fee: \$7,000</i> <i>Involvement: March 2010 to September 2010</i>		

	(1) TITLE AND LOCATION (City and State) Echo Park Lake Rehabilitation Wetlands Planning, City of Los Angeles, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Advisor. Funded by the City's Proposition O Clean Water Bond, this project will improve the water quality in both Echo Lake and the Los Angeles River Watershed. As part of the planning to improve water quality and mitigate stormwater impacts, Ron helped plan for new constructed wetlands to reduce the nutrients in, and being discharged to, Echo Park Lake in Los Angeles. He provided advice on the design of the constructed wetlands for nutrient removal. <i>Project Fee: \$1,200,000</i> <i>Involvement: June 2007 to June 2013</i>		
	(1) TITLE AND LOCATION (City and State) Stormwater Wetlands Design, Daly City, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Ron provided technical review of conceptual alternatives for treatment and reuse of stormwater from the Vista Grande canal to restore water levels in Lake Merced. He led the design of a free water surface wetlands to treat both stormwater and urban runoff. <i>Project Fee: \$455,000</i> <i>Involvement: December 2011 to Present</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Ralph Dodge	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE	
		a. TOTAL 24 years	b. WITH CURRENT FIRM 8 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Sunnyvale, California

16. EDUCATION <i>(Degree and Specialization)</i> M.S., Industrial Technology: Occupational Safety M.S., Studies: Health Promotion Management B.S., Education	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Ralph has been providing stormwater compliance assistance for construction projects in Caltrans District 4 for more than 15 years. These projects have included complex sites such as SFOBB, Doyle Drive, and Caldecott Tunnel. In addition, Ralph supports stormwater monitoring compliance, provides BMP selection recommendations, reviews SWPPPs and dewatering plans, provides coordination with regulators and public stakeholders, and conducts contractor and staff training.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Contract No. 43A0308 District 4 Construction Field Assistance, Caltrans, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Specialist. Ralph's technical assistance includes preparing environmental documents, conducting stormwater inspections, reviewing and amending SWPPPs, and providing environmental services on an as-needed basis for construction projects through District 4, including the San Francisco-Oakland Bay Bridge Seismic Safety Project. As part of a team, Ralph helps Caltrans comply with WDRs and NPDES construction permit guidelines, and acts as a liaison between Caltrans and the RWQCB. He also evaluated water quality impacts from construction and identified stormwater treatment measures to minimize impacts to receiving waters. The team conducted several studies related to hazardous waste assessments that included evaluating dredged materials and protecting receiving waters from access dredging and coffer dam dredging. During the design phase, Ralph, as part of the team, also helped prepare portions of the project plans, specifications, and estimates related to managing non-stormwater discharges and controlling erosion and sedimentation. In addition, Ralph reviewed stormwater compliance documents, including SWPPPs; plans, specifications and estimates (PS&Es); and dewatering plans. <i>Project Fee: \$2,298,000</i> <i>Involvement: January 2007 to Present</i>	Ongoing	NA
Contract No. 04A2906 Highway 1 Devil's Slide Tunnel, Caltrans District 4, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Non-stormwater and Stormwater Treatment/Air Monitoring. This project involves two 4,200-foot-long tunnels being constructed to bypass a dangerous portion of Highway 1. This project generates extra fill material that is to be placed on a large embankment located south of the tunnel construction, and will generate runoff and sediment that will require treatment prior to discharge. Ralph helped District 4 evaluate improvement to manage and treat runoff from the interim disposal area site, as well as manage non-stormwater discharges from activities within the tunnel whether they be from accumulated groundwater or other sources used in tunnel construction. Ralph has provided oversight for complying with Waste Discharge Requirements imposed on the project. He also is managing the Active Treatment Systems for site and non-stormwater runoff from the tunnels. In addition, Ralph has overseen personal and area air monitoring of tunnel operations to protect Caltrans and contract staff. <i>Project Fee: \$691,000</i> <i>Involvement: August 2008 to October 2008</i>	2008	NA
Contract No. 04A4426 Environmental Hygiene and Engineering Support, Caltrans District 4, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Industrial Hygiene. Ralph provides occupational health and environmental health and safety oversight for projects in District 4. This work involves services environmental procedural conformance review of health and safety plans, lead compliance plans, and air monitoring when working in confined spaces or with other hazards, such as asbestos. Ralph also manages and	Ongoing	NA

oversees general airborne emissions monitoring when conducted for Bay Air Quality Management District requirements or to address nuisance dust as part of construction in highly urbanized areas of San Francisco. This service must be performed by an industrial hygienist, a classification not presently available in the civil service. District 4 projects require environmental assistance with respect to industrial hygiene, and inter-related issues of water quality and hazardous waste. Ralph Dodge has been assigned to this effort since 2002. <i>Project Fee: \$956,000</i> <i>Involvement: June 2002 to Present</i>				
d.	(1) TITLE AND LOCATION (City and State) Contract No. 04A4426 San Pedro Creek Bridge Replacement, Caltrans, Pacifica, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Stormwater Compliance Specialist. This project is for the San Pedro Creek Bridge replacement and creek widening/deepening. Ralph provides direct support to the Resident Engineer in the review and compliance of contractor prepared groundwater and surface water Dewatering and Discharge Plans, including Temporary Creek Diversion System Plan. Ralph works with project biologist staff in environmental sustaining efforts during collection of endangered species, such as Steelhead Trout and the California Red Legged Frog. He evaluates and provides recommendations respective of erosion/sediment controls and revegetation requirements, and works with Department landscape architects. Ralph also evaluates POTW Discharge Permit and water quality data. <i>Project Fee: \$110,000</i> <i>Involvement: February 2014 to December 2015</i>				
e.	(1) TITLE AND LOCATION (City and State) Contract No. 04A4426 Highway 101 Presidio Parkway Project, Caltrans, San Francisco, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Stormwater Compliance Specialist. This project involves the replacement of the Doyle Drive Bridge and Viaduct Roadway Structures with multiple cut/cover tunnels, surface roadway replacements, pump stations, etc. Ralph oversees contractor compliance with the NPDES VOC/Fuel Permit (Order No. R2-2012-0012) and the CGP (DWQ-2009-0009) for the treatment, sampling, and discharge of groundwater and stormwater. He evaluates contractor prepared Dewatering and Discharge Plans, NOI Applications, and Self-Monitoring Reports for submission and approval by the RWQCB. He responds to and evaluates contractor reports of notices of discharge and acts as a liaison with federal agency property owners and administrations to coordinate environmental compliance efforts in alignment with their mandates. Ralph provides Department support in contractor efforts in the management of naturally occurring asbestos (NOA) disturbing excavation/roadway work in compliance with ATCM standards, BAAQMD requirements, and OSHA regulations. Previous project duties have included air monitoring and dust control oversight for demolition and removal of concrete and structural steel viaduct and roadway removal. Ralph has also served as the Department's lead representative in hazardous material clean up and follow up site assessment for broken sewage pipes, unauthorized discharges, etc. <i>Project Fee: \$120,000</i> <i>Involvement: July 2012 to Present</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Michael Flake, PE, QSD	13. ROLE IN THIS CONTRACT Task Order Manager	14. YEARS EXPERIENCE	
		a. TOTAL 23 years	b. WITH CURRENT FIRM 9 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Walnut Creek, California

16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering Environmental Management Certificate in Environmental Site Assessment and Remediation	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 054948, 1996 Qualified SWPPP Developer and Practitioner (QSD), No. 24268

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mike has extensive stormwater experience, including 4 years managing Caltrans' Stormwater Program as the office chief for stormwater policy, planning and permitting. Mike was responsible for permit negotiations, stormwater management plan development, annual reporting, compliance reviews, self-audit programs, public outreach, total maximum daily loads (TMDLs), areas of special biological significance (ASBS) and many other issues. He developed many of the Caltrans manuals and training programs related to BMP implementation for construction and post-construction. Mike also served as a member of the California Stormwater Quality Association Executive Committee from 2004 to 2006.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>		(2) YEAR COMPLETED	
Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans District 1, Willits, California		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Mike serves as BC's project manager (subcontract to AECOM) for this water quality monitoring effort to evaluate the Willits Bypass construction on Highway 101 in Mendocino County. BC conducts monitoring of creeks both upstream and downstream of the construction project limits to identify impacts. Caltrans was issued 401 Water Quality Certification to institute a rigorous program to monitor the impacts of construction upon the creeks and to gauge mitigation success. In addressing the Certification requirements, Mike has contributed to development of the reporting program for the Water Quality Monitors (WQM) by devising templates for the daily and monthly reports. Mike provides oversight and quality control of monthly reports, and contributes to specialty situations when onsite personnel encounter problems or need additional help, such circumstances have included evaluation of dewatering activities, response to enforcement actions, water use strategies, and erosion control. Mike also directed the development of a project portal for depicting real-time data from the BC constructed monitoring stations and weather station. This portal is used to generate alerts to identify exceedances of water quality objectives, so that personnel can mobilize to the area. <i>Project Fee: \$4,000,000</i> <i>Involvement: August 2012 to Present</i>			
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0288 and 43A0325 North Coast Sediment Inventory; Caltrans Districts 1, 2, and 4, California		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Mike assisted Caltrans in meeting their NPDES stormwater permit requirement to complete an annual inventory of Caltrans highways identified as potential sources of sediment to surface waters with a sediment TMDL within the jurisdiction of the North Coast RWQCB. Caltrans' roads, shoulders, landscaped areas, and facilities have the potential to generate sediment. During scope development in Spring 2014, Caltrans stated they were significantly behind in getting the first inventory completed by a due date of October 1, 2014. Mike proposed that the first year of the report be a desktop study using the RUSLE2 (Revised Universal Soil Loss Equation) modeling program and GIS software supplemented with Google Earth data. This was the agreed upon approach with an update recently made for 2015 that included a field evaluation of highway segments under a priority system based on the threat of exporting sediment to a TMDL watershed. There are 17 specific sediment impaired watersheds with a TMDL that also have a Caltrans highway contributing to the watershed. BC used raw data from Caltrans Maintenance and employed GIS software and the RUSLE2 model to estimate sediment loads from the ROW that potentially generate sediment. BC prepared a Technical Memorandum to document the methodology, data, analytical tools, and modeling techniques employed to support the sediment inventory. In 2015, BC updated the previous sediment inventory by performing field inspections of the highway ROW sections prone to erosion. The data obtained from the 2015 inspections was used to provide updated sediment transport values. Following the sediment inventory, the NPDES permit requires prioritizing sediment sources, implementing BMPs to reduce sediment loading, and monitoring the effectiveness of BMPs using adaptive management techniques to reduce future sediment loading. <i>Project Fee: \$212,000</i>			

Involvement: May 2014 to October 2014 and May 2015 to November 2015		
(1) TITLE AND LOCATION (City and State) Contract Nos. 43A0254 and 43A0314 Project Planning and Design Guide, Caltrans HQ Stormwater Design, Sacramento, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Mike is working on the 2015 version of the PPDG, which is Caltrans' overall design guidance for stormwater BMP implementation. He previously did an update of the PPDG in 2010. The PPDG is updated regularly to reflect the changes in knowledge gained through research and pilot BMP projects, as well as lessons learned from capital projects. A design strategy that uses a pollutant load removal approach provides Caltrans with a reasonable method to comply with water quality criteria and TMDLs. A new approach for treatment in excess of the minimum design requirements is to be applied as credit towards future projects that have a treatment deficit or towards TMDL compliance. Changes are being made to the PPDG to streamline direction, but a majority of changes will be related to treatment BMP consideration and application within projects. Infiltration will be emphasized as the preferable means of reducing pollutants in discharges, preferably by utilizing existing site conditions and principles of low impact development (LID). The changes to the PPDG include updates to stormwater data report (SWDR) templates and supporting forms, reference to recent hydromodification guidance and qualifying criteria, and CGP compliance. <i>Project Fee: \$648,000</i> <i>Involvement: May 2009 to August 2010 and July 2014 to Present</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0288 Clear Lake Nutrient Data Collection, Caltrans District 1 and HQ, Clear Lake, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. The Clear Lake TMDL went into effect on July 12, 2007, assigning a phosphorus load allocation of 100 Kg/year to Caltrans. Mike led a team to provide monitoring services over a 3-year period to establish baseline conditions related to phosphorus from the Caltrans ROW within the watershed. BC implemented monitoring at 4 sites representing differing tributary area discharges from Caltrans highways. Monitoring was conducted using a local field team and cellular technology to transmit data on rainfall and flow conditions. In addition, automated equipment was used to obtain runoff samples from a known geometrically sized flume that was set prior to the final discharge of runoff from the ROW. BC completed annual reporting on the collected data to make site adjustments and account for local changes in tributary conditions. After the final year of monitoring, BC modeled loads from all of the Caltrans discharge points within the watershed using the monitoring data and the Storm Drain System Inventory to formulate a rough load estimate. It was concluded that phosphorus from the paved roadway contributed very little to the total load, whereas phosphorus connected to sedimentation from cut slopes and open soils contributed greatly. A total annual load range of 8 to 219 Kg/year with an annual average of 84 Kg/year was estimated. District 1 met with the Central Valley RWQCB; both parties were pleased with the monitoring results and content of the report. A path toward compliance with the TMDL will be subject to a statewide process being negotiated by Caltrans HQ and the SWRCB; however, both District 1 and the Central Valley RWQCB understand that localized changes related to maintenance activities and targeted soil stabilization of roadway slopes in advance of the rainy season can lead to TMDL compliance without costly capital projects. <i>Project Fee: \$419,000</i> <i>Involvement: March 2011 to August 2014</i>		
(1) TITLE AND LOCATION (City and State) Contract Nos. 43A0288 and 43A0325 National Pollutant Discharge Elimination System Permit Mandatory Water Quality Monitoring for 2013 to 2017, Caltrans District 4, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. This Task Order is to conduct stormwater monitoring at four sites within District 4. The Department is conducting monitoring in watersheds with an established TMDL to comply with Provision E.2.c of the Caltrans NPDES Permit, Order 2012-0011-DWQ. Mike got concurrence of Caltrans managers to change the original sites for this task order to address primary TMDL concerns in District 4 attributed to mercury and polychlorinated biphenyls (PCBs), as well as diazinon at one site for the urban creeks pesticide TMDL. The four monitoring locations were chose to represent elevated highway locations with variability in surrounding land uses, proximity to sources of PCBs, and potentially different impacts from aerial deposition. These factors will be beneficial in understanding how highways contribute discharges to the San Francisco Bay for each of the TMDLs. This work began under Contract 43A0288 TO 12, and continues under Contract 43A0325 TO 01. <i>Project Fee: \$956,000</i> <i>Involvement: February 2014 to August 2014 and November 2014 to Present</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Nathan Foged, PE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 14 years</td> <td>b. WITH CURRENT FIRM 11 years</td> </tr> </table>		a. TOTAL 14 years	b. WITH CURRENT FIRM 11 years
a. TOTAL 14 years	b. WITH CURRENT FIRM 11 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Seattle, Washington					
16. EDUCATION <i>(Degree and Specialization)</i> M.S., Bioresource/Civil Engineering B.S., Biological Systems Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California, No. 66395, 2004 Certified Floodplain Manager. No. US-07-02747, 2007			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Nathan specializes in surface water hydrology, hydraulics, and sediment transport modeling. He has experience on a variety of projects involving watershed/basin studies, flood hazard mitigation, floodplain management, bridge/culvert replacement, stormwater master planning, storm drainage design, erosion control, channel stabilization, and stream restoration.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract 43A0308 Water Pollution Control Assistance – North, Willits Bypass Notice of Violation, Caltrans, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Hydrologic Modeling Lead. BC helped Caltrans respond to a NOV issued by the North Coast RWQCB in September 2014 that required Caltrans to evaluate stormwater runoff and sediment laden discharge volumes to nearby Haehl Creek during several large storm events that occurred that year. Nathan developed a rainfall-runoff model for project site and Haehl Creek watershed using HEC-HMS software. The model was calibrated using streamflow monitoring data collected by BC and then used to run a continuous simulation for the period in question and estimate runoff volumes. The model also looked at the benefits of onsite storage for runoff that was captured by ponds. Nathan's work was included in a Technical Report prepared by BC to respond to the RWQCB NOV. Project Fee: \$68,700 Involvement: October 2014 to November 2014					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract 43A0308 Water Pollution Control Assistance – North, Sonora Bypass Notice of Violation, Caltrans, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Hydrologic Modeling Lead. BC helped Caltrans respond to an NOV issued by the North Coast RWQCB that required Caltrans and the construction contractor to estimate stormwater runoff volumes from approximately 8.5 acres of disturbed soil at the site during a series of large storm events. Nathan reviewed the initial estimates developed by the contractor and then, noting some crucial errors, recommended that BC revise the estimates using a standard NRCS Curve Number approach. Nathan provided guidance to the technical team, reviewed the revised results, and answered follow up questions. Project Fee: \$45,000 Involvement: March 2013 to May 2013					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314 District 3 and District 7 Low Impact Design Pilot Design, Caltrans HQ, Sacramento, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> QA/QC Review and Technical Advisor for Hydraulics. Nathan provided technical reviews and guidance on hydraulic design, facility sizing, and approach to evaluating performance of low impact design (LID) management practices for the District 3 and District 7 pilot study. As part of this work, Nathan developed a detailed spreadsheet that was used to calculate stormwater inflows and size facilities to achieve specific performance criteria related to storage and treatment capacity. Project Fee: \$1,777,000 Involvement: August 2013 to April 2014					
(1) TITLE AND LOCATION <i>(City and State)</i> Yarrow Creek Tributary Culvert Replacement and Stream Stabilization, Bellevue, Washington	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> 2011			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Hydraulic Engineer. Nathan developed a HEC-HMS hydrologic model for the Yarrow Creek tributary drainage to calculate					

design discharges; the 100-year peak discharge was used to size a new culvert and 50-percent of the 2-year discharge was used to design features for the low-flow restored channel. Nathan also developed a HEC-RAS hydraulic model of the stream channel, culvert, and flow bypass structure to support culvert sizing and hydraulic design of appurtenant structures such as a high flow diversion weir and a riprap energy dissipater and the bypass outlet. <i>Project Fee: \$200,000</i> <i>Involvement: August 2009 to December 2010</i>					
(1) TITLE AND LOCATION (City and State) Hydrograph Modification Management Plan, County of Contra Costa, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2008</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES 2008	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2008	CONSTRUCTION (if applicable) NA				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Hydraulic Modeling Lead. A gallery of 7 low-impact stormwater BMPs was selected for the County's stormwater management plan. Nathan performed continuous hydrologic modeling of each BMP using HSPF to evaluate BMP effectiveness and determine appropriate BMP sizing parameters. Based on these results Nathan developed an Excel worksheet as a tool for BMP sizing. The worksheet used VBA macros to perform sizing computations. <i>Project Fee: \$180,000</i> <i>Involvement: November 2004 to November 2006</i>					

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section E for each key person.)

12. NAME Chuck Frey	13. ROLE IN THIS CONTRACT Storm Drain System Inventory	14. YEARS EXPERIENCE a. TOTAL 18 years b. WITH CURRENT FIRM 12 years	

15. FIRM NAME AND LOCATION (City and State)
Brown and Caldwell – Rancho Cordova, California

16. EDUCATION (Degree and Specialization) B.S., Soil Science	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline) NA

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Chuck has led field teams for a variety of environmental projects, including managing site investigations and supporting regulatory compliance and reporting programs. Chuck has interacted with regulatory agencies, including California Department of Toxic Substance Control (DTSC), regional water boards, and various city, county, and local agencies. Chuck has also completed construction and engineering related activities for numerous projects, including installation of stormwater sampling systems and telemetry systems.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Task Manager. Chuck is BC's Field Task leader for the Storm Drain System Inventory project. He is supporting this large scale field data collection effort to inventory storm drains throughout California. Chuck has managed field data collection for 470 miles of roadway within Districts 1, 3, 4, and 10. This includes scheduling and deploying field teams, training staff on collection protocol, collection of data and reviewing data collected in the field. <i>Project Fee: \$1,000,000</i> <i>Involvement: November 2014 to Present</i>		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Contract No. 43A0308 Construction Stormwater Capital and Support Costs, Statewide, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
b. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Stormwater Specialist. Caltrans desired a high-level data gathering effort to quantify temporary and permanent water pollution control (WPC) expenditures during the construction phase of 50 capital projects. Chuck supported the technical lead to develop project selection criteria, a uniform approach, and standardized tools to collect data consistently across projects. BC applied these methods to gather data in the Northern Districts. These same standards were used by another consulting firm to collect data in the Southern Districts to develop a seamless integration of statewide data. BC worked with Caltrans to develop an approach to derive the WPC related support costs based on the total project hours recorded in the Caltrans timesheet system, interviews with key project construction staff, who estimated the WPC portions of staff hours, and an average labor rate. The WPC portion of the capital costs was determined from temporary construction and permanent BMPs. BC compiled, validated, and analyzed the statewide data, then reported findings and methodologies in a comprehensive report. Project costs and project attributes were incorporated into the analysis to determine program-level cost trends and cost drivers. The data were also used to create a planning-level WPC cost estimating tool to better understand the cost driving typical capital projects. BC prepared recommendations on ways to improve the statewide dataset and to apply the data to improve the Stormwater Program and reduce overall project costs. Recommendations included: refining the Caltrans accounting mechanisms to better capture WPC support and capital costs, communicating permitting impacts to costs to the SWRCB, and presenting WPC cost drivers during training to Caltrans staff. <i>Project Fee: \$287,000</i> <i>Involvement: March 2014 to October 2014</i>		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Contract Nos. 10A1687 and 10-P9224 PO 0077-0446 Ferguson Slide In-Stream Monitoring Program, Caltrans, Mariposa County, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
c. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Staff. Chuck helped construct install, and maintain the telemetry system that supports continuous water quality monitoring for the project site. This project involves restoring full highway access between Mariposa and Yosemite via State Route 140 by repairing damage from a 2006 rockslide. The telemetry system includes stations for two in-stream monitoring		

	locations and an observation deck. The stations include data loggers and cameras to gather water data and are connected by a high bandwidth radio network. The pH, turbidity, water level, and temperature are monitored real time and along with rainfall and temperature data are submitted to the California Data Exchange Center website. <i>Project Fee: \$534,157</i> <i>Involvement: October 2014 to Present</i>									
d.	<table border="1"> <tr> <th>(1) TITLE AND LOCATION (City and State)</th> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td>Sisk Ranch Groundwater Remediation and Monitoring, Confidential Client, Modesto, California</td> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> <tr> <td colspan="3"> (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Chuck is the project manager for a site investigation and remediation located outside Modesto, California. Chromium impacted bricks were used as a backfill material for the site. The bricks impacted soil and groundwater beneath the Site, which consist of almond orchards and equipment storage. The site was investigated for both soil and groundwater impacts, and once completed soil remediation, and in-situ remediation of groundwater were conducted. Chuck was responsible for the preparation of reports submitted to the Department of Toxic Substances (DTSC), coordination with the client, landowners, and regulators, and oversight of contractors conducting fieldwork. Chuck was able to coordinate with the DTSC and show that the remedial activities conducted at the site were sufficient for site closure. He then prepared closure documents and supervised the abandonment of monitoring wells at the site. He is currently preparing a report providing a summary of closure activities conducted at the site. <i>Project Fee: \$132,000</i> <i>Involvement: February 2006 to Present</i> </td> </tr> </table>	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED		Sisk Ranch Groundwater Remediation and Monitoring, Confidential Client, Modesto, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Chuck is the project manager for a site investigation and remediation located outside Modesto, California. Chromium impacted bricks were used as a backfill material for the site. The bricks impacted soil and groundwater beneath the Site, which consist of almond orchards and equipment storage. The site was investigated for both soil and groundwater impacts, and once completed soil remediation, and in-situ remediation of groundwater were conducted. Chuck was responsible for the preparation of reports submitted to the Department of Toxic Substances (DTSC), coordination with the client, landowners, and regulators, and oversight of contractors conducting fieldwork. Chuck was able to coordinate with the DTSC and show that the remedial activities conducted at the site were sufficient for site closure. He then prepared closure documents and supervised the abandonment of monitoring wells at the site. He is currently preparing a report providing a summary of closure activities conducted at the site. <i>Project Fee: \$132,000</i> <i>Involvement: February 2006 to Present</i>		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED									
Sisk Ranch Groundwater Remediation and Monitoring, Confidential Client, Modesto, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA								
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Chuck is the project manager for a site investigation and remediation located outside Modesto, California. Chromium impacted bricks were used as a backfill material for the site. The bricks impacted soil and groundwater beneath the Site, which consist of almond orchards and equipment storage. The site was investigated for both soil and groundwater impacts, and once completed soil remediation, and in-situ remediation of groundwater were conducted. Chuck was responsible for the preparation of reports submitted to the Department of Toxic Substances (DTSC), coordination with the client, landowners, and regulators, and oversight of contractors conducting fieldwork. Chuck was able to coordinate with the DTSC and show that the remedial activities conducted at the site were sufficient for site closure. He then prepared closure documents and supervised the abandonment of monitoring wells at the site. He is currently preparing a report providing a summary of closure activities conducted at the site. <i>Project Fee: \$132,000</i> <i>Involvement: February 2006 to Present</i>										
e.	<table border="1"> <tr> <th>(1) TITLE AND LOCATION (City and State)</th> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td>Site Investigation and Remediation, Nearon Properties, Mountain View, California</td> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> <tr> <td colspan="3"> (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Scientist. Chuck is helping in the investigation of sub slab soil gas for determination of construction of a passive and active soil vapor extraction (SVE) system. The work is being conducted in an occupied office building that had a historical machine shop within the building that released chlorinated solvents into the subsurface. The work has to be conducted during non-business hours due to the tenants in the building. He installed sub slab sampling points and collected samples with summa canisters to determine placement of soil vapor extraction points and a sub slab passive ventilation system. Following the delineation, he installed sub slab SVE extraction. Chuck has also conducted groundwater monitoring and preparation of groundwater monitoring and site investigation summary reports. He coordinates with the laboratory and subcontractors to arrange for timely completion of work for the site. <i>Project Fee: \$2,360,000</i> <i>Involvement: March 2012 to Present</i> </td> </tr> </table>	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED		Site Investigation and Remediation, Nearon Properties, Mountain View, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Scientist. Chuck is helping in the investigation of sub slab soil gas for determination of construction of a passive and active soil vapor extraction (SVE) system. The work is being conducted in an occupied office building that had a historical machine shop within the building that released chlorinated solvents into the subsurface. The work has to be conducted during non-business hours due to the tenants in the building. He installed sub slab sampling points and collected samples with summa canisters to determine placement of soil vapor extraction points and a sub slab passive ventilation system. Following the delineation, he installed sub slab SVE extraction. Chuck has also conducted groundwater monitoring and preparation of groundwater monitoring and site investigation summary reports. He coordinates with the laboratory and subcontractors to arrange for timely completion of work for the site. <i>Project Fee: \$2,360,000</i> <i>Involvement: March 2012 to Present</i>		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED									
Site Investigation and Remediation, Nearon Properties, Mountain View, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA								
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Scientist. Chuck is helping in the investigation of sub slab soil gas for determination of construction of a passive and active soil vapor extraction (SVE) system. The work is being conducted in an occupied office building that had a historical machine shop within the building that released chlorinated solvents into the subsurface. The work has to be conducted during non-business hours due to the tenants in the building. He installed sub slab sampling points and collected samples with summa canisters to determine placement of soil vapor extraction points and a sub slab passive ventilation system. Following the delineation, he installed sub slab SVE extraction. Chuck has also conducted groundwater monitoring and preparation of groundwater monitoring and site investigation summary reports. He coordinates with the laboratory and subcontractors to arrange for timely completion of work for the site. <i>Project Fee: \$2,360,000</i> <i>Involvement: March 2012 to Present</i>										

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Valerie Fuchs, Ph.D., PE, QSD	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE a. TOTAL 4 years b. WITH CURRENT FIRM 2 year	

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Seattle, Washington

16. EDUCATION <i>(Degree and Specialization)</i> Ph.D., Environmental Engineering M.S., Environmental Engineering B.S., Civil Engineering	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C81619, 2013 Qualified SWPPP Developer and Practitioner (QSD), No. C81619, 2015

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Valerie has performed QA/QC review on various water quality monitoring and surface water data reports for Caltrans projects, including Willits Bypass Water Quality Assessment and Monitoring. As a water resources engineer, Valerie brings experience with stormwater and wastewater BMPs and design, field water quality sampling, stream assessments, and NPDES compliance.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Willits, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer/Permit Support. Valerie provides QA/QC review and development of daily and monthly construction monitoring reports for continuous water quality monitoring program in association with re-routing of 6 miles of Highway 101 around Willits, California. Compliance observations extend throughout construction and mitigation areas. Water quality monitoring includes 28 continuous in-stream stations and sondes deployed as-needed to monitor water quality if spills occur. Inspections on construction sites include observations of stormwater BMPs, spill prevention practices, fuel or hydraulic leaks and cleanup, water and wastewater tank leaks and cleanup, concrete pump and drip containment, groundwater pumping and monitoring, and isolation of in-creek construction to prevent downstream contamination. <i>Project Fee: \$4,000,000</i> <i>Involvement: July 2014 to Present</i>		
Contract No. 43A0314 Low Impact Development Pilots Design Phase 2, Caltrans, Sacramento, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Valerie reviewed and validated low-impact development (LID) BMP design criteria for pilot linear filtration BMPs, developed sizing calculations for pilot BMPs, and developed design guidance for approval and use of pilot linear filtration BMPs at locations in Districts 3 and 7. <i>Project Fee: \$1,953,000</i> <i>Involvement: February 2014 to Present</i>		
Contract No. 43A0314 Surface Water Data Report Reviews, Caltrans, Sacramento, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Quality Assurance/Quality Control. Valerie is providing QA/QC on Caltrans' Storm Water Data Report program where all Caltrans projects must report stormwater management design for construction BMPs, pollution control, and runoff treatment, in compliance with the PPDG. She is reviewing 50 reports per cycle for compliance, and tracking net new impervious area, use of new tools, and new BMPs. <i>Project Fee: \$117,000</i> <i>Involvement: February 2014 to Present</i>		
National Pollutant Discharge Elimination System Permit Compliance 2013 to 2017, City of Mount Vernon, Washington	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
d. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Permit Support. Valerie has performed field inspections to identify dry weather flows in stormwater system that may indicate illicit discharges; inspecting 10 to 50 outfalls per year depending on drainage basin; developing summary report of field data,		

photos, and findings. Valerie has researched NPDES Phase II Permit language to identify and document permit requirements over the term of the Permit. She has assisted the City with compiling, reviewing, and editing its annual Stormwater Management Program and Annual Report, including reporting of illicit discharges, spills, cleanup, stormwater storage, and conveyance facilities. She developed technical memorandum summarizing standards on pervious pavement regarding construction sequencing. She is also conducting a gap analysis to identify City programmatic actions required to comply with the Permit. <i>Project Fee: \$302,000</i> <i>Involvement: January 2014 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Structural Best Management Practices Sustainable Return on Investment, County of San Diego, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer and Planner. Valerie applied the ISI Envision rating system and Business Case Evaluation to rate 38 structural stormwater BMPs, including green stormwater infrastructure BMPs for County master planning. She identified assumptions and rating criteria related to each structural BMP, as well as potential implementation actions and criteria beyond the structure that could impact Envision rating. In addition, she quantitatively assessed BMPs using BCE to evaluate life-cycle costs, including monetized social and environmental “co-benefits.” Through this effort, Valerie identified a) how the structural BMPs compare to each other in terms of Envision rating, and b) what steps the County could take to increase the Envision rating for any given project. <i>Project Fee: \$245,000</i> <i>Involvement: May 2014 to May 2015</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Jenny Gain, PE, QSD	13. ROLE IN THIS CONTRACT Task Order Manager, Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 14 years</td> <td>b. WITH CURRENT FIRM 12 years</td> </tr> </table>		a. TOTAL 14 years	b. WITH CURRENT FIRM 12 years
a. TOTAL 14 years	b. WITH CURRENT FIRM 12 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> M.S., Environmental Engineering B.S., Civil and Environmental Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C72430, 2008 Qualified SWPPP Developer and Practitioner (QSD), No. 00253, 2015			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Jenny has managed and assisted with stormwater quality projects and stormwater management plans to meet Phase II NPDES requirements, as well as watershed assessment, industrial water quality, program management, urban water planning, and ecosystem restoration. She has also performed a variety of fieldwork at lakes, rivers, sludge ponds and wastewater treatment facilities. She has experience as a task order manager on five Caltrans projects.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0288 TO 9 Asphalt Concrete Grindings Characterization, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Order Manager. Caltrans desires to continue using AC grindings as shoulder backing material along its highways without restriction. The analytical results from this Task Order will be used to discuss the potential environmental impact of AC grindings with the RWQCBs. The analytical results are to be examined on the basis of specific constituents that potentially leach into receiving waters. Results from the analytical testing are to be used in comparison with various criteria of the RWQCBs and other appropriate and applicable information. Jenny is managing this project, which involves helping Caltrans obtain the analytical results and supporting Caltrans in getting RWQCB concurrence in the continued use of AC grindings. <i>Project Fee: \$60,000</i> <i>Involvement: July 2012 to October 2014</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0288 TO 4 Stormwater and Vegetation Monitoring, Caltrans, Napa and San Mateo, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2013</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Order Manager. Jenny managed stormwater and vegetation monitoring at two ornamental roadside vegetative treatment system (ORVTS) locations (five samplers) previously installed and monitored in 2009/10 under a separate contract. The Department wanted to offer designers more options for roadside landscape while still providing treatment of roadway runoff, so this ORVTS Study was conducted to assess the treatment performance of slopes vegetated with ornamental plants as opposed to the typical grass cover at the existing RVTS. Because of the statewide nature of the ORVTS Study, there were multiple consultants assigned to various ORVTS locations. Under this Task Order, BC and its subconsultant, ADH, were responsible for monitoring collection systems for two locations (Napa and San Mateo) for the ORVTS Study. <i>Project Fee: \$444,000</i> <i>Involvement: January 2011 to June 2013</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314 TO 6 Stormwater Data Reports FY 2012 to 13, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Order Manager. Jenny managed the review of 50 Stormwater Data Reports (SWDRs) completed for FY 2012 to 2013. The team made judgments as to the adequacy of the SWDRs, discussed trends, and recommended improvements in guidance, training, policy or other related items. This information went into a report that was incorporated into the Annual Report. <i>Project Fee: \$39,000</i> <i>Involvement: December 2013 to April 2014</i>					
d. (1) TITLE AND LOCATION <i>(City and State)</i>		(2) YEAR COMPLETED			

Contract No. 43A0254 TO 16 Stormwater Data Reports FY 2011 to 2012, Caltrans, California	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Task Order Manager. Jenny managed the review of 51 Storm Water Data Reports completed for FY 2011 to 2012. The team made judgments as to the adequacy of the SWDRs, discussed trends, and recommended improvements in guidance, training, policy or other related items. This information went into a report that was incorporated into the Annual Report. <i>Project Fee: \$40,000</i> <i>Involvement: January 2013 to March 2013</i>				
(1) TITLE AND LOCATION (City and State) Contract No. 43A0254 TO 14 Stormwater Data Reports FY 2010 to 11, Caltrans, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2012 </td> <td> CONSTRUCTION (if applicable) NA </td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Task Order Manager. Jenny managed the review of 50 Storm Water Data Reports completed for FY 2010 to 2011. The team made judgments as to the adequacy of the SWDRs, discussed trends, and recommended improvements in guidance, training, policy or other related items. This information went into a report that was incorporated into the Annual Report. <i>Project Fee: \$38,000</i> <i>Involvement: March 2012 to June 2012</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Matt Gerhardt, Ph.D., PE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 28 years</td> <td>b. WITH CURRENT FIRM 25 years</td> </tr> </table>		a. TOTAL 28 years	b. WITH CURRENT FIRM 25 years
a. TOTAL 28 years	b. WITH CURRENT FIRM 25 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> Ph.D., Civil Engineering M.S., Civil Engineering B.S., Chemical Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Chemical Engineer, California No. CH-005102, 1996 Professional Civil Engineer, California No. C-047309, 1991 Professional Chemical Engineer, Arizona, No. 45570, 2006 Professional Engineer, New Mexico No. 19876, 2010 Professional Engineer, Colorado No. 46369, 2012			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Matt has extensive experience in process development and design of water and wastewater treatment systems, including both physicochemical and biological treatment systems for stormwater, petroleum refining, mining, cement, electric power, food processing, and other clients. He assists clients with treatment process development, troubleshooting, and permitting.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Water Pollution Assistance – North, I-80/Douglas Boulevard Construction Sediment Dewatering Treatment, Caltrans, Roseville, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2005</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Project Engineer. BC provided a system evaluation and recommendations for the construction sediment dewatering system at an interchange widening project along U.S. 80 in Roseville. The project faced issues with clay not settling out and the use of baker tanks and sand filters. Matt evaluated the contractor's systems for treating groundwater and surface water collected during tunnel construction. He documented existing conditions at the treatment system, evaluated alternatives for improving contaminant removal efficiency, and provided recommendations that included chitosan coagulation. Project Fee: \$3,592 Involvement: February 2005 to March 2005					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0288 San Francisco-Oakland Bay Bridge Bioretention Pilot, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Technical Oversight. In 2002, the RWQCB, San Francisco Bay Region issued a set of Waste Discharge Requirements (WDR) to address post-construction storm water runoff impacts associated with the proposed San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. Because District 4 was unable to install treatment for the full-scope of the project, several pilot projects, and detention basins were proposed for treating runoff from the bridge approach, toll plaza, and a portion of I-80 and I-980 throughout the Emeryville crescent. One of the pilot projects was a set of bioretention basins built in 2008. As a condition of the WDR, the bioretention basins were to be monitored to determine their effectiveness and eventual potential for becoming an approved treatment BMP within the Caltrans inventory. Matt performed a detailed review of the Sampling and Analysis Plan for 2012-2013 activities at the Bioretention Pilot Project and will continue to review analytical data and develop the Annual Interim Report. Project Fee: \$1,434,656 Involvement: April 2013 to October 2013					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0288, Task Order No. 9 Asphalt Concrete Grindings Leachability Study, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2015</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> c. Project Engineer. Caltrans is studying the potential for asphalt concrete (AC) grindings to leach trace metals or oil into surface waters. Matt assisted in the preparation of a Sampling and Analysis Plan to quantify the potential for these contaminants to leach from AC grindings. Matt will be analyzing samples of different asphalt pavement grindings from Districts 1 and 4 and providing a recommendation on reuse to help Caltrans continue placing grinding material within highway shoulders and other locations with the San Francisco Bay and North Coast RWQCB approval. Project Fee: \$54,411					

Involvement: May 2012 to July 2015		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 04A2906 Devil's Slide Tunnel Wastewater Treatment, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2009	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Oversight. During construction of the Devils Slide Bypass tunnel, the contractor was required to treat construction-related wastewater and test it prior to surface discharge. BC assisted Caltrans in responding to the contractor's belief that carbonates encountered during tunnel boring were causing excessive alum use in the Temporary Non-Storm Water Treatment System. Matt performed a detailed review on the evaluation of causes of the high alum use and provided senior technical advice on chemical treatment. Matt was especially important in questioning the use of citric acid as part of pH neutralization, which was causing the "fouling" of activated carbon filters and contributing to production of hydrogen sulfide in the discharge. <i>Project Fee: \$750,000</i> <i>Involvement: April 2009 to August 2009</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0131 Alternative Media Gravity Filter Reconnaissance Study, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2001	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Matt conducted a literature survey on alternative media for use in gravity filters treating stormwater. He recommended eight media types, including granular activated carbon and limestone. He then prepared a Sampling and Analysis Plan incorporating a scaled-down version of the standard Austin sand filter to test the effectiveness of various grades of sand, limestone, and perlite. <i>Project Fee: \$90,000</i> <i>Involvement: March 2001 to August 2001</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Rene Guillen, PE, QSD	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 4 years	b. WITH CURRENT FIRM 3 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Walnut Creek, California

16. EDUCATION <i>(Degree and Specialization)</i> M.S., Civil Engineering B.S., Civil Engineering	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 83467 Qualified SWPPP Developer and Practitioner (QSD), No. C83467, 2015

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Rene's project experience includes water quality monitoring and watershed assessment, stormwater compliance assistance, water reliability analysis, flow measurement, and various remote monitoring/telemetry installations.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans District 1, Willits, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer/Field Services. Rene has been responsible for collecting, consolidating, and processing water quality data collected from monitoring equipment at 25 water quality stations. Additionally, as a field team lead he is responsible for implementing monitoring activities and equipment maintenance. Rene also helps draft monthly, quarterly, and annual reports that present collected data, findings, and recommendations to clients, decision-making bodies, and regulatory agencies. <i>Project Fee: \$4,000,000</i> <i>Involvement: September 2012 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0325, Pump Station Investigation, Caltrans, District 4, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer/Field Services. This project fulfills the requirement to monitor and implement measures to reduce the potential for dry weather water discharges from the pump stations in the San Francisco Bay Region. Rene is leading efforts to investigate each pump station to determine the most appropriate manner in which to monitor each site as well as drafting of documents such as the site reconnaissance technical memorandum, the sampling and analysis plan, the post monitoring technical memorandum, and monthly updates. <i>Project Fee: \$378,000</i> <i>Involvement: April 2014 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0325 Tier-1 Total Maximum Daily Loads Monitoring, Caltrans District 4, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer/Field Services. BC was responsible for monitoring runoff during storms for four sites in the Bay Area. Rene led the sampling effort at one of these sites and helped coordinate sampling efforts at the other three sites. He assisted with the installation and upkeep of water quality monitoring instrumentation which collects real-time flow conditions and weather data. <i>Project Fee: \$819,000</i> <i>Involvement: November 2014 to Present</i>		
(1) Title and Location <i>(City and State)</i> Phase 2 Feasibility Study Program, North Bay Water Reuse Program, Sonoma County Water Agency, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) Brief Description <i>(Brief scope, size, cost, etc.) and Specific Role</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. As the prime consultant, we are initiating a \$3 million, three year program defined by the Phase 2 Scoping Study to complete the implementation of a \$150 million in projects for water supply, wastewater management, and environmental enhancement. Our technical program is integrated with the Program Development contractor to create a		

group of projects that can be funded and then implemented by the member agencies. Rene has helped conduct operations studies of supply and demand information provided by the NBWRP Member Agencies to determine storage volume requirements with varying distributions systems and levels of demands served. <i>Project Fee: \$1,885,000</i> <i>Involvement: March 2015 to Present</i>		
(1) Title and Location (City and State) Advanced Treatment Technology Pilot Project Plug Flow Analysis, Sacramento Regional County Sanitation District (Regional San), Elk Grove, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) Brief Description (Brief scope, size, cost, etc.) and Specific Role ☒ Check if project performed with current firm e. Project Engineer. The purpose of this study was to determine the residence time distribution of the chlorine contactor. The study involved injecting dye tracer into the individual systems and tracking the dye flow using several mounted fluorometers installed throughout the systems. Grab samples were collected to correct for background fluorescence. Rene was responsible for setting up continuous monitoring equipment, sampling and running lab work, and data processing to compare HRT to RTD. <i>Project Fee: \$19,500,000</i> <i>Involvement: April 2014 to December 2014</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Aren Hansen, PE, PMP	13. ROLE IN THIS CONTRACT Task Order Manager, Enforcement and Prevention Assistance, Storm Drain System Inventory	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 13 years </td> <td> b. WITH CURRENT FIRM 10 years </td> </tr> </table>		a. TOTAL 13 years	b. WITH CURRENT FIRM 10 years
a. TOTAL 13 years	b. WITH CURRENT FIRM 10 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> M.S., Environmental Engineering M.S., Chemistry B.S., Chemistry		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 72859, 2008 Project Management Professional (PMP), No. 1554247, 2012			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Aren's experience encompasses stormwater compliance assistance for Caltrans and other clients, as well as water quality/process monitoring instrumentation and automation, laboratory and field analytical methods for water quality analysis, and remote monitoring/telemetry installations. Aren has provided engineering support for Caltrans District 4 under multiple contracts, including the ongoing San Francisco- Oakland Bay Bridge Bioretention Stormwater Monitoring work.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0234 Storm Drain System Inventory, Caltrans, Statewide, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2009 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>			PROFESSIONAL SERVICES 2009	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2009	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Regional Leader and Project Engineer. Aren managed the Bay Area portion of the SDSI project. He was responsible for field data collection, team scheduling, and coordination with District 4 staff. The project involved mapping locations and attributes of storm drain features, including inlets, outfalls, discharge points and tributary drainage areas. The team collected data using field laptops with GPS and customized GIS data collection software. Project Fee: \$1,547,000 Involvement: June 2008 to June 2009					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0288 San Francisco-Oakland Bay Bridge Bioretention Stormwater Treatment Monitoring, Caltrans, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>			PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Project Engineer. Aren implemented the Operations, Monitoring and Maintenance Plan for the bioretention stormwater treatment basins designed as part of the San Francisco-Oakland Bay Bridge project. Work included plant identification and density measurements, inspections, and basin and other drainage feature maintenance. Project Fee: \$1,820,000 Involvement: January 2009 to December 2010					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 District 4 Construction Field Assistance, Caltrans, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>			PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> c. Stormwater Inspector. Aren provided on-call technical assistance to evaluate SWPPPs and perform field inspections of stormwater compliance at Caltrans District 4 construction sites and for encroachment permit projects. His duties included weekly inspections and reports to document contractor-implemented BMPs to protect water quality during construction of the new east span of the Bay Bridge. Project Fee: \$2,298,000 Involvement: February 2009 to September 2009					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0288 Open and/or Gap Graded Asphalt Pavements Water Quality Monitoring, Caltrans, Northern California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2012 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>			PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> d. Task Order Manager. Aren managed the stormwater quality monitoring program for three porous pavement sampling stations located in Northern California as part of a statewide monitoring project. The project involved configuring and					

installing automated flow-paced storm water sampling systems at both a test and control station at each monitoring site. Rainfall, flow, and water quality data were analyzed and summarized in post-storm technical memoranda. <i>Project Fee: \$746,000</i> <i>Involvement: January 2011 to April 2012</i>		
(1) TITLE AND LOCATION (City and State) Automated Stormwater Monitoring Phase I, Department of Public Works, County of Los Angeles, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Project Engineer. Aren helped evaluate the Los Angeles County Flood Control District Stormwater Monitoring Program and design a monitoring and telemetry system to receive and process real-time data from various field monitoring locations within various flood control channels and creeks. The project also included designing a pilot program of the system that demonstrates the system capabilities at the LACFCD's seven Mass Emission stations and up to 12 tributary monitoring stations. Aren assisted in site selection, instrumentation selection, and evaluations that use surrogate monitoring techniques to provide real-time estimates of pollutant concentrations, which are typically analyzed by laboratories. <i>Project Fee: \$915,000</i> <i>Involvement: June 2009 to March 2010</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section E for each key person.)

12. NAME David Hart	13. ROLE IN THIS CONTRACT Storm Drain System Inventory	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 1 year</td> <td>b. WITH CURRENT FIRM 1 year</td> </tr> </table>		a. TOTAL 1 year	b. WITH CURRENT FIRM 1 year
a. TOTAL 1 year	b. WITH CURRENT FIRM 1 year				
15. FIRM NAME AND LOCATION (City and State) Brown and Caldwell – Rancho Cordova, California					
16. EDUCATION (Degree and Specialization) B.S., Geology		17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline) NA			
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) David has supported the field inventory of highway infrastructure assets for Caltrans' SDSI project in the Northern Districts. He has done stormwater sampling for FedEx at various locations in Northern California for NPDES permit compliance. Additionally, he has experience with groundwater resource management and characterization projects through geologic logging, GIS, operations and maintenance, well construction, groundwater soil sampling, and data analysis.					
19. RELEVANT PROJECTS					
a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Staff. David has performed identification, inspection, and categorization of stormwater drainage features and the drainage area they serve in the field on various California highways, specifically in Mendocino County. He has added these storm drain features and drainage areas into a GIS-based database. Project Fee: \$1,000,000 Involvement: August 2015 to Present	(1) TITLE AND LOCATION (City and State) Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				
b. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Staff Geologist. David performed stormwater sampling of various FedEx locations throughout Northern California for FedEx's annual NPDES report. Project Fee: \$56,000 Involvement: November 2015 to Present	(1) TITLE AND LOCATION (City and State) California 2015 Stormwater Sampling, FedEx, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				
c. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Staff Scientist. David constructed cross sections and groundwater data analysis figures in support of the aquifer testing program in the San Fernando Basin. David also developed geochemical plot figures for the project. Project Fee: \$310,124 Involvement: December 2015 to January 2015	(1) TITLE AND LOCATION (City and State) Groundwater System Improvement Study Task 1.5, Los Angeles Department of Water and Power, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2015</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA				
d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Staff Geologist. David performed storm inspection as part of post closure monitoring and reporting program at the Humboldt Road Burn Dump. Project Fee: \$56,646 Involvement: January 2015 to Present	(1) TITLE AND LOCATION (City and State) Humboldt Road Burn Dump Post-Closure Monitoring and Reporting, City of Chico, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				
e. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Staff Geologist. This project consists of hydrogeologic evaluations in support of revised mining permits for a hard rock quarry.	(1) TITLE AND LOCATION (City and State) Hydrogeologic Assessment, Confidential Client, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				

The evaluations include assessment of fractured rock fluid flow for the potential for quarry operations to impact regional groundwater or surface water and the potential for the adjacent municipal landfill to impact groundwater at the quarry. David installed stilling wells to assess water elevation in the creeks near the quarry. He will be performing flow measurements and water quality sampling and analysis as part of the monitoring efforts.

Project Fee: \$504,668

Involvement: September 2015 to Present

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Seppi Henneman, PE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE a. TOTAL 4 years b. WITH CURRENT FIRM 4 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Walnut Creek, California

16. EDUCATION <i>(Degree and Specialization)</i> M.S., Civil and Environmental Engineering B.S., Environmental Engineering	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 82684, 2014

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Seppi has extensive experience with stormwater monitoring and data analysis. He has worked on several Caltrans projects where he led sampling teams, provided sampling and data analysis, and coordinated with relevant labs. He managed the TMDL monitoring project for District 4 and has regularly used Caltrans tools on projects to produce hydrographs, post-storm technical memorandums, and perform data analysis (including QA/QC).

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	Contract Nos. 43A0288 and 43A0325 San Francisco-Oakland Bay Bridge Bioretention Site Monitoring, Caltrans, Oakland, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Services. This project addressed post-construction stormwater runoff impacts associated with the proposed San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. Seppi prepared the site for bubble flow meters, installed stilling wells to measure overflow, and programmed flow meters at monitoring stations. He managed a sampling team and analyzed all of the data to put into annual reports. He also used several Caltrans programs including the Hydrologic Utility, the Automatic Data Validation Utility, and the PSTM Utility. Seppi was also the data QA/QC officer and provided coordination with several labs. <i>Project Fee: \$2,048,000</i> <i>Involvement: March 2012 to Present</i>		
b.	Contract No. 43A0288 TO 03, Caltrans, Clearlake, California	2014	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. BC assisted Caltrans with sampling stormwater around Clearlake to determine the phosphorus loads being discharged from Caltrans right of ways into Clearlake. Seppi helped analyze data and calculate phosphorus loads into the lake and provided data QA/QC. <i>Project Fee: \$497,000</i> <i>Involvement: February 2012 to September 2014</i>		
c.	Contract No. 43A0288 TO 12 Total Maximum Daily Load Monitoring, Caltrans, San Francisco Bay Area, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Services. BC was responsible for monitoring runoff during storms for four sites in the Bay Area. Seppi is helping manage the project and has led the sampling effort at one of these sites and helped coordinate sampling efforts at the other three sites. He managed the laboratories being used in this study as well as the field staff so all samples were collected according to protocol. He also used Caltrans programs, including the Hydrologic and PSTM utilities to produce Caltrans specific reports. <i>Project Fee: \$819,000</i> <i>Involvement: November 2014 to Present</i>		
d.	Contract No. 43A0288 TO11 Central Coast and North Coast Areas of Special Biological Significance, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. BC was responsible for sampling runoff to support Caltrans with compliance at areas of special biological significance. Seppi managed the subcontractors who were performing the sampling, reviewed and commented on post storm technical memorandums (PSTMs), checked invoices versus work performed by subcontracted labs, and kept all of the		

data from the monitoring events organized. <i>Project Fee: \$1,050,000</i> <i>Involvement: March 2014 to August 2014</i>		
(1) TITLE AND LOCATION (City and State) Water Systems Upgrades Final Design, The Sea Ranch Water Company, Sea Ranch, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Project Engineer. BC's rehabilitation design for the water pipeline and water reservoir tank will improve the reliability and capacity of the Sea Ranch Water Company's water storage and distribution systems. Seppi sized air-release and vacuum valves, prepared and organized specifications, and reviewed and edited drawings. He will help with the submittal review process. <i>Project Fee: \$970,780</i> <i>Involvement: September 2012 to June 2012</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Sayra Hurley, PE, QSD	13. ROLE IN THIS CONTRACT Task Order Manager, Encroachment and Right of Way Lead	14. YEARS EXPERIENCE a. TOTAL 17 years b. WITH CURRENT FIRM 2 years	

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Rancho Cordova, California

16. EDUCATION *(Degree and Specialization)*
B.S., Civil Engineering
J.D., with Natural Resources Law Certificate
LL.M., Environmental Law

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Professional Civil Engineer, California No. 063713, 2002
Qualified SWPPP Developer and Practitioner (QSD), No. 20477, 2011
Envision Sustainability Professional, 2014

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Sayra brings extensive environmental compliance experience with Caltrans and various municipalities, including evaluating BMPs, assessing MS4 compliance, reviewing SWPPPs, and conducting field inspections for Maintenance and Construction operations. She is currently supporting Caltrans District 10 with California stormwater compliance and managing an in-stream monitoring program to provide real time water quality where Caltrans is working to restore highway access along the Merced River following a rockslide near Yosemite. Sayra has prepared a variety of compliance documents, including water quality technical reports, district annual stormwater reports, and updates to stormwater manuals.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 43A0308 District 10 Construction Field Assistance, Caltrans, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Sayra supports Caltrans District 10 compliance with the NPDES Permit and SWMP. She has performed construction inspections at sites throughout District 10 for stormwater compliance. Sayra is responsible for reviewing stormwater-related construction documents, evaluating BMPs, attending coordination meetings with Caltrans staff and contractors, and providing recommendations for improvements in stormwater procedures. She performs SWPPP and WPCP inspection for CGP compliance, as well as QSD/QSP on projects awaiting Notice of Termination from the RWQCB. Sayra also assists the Division of Construction with uploading all required project documents for District 10 to the SMARTS system and tracking required submittals. <i>Project Fee: \$636,000</i> <i>Involvement: February 2014 to Present</i>		
Contract No. 10A1687 Ferguson In-Stream Monitoring Program, Caltrans, Mariposa County, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Sayra is providing consultant services for an in-stream monitoring project being conducted as a Supplemental Environmental Project (SEP) in the Yosemite Valley for Caltrans District 10. The in-stream sampling is occurring at two locations that automatically retrieve and analyze samples for pH and turbidity. The analyzed data is automatically transmitted to an online server. Sayra compiles results of the monitored data and prepares quarterly reports for regulatory agencies summarizing work completed, expenses, and maintenance performed during the reporting period. <i>Project Fee: \$562,000</i> <i>Involvement: September 2014 to Present</i>		
Contract No. 43A0314 TO 12 Right of Way Stormwater Guidance Manual Revisions and Training, Caltrans, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Specialist. Sayra assisted in the 2015 update of the ROW Property Management and Airspace Stormwater Guidance Manual for Caltrans, and developed training presentations for ROW staff. The manual consists of regulatory background and inspection approach for ROW staff when dealing with the operation, acquisition, and maintenance of industrial and commercial facilities, residential, demolition (construction related) and airspace lease properties. The manual updates needed to be consistent with the new NPDES Permit, SWMP requirements, IGP, CGP, and Lahontan RWQCB CGP. BC developed inspection forms for each category of activity/facility for ROW staff conducting audits on their properties. <i>Project Fee: \$162,000</i>		

Involvement: January 2015 to August 2015		
d.	(1) TITLE AND LOCATION (City and State) Contract No. 43A0314 Stormwater Pollution Prevention Plan/Water Pollution Control Plan Preparation Manual Update, Caltrans, California	(2) YEAR COMPLETED
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Sayra is updating the 2013 preparation manual to include the most recent CGP, Lake Tahoe CGP, and Caltrans MS4 Permit requirements. The manual will include the latest revisions to the construction stormwater monitoring and inspection forms as well as the SWPPP, Lake Tahoe SWPPP, and WPCP templates for contractor use. Project Fee: \$84,000 Involvement: November 2015 to Present		
e.	(1) TITLE AND LOCATION (City and State) Contract No. 43A0308 Water Pollution Control Assistance Requests - North, Sonora Bypass, Caltrans, Northern California	(2) YEAR COMPLETED
	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Stormwater Inspector. Sayra acted as the QSD for the Sonora Bypass project during the Plant Establishment Phase. Sayra coordinated efforts with the Resident Engineer, Construction, and Maintenance Stormwater Coordinators to inspect existing BMPs and implement additional measures needed for compliance and Notice of Termination approval under the CGP. Sayra conducted visual and stormwater grab sampling for all discharge locations, prepared SMARTS based report preparation, and prepared the CGP annual report. Project Fee: \$54,000 Involvement: January 2014 to April 2015		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Amy Hwang	Storm Drain System Inventory	a. TOTAL 3 years	b. WITH CURRENT FIRM 1 year

15. FIRM NAME AND LOCATION *(City and State)*

Brown and Caldwell – Walnut Creek, California

16. EDUCATION *(Degree and Specialization)*M.S., Environmental Engineering
B.S., Civil Engineering**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*

Engineer-in-Training, California No. 156261, 2015

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Any specializes in industrial wastewater treatment and compliance and permitting. Her project experience includes assisting petroleum refining, food processing, and mining clients with treatment process development support and permitting. She also provides storm water services for industrial clients to help them stay in compliance with California's new Industrial General Permit.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Contract No. 43A0308 Storm Drain System Inventory, Caltrans, California a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Crew. Amy conducted field investigations to document storm drain features located on Caltrans roadways throughout Northern California and indicated connectivity between SDSI features so that the path of water to the tributary drainage area discharge point can be determined. She entered data on stormwater infrastructure attributes into BC's SDSI database. <i>Project Fee: \$1,000,000</i> <i>Involvement: September 2015 to December 2015</i>	Ongoing	NA
Industrial General Permit Support, Vulcan , California b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy conducted site visits, prepared facility site maps, updated facility SWPPPs, and evaluated BMP designs for several Vulcan sites located throughout California. <i>Project Fee: \$380,000</i> <i>Involvement: November 2014 to October 2015</i>	2015	NA
Tesoro Martinez Temporary API Plan, Tesoro Companies, California c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy assisted the Tesoro Martinez refinery by designing a temporary oil/water separation treatment system and conducted appraise engineering for installing a permanent treatment system that will be used parallel with their current system. <i>Project Fee: \$64,000</i> <i>Involvement: September 2015 to December 2015</i>	Ongoing	NA
Venice Pumping Plant Emergency Engine-Generator Replacement Permitting, City of Los Angeles, California d. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy prepared an air permit application for the replacement of emergency engine-generators at a wastewater pumping plant that will comply with the U.S. Environmental Protection Agency's Tier 4 Final Emission Standards. <i>Project Fee: \$1,466,737</i> <i>Involvement: July 2014 to June 2015</i>	2015	NA

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Alexander Johnson, PE	13. ROLE IN THIS CONTRACT Tracking and Data Management, Storm Drain System Inventory	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 22 years </td> <td> b. WITH CURRENT FIRM 7 years </td> </tr> </table>		a. TOTAL 22 years	b. WITH CURRENT FIRM 7 years
a. TOTAL 22 years	b. WITH CURRENT FIRM 7 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – San Diego, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C052409, 1994			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Alexander specializes in environmental data management, including data collection, data input, QA/QC, verification, validation, data quality screening, and analysis. He has extensive experience installing, maintaining, configuring, and using ArcGIS Desktop, ArcGIS Server and Mapinfo including UML modeling of GeoDatabases. He is skilled in implementing ArcSDE on the Oracle and SQLServer RDBMS platforms, including performance tuning and extending applications using Microsoft's Visual Basic for Applications and writing stand-alone applications using Visual Basic and .NET technologies.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 TO 10 Storm Drain System Inventory (SDSI), Caltrans, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> GIS Lead. Alexander is managing GIS systems in support of the SDSI effort. This project involves developing an inventory of storm water discharge systems for Caltrans in urban areas state-wide. Activities include GIS database design & modifications; ArcGIS server database installation and configuration, including replication and versioning; providing coordination and support to programmers developing custom, field-data-collection applications; coordinating data management workflows for simultaneous field data collections activities of four field teams; coordinating data management of additional field data collected by third-party contractor; coordinating and supporting QA/QC activities using the ESRI Production Line Toolset (PLTS); providing regular progress updates to project managers; providing samples and recommendations for project deliverables including hard-copy maps and an on-line mapping system for access to the inventory. <i>Project Fee: \$1,000,000</i> <i>Involvement: April 2008 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Geographic Information System Development and Utilities Inventory Survey, Naval Facilities Engineering Command Southwest, San Diego, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead. Alexander is the technical lead for this effort to survey all potable water, wastewater, gas, electric, thermal, and compressed air utilities at the five Coronado naval bases. The bases include North Island Naval Air Station; Naval Amphibious Base; Silver Strand Training Center; Naval Outlying Field, Imperial Beach; and San Clemente Island. The project also includes migration of the Navy's existing GIS data to a new data model. The survey data is being used to update the Navy's existing GIS features, and to improve their spatial and attribute accuracy. Alexander leads and coordinates the efforts of a team of 10 - 12 GIS technical experts, programmers, and editors. <i>Project Fee: \$4,100,000</i> <i>Involvement: December 2011 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> EchoWater Project Asset Management Design Database Development, Sacramento Regional County Sanitation District (Regional San), Elk Grove, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Data Management Specialist. Alexander provides support and consulting services to the development of a data management system that collects and validates asset, parts, and operations and maintenance data to support the EchoWater Project. EchoWater encompasses the design and construction of major facility upgrades at the Sacramento Regional Wastewater Treatment Plant representing about \$2 billion in facility improvements. Alexander develops and implements workflows to collect asset and operations and maintenance data throughout the design and construction and deploy these data to the computerized maintenance management system (CMMS) and the electronic data management					

system (EDM). The database and associated work processes will prepare Regional San to take over all operations and maintenance tasks once testing and commissioning have been completed so there is no lapse in required maintenance. This is a multi-year, multi-project effort that is calculated to reduce Regional San's data management costs by more than 50 percent. <i>Project Fee: \$1,900,000</i> <i>Involvement: August 2015 to Present</i>				
(1) TITLE AND LOCATION (City and State) Groundwater System Improvement Study, Los Angeles Department of Water and Power, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2015</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm GIS Lead. Alexander provided eEnterprise GIS and system integration support during the design and implementation of a web-based geographic information and groundwater data management system. The system is the central repository and analytical tool used for groundwater data management, analysis, visualization, and system evaluation. The implemented system includes the following components: • An Enterprise Geodatabase implemented on the Oracle Relational Database Management System • A customized web interface for access to groundwater and geologic data, created using the GeoCortex web application development platform. • Various custom scheduled script processes for synchronization of the Geodatabase with the groundwater analytical database (EQuIS). • Implementation of integration components for ArcHydro Groundwater, EQuIS, environmental data management system, and the EnterVol Data Visualization extension for ArcGIS. • Integration of multiple data sources, including the LADWP laboratory information system, the EPA's San Fernando Valley Basin groundwater database, and data collected under the groundwater program. <i>Project Fee: \$900,000</i> <i>Involvement: November 2013 to February 2015</i>				
(1) TITLE AND LOCATION (City and State) Geographic Information System Implementation, Data Conversion, and System Integration, South Lake Tahoe Public Utility District, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Alexander manages and executes a project to convert the District's Wastewater and Water Supply system maps into GIS format and integrate into pre-existing data management systems. The District services a community with an approximate year-round population of 40,000 covering an area of 45 square miles. The District operates a 7.7 mgd wastewater treatment plant and a network of approximately 25 water supply wells. Project phases include Needs Assessment, System Design and Pilot Project, Data Conversion and Application Development. The data is stored in a central Microsoft SQL Server database server as a single seamless set of data layers using the ESRI ArcGIS Server system. This information is accessed for district operations through various user-level tools including ArcGIS, ArcPad (for mobile users), AutoCAD, third-party software and custom software. It is also integrated into the existing District data management systems including the Hansen Asset management system and the Springbrook customer billing system as well as their Haestead water supply modeling system. <i>Project Fee: \$500,000</i> <i>Involvement: November 2000 to Present</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Chris Knoche, PG, QSD	13. ROLE IN THIS CONTRACT Construction, Enforcement and Prevention Assistance	14. YEARS EXPERIENCE a. TOTAL 25 years b. WITH CURRENT FIRM 12 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Walnut Creek, California

16. EDUCATION *(Degree and Specialization)*
B.S., Geology

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Professional Geologist, California No. 7250, 2001
Qualified SWPPP Developer and Practitioner (QSD), No. 25627, 2015

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Chris has applied his background in geology to providing recommendations for erosion control at complex construction sites within Caltrans District 4 for the past 7 years. Chris' support to District 4 construction sites, including SWPPP reviews, attendance at contractor meetings, dewatering plan review, and field inspections, have been critical to keeping construction sites in compliance.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
	Contract No. 43A0321 TO 1 On-Call Professional and Technical Stormwater Quality Assurance Services, Construction Compliance Evaluation Plan, Caltrans, Sacramento, California	Ongoing	NA
a.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Independent Quality Assurance Senior Inspector. As part of an as-needed contract as a subconsultant to Vali Cooper & Associates, BC provides technical, professional, and quality assurance services to support Caltrans' NPDES, the CGP, and Lahontan RWQCB CGP compliance for construction activities. To provide independent quality assurance inspection, Chris represents Caltrans DEA at construction sites throughout California, providing field inspection services to achieve compliance with the Caltrans Stormwater Program and all applicable permits. Chris coordinates with Caltrans Construction staff to schedule and perform inspections. The data gathered through the CCEP will help Caltrans ascertain whether the appropriate level of stormwater pollution control is being achieved at Caltrans' construction sites. <i>Project Fee: \$500,000</i> <i>Involvement: April 2015 to Present</i>		
	Contract No. 43A0308 Construction Field Assistance District 4, Caltrans, San Francisco Bay Area, California	Ongoing	NA
b.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Inspector. Chris is responsible for stormwater compliance and assistance on high-profile and environmentally sensitive specialty construction projects, including the Doyle Drive Viaduct Seismic Replacement, Caldecott Fourth Bore, the SFOBB (Skyway), the retrofit of the West Span of the SFOBB Interstate 80 in downtown San Francisco, the SF-80 Self-Anchored Suspension (SAS) Bridge foundation, E2/T1 SAS Span Bridge foundations, the SF-80/Alameda-80 Skyway Bridge, the storm water treatment basins located near the east end of the SFOBB and Toll Booth Plaza complex, and the coastal State Highway 1 Devil's Slide Twin Tunnels and bridges projects. Chris's additional District 4 duties include turbidity sampling and analysis for excavation dewatering, stream and creek sampling for turbidity, review of dewatering plans, and representing the District Construction Stormwater Coordinator at project pre-construction meetings with contractors and permit agencies. <i>Project Fee: \$2,298,000</i> <i>Involvement: July 2008 to Present</i>		
	Contract No. 04A4312 Devil's Slide Environmental Engineering Support, Caltrans District 4, Pacifica, California	2013	NA
c.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Inspector. Chris performed regular routine inspections of BMPs implemented at the Devil's Slide Tunnel and Bridge projects. This project involved treatment, monitoring, sampling, and reporting from two different waste water streams. Due to the site layout and different treatment requirements, two separate treatment systems were required. The first wastewater stream was the treatment of non-stormwater from tunnel drainage impacted by construction activities. The second waste stream was treated by an active treatment system (ATS) for the collection and treatment of stormwater runoff that was impacted by sediment (turbidity) and pH. Chris' inspected the tailings pile (>1 acre) for the disposal of tunnel spoils		

generated by the 4,200-foot-long tunnel that was constructed to bypass a dangerous portion of Highway 1. Chris supported compliance with the new CGP and other environmental permits. He also performed required corrective action to properly maintain construction BMPs. On a regular basis, Chris made recommendations to modify and improve temporary and final erosion and sediment control BMPs, permanent structural BMPs, and some drainage systems with the objective to improve overall water quality. SWPPP Evaluations. Since July 2007, Chris has conducted regular SWPPP inspections of these projects to evaluate erosion control and effectiveness of non-stormwater BMPs. Chris made recommendations to improve the effectiveness of stormwater erosion control and non-stormwater BMPs. He also performed inspections during storm events to evaluate erosion control BMP effectiveness during periods of heavy rains. Several events caused massive erosion resulting in slope failures. Chris recommended installing a shotcrete wall to contain the slope's soil. The recommendation was implemented and effectively halted slope failure. <i>Project Fee: \$500,000</i> <i>Involvement: July 2007 to May 2013</i>					
(1) TITLE AND LOCATION (City and State) Contract No. 43A0288 San Francisco-Oakland Bay Bridge Bioretention Site Monitoring, Oakland, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm d. Field Personnel. Chris performed SWPPP inspections every other week during the construction of the SFOBB stormwater basins to evaluate the proper implementation and effectiveness of construction BMPs to comply with the stormwater construction permit. <i>Project Fee: \$2,048,000</i> <i>Involvement: August 2012 to May 2013</i>					
(1) TITLE AND LOCATION (City and State) Contract No. 04A4426 San Francisco-Oakland Bay Bridge Bioretention Pier E3 Demolition Water Quality Monitoring, Caltrans, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Field Personnel. Chris conducted water quality monitoring as part of the preparation work to demolish the above-water portions of Pier E3, demolition of concrete, drill holes for installing explosives and monitoring water quality immediately following the implosion of Pier E3 and during post implosion clean-up of demolition debris on the bottom of the San Francisco Bay. Chris performed water quality field surveys as part of a two-person team and a multi-person team on the day of the implosion to monitor and track the resulting plume. He used field computers with built-in GPS to record field observations and measurements to create a record water quality as part of the permit requirements. The data and observations were uploaded to prepare daily reports supplemented with field observations, water quality measurements, and photo-documentation. <i>Project Fee: \$441,000</i> <i>Involvement: June 2015 to December 2015</i>					

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME David Korfas, CPESC, QSD, ToR	13. ROLE IN THIS CONTRACT Construction Lead, Enforcement and Prevention Assistance, Encroachment and Right of Way	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 25 years </td> <td> b. WITH CURRENT FIRM 4 years </td> </tr> </table>		a. TOTAL 25 years	b. WITH CURRENT FIRM 4 years
a. TOTAL 25 years	b. WITH CURRENT FIRM 4 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Rancho Cordova, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.A., Geology Graduate Certificate, Education and Physical Science California Single Subject Teaching Credential (Earth Science and Physical Science)		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional in Erosion and Sediment Control (CPESC), California No. 2745, 2004 Qualified SWPPP Developer and Practitioner (QSD) No. 0066, 2009 State of California Trainer of Record – Construction General Permit (ToR), 2009			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> David specializes in construction, environmental engineering, stormwater pollution prevention, and erosion control issues. He has developed, reviewed, and implemented stormwater pollution prevention guidelines and plans; conducted training, seminars and workshops on the latest stormwater BMPs, NPDES permit compliance and other stormwater issues; set up and managed stormwater programs; and inspected statewide stormwater contracts for Caltrans.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Construction Compliance Evaluation Plan, Caltrans, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Independent Quality Assurance Senior Inspector. As part of an as-needed contract as a subconsultant to Vali Cooper & Associates, BC provides technical, professional, and quality assurance services to support Caltrans' NPDES, the CGP, and Lahontan RWQCB CGP compliance for construction activities. To provide independent quality assurance inspection, David represents Caltrans DEA at construction sites throughout California, providing field inspection services to achieve compliance with the Caltrans Stormwater Program and all applicable permits. David coordinates with Caltrans Construction staff to schedule and perform inspections. The data gathered through the CCEP will help Caltrans ascertain whether the appropriate level of stormwater pollution control is being achieved at Caltrans' construction sites. <i>Project Fee: \$500,000</i> <i>Involvement: April 2015 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314 Right of Way Stormwater Guidance Manual Revisions and Training, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Co-Author and Instructor. David helped update the current Right of Way Property Management and Airspace Stormwater Guidance Manual, including the body of the manual as well as appendices and attachments. David focused on the demolition section of the manual. The updates needed to be consistent with the new NPDES Permit, SWMP requirements, IGP, CGP, and Lahontan RWQCB CGP. Following the updates, David also provided training to Division of Right of Way personnel statewide, including courses in Woodland and Los Angeles. <i>Project Fee: \$162,000</i> <i>Involvement: January 2015 to August 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 District 10 Construction Field Assistance, Caltrans, Central Valley, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Trainer and Inspector. David helped the District Stormwater Coordinator, Area Construction Managers, Senior Resident Engineers, and Resident Engineers maintain compliance with the Caltrans Stormwater Program and supports many key projects to maintain compliance with NPDES permits. He reviewed approved project plans, specifications, special provisions, and permits to verify proper implementation and to identify and correct plan deficiencies associated with construction activities and discharges.					

On a project level, David works with Caltrans Construction to maintain compliance with RWQCB 401 certifications and various agencies such as USACE and Department of Fish and Wildlife Services. David drafted a PowerPoint presentation workshop training course on the new California CGP requirements and Caltrans specifications and requirements for compliance during construction site BMP implementation, inspection, and reporting. <i>Project Fee: \$636,000</i> <i>Involvement: November 2014 to February 2015</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Northern California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm d. Field Inspector. David supported the field effort to map drainage features on Caltrans roadways in Northern California Districts. Field data is collected in a tablet that syncs daily with a customized database. David also reviewed as-built drawings. <i>Project Fee: \$1,000,000</i> <i>Involvement: July 2015 to August 2015</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans, Willits, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Inspection Instructor and Field Staff Support. BC is providing technical water quality services to evaluate potential environmental impacts from a large, high profile construction project expected to continue through 2017. BC conducts creek monitoring both upstream and downstream of the construction project limits, including collecting water quality and flow data. David assists with monthly quality assurance sampling for the water quality monitoring effort at 25 water quality stations. This includes collecting, consolidating, and processing water quality data. David also trained the BC project team on reviewing contract documents, scope of work operations, inspection procedures, communication, scheduling, and reporting to define and streamline project workloads. <i>Project Fee: \$4,047,195</i> <i>Involvement: March 2014 to December 2014</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME David Lightle, CPESC	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 44 years	b. WITH CURRENT FIRM 3 years

15. FIRM NAME AND LOCATION *(City and State)*
 Brown and Caldwell – Walnut Creek, California

16. EDUCATION <i>(Degree and Specialization)</i> B.S., Agriculture	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional in Erosion and Sediment Control (CPESC), No. 651

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

David will be available to leverage his expertise of the Caltrans RUSLE 2 model to help address complex sediment and erosion control issues.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 04A0254, Soil Erosion Protection Training, Construction General Permit, RUSLE2, Statewide, California	PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead Caltrans RUSLE2 Programming. David applied his expertise in soil erosion to the Caltrans RUSLE2 model. As one of the national experts and original developers of RUSLE2 for use by agronomic applications, David helped Caltrans by updating the databases and improving the features of the Caltrans version of RUSLE2. Originally intended to simulate agricultural erosion, David adapted the plant-growth subroutines to simulate California conditions. David also calibrated actual stormwater erosion protection BMPs implemented by Caltrans into the RUSLE2 program. David trained Caltrans senior staff on advanced features of RUSLE2. David's work was instrumental in transforming the Caltrans RUSLE2 model from a generic estimate to a calibrated program that has the potential to help ensure Caltrans construction sites obtain Notice of Termination under the SWRCB Construction General Permit. <i>Project Fee: \$289,000</i> <i>Involvement: November 2010 to August 2011</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> RUSLE2 Developer for National Resources Conservation Service, National Soil Survey Center, Lincoln, Nebraska	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Project Manager. David served as agronomy technical specialist for the Soil Interpretations staff responsible for agronomic interpretations, national erosion prediction model databases, and national contact with ARS and the University of Tennessee for RUSLE2 development. He also served as the agronomy technical lead for Dynamic Soil Properties data on the DSP technical leads team. In addition, David served as Acting National leader for the Soil Interpretations Staff. <i>Involvement: June 2010 to December 2010</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> RUSLE2 Model Database Maintenance, Lincoln, Nebraska	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Project Manager. David developed the climate, soil, crop, operations, residue, and support practice database records for the RUSLE2 model and assigned access protections to control edit access to lower level users. He maintained the national master database and developed additions and corrections on request, and posted updates on the national RUSLE2 website for all Natural Resource Conservation Service (NRCS), public and private users to download and use. <i>Involvement: June 2010 to December 2010</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> RUSLE2 Nationwide Training Program, Lincoln, Nebraska	PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Task Manager. David helped develop and conduct the initial RUSLE2 national and regional training sessions. David developed and conducted regional and state advanced RUSLE2 training sessions. David developed and conducted training sessions for the Construction site RUSLE2 for use by private engineers and regulators. <i>Involvement: June 2008 to December 2008</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Richard Mattucci	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 33 years</td> <td>b. WITH CURRENT FIRM 14 years</td> </tr> </table>		a. TOTAL 33 years	b. WITH CURRENT FIRM 14 years
a. TOTAL 33 years	b. WITH CURRENT FIRM 14 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Carson City, Nevada					
16. EDUCATION <i>(Degree and Specialization)</i> M.E., Civil Engineering B.S., Civil Engineering B.S., Geological Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, Arizona No. 57130 Professional Engineer, Idaho No. 7791 Professional Engineer, Montana No. 11051 Professional Engineer, New Mexico No. 13543 Professional Engineer, Nevada No. 012645 Professional Engineer, North Dakota No. PE-3786 Professional Engineer, South Dakota No. 5852 Professional Engineer, Wyoming No. 6846			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Rich specializes in civil and geological engineering. His civil project experience includes permitting, layout design, detailed design, and construction of heap leach facilities, stormwater management systems, tailings dams, mill improvements, maintenance yards, office infrastructure improvements, and reclamation closure design and construction of permitted facilities.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Yerington Mine Technical and Operational Services, Atlantic Richfield Company, Yerington, Nevada		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Principal Engineer and Site Operation and Maintenance Management. Rich provides technical and operational support for closure activities of a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) abandoned mine site. Tasks involve operation and compliance maintenance management of regulatory-driven operating and monitoring systems. Additional support services include design, analyses, and technical management in support of evaluating operating unit closure alternatives. <i>Project Fee: \$6,000,000</i> <i>Involvement: February 2009 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> North Rasmussen Ridge Mine Reclamation Plan, Nu-West Industries, Inc., DBA Agrium Conda Phosphate Operations, Caribou County, Idaho		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Managing Engineer. Rich was responsible for completing a final reclamation plan that included temporary and permanent BMPs. The final draft plan is currently under agency review, which includes the advanced BMP components necessary to meet long-term reclamation requirements for a proposed mine plan modification. <i>Project Fee: \$500,000</i> <i>Involvement: April 2010 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Jupiter Pond Closure Project, KGHM–Robinson Nevada Mining Company, Ruth, Nevada		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2015</td> <td>CONSTRUCTION <i>(if applicable)</i> 2015</td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Principal Engineer. Rich provided design and permitting development for engineering design change in support of a final permanent closure plan of an active acid seep collection pond at an operating copper mine. Additional services include construction management support and quality assurance/quality control for evaporation cell and appurtenant facilities for the permitted design. <i>Project Fee: \$500,000</i> <i>Involvement: April 2011 to December 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Mule Gulch Repair Project, Freeport McMoran, Bisbee, Arizona		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2013</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA				

(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Principal Engineer. Rich provided technical management support services for assessing data gap analyses in anticipation of conceptual evaluations for channel repairs and contaminated pond closures at a closed copper mine. <i>Project Fee: \$35,000</i> <i>Involvement: June 2012 to July 2012</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Hollister Mine Block Development, Waterton Global Mining Company, Elko County, Nevada	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> NA
e.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Principal Engineer. Rich designed a containment facility for potentially acid generating waste rock, a water management system for mine dewatering, site-wide stormwater management, and onsite potable and wastewater systems. <i>Project Fee: \$400,000</i> <i>Involvement: July 2004 to August 2008</i>	

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Rhys McDonald	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 37 years	b. WITH CURRENT FIRM 37 years

15. FIRM NAME AND LOCATION *(City and State)*
Brown and Caldwell – Walnut Creek, California

16. EDUCATION <i>(Degree and Specialization)</i> B.S., Oceanography	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Rhys is a systems integrator with expertise in remote environmental monitoring. He specializes in developing customized environmental instrumentation systems for testing, sampling, and remote monitoring of physical parameters in water, groundwater, stormwater, and wastewater. Rhys has provided innovative telemetry systems for various clients, including designing the Caltrans Willits Bypass, Ferguson Slide, and San Francisco-Oakland Bay Bridge telemetry projects.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 10A1687 Ferguson Slide In-Stream Monitoring Program, Caltrans, Mariposa County, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm System Integrator. This project involves restoring full highway access between Mariposa and Yosemite via State Route 140 by repairing damage from a 2006 rockslide. Since the project site did not have cell service to enable remote data collection, Rhys and the BC team installed a communications tower on the ridge to establish a high-speed network in the valley. Rhys customized and installed the monitoring instrumentation equipment for two in-stream monitoring locations and an observation deck in addition to the communication tower. The real time data from these locations is uploaded to a custom project data portal and to the California Data Exchange Center. The data includes hourly photographs, pH, turbidity, temperature, and water level. Project Fee: \$526,000 Involvement: October 2014 to Present		
Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans, Willits, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Technical Manager. Rhys designed the water quality monitoring systems (telemetry, sondes, spars, and power) and weather station, which collect real-time data on water quality conditions and weather. This data is posted on a web portal for Caltrans staff and project team members to examine. Rhys is responsible for staff collecting water quality and stream flow measurements and performing monthly calibrations and equipment maintenance. Rhys invented a compressed air blower system to jet a puff of compressed air onto water quality probe sensors so debris, biofilm, and other influences do not affect water quality data. This system has greatly improved data quality and allows better interpretation and analysis. In addition, Rhys has instituted a Doppler profiler to characterize creek flows across the flow regime at monitoring stations, which improves creek flow evaluation. Due to Rhys' innovations and use of the latest technology in water quality instrumentation, Caltrans is able to evaluate impacts to creeks in real-time and react to potential discharges or construction activities that affect creek water quality. Project Fee: \$4,000,000 Involvement: August 2012 to Present		
Contract No. 04A2906 Highway 1 Devil's Slide Tunnel, Caltrans District 4, California	PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Water Quality Monitoring and Instrumentation. Rhys provided water quality support for the Devil's Slide Tunnel project, which generated extra fill material that was placed on a large embankment located south of the tunnel construction. A large amount of soil that generated runoff and sediment required treatment prior to discharge. Rhys was part of the team that recommended site improvements and control measures to minimize runoff and potential sediment sources and to reduce impacts on an active treatment unit for runoff discharge. Project Fee: \$691,000 Involvement: August 2008 to October 2008		

(1) TITLE AND LOCATION (City and State) Automated Stormwater Monitoring Network Phase I, County of Los Angeles, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2013</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm d. Technical Leader. BC evaluated the County's existing stormwater monitoring program, recommended expanded monitoring locations, investigated the application of continuous real-time sensor measurements as surrogates for parameters of concern, and designed an automated monitoring and sampling network. The countywide stormwater monitoring program covers channels and creeks in seven watersheds and included 15 automated monitoring and sampling stations. Phase 1 included the design of a pilot program consisting of 19 stations. Rhys led the conceptual design of the monitoring network, which included identifying key site selection criteria, developing alternative monitoring approaches, and identifying appropriate instrumentation for telemetry, measurement, control, water quality sensing, flow measurement systems and sampling systems. The team conducted a technical workshop with County staff and developed design documents for the pilot system. Project Fee: \$913,000 Involvement: July 2012 to August 2013				
(1) TITLE AND LOCATION (City and State) Contract No. 43A0131 State Route 73 Best Management Practices Stormwater Monitoring, Caltrans District 12, Orange County, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2007</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES 2007	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2007	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Technical Expert. This \$1.6 million monitoring program evaluated the pollutant removal effectiveness of alternative BMPs located along State Route 73. The project currently includes water quality monitoring at eight facilities (24 stations) and operational monitoring and maintenance for a total of 17 BMP sites. Rhys investigated and assisted with monitoring equipment and data transmission. Project Fee: \$1,600,000 Involvement: May 2006 to September 2007				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME David Morrow, PE, QSD	13. ROLE IN THIS CONTRACT Task Order Manager, Maintenance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 15 years</td> <td>b. WITH CURRENT FIRM 15 years</td> </tr> </table>		a. TOTAL 15 years	b. WITH CURRENT FIRM 15 years
a. TOTAL 15 years	b. WITH CURRENT FIRM 15 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Rancho Cordova, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 66091, 2004 Qualified SWPPP Developer and Practitioner (QSD), No. C66091, 2015			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> David specializes in design and construction oversight of water supply and stormwater projects. His experience includes project design and construction of stormwater, water treatment, water pump stations, and transmission systems for both public and private agencies. Additionally, he has experience in water discharge compliance and monitoring.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. David provided expertise in conducting a statewide accounting of more than 4,000 Caltrans stormwater Treatment BMP devices. This effort was necessary to support future resource allocation, stormwater implementation programs, and regulatory documentation. Caltrans created a systematic approach to identify, evaluate, approve, and integrate stormwater BMPs into the Department's operations and onto the state highways and facilities. Some existing features provided stormwater treatment but were constructed prior to the federal stormwater requirements. Caltrans had not conducted a comprehensive assessment and accounting of these existing features. Project development included reviewing thousands of as-built drainage drawings and coordinating with the Northern California Districts to conduct field verification and assessment at almost 3,000 locations using Caltrans' stormwater treatment design specifications. <i>Project Fee: \$1,000,000</i> <i>Involvement: April 2015 to September 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0234 Facility Pollution Prevention Plans, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. David provided expertise for ongoing expert water pollution control assistance to help Caltrans comply with the Statewide Stormwater Permit (Order No. 2012-0011-DWQ). Caltrans initiated a compliance effort to address discrepancies observed in the Facility Pollution Prevention Plans (FPPPs). BC assessed approximately 350 Caltrans stormwater facilities across Northern California for the Caltrans Division of Maintenance and the Division of Equipment. The facilities consisted of maintenance stations, equipment shops, waste disposal storage locations, material storage sites, sand and salt houses, roadside rest areas, California Department of Food and Agriculture (CDFA) border protection stations, California Highway Patrol (CHP) commercial vehicle enforcement facilities, and safety roadside rest areas. Each site was evaluated for potential stormwater pollutants and attributes that could impact stormwater, e.g., onsite materials storage, nearby Clean Water Act (CWA) 303(d) listed water bodies, facility water and wastewater utilities, drainage patterns, and best management practices (BMPs). The assessments included interviews of the District Maintenance Stormwater Coordinators, Equipment Division supervisors, CDFA supervisors, and CHP onsite staff. Following the onsite field assessments, BC prepared detailed facility-specific FPPPs with site maps and provided feedback to Caltrans staff. One-day onsite training on use and implementation of the FPPPs was also presented to the equipment shop staff. <i>Project Fee: \$1,012,900</i> <i>Involvement: January 2006 to April 2006</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Construction Stormwater Capital and Support Costs, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2015</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Caltrans desired a high-level data gathering effort to quantify temporary and permanent water pollution control (WPC) expenditures during the construction phase of 50 capital projects. David supported the technical lead to					

develop project selection criteria, a uniform approach, and standardized tools to collect data consistently across projects. BC applied these methods to gather data in the Northern Districts. These same standards were used by another consulting firm to collect data in the Southern Districts to develop a seamless integration of statewide data. BC worked with Caltrans to develop an approach to derive the WPC related support costs based on the total project hours recorded in the Caltrans timesheet system, interviews with key project construction staff, who estimated the WPC portions of staff hours, and an average labor rate. The WPC portion of the capital costs was determined from temporary construction and permanent BMPs. BC compiled, validated, and analyzed the statewide data, then reported findings and methodologies in a comprehensive report. Project costs and project attributes were incorporated into the analysis to determine program-level cost trends and cost drivers. The data were also used to create a planning-level WPC cost estimating tool to better understand the cost driving typical capital projects. BC prepared recommendations on ways to improve the statewide dataset and to apply the data to improve the Stormwater Program and reduce overall project costs. Recommendations included: refining the Caltrans accounting mechanisms to better capture WPC support and capital costs, communicating permitting impacts to costs to the SWRCB, and presenting WPC cost drivers during training to Caltrans staff. <i>Project Fee: \$287,000</i> <i>Involvement: January 2014 to May 2015</i>					
(1) TITLE AND LOCATION (City and State) Contract No. 43A0314 District 3 and District 7 LID Pilot Design, Caltrans, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) 2013</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) 2013
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) 2013				
d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Engineer. David provided technical expertise for the project plans for pilot projects demonstrating low impact development best management practices in limited right-of-way situations. Once the pilots are constructed and monitored, the hydraulic calculations and plans prepared will become standard design guidance for Caltrans. <i>Project Fee: \$1,777,000</i> <i>Involvement: January 2014 to June 2014</i>					

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Amy Neal, PE, QSD	13. ROLE IN THIS CONTRACT Task Order Manager, Water Quality Assistance and Compliance Lead	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 11 years </td> <td> b. WITH CURRENT FIRM 7 years </td> </tr> </table>		a. TOTAL 11 years	b. WITH CURRENT FIRM 7 years
a. TOTAL 11 years	b. WITH CURRENT FIRM 7 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C71803, 2007 Professional Civil Engineer, Washington No. 47359, 2010 Qualified SWPPP Developer and Practitioner (QSD), No. C71803, 2015			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Amy specializes in developing stormwater design guidance and standards, providing stormwater permit compliance, designing BMPs, and stormwater quality monitoring on construction projects. Amy has provided material for and reviewed a variety of Caltrans planning and guidance documents, including Storm Water Data Reports, for transportation projects throughout California.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans District 1, Willits, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy generates monthly summary reports documenting the field work undertaken to satisfy the conditions of the projects' 401 certification to protect surface water quality during construction. The monthly reports summarize daily field inspection reports and continuous monitoring data collected from 17 water quality stations in creeks crossing the bypass alignment. Amy is responsible for coordinating and guiding both the construction inspection team and the water quality team to ensure the correct data is gathered and reported. <i>Project Fee: \$4,000,000</i> <i>Involvement: April 2013 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0254 and 43A0314 Project Planning and Design Guide, Caltrans HQ Stormwater Design, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy is collaborating with Caltrans to update the Project Planning and Design Guide (PPDG) for compliance with the current NPDES permit and SWMP. This process includes working to clarify issues identified by District design staff, updating references to Caltrans research, and producing an improved document for use in the design of stormwater BMPs and generation of treatment credits. This document includes a process for designers to identify and maximize stormwater treatment credits and to track and report treatment areas to make certain permit requirements are satisfied. In addition to the ongoing project, Amy also worked on the previous PPDG update. <i>Project Fee: \$648,000</i> <i>Involvement: May 2009 to September 2010 and July 2014 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314 District 3 and District 7 LID Pilot Design, Caltrans HQ, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer/Technical Lead. Amy leads the project technical team responsible for updating and creating design reports, hydraulic calculations, and project plans for pilot projects in Districts 3 and 7 demonstrating low impact development BMPs in limited right-of-way situations. Once the pilots are constructed and monitored, the hydraulic calculations and plans prepared will become standard design guidance for Caltrans. <i>Project Fee: \$1,777,000</i> <i>Involvement: July 2013 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0254 Example Storm Water Data Reports, Caltrans HQ-Stormwater Design Office, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2011 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> NA				

(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy developed SWDR example projects that have been posted on the Caltrans Design Storm Water web page reflecting the recent guidance changes in the Storm Water Quality Handbook: Project Planning and Design Guide (PPDG) and other relevant design references. The examples help Caltrans engineers and consultants determine the appropriate level of work required for various project types and streamline the development process, so project types with little to no water quality impacts can preserve resources. A total of 36 SWDRs were prepared for this project; 12 example projects have been developed with a SWDR representing each project development phase (i.e. Project Initiation Document; Project Approval/Environmental Document; and Plans, Specifications and Estimate). Each example SWDR was developed based on the new PPDG. Examples were selected and generated to reflect recent projects, issues, and regulations, with an emphasis placed on projects that potentially posed confusion in determining long-form SWDR use versus the short-form. <i>Project Fee: \$200,000</i> <i>Involvement: August 2009 to June 2011</i>				
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314 Interstate 80/680 Basis of Design for Biofiltration Basin, Caltrans, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2013</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Engineer. Amy was part of a team that reviewed project documents to evaluate the design of a non-approved Treatment BMP. The team compared the project design to 401 Certification sizing and existing Caltrans guidance sizing and provided recommendations to improve design criteria assumptions. This effort will be used by Caltrans during future collaborations with State and Regional Board staff to provide a basis of post construction treatment crediting and to obtain approval of the design for use as an approved Treatment BMP. <i>Project Fee: \$22,000</i> <i>Involvement: August 2013 to November 2013</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Chris Peters, PE, QSD	13. ROLE IN THIS CONTRACT Task Order Manager, Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 19 years	b. WITH CURRENT FIRM 11 years

15. FIRM NAME AND LOCATION *(City and State)*
 Brown and Caldwell – Walnut Creek, California

16. EDUCATION *(Degree and Specialization)*
 M.C.E., Civil Engineering – Water Resources
 B.S., Civil Engineering
 B.S., Physics

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
 Professional Civil Engineer, California No. 69669, 2006
 Qualified SWPPP Developer and Practitioner (QSD), No. C69669, 2015

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Chris has expertise in the full range of wastewater and stormwater infrastructure projects. He served as TO Manager for the Caltrans North Coast Sediment Inventory. His experience includes condition assessment and rehabilitation of pipelines, trenchless rehabilitation techniques, stormwater master plans, and feasibility studies.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Contract Nos. 43A0288 and 43A0325 North Coast Sediment Inventory, Caltrans, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Order Manager. Chris led the BC team that assisted Caltrans in meeting their 2012 NPDES stormwater permit requirement to complete an inventory of Caltrans highways identified as potential sources of sediment to surface waters with a sediment TMDL in jurisdiction of the North Coast RWQCB. BC used raw data from Caltrans Maintenance and employed GIS software and the RUSLE2 program to estimate sediment loads from the ROW that potentially generate sediment. BC prepared a Technical Memorandum (TM) to document the methodology, data, analytical tools, and modeling techniques employed to support the sediment inventory. BC developed a GIS map showing each of the 17 impaired watersheds and the ROW areas prone to erosion. This required integrating the state and federal TMDL databases with maps from the DWPs. Once the sediment sources within the TMDL impacted watersheds were identified, BC used the RUSLE2, soil erosion model, supplemented with Google Earth images and the NRCS database, to identify potential sediment transport from Caltrans ROW in 2014. <i>Project Fee: \$180,000</i> <i>Involvement: May 2014 to October 2014</i>	2014	NA
Regional Stormwater Facility Feasibility Study, City of San Jose, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Chris helped the City evaluate the feasibility of a regional stormwater treatment facility to provide alternative compliance with Provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP). The facility is intended to provide for both flow control and runoff treatment. As part of the study, BC reviewed existing stormwater policies and regulations, benchmarked other public agencies, identified potential facility sites, prepared two conceptual designs and an estimate of construction and operations and maintenance costs, and proposed an in-lieu fee and funding mechanism. <i>Project Fee: \$88,000</i> <i>Involvement: May 2012 to December 2015</i>	2015	NA
Municipal Regional Permit Trash Removal Planning and Preliminary Design, City of Daly City, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Chris helped the City evaluate trash removal treatment technologies and identify three potential sites for a regional stormwater trash removal facility that complies with Provision C.10 of the Municipal Regional Stormwater NPDES Permit (MRP). The facility is being designed to meet the requirements of the Short-Term Trash Loading Reduction Plan, which requires that the City attain a 40 percent trash load reduction by July 1, 2014. As part of the study and preliminary design, BC reviewed existing stormwater trash removal technologies, identified three potential facility sites, prepared a conceptual design and an estimate of construction and operations and maintenance costs, and recommended an apparent best alternative for final design.	2013	NA

<i>Project Fee: \$22,000</i> <i>Involvement: October 2012 to January 2013</i>		
(1) TITLE AND LOCATION (City and State) Stormwater Diversion Pilot Projects, Bay Area Stormwater Management Agencies Association (BASMAA), California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) NA
d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Engineer. Bay Area Municipal Stormwater Programs are required by the new Municipal Regional Permit for Urban Stormwater to conduct pilot projects that evaluate the potential water quality benefits and challenges of diverting stormwater into publicly owned treatment works. BC completed a feasibility evaluation report for BASMAA that fulfills the first step of the permit requirement. Stormwater programs are now in the planning stages of their pilot projects. For this project, Chris assisted BASMAA in the facilitation of stormwater programs as they developed their projects by helping identify challenges and potential solutions. Specific deliverables in this project included facilitating five coordination meetings with stormwater program managers and developing an annual status report. <i>Project Fee: \$60,000</i> <i>Involvement: January 2011 to May 2011</i>		
(1) TITLE AND LOCATION (City and State) Phase 1 Stormwater Master Plan Update, City of Seaside, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
e. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Task Order Manager. Chris led development of a storm drain O&M program and hydraulic improvement projects for 10 areas of the City that currently flood during heavy rains. A stormwater fee study was also performed as part of the project. Future master plan phases will include detailed hydraulic modeling and condition assessment tasks. <i>Project Fee: \$60,000</i> <i>Involvement: August 2013 to February 2014</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Peter Ross	13. ROLE IN THIS CONTRACT Tracking and Data Management, Storm Drain System Inventory	14. YEARS EXPERIENCE	
		a. TOTAL 17 years	b. WITH CURRENT FIRM 13 years

15. FIRM NAME AND LOCATION *(City and State)*
 Brown and Caldwell – Rancho Cordova, California

16. EDUCATION *(Degree and Specialization)*
 NA

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
 NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Peter specializes in the development of web-based applications and data management systems, including programming relational databases. He has experience with data loggers, communication equipment, communication protocols, and related software development and has managed several mission-critical telemetry networks that monitor and report continuous data, including developing the network and project portal for the Willits Water Quality Monitoring project.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Software Engineer. Peter designed and created a data acquisition application for this large-scale field data collection effort. Field crews use tablet PCs to enter data in the field. To help capture accurate data, the application integrates with GPS and ArcObjects API to create spatial datasets on site that are then synchronized at a later date with the master database. The application allows concurrent editing of data through a versioning system that implements a “check-in/out” work-flow. Relevant technologies included Microsoft .NET, ADO.NET, Microsoft SQL Server, ArcObjects, EXIF Standards, ArcSDE, ArcServer, and GPS. <i>Project Fee: \$1,000,000</i> <i>Involvement: November 2014 to Present</i>		
Contract No. 10A1687 Ferguson Slide In-Stream Monitoring Program, Caltrans, Mariposa County, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Developer Engineer. This project involves restoring full highway access between Mariposa and Yosemite via State Route 140 by repairing damage from a 2006 rockslide. Since the project site did not have cell service to enable remote data collection, Peter and the BC team installed a communications tower on the ridge to establish a highspeed network in the valley. In addition to installing the communication tower, Peter and the BC team also constructed and installed the telemetry stations for two in-stream monitoring locations and an observation deck. The stations include data loggers and cameras to gather water data and are connected by a high bandwidth radio network. Peter programmed the data loggers, configured the cameras, and established the radio network. The real time data from the telemetry stations is uploaded to a project data portal that Peter developed and to the California Data Exchange Center. The data includes hourly photographs, pH, turbidity, temperature, and water level. Caltrans staff and the public can readily access the project data through the customized data portal. <i>Project Fee: \$526,000</i> <i>Involvement: October 2014 to Present</i>		
Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans District 1, Willits, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Application Developer. BC is helping Caltrans monitor surface water quality and report requirements associated with the Water Quality Certification and Order R1-2010-0066 (MRP) issued by the North Coast RWQCB to Caltrans for the Willits Bypass project (WDID 1B10019WNME). As part of the multi-million dollar project, BC installed 24 water quality monitoring stations (both upstream and downstream of the project) and a weather station to collect baseline water quality data for stream reaches along the bypass alignment and to collect baseline water quality data for mitigation lands. Peter designed and deployed a Campbell Scientific CR1000-based logger network to serve as the telemetry stations for the project, and applied software design practices to the logger programming to help standardize the network. The telemetry system allows Caltrans to stream data in near-real time. Standardizing the system has helped Caltrans reduce costs and improve data		

quality. Peter also designed a project portal website that displays monitoring data from the water quality monitoring systems (telemetry, sondes, and power) and allows real-time evaluation of water quality conditions of the project site. The portal allows project staff to receive alerts regarding changes in water quality that could potentially threaten compliance with the certification and permits so that an immediate response can be taken to solve potential problems and report circumstances. <i>Project Fee: \$4,000,000</i> <i>Involvement: September 2012 to October 2015</i>				
(1) TITLE AND LOCATION (City and State) Contract No. 43A0288 San Francisco-Oakland Bay Bridge Bioretention Site Monitoring, Caltrans District 4, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Application Developer. In 2002, the San Francisco Bay RWQCB issued a set of Waste Discharge Requirements (WDR) to address post-construction stormwater runoff impacts associated with the proposed SFOBB East Span Seismic Safety project. Because District 4 was unable to install treatment for the full scope of the project, several pilot projects and detention basins were proposed to treat runoff from the bridge approach, toll plaza, and a portion of Interstate 80 and Interstate 980 throughout the Emeryville crescent. One of the pilot projects was a set of bioretention basins built in 2008. As a condition of the WDR, the bioretention basins were to be monitored for effectiveness and potential as an approved treatment best management practice within the Caltrans inventory. Peter developed logger programs and replaced the existing telemetry system to allow real-time data collection. He also designed a data historian (database) for sampling data and a website that allows Caltrans employees to view data online and in real time. Peter reused the Willits Bypass system software for this \$632,000 project, which saved Caltrans time and money. <i>Project Fee: \$2,048,000</i> <i>Involvement: December 2012 to August 2015</i>				
(1) TITLE AND LOCATION (City and State) Automated Stormwater Monitoring System, Phases I and II, County of Los Angeles Department of Public Works, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2013</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Application Developer. This project evaluates the Los Angeles County Flood Control District's Stormwater Monitoring Program and includes design of a telemetry system to receive and process real-time data from various field monitoring locations within various flood control channels/creeks. The \$4,016,000 project includes designing a pilot program of the system that demonstrates system capabilities at seven mass emission stations and up to 12 tributary monitoring stations. Peter designed the data historian to collect and maintain sampling data, real-time monitor and control screens to allow a real-time view of data streaming from the monitoring locations, and a logger website as an alternate means to view data in real time. <i>Project Fee: \$2,300,000</i> <i>Involvement: November 2011 to October 2013</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Allan Scott	13. ROLE IN THIS CONTRACT Tracking and Data Management Lead, Storm Drain System Inventory Lead	14. YEARS EXPERIENCE	
		a. TOTAL 27 years	b. WITH CURRENT FIRM 15 years

15. FIRM NAME AND LOCATION *(City and State)*
 Brown and Caldwell – Rancho Cordova, California

16. EDUCATION <i>(Degree and Specialization)</i> M.S., Geological Sciences B.S., Geoscience	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Allan has been designing, developing, and managing environmental data systems for more than 20 years. His efforts as both a project leader and team member have contributed to the successful completion of many IT projects. His expertise in information management has led clients through all phases of IT planning and implementation, including migration of legacy systems; defining user requirements and work processes; designing and developing new systems; and training and long-term support.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Order Manager. Allan is responsible for planning, designing, and implementing the Caltrans Storm Drain System Inventory survey. This project is a physical survey of all the storm drain features throughout California that are within Phase I and Phase II municipal boundaries. Allan is responsible for developing the project plans, survey methodology, and identifying and developing the needed technical capabilities to carry out the survey. Allan conducted a pilot project to verify and improve the methodology. He developed a customized GPS/GIS tool using Microsoft.net for field data collection and development of an Intranet based data viewer that enables Caltrans to retrieve and map survey data from anywhere within their computer network. <i>Project Fee: \$1,000,000</i> <i>Involvement: July 2005 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> EchoWater Project Asset Management Design Database Development, Sacramento Regional County Sanitation District (Regional San), Elk Grove, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead. Allan is leading the development of a data management system that collects and validates asset, parts, and operations and maintenance data to support the EchoWater Project. EchoWater encompasses the design and construction of major facility upgrades at the Sacramento Regional Wastewater Treatment Plant representing about \$2 billion in facility improvements. Allan is providing technical guidance and management for development of the system and processes. The asset management design database is used to collect asset and operations and maintenance data throughout the design and construction and deploy these data to the computerized maintenance management system (CMMS) and the electronic data management system (EDM). The database and associated work processes will prepare Regional San to take over all operations and maintenance tasks once testing and commissioning have been completed so there is no lapse in required maintenance. This is a multi-year, multi-project effort that is calculated to reduce Regional San's data management costs by more than 50 percent. <i>Project Fee: \$1,900,000</i> <i>Involvement: June 2013 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Enterprise Application Integration, City of Sacramento Department of Utilities, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Allan developed a web-based Enterprise Application Integration (EAI) tool to improve access to system performance data and produce more consistent information about utility performance. The technical solution integrates data from the City's CMMS, GIS, SCADA, CCTV, and project management data systems. To create the most sustainable solution, Allan conducted workshops with City staff to determine needs, identify and recommend options, develop the technical components to support the solution, and implement a plan for staff training and knowledge transfer. The system was		

developed by a collaborating technical team composed of both BC and City participants to facilitate knowledge transfer and sustainability. The solution combines Microsoft SharePoint, Microsoft SQL Server, SAP Business Objects, and Latitude Geographics Geocortex components into a web-based interface for reporting and map production. <i>Project Fee: \$478,000</i> <i>Involvement: January 2012 to Present</i>			
	(1) TITLE AND LOCATION (City and State) Construction Project Stormwater Review Guide, Caltrans, Sacramento, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) NA
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Lead. As part of the team to develop the Construction Project Stormwater Review (CPSR) inspection application for the Caltrans stormwater inspection program, Allan led the effort to document the system and develop the User's Guide. Allan met with the development team and the Caltrans field coordinator to document the functionality and use of the application to meet stormwater construction inspection needs. <i>Project Fee: \$50,000</i> <i>Involvement: December 2010 to March 2011</i>		
	(1) TITLE AND LOCATION (City and State) Geographic Information System Inventory and Condition Assessment, Naval Facilities Engineering Command, San Diego, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Oversight. Allan provided oversight to develop GIS datasets for the Navy bases located at the Naval Facilities Engineering Command Southwest (NAVFACSW) Area of Responsibility. BC compiled and converted multiple sources into a GIS model. The new GIS model consists of over 10,500 features, each containing approximately 70 layers that are comprised of 40 mandatory attributes. Once the data was converted, the information was field verified, updated, and cross-checked for connectivity. Allan reviewed the tools, software components, work processes, data models, and quality assurance procedures. <i>Project Fee: \$ 2.960,181</i> <i>Involvement: November 2011 to January 2013</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Cabe Silverhame, PG, CPESC, QSD	13. ROLE IN THIS CONTRACT Construction, Enforcement and Prevention Assistance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 41 years</td> <td>b. WITH CURRENT FIRM 9 years</td> </tr> </table>		a. TOTAL 41 years	b. WITH CURRENT FIRM 9 years
a. TOTAL 41 years	b. WITH CURRENT FIRM 9 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Rancho Cordova, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Science and Math		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Geologist, California No. 6201, 1995 Certified Professional in Erosion and Sediment Control (CPESC), No. 6043, 2010 Qualified SWPPP Developer and Practitioner (QSD), No. 21625, 2011			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Since 2007, Cabe has provided full-time stormwater permit compliance services to Caltrans District 1, including field inspection for significant infrastructure projects, developing improved reporting procedures, performing Construction Compliance Evaluation Plan (CCEP) audits, and developing the Construction Program Stormwater Review (CPSR) tool. In 2015, he began assisting with the semi-monthly water quality monitoring quality assurance program mandated by the Water Board 401 Certification.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0234 Facility Pollution Prevention Plans, Caltrans, Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Compliance Inspector. Cabe conducted 20 Caltrans Maintenance Facility Stormwater Program reviews, including site visits to maintenance stations, remote stockpile grounds, and various drainage system and slope failure sites that had been repaired by Caltrans maintenance crews. He assisted in development of Facility Stormwater Pollution Prevention Plans and critiqued field repairs related to stormwater damage. <i>Project Fee: \$1,012,000</i> <i>Involvement: June 2010 to December 2010</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 District 1 Construction Field Assistance, Caltrans, Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Field Stormwater Inspector. On a full-time basis since April 2007, Cabe has been supporting stormwater compliance at District 1 construction sites. These projects have unique permit requirements issued by the North Coast Regional Water Quality Control Board, California Department of Fish and Game, California Coastal Commission, and the U.S. Fish and Wildlife Service. Cabe reviews permit and contract requirements related to stormwater and non-stormwater discharges and the implementation of BMPs prescribed in the SWPPPs. Daily reports were submitted that identified potential compliance issues and recommended improvements to existing BMPs or the implementation of additional BMPs. <i>Project Fee: \$3,945,000</i> <i>Involvement: April 2007 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03A1923 Willits Bypass Water Quality Assessment and Monitoring, Caltrans, Willits, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> c. Environmental Permit Compliance Inspector. Cabe performed semi-monthly site visits to 25 stream water quality monitoring stations on the Willits Bypass and Willits Bypass Mitigation Parcels, field notation of multiple water quality parameters, seasonal station decommissioning, and re-installation and quality control protocols for water quality sensing equipment. <i>Project Fee: \$4,000,000</i> <i>Involvement: September 2015 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Construction Compliance Evaluation Plan, Caltrans, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				

(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Independent Quality Assurance Senior Inspector. As part of an as-needed contract as a subconsultant to Vali Cooper & Associates, BC provides technical, professional, and quality assurance services to support Caltrans' NPDES, the CGP, and Lahontan RWQCB CGP compliance for construction activities. To provide independent quality assurance inspection, David represents Caltrans DEA at construction sites throughout California, providing field inspection services to achieve compliance with the Caltrans Stormwater Program and all applicable permits. David coordinates with Caltrans Construction staff to schedule and perform inspections. The data gathered through the CCEP will help Caltrans ascertain whether the appropriate level of stormwater pollution control is being achieved at Caltrans' construction sites. <i>Project Fee: \$500,000</i> <i>Involvement: April 2015 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Water Pollution Control Assistance – North, Confusion Hill Bypass Notice of Violation, Caltrans, Leggett, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
e. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Stormwater Permit Compliance Inspector. Cabe provided field inspection and assessment, and helped design BMPs on this \$80 million, 4-year roadway realignment and bridge construction project. He conducted audits for the CCEP, and developed improved recording and reporting documents for Caltrans submittals. He also assisted with litigation support for Caltrans in a Water Board Notice of Violation case. <i>Project Fee: \$68,000</i> <i>Involvement: May 2007 to August 2012</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Chris Wilfong, CPESC, QSD	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance, Maintenance, Storm Drain System Inventory	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 17 years </td> <td> b. WITH CURRENT FIRM 1 year </td> </tr> </table>		a. TOTAL 17 years	b. WITH CURRENT FIRM 1 year
a. TOTAL 17 years	b. WITH CURRENT FIRM 1 year				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Rancho Cordova, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Environmental Science (anticipated graduation 2016)		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional in Erosion and Sediment Control (CPESC), No. 6816, 2010 Qualified SWPPP Developer and Practitioner (QSD), No. 22669, 2010			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Chris has extensive construction inspection experience for compliance with permitting, standards, specifications, right-of-way, and ordinances on both public and private construction sites, including roadway, water and sewer system, storm drain, underground improvements, and capital projects. Chris has provided SWPPP and WPCP inspection for CGP compliance on various Caltrans projects throughout California. He has also performed both CCEP reviews and Maintenance Facility and Activity reviews for multiple Caltrans districts to make certain sites meet the Statewide Compliance Contract.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Field Lead. This project is a physical survey of all the storm drain features throughout California. Chris helped perform a field inventory to map drainage features on routes within Caltrans' Northern Districts. Field data is collected in a tablet that syncs daily with a customized database. Project Fee: \$1,000,000 Involvement: March 2015 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308 Water Pollution Control Assistance – North, Sonora Bypass Assistance Request, Caltrans, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Stormwater Inspector. Chris supported the Sonora Bypass Project during the Plant Establishment Phase. Chris supported the Resident Engineer, as well as Construction and Maintenance Stormwater Coordinators to inspect existing BMPs and implement additional measures needed for compliance and Notice of Termination approval under the CGP. Chris conducted visual and stormwater grab sampling for all discharge locations, prepared SMARTS based report preparation and the CGP annual report. Project Fee: \$50,000 Involvement: October 2014 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. A430308 District 3 Construction Field Assistance, Caltrans, Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> c. Assistant to District Stormwater Coordinator. Chris is performing construction inspections at sites throughout District 3 for compliance with state stormwater requirements. Chris is responsible for reviewing stormwater-related construction documents, evaluating best management practices, attending coordination meetings with Caltrans staff and contractors, and providing recommendations for improvements in stormwater procedures. He performs SWPPP and WPCP inspection for CGP compliance, as well as QSD on projects awaiting Notice of Termination from the RWQCB. Chris also serves as lead inspector to verify quality assurance and compliance with approved plans and specifications. Project Fee: \$3,945,000 Involvement: October 2014 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i>		(2) YEAR COMPLETED			

Contract No. 43A0308 District 10 Construction Field Assistance, Caltrans, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Assistant to District Stormwater Coordinators. Chris is performing construction inspections at sites throughout District 10 for compliance with state stormwater requirements. Chris is responsible for reviewing stormwater-related construction documents, evaluating best management practices, attending coordination meetings with Caltrans staff and contractors, and providing recommendations for improvements in stormwater procedures. He performs SWPPP and WPCP inspection for CGP compliance, as well as QSD on projects awaiting Notice of Termination from the RWQCB. Chris also serves as lead inspector to verify quality assurance and compliance with approved plans and specifications. Project Fee: \$636,000 Involvement: October 2014 to Present				
(1) TITLE AND LOCATION (City and State) Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Construction Compliance Evaluation Program, Caltrans, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION (if applicable) NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Independent Quality Assurance Senior Inspector. As part of an as-needed contract as a subconsultant to Vali Cooper & Associates, BC provides technical, professional, and quality assurance services to support Caltrans' NPDES, the CGP, and Lahontan RWQCB CGP compliance for construction activities. To provide independent quality assurance inspection, Chris represents Caltrans DEA at construction sites throughout California, providing field inspection services to achieve compliance with the Caltrans Stormwater Program and all applicable permits. Chris coordinates with Caltrans Construction staff to schedule and perform inspections. The data gathered through the CCEP will help Caltrans ascertain whether the appropriate level of stormwater pollution control is being achieved at Caltrans' construction sites. Project Fee: \$500,000 Involvement: April 2015 to Present				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Wellington Yee, CPESC, QSD	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance, Maintenance Lead, Encroachment and Right of Way, Storm Drain System Inventory	14. YEARS EXPERIENCE			
		a. TOTAL 35 years	b. WITH CURRENT FIRM 11 years		
15. FIRM NAME AND LOCATION <i>(City and State)</i> Brown and Caldwell – Davis, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Microbiology/Environmental Health		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional in Erosion and Sediment Control (CPESC), No. 5949, 2010 Qualified SWPPP Developer and Practitioner (QSD), No. 00789, 2011 Registered Environmental Health Specialist, No.4442, 2016			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Wellington specializes in regulatory compliance and stormwater management. Prior to consulting, he served as the supervising hazardous material specialist for the County of Sacramento and an environmental specialist for the California Department of Health Services Drinking Water Program. In that capacity, Wellington coordinated with a variety of regulatory agencies in the areas of enforcement, supervision of field staff in site remediation, and permit processing. He has managed the preparation of a variety of water quality and stormwater studies, state and federal environmental impact reports and statements, and state and federal superfund decision documents.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract 43A0308 Storm Drain System Inventory, Caltrans, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Task Leader. Wellington managed several field teams in conducting a statewide accounting of more than 4,000 Caltrans stormwater treatment devices. This effort was necessary to support future resource allocation, stormwater implementation programs, and regulatory documentation. Caltrans created a systematic approach to identify, evaluate, approve, and integrate stormwater BMPs into the Department's operations and onto the state highways and facilities. Some existing features provided stormwater treatment but were constructed prior to the federal stormwater requirements. Caltrans had not conducted a comprehensive assessment and accounting of these existing features. Wellington's accounting strategy involved reviewing thousands of as-built drainage drawings and coordinating with the 12 districts statewide to conduct field verification and assessment at almost 3,000 locations using Caltrans' stormwater treatment design specifications. <i>Project Fee: \$1,000,000</i> <i>Involvement: November 2014 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0234 Facility Pollution Prevention Plans, Caltrans, Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead. Wellington led development of 344 Facility Pollution Prevention Plans under six task orders for Caltrans maintenance facilities in the Northern Districts as required by the NPDES Permit. The maintenance facilities included maintenance stations, equipment shops, waste disposal storage locations, materials storage locations, sand and salt houses, roadside rest areas, the California Department of Food and Agriculture border protection stations, and California Highway Patrol commercial vehicle enforcement facilities. Wellington oversaw the development of six new templates to provide tailored FPPPs for these different types of maintenance facilities. After completing the site-specific FPPPs, Wellington initiated Equipment Shop Stormwater Training sessions covering stormwater pollution prevention and BMPs for the Northern California shop staff. The training program fully integrated into the Equipment Shop's other existing regulatory training programs, including the OSHA-Hazard Communication, Spill Prevention Control and Countermeasure Plan, Hazardous Material Business Plan, and Non-RCRA hazardous waste. This resulted in efficient use of Caltrans shop staff time and efficient, comprehensive, and consistent pollution prevention training. <i>Project Fee: \$1,013,000</i> <i>Involvement: December 2011 to July 2014</i>					

(1) TITLE AND LOCATION (City and State) Contract No. 43A0234 Erosion Control Seed Testing Program, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Task Leader. Working closely with the Landscape Architecture Program and Caltrans specifications, Wellington developed protocols and procedures to properly evaluate 400 native seed species commonly used on highway erosion control projects. He developed methodologies to triage seed for laboratory testing and provided seed collection, handling, storage, and transport and testing protocols. BC also provided technical support as a seed clearinghouse for 5,000 seed samples. Wellington visually inspected samples for quality and conformance with Caltrans and industry seed standards. About 1,300 samples were later analyzed by an Association of Official Seed Analysts (AOSA) certified laboratory. Problems identified, including seed germination, weed content, specie, and proper documentation, were provided to the construction project for corrective action as necessary. As a special project, Wellington also conducted post-construction field inspections with a native plant botanist using FHWA monitoring methodologies and protocols. The results identified these protocols were efficient to verify the regulatory requirement for vegetative coverage and the species planted. In support of the awareness education program on the Caltrans landscape specifications and testing requirements, Wellington also completed web-based workshop modules using a mixture of video, graphics, photographs, text and animation in Flash format. <i>Project Fee: \$1,270,000</i> <i>Involvement: June 2004 to December 2011</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0308 Construction Stormwater Capital and Support Costs, Statewide, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Lead. Caltrans desired a high-level data gathering effort to quantify temporary and permanent water pollution control (WPC) expenditures during the construction phase of 50 capital projects. Wellington worked as technical lead to develop project selection criteria, a uniform approach, and standardized tools to collect data consistently across projects. BC applied these methods to gather data in the Northern Districts. These same standards were used by another consulting firm to collect data in the Southern Districts to develop a seamless integration of statewide data. BC worked with Caltrans to develop an approach to derive the WPC related support costs based on the total project hours recorded in the Caltrans timesheet system, interviews with key project construction staff, who estimated the WPC portions of staff hours, and an average labor rate. The WPC portion of the capital costs was determined from temporary construction and permanent BMPs. BC compiled, validated, and analyzed the statewide data, then reported findings and methodologies in a comprehensive report. Project costs and project attributes were incorporated into the analysis to determine program-level cost trends and cost drivers. The data were also used to create a planning-level WPC cost estimating tool to better understand the cost driving typical capital projects. BC prepared recommendations on ways to improve the statewide dataset and to apply the data to improve the Stormwater Program and reduce overall project costs. Recommendations included: refining the Caltrans accounting mechanisms to better capture WPC support and capital costs, communicating permitting impacts to costs to the SWRCB, and presenting WPC cost drivers during training to Caltrans staff. <i>Project Fee: \$287,000</i> <i>Involvement: January 2014 to May 2015</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0321 TO 1 On-Call Professional and Technical Stormwater Quality Assurance Services, Construction Compliance Evaluation Program, Caltrans, Sacramento, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Author. As a subconsultant to Vali Cooper & Associates, BC provided independent quality assurance for Caltrans construction sites statewide. As part of this contract, Wellington was the primary author of the Annual Maintenance and Operations Compliance Review Plan (AMOCRPP). He prepared Year-End Performance Reports (YEPs) to analyze trends in construction and maintenance site findings. Wellington also prepared the field BMP checklists, which delineate the standards for all BMP types employed by Caltrans. These checklists are in use by all CCEP inspectors. <i>Project Fee: \$500,000</i> <i>Involvement: September 2014 to Present</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Travis Deem, CPESC, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE	
		a. TOTAL 20 years	b. WITH CURRENT FIRM 4 years
15. FIRM NAME AND LOCATION <i>(City and State)</i> ADH Environmental – Soquel, California			
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Natural Resources Planning		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional in Erosion and Sediment Control (CPESC), No. 3948, 2007 Qualified SWPPP Developer and Practitioner (QSD), No. 00140, 2011	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Travis has extensive regulatory program experience, including NPDES, California Department of Fish and Game Streambed Alteration (1602), U.S. Army Corps of Engineers 401, California Surface Mining and Reclamation Act (SMARA) as well as compliance with various local programs. The majority of this work has been in the Caltrans District 2 area. He has prepared more than 20 SWPPPs for residential, commercial, and industrial projects and has personally overseen BMP installation, maintenance and monitoring at more than 15 major construction sites. He has 3 years of experience as an estimator/project manager for a road construction company that enhances his ability to communicate with general contractors during the planning and construction phase of each project. His 2 years as a monitoring biologist for the California Department of Fish and Game (CDF&G) provides him with equally valuable knowledge of the concerns and perspectives of resource agencies and how to balance the needs of both public and private entities to successfully and efficiently keep a project on track and in compliance.

During the past 11 years, Travis has provided erosion control expertise to a variety of projects. He has worked with the new SMARTS tracking system to successfully grandfather existing projects, register new projects, update project databases and file notices of termination. He is currently overseeing the monitoring and sampling program for a Risk Level 2 site at a public airport that, prior to his involvement, was cited by the RWQCB for non-compliance. Since his involvement began, the SWPPP implementation program has been brought into compliance and is nearing successful termination.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>		(2) YEAR COMPLETED	
Contract No. 01-262024 Willits Bypass ELB Mitigation Project Caltrans, Willits, California		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> Ongoing
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i>			
a.	QSD Inspector. This project is designed to satisfy certain mitigation requirements of the Willits Bypass project. The project originally included a variety of tasks at eight locations including abatement of invasive species (primarily blackberry), creation of new wetland features and enhancement of existing wetland resources, realignment and stabilization of watercourses at four locations, placement of a permanent box culvert crossing at one location and bridges to replace two shallow water crossings. The project dynamic and tasks have been added or amended as needed to meet the mitigation goals. The first season of work was 2014 and this current season has been focused on augmenting and redesigning features that were underperforming. The project is currently in the plant establishment phase and monitoring will continue until cover standards have been met. Travis served as project's QSD in preparation of the SWPPP; water pollution control management (WPCM); and, site inspections. <i>Project Fee: \$52,200</i> <i>Involvement: August 2014 to November 2015</i>		
(1) TITLE AND LOCATION <i>(City and State)</i>		(2) YEAR COMPLETED	
Contract No. 01-423704 Green Point Sinks Retaining Walls and Landslide Stabilization, Caltrans, Blue Lake, California		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i>			
b.	QSD Inspector. Caltrans' Green Point Sinks Project highway construction project is designed to stabilize a section of hillside along Highway 299. The project consists of the installation of two approximately 500 ft. by 50 ft. soldier pile and wooden lagging walls with concrete walers and horizontal ground anchors, as well as reconstruction of the roadway. Work includes repairing existing and installing new drainage features to minimize the infiltration of water into the roadway prism and construct retaining walls to support the highway alignment, which crosses an existing landslide. Travis' role in this project is SWPPP creation and implementation as well as oversight of the 401 and Basin Plan requirements. He is the QSD/WPCM responsible for SWPPP development and implementation and oversight of the 401 and Basin Plan requirements.		

Project Fee: \$72,500 Involvement: January 2013 to February 2015		
(1) TITLE AND LOCATION (City and State) Benton Airpark Runway Extension, Redding, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) 2011
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm c. QSD. To maintain compliance with Federal Aviation Administration (FAA) rules the runway at Benton Airpark the City of Redding contracted to build an overrun pad at the site. Travis was brought in by the general contractor to properly implement the approved SWPPP and attain RWQCB compliance. He has also served as liaison between the City of Redding and the contractor in matters of site stabilization. The site is now in full compliance and the City is coordinating with RWQCB to terminate permit coverage. Travis also provides technical expertise in updating SWPPP to match actual site conditions and coordinates with City to maintain compliance with SMARTS system. Travis was the QSD responsible for implementation of the approved SWPPP and RWQCB compliance; he served as a liaison between the client and contractor; he provided technical expertise in updating the SWPPP; and he helped maintain compliance with the SMARTS system. Project Fee: \$10,000 Involvement: 2009 to 2011		
(1) TITLE AND LOCATION (City and State) Contract No. 02-3E7904 Jaxon Enterprises Stormwater Pollution Prevention Plan Update and Permit Termination, Caltrans, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable) 2010
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm d. Senior Planner/QSD. Jaxon Enterprises is a land development company that constructed several large residential subdivisions during the last economic boom. Due to the downturn they were left with four developments in various stages of completion for which coverage was in place under the previous general construction permit (CGP) 99-08 DWQ. Mr. Deem, who was involved in the original development of these sites, was brought in to conduct a full review and assessment of the project documents and actual sites conditions. After successfully bringing all four sites into compliance, he then guided the landowner through the process of final stabilization and permit termination for three of the four sites. During the termination process he trained Jaxon personnel on the use of the SMARTS system and aided them in data entry and submittal. Travis was the QSD responsible for review and assessment of the project documents and actual sites conditions to attain compliance with the new CGP; final site stabilization and permit termination for three of the four sites; and, trained client staff on use of the SMARTS system and aided in data entry and submittal. Project Fee: \$15,000 Involvement: 2005 to 2010		
(1) TITLE AND LOCATION (City and State) Contract No. 02-360704 Bella – Diddy, Caltrans, Bella Vista, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) 2015
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm e. QSD. The Bella – Diddy project involves complete reconstruction of 10.4 miles of Highway 299 in Shasta County east of Redding. Travis wrote the SWPPP for the project and work began in 2013. The alignment crosses through a variety of landscape types and over several sensitive drainages where bridge replacement or widening activities have been completed. During in-water work Travis was responsible for all 401 water quality monitoring and reporting. The winter of 2014 to 2015 was marked with many violent rain events which have necessitated realignment for one waterway. Work for this realignment is pending while all other work was completed late spring 2015. Travis was the QSD and WPCM responsible for sampling and reporting compliance with the Clean Water Section 401. Involvement: November 2012 to October 2015		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Christian Kocher	Water Quality Assistance and Compliance	a. TOTAL 25 years	b. WITH CURRENT FIRM 15 years

15. FIRM NAME AND LOCATION *(City and State)*
ADH Environmental – Soquel, California

16. EDUCATION *(Degree and Specialization)*
B.S., Physics

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Christian specializes in water quality monitoring, physical oceanography, sediment dredge materials studies, and stormwater hydrology. He has extensive experience in regulatory compliance studies, including NPDES ocean-outfall receiving waters monitoring, municipal and industrial stormwater discharge monitoring, stormwater BMP efficacy, municipal separate storm sewer system (MS4) monitoring, and dredge materials use and disposal. In these capacities he has been responsible for:

- Study design; logistics; operations management; subcontractor coordination; data collection, validation, interpretation, and presentation; training seminar instruction; writing of comprehensive reports and manuals; and presentations.
- As senior training officer for oceanographic and land-based sediment sampling, water quality, stormwater monitoring and BMP programs, developed and conducted multi-day training seminars to city, county, agency, and private-sector clients detailing respective monitoring concepts, practices, procedures, and protocols.
- Managed and performed numerous water quality investigations in association with wastewater outfall monitoring, ocean spills, and specialized studies. Primary author on dozens of respective ocean-outfall receiving waters monitoring reports to the California SWRCB.

Christian began performing stormwater monitoring services for Caltrans in 1995. Over the past 20 years, he has written, edited and reviewed numerous quality assurance project plans, sampling and analysis plans, technical memoranda, and monitoring reports. He has been instrumental in the successful implementation of many Caltrans monitoring studies involving a wide variety of approaches, instrumentation components, flow measurement strategies, telemetry methods, power sources, and challenging environmental conditions.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 03A1573 Willits Bypass Water Quality Assessment Caltrans District 3, Willits, California	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Project and Field Operations Manager. As mandated by the Clean Water Act, Section 401, water quality certification permit approved by the North Coast RWQCB, Caltrans implemented a multi-year baseline monitoring study to characterize the water quality and stream flow rates within the watershed of Outlet Creek in Little Lake Valley. ADH, as a subcontractor, designed, installed and operated 20 monitoring stations. Water quality instruments were selected, installed, calibrated and maintained by ADH for continual measurements of depth, temperature (water and air), conductivity, pH, turbidity, and dissolved oxygen. Monthly and storm event grab samples were collected at all 20 monitoring locations. High-flow stream gauging was performed by towing an acoustic Doppler current profiler across the surface of the water at each monitoring location over a wide range of stream flows. These data were used to develop head to flow relationships for development of time-series discharge data sets. Christian served as project safety officer. <i>Project Fee: \$606,000</i> <i>Involvement: July 2010 to September 2012</i>		
Contract Nos. 43A0127, 43A0208, 43A0288 and 43A0325 Stormwater Quality Monitoring and Reporting Services Caltrans Districts 1, 4 and 5, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Senior Scientist and Project Manager. ADH, as a DBE subcontractor, provides technical and professional stormwater quality monitoring and reporting services to assist the State in complying with court orders and fulfilling NPDES permit obligations. ADH provides these services, as issued by the State's respective task orders, within the boundaries of Caltrans Districts 1, 4, and 5. Christian served as the project manager for the following studies: Open/Gap Graded Asphalt Pavements Water Quality Project; San Francisco-Oakland Bay Bridge Bioretention Basins Study; Ornamental Roadside Vegetated Treatment Sites; and Long-Term Discharge Characterization Monitoring. Client contact to prime contractor, Caltrans and other agencies; task order cost estimating, invoicing, and budget tracking and attends technical advisory meetings with Caltrans. Christian also		

performed key roles for the Areas of Special Biological Significance Monitoring, and the Wash Rack Monitoring projects. For these projects, Christian performed and managed watershed delineations; stormwater quality volume determinations and flow estimations; stormwater monitoring and sampling; preparation of technical memoranda; work plans and reports. <i>Project Fee: \$4,378,000</i> <i>Involvement: March 2006 to Present</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0254 San Francisco-Oakland Bay Bridge Bioretention Pilot Project Flume Extensions, Caltrans, Oakland, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Scientist and Project Manager. ADH, as subcontractor, assisted Caltrans to improve flow monitoring devices at San Francisco-Oakland Bay Bridge bioretention basins. Christian reviewed available drainage reports, existing contract plans and design documents to develop conceptual design plans for H-flume extensions, forced main downspouts and HS-flume installations. ADH drafted engineering plan sheets for the proposed design improvements, provided narrative direction for installation and provided materials specifications/pricing. Christian met with department representatives and construction contractors to ensure conformance to design plans at the outset of construction. <i>Project Fee: \$20,000</i> <i>Involvement: July 2011 to September 2011</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 04A2906 Devil's Slide Environmental Engineering Assistance, Caltrans District 4, Pacifica, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Project Manager. ADH, as a subcontractor, provided inspection services of stormwater and non-stormwater treatment systems for construction activities at the Devil's Slide tunneling project which have the potential to impact receiving water quality in respect to the project's Water Pollution Control Plans and SWPPPs. ADH also provided SWPPP inspection services for bridge and tunnel construction, risk level 3 and 2 sites, respectively, and performed on-site shotcrete waste monitoring and reporting. Christian performed weekly inspections; wrote technical memoranda; and worked with Caltrans engineers, construction contractor representatives, and active treatment system operators to address pollution prevention issues. Christian managed rain event inspections/reporting, and wrote annual shotcrete waste monitoring reports for tunnel spoils that were placed on-site at a 250,000 m³ fill location. <i>Project Fee: \$275,000</i> <i>Involvement: June 2007 to March 2011</i>		
(1) TITLE AND LOCATION (City and State) Municipal Regional Stormwater Permit Monitoring Services, Contra Costa Clean Water Program, County of Contra Costa, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Assistant Project Manager. The Contra Costa County Clean Water Program (CCCWP) is comprised of 21 municipal agencies in Contra Costa County whose mission is to fulfill the stormwater mandates of the Federal Clean Water Act. The State of California, through the San Francisco Bay and Central Valley RWQCBs, issued Municipal Stormwater NPDES Permits to Contra Costa County, which are referred to as the Municipal Regional Permit (MRP). Monitoring provisions of the MRP allow for regional collaboration to coordinate and conduct monitoring activities. CCCWP is part of a regional collaborative known as the Bay Area Stormwater Management Agencies Association (BASMAA) Regional Monitoring Coalition. ADH, as prime contractor, manages all aspects of state-mandated stormwater and creek status monitoring for CCCWP. Christian is responsible for the installation, operation and maintenance of a state-of-the-art automated stormwater monitoring station on Marsh Creek in the City of Brentwood. Christian also provides editorial comments on RMC monitoring plans, standard operating procedures, field manuals and quality assurance project plans; and provides expert support to the RMC by participating in various BASMAA sponsored meetings. <i>Project Fee: \$2,715,000</i> <i>Involvement: August 2011 to Present</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Kevin Lewis, CESSWI, QSP	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 7 years </td> <td> b. WITH CURRENT FIRM 6 years </td> </tr> </table>		a. TOTAL 7 years	b. WITH CURRENT FIRM 6 years
a. TOTAL 7 years	b. WITH CURRENT FIRM 6 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> ADH Environmental – Soquel, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Earth Sciences		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Erosion, Sediment and Stormwater Inspector (CESSWI), No. 3057, 2012 Qualified SWPPP Practitioner (QSP), No. 23275, 2012			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Kevin has 7 years professional experience performing stormwater quality monitoring, dredge reuse and disposal studies, and engineering and geologic projects. He has performed these projects for federal (U.S. Army Corps of Engineers), state (Caltrans), and local (municipalities) agencies in portions of northern, central and southern California. His water quality experience includes lead and support roles for several NPDES Phase II stormwater investigations, BMP efficacy studies; surface water quality studies, receiving water quality sampling, stream rating and wastewater monitoring programs. His experience also includes installation, operation, and maintenance of remote monitoring stations, calibration of water quality monitoring systems; and routine downloading of water quality, flow metering and tidal data, and installation and operation of stream rating equipment. He has extensive experience in the collection of stormwater composite and grab samples, generation of field quality control samples, sample handling/processing and quality assurance and quality control oversight for dredge materials use and disposal studies and field filtration for dissolved constituent analysis. His training includes: • CERCLA/SARA Health and Safety Training (HAZWOPER), 40 hour, 29 CFR 1910.120 • Coursework in GIS studies for mapping and spatial analysis incorporating ArcMap and ArcGIS					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0288 and 43A0325 Areas of Special Biological Significance Stormwater Outfall and Ocean Receiving Waters Monitoring and Reporting, Caltrans, Central and Northern California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Field Crew Leader. ADH is supporting Caltrans as a subcontractor to BC on the central and northern California ASBS sites. For this monitoring project, stormwater is collected as grab samples at non-coupled and coupled "outfalls" and ocean receiving water sites that are tributary to ASBS located in Redwoods National Park, Saunders Reef, Fitzgerald Marine Reserve, Ano Nuevo Point and Carmel Bay for up to 3 events for a comprehensive suite of physical, microbiological, chemical analyses as well as 3-species toxicity testing. Monitoring of the Caltrans sites are performed in coordination with the respective central and northern California RMG ocean outfall and receiving water sampling, and with Southern California Coastal Water Research Project (SCCWRP) ocean reference water sampling. Kevin is responsible for site reconnaissance, sampling preparations, event mobilization, sample collection and sample handling. He is a senior crew leader, specializing in the safe and successful collection of ocean receiving water samples. Kevin performs traffic control shoulder closures that are necessary for the safe collection of roadway storm drain inlet samples. <i>Project Fee: \$1,405,000</i> <i>Involvement: March 2013 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0208, 43A0288 and 43A0325 San Francisco-Oakland Bay Bridge Bioretention Pilot Study, Caltrans, Oakland, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Field Scientist. The San Francisco Bay RWQCB issued a set of waste discharge requirements to address post-construction stormwater runoff impacts associated with the proposed San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. ADH has supported Caltrans since 2008, as a subcontractor for this water quality BMP study by providing programmatic and technical support to ensure successful implementation of the pilot project. ADH successfully installed and operated over a dozen automated monitoring and sampling stations to test the efficacy of six BMP bioretention basins to attenuate influent stormwater of a wide variety of physical, chemical and biological pollutants. Kevin serves as a field					

scientist responsible for installation, operation and maintenance of flow-weighted monitoring stations, programming of monitoring equipment, and stormwater sample collection. He ensures that field QA/QC procedures are strictly following during sample collection and performs post-storm data acquisition. <i>Project Fee: \$350,000</i> <i>Involvement: February 2009 to Present</i>						
(1) TITLE AND LOCATION (City and State) Contract Nos. 43A0208 and 43A0288 Open and Gap Graded Asphalt Pavements Water Quality Project, Caltrans Districts 1, 4 and 5, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2011</td> <td>NA</td> </tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2011	NA
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
2011	NA					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Crew Leader. The Open and Gap Graded Asphalt Pavements pilot study was designed to evaluate stormwater runoff quality from open graded and gap-graded pavements to that of conventional (dense-graded) pavements. The project included nine pilot study paired sites located statewide. For the paired sites, the test stations consisted of a freeway or highway segment with a relatively new porous pavement overlay. The test station was paired with a control station consisting of a nearby section of the same road, paved with conventional dense-graded pavement. For this study, ADH was responsible for monitoring 7 site locations within Caltrans Districts 1 and 5. Kevin served as senior field crew leader, responsible for installation, operation, maintenance and demobilization of remote monitoring stations; automated flow meter/controller and sampler programming; and during storm sampler pacing adjustments. He performed a special field filtration study to help determine if immediate field filtration yielded different results than filtrations performed later at an analytical laboratory. <i>Project Fee: \$1,840,000</i> <i>Involvement: March 2008 to November 2011</i>						
(1) TITLE AND LOCATION (City and State) Contract No. 43A0288 Ornamental Roadside Vegetated Treatment Sites Stormwater Quality Study, Caltrans, San Mateo and Napa Counties, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2012</td> <td>NA</td> </tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2012	NA
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
2012	NA					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Crew Leader. The ORVTS Pilot Study was comprised of two types of study sites: the Expanded Roadside Vegetated Treatment Sites (ERVTS) and the Groundcover Roadside Vegetated Treatment Sites (GRVTS). The purpose of the ORVTS study at the ERVTS sites was to evaluate the ability of groundcover vegetation species to provide treatment of highway runoff and to compare treatment potential to existing grass and for vegetation within the Caltrans rights-of-way. Kevin served as a field crew leader responsible for: maintenance and operation of six automated, flow-weighted stormwater monitoring and sampling stations; remote instrument communication for data acquisition and programming control; storm event monitoring, including composite and grab sampling, field documentation, and preparation and transfer of samples to analytical laboratories; equipment demobilization; and maintenance of site vegetation. <i>Project Fee: \$175,000</i> <i>Involvement: February 2011 to July 2012</i>						
(1) TITLE AND LOCATION (City and State) Contract No. 03A1573 Willits Bypass Water Quality Assessment Caltrans District 3, Willits, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2012</td> <td>NA</td> </tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2012	NA
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
2012	NA					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Scientist. As mandated by the Clean Water Act Section 401 water quality certification permit approved by the North Coast RWQCB, Caltrans implemented a multi-year baseline monitoring study to characterize the water quality and stream flow rates within the watershed of Outlet Creek in Little Lake Valley. For this project, as subcontractor, ADH designed, installed and operated 20 monitoring sites. Water quality instruments were selected, installed, calibrated and was maintained by ADH for continual measurements of multiple physical parameters. Monthly and storm event grab samples were collected at all 20 monitoring locations. High-flow stream gauging was also performed using an acoustic Doppler current profiler at each monitoring location. These data are used to develop head to flow relationships for development of time-series discharge data sets. Kevin served as a field scientist responsible for site selection; securing site encroachment permits, installation and operation of monitoring stations; monthly and storm event grab samples; and, stream gauging by conventional USGS methods and by acoustic Doppler current profiling. <i>Project Fee: \$606,000</i> <i>Involvement: July 2010 to November 2012</i>						

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Armand Ruby	Water Quality Assistance and Compliance	a. TOTAL 34 years	b. WITH CURRENT FIRM 8 years

15. FIRM NAME AND LOCATION *(City and State)*

ADH Environmental – Soquel, California

16. EDUCATION *(Degree and Specialization)*M.S., Zoology (Ecology)
B.A., Biology (Ecology)**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Armand has extensive experience in stormwater and receiving water monitoring, involving project planning, monitoring program implementation, development of technical specifications and protocols, and data analysis. He has provided professional stormwater consulting services for public agencies throughout California, including extensive contributions to the Caltrans stormwater program.

Armand was the consultant project manager for the production of the Caltrans Monitoring and Data Reporting Protocols Comprehensive Guidance Manual, and was a lead author of the Stormwater Quality Monitoring Protocols. Armand also managed and oversaw the development of the statewide Caltrans Stormwater Quality Database and Data Management System. In conjunction with the development of the Comprehensive Guidance Manual, he also oversaw the development of the Caltrans Data Analysis Tool, which allows production of statistical data summaries incorporating non-detect data, and the Hydrologic Tool, which allows production of graphical summaries of monitoring event hydrology and sample collection, as well as percent capture and aliquot count statistics for assessment of the Caltrans storm capture requirements. He also served as consultant project manager and lead author/editor for the Caltrans statewide Discharge Characterization Study (DCS) report, a comprehensive analysis of Caltrans stormwater monitoring data. The DCS report provides statistical summaries of runoff quality from each type of Caltrans highway facility. Armand also participated in planning and reporting for numerous Caltrans stormwater monitoring projects, as well as preparation of various annual reports for the Caltrans stormwater program, including the Annual Data Summary and Three Year Action Plan.

Armand has provided regulatory compliance services for many public agency clients, working with Regional Water Quality Control Board staff in California's Central Valley, San Francisco Bay Area, and Los Angeles regions, as well as with State Water Resources Control Board staff. He also has broad experience in the development and implementation of TMDLs, including related work in the Sacramento River watershed, Yolo Bypass, San Francisco Bay Area, and Calleguas Creek watershed (Ventura County). In addition to his work for Caltrans, Armand currently serves in various other statewide roles:

- Monitoring and Science Subcommittee Chair, California Stormwater Quality Association (CASQA)
- Member, California Water Quality Monitoring Council per SB 1070 (stormwater representative)
- Member, AB 982 Public Advisory Group (municipal stormwater alternate)

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
	Contract No. 43A0208 Stormwater Quality Monitoring and Reporting Services, Caltrans Districts 1, 4 and 5, California	2010	NA
a.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> QA/QC Officer. ADH, as a DBE subcontractor, provides technical and professional storm water quality monitoring and reporting services to assist the State in complying with court orders and fulfilling NPDES permit obligations. ADH provides these services as issued by the State's respective Task Orders within the boundaries of Caltrans Districts 1, 4, and 5. As a member of a multi-consultant team, Armand provides overall project quality assurance and quality control; reviews and edits project documents, including site selection technical memoranda, project health and safety plans, sampling and analysis plans, and post-storm technical memoranda and monitoring reports. <i>Project Fee: \$1,604,000</i> <i>Involvement: October 2007 to November 2010</i>		
	Contract No. 04A2786 Devil's Slide Improvement Project, Caltrans, San Mateo County, California	2007	NA
b.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Monitoring Coordinator. The Devil's Slide tunnel construction project involves the expected discharge of dewatering water to the Pacific Ocean during the tunnel drilling process. To reduce the potential regulatory impact of California Ocean Plan water quality regulations, Caltrans performed a dilution study to petition the San Francisco Bay RWQCB to grant Caltrans a dilution credit for the discharge. Data for dilution modeling were obtained by conducting a dye tracer study, involving both land-based		

and sea-based sample collection. Armand evaluated conditions at the site, addressed relevant regulatory compliance issues, prepared the sampling and analysis plan for the field portion of the study, and presented study results to RWQCB staff. <i>Project Fee: \$40,000</i> <i>Involvement: 2007</i>							
c.	(1) TITLE AND LOCATION (City and State) Contract No. 04A2906 Devil's Slide Environmental Engineering Assistance, Caltrans District 4, Pacifica, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2011</td> <td>NA</td> </tr> </table>		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2011	NA
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
	2011	NA					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Advisor. ADH, as a subcontractor, provided inspection services of stormwater and non-stormwater treatment systems for construction activities at the Devil's Slide tunneling project which have the potential to impact receiving water quality in respect to the project's WPCPs and SWPPPs. ADH also provided SWPPP inspection services for bridge and tunnel construction, risk level 3 and 2 sites, respectively, and performed on-site shotcrete waste monitoring and reporting. Armand acted as water quality technical advisor on the project. <i>Project Fee: \$275,000</i> <i>Involvement: June 2007 to March 2011</i>							
d.	(1) TITLE AND LOCATION (City and State) Contract No. 04A0171 Non-vegetated Erosion Control Pilot Study, Caltrans, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2007</td> <td>NA</td> </tr> </table>		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2007	NA
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
	2007	NA					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Author and Reviewer. As part of its statewide stormwater program, Caltrans implements measures to control erosion and limit discharges of pollutants from construction sites, including the use of vegetative and non-vegetative soil stabilization techniques. Under subcontract, Armand designed a study to test the efficacy of various related products and methods. This study is intended to provide Caltrans project engineers and resident engineers with the information necessary to choose appropriate temporary, non-vegetative soil stabilizers for Caltrans construction projects. <i>Project Fee: \$9,500</i> <i>Involvement: March 2007 to May 2007</i>							
e.	(1) TITLE AND LOCATION (City and State) Municipal Regional Stormwater Permit Monitoring Services, Contra Costa Clean Water Program, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>Ongoing</td> <td>NA</td> </tr> </table>		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	Ongoing	NA
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
	Ongoing	NA					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Technical Advisor. The Contra Costa County Clean Water Program (CCCWP) is comprised of twenty-one municipal agencies in Contra Costa County whose mission is to fulfill the stormwater mandates of the Federal Clean Water Act. The State of California, through the San Francisco Bay and Central Valley Regional Water Quality Control Boards, issued Municipal Stormwater NPDES Permits to Contra Costa County, which are referred to as the Municipal Regional Permit (MRP). Monitoring provisions of the MRP allow for regional collaboration to coordinate and conduct monitoring activities. CCCWP is part of a regional collaborative known as the Bay Area Stormwater Management Agencies Association (BASMAA) Regional Monitoring Coalition. ADH, as prime contractor, manages all aspects of state-mandated stormwater and creek status monitoring for CCCWP. <i>Project Fee: \$2,715,000</i> <i>Involvement: August 2011 to Present</i>							

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Calvin Sandlin, CESSWI, QSP	13. ROLE IN THIS CONTRACT Storm Drain System Inventory	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 15 years </td> <td> b. WITH CURRENT FIRM 12 years </td> </tr> </table>		a. TOTAL 15 years	b. WITH CURRENT FIRM 12 years
a. TOTAL 15 years	b. WITH CURRENT FIRM 12 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> ADH Environmental – Soquel, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Geology		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Erosion, Sediment and Stormwater Inspector (CESSWI), No. 3058, 2012 Qualified SWPPP Practitioner (QSP) No. 24418, 2013			

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Calvin has 12 years of professional experience performing a variety of stormwater, water quality, dredge reuse/disposal studies, as well as geologic projects throughout central and northern California for federal, state and local government agencies. His water quality monitoring experience includes lead roles for NPDES Phase I and II stormwater field investigations, surface water quality studies, receiving water quality sampling, groundwater, wastewater, hazardous waste and sediment characterization projects. Clients have included governmental and private sectors, including Caltrans, U.S. Army Corps of Engineers (USACE), U.S. Air Force, San Francisco Bay Area municipalities, and a Native American tribe.

Calvin's responsibilities include: compilation and management of field data; performance of hydrological and geological evaluations; monitoring site selection; design, configuration, installation, operation and maintenance of remote automated composite and discrete monitoring and sampling equipment; design, configuration, installation and operation of stream rating equipment; supervision of soil cement column installation; sample handling/processing and quality assurance and quality control (QA/QC) oversight for dredge materials use and disposal studies. His training includes:

- CERCLA/SARA Health and Safety Training (HAZWOPER), 40 hour, 29 CFR 1910.120

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0288 and 43A0325 Areas of Special Biological Significance Stormwater Outfall and Ocean Receiving Waters Monitoring and Reporting, Caltrans, Central and Northern California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Crew Leader. ADH is supporting Caltrans as a subcontractor to BC on the central and northern California ASBS sites. For this monitoring project, stormwater is collected as grab samples at non-coupled and coupled "outfalls" and ocean receiving water sites that are tributary to ASBS located in Redwoods National Park, Saunders Reef, Fitzgerald Marine Reserve, Ano Nuevo Point and Carmel Bay for up to three events for a comprehensive suite of physical, microbiological, chemical analyses as well as three-species toxicity testing. Monitoring of the Caltrans sites are performed in coordination with the respective central and northern California RMG ocean outfall and receiving water sampling, and with Southern California Coastal Water Research Project (SCCWRP) ocean reference water sampling. Calvin is responsible for site reconnaissance, event mobilization, sample collection and sample handling. He is a senior crew leader, specializing in the safe and successful collection of ocean receiving water samples. Calvin performs traffic control shoulder closures that are necessary for the safe collection of roadway storm drain inlet samples. <i>Project Fee: \$1,405,000</i> <i>Involvement: March 2013 to Present</i>	Ongoing	NA
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0208, 43A0288 and 43A0325 San Francisco-Oakland Bay Bridge Bioretention Pilot Study, Caltrans, Oakland, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Staff Geologist. The San Francisco Bay RWQCB issued a set of waste discharge requirements to address post-construction stormwater runoff impacts associated with the proposed San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. ADH has supported Caltrans since 2008, as a subcontractor for this water quality BMP study by providing programmatic and technical support to ensure successful implementation of the pilot project. ADH successfully installed and operated over a dozen automated monitoring and sampling stations to test the efficacy of six BMP bioretention basins to attenuate influent stormwater of a wide variety of physical, chemical and biological pollutants Calvin manages confined	Ongoing	NA

space entry field operations for the installation and maintenance of sampling and flow monitoring equipment within the bioretention basins. He performs remote camera operations within the basin underdrain system to investigate the integrity of the basin drainage. Calvin has conducted hydrojetting of the basin underdrain system to restore the basins to optimal operating efficiency. He provides ongoing technical support to field crews during event monitoring. <i>Project Fee: \$350,000</i> <i>Involvement: February 2009 to Present</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0208 and 43A0288 Open and Gap Graded Asphalt Pavements Water Quality Project, Caltrans Districts 1, 4 and 5, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Crew Leader. The Open and Gap Graded Asphalt Pavements pilot study was designed to evaluate stormwater runoff quality from open graded and gap-graded pavements to that of conventional (dense-graded) pavements. The project included nine pilot study paired sites located statewide. For the paired sites, the test stations consisted of a freeway or highway segment with a relatively new porous pavement overlay. The test station was paired with a control station consisting of a nearby section of the same road, paved with conventional dense-graded pavement. For this study, ADH was responsible for monitoring 7 site locations within Caltrans Districts 1 and 5. Kevin served as senior field crew leader, responsible for installation, operation, maintenance and demobilization of remote monitoring stations; automated flow meter/controller and sampler programming; and during storm sampler pacing adjustments. He performed a special field filtration study to help determine if immediate field filtration yielded different results than filtrations performed later at an analytical laboratory. <i>Project Fee: \$1,840,000</i> <i>Involvement: March 2008 to November 2011</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0288 Ornamental Roadside Vegetated Treatment Sites Stormwater Quality Study, Caltrans, San Mateo and Napa Counties, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Crew Leader. The ORVTS Pilot Study was comprised of two types of study sites: the Expanded Roadside Vegetated Treatment Sites (ERVTS) and the Groundcover Roadside Vegetated Treatment Sites (GRVTS). The purpose of the ORVTS study at the ERVTS sites was to evaluate the ability of groundcover vegetation species to provide treatment of highway runoff and to compare treatment potential to existing grass and for vegetation within the Caltrans rights-of-way. Kevin served as a field crew leader responsible for: maintenance and operation of six automated, flow-weighted stormwater monitoring and sampling stations; remote instrument communication for data acquisition and programming control; storm event monitoring, including composite and grab sampling, field documentation, and preparation and transfer of samples to analytical laboratories; equipment demobilization; and maintenance of site vegetation. <i>Project Fee: \$175,000</i> <i>Involvement: February 2011 to July 2012</i>		
(1) TITLE AND LOCATION (City and State) Contract No. 03A1573 Willits Bypass Water Quality Assessment Caltrans District 3, Willits, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Scientist. As mandated by the Clean Water Act Section 401 water quality certification permit approved by the North Coast RWQCB Caltrans implemented a multi-year baseline monitoring study to characterize the water quality and stream flow rates within the watershed of Outlet Creek in Little Lake Valley. For this project, as subcontractor, ADH designed, installed and operates 20 monitoring sites. Water quality instruments were selected, installed, calibrated and was maintained by ADH for continual measurements of multiple physical parameters. Monthly and storm event grab samples were collected at all 20 monitoring locations. High-flow stream gauging was also performed using an acoustic Doppler current profiler at each monitoring location. These data are used to develop head to flow relationships for development of time-series discharge data sets. Kevin served as a field scientist responsible for site selection; securing site encroachment permits, installation and operation of monitoring stations; monthly and storm event grab samples; and, stream gauging by conventional USGS methods and by acoustic Doppler current profiling. <i>Project Fee: \$606,000</i> <i>Involvement: July 2010 to November 2012</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
David Skinner, CPESC, QSD	Construction	a. TOTAL 8 years	b. WITH CURRENT FIRM 4 years

15. FIRM NAME AND LOCATION *(City and State)*

ADH Environmental – Redding, California

16. EDUCATION *(Degree and Specialization)*M.B.A., Business Administration
B.S., Business Entrepreneurship Business Administration**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*Certified Erosion, Sediment and Storm Water Inspector (CESSWI),
No. 1129, 2010
Qualified SWPPP Developer and Practitioner (QSD), No. 23958,
2012
Certified MS4 Specialist (CMS4S)**18. OTHER PROFESSIONAL QUALIFICATIONS** *(Publications, Organizations, Training, Awards, etc.)*

David's experience includes Caltrans major and minor roadway and infrastructure, including two large-scale bridge replacement projects in District 2 (Antlers Bridge and Spanish Creek Bridge). David has acted as the Water Pollution Control Manager on over 15 Risk Level (RL) 1, 2 and 3 projects under the current CGP. Since joining ADH, his project responsibilities include: CCEP inspections; SWPPP review and development assistance; advising and assisting resident engineers, design engineers, and project managers with compliance documentation and implementation of BMPs at Caltrans project sites; water quality sample collection, analysis, and reporting, and environmental permit compliance assistance. He has been responsible for regulatory compliance requiring extensive contact and collaboration with RWQCB representatives in Regions 1, 2 and 5, and Caltrans department staff in districts 1, 2, 3 and 4. He has managed over 45 projects within SMARTS, performing risk level determination, document collection and submission, post construction water-balance calculations, compliance, and project termination. He has also served as an instructor for many formal and informal training courses related to erosion and sediment control and project management. His training includes:

- Caltrans 24-Hour SWPPP Preparation, December 2010
- 40-Hour ATS Operator Training, February 2011
- National Pollutant Discharge Elimination System (NPDES) 24-Hour QSD/QSP Training, February 2011

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Contract Nos. 43A0234 and 43A0308 Construction Assistance, Caltrans District 2, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Water Pollution Control Specialist. The project consists of providing expert Water Pollution Control assistance to the District 2 Division of Construction, the construction stormwater coordinator, and resident engineers; assistance on multiple "key" projects to help ensure compliance with site NPDES permits, project contract requirements and permits, approved SWPPPs, WPCPs, and any special requirements from the RWQCB, and the Department Storm Water Management Plan. "Key" projects include: replace I-5 Antlers Bridge over Shasta Lake, Spanish Creek Bridge replacement near Feather River, Minnehaha Bridge replacement with extensive water quality monitoring adjacent to the Trinity River, and rest area rehabilitation projects throughout the district. Conducts confirmation field testing of stormwater, non-stormwater, and dewatering discharges to ensure numeric discharge limitations are in compliance with the contract requirements and the objectives listed in the appropriate RWQCB Basin Plan. Field testing includes measurements of physical characteristics and other parameters (e.g., pH, temperature, dissolved oxygen, turbidity, conductivity, TDS). David also attends pre-construction meetings to provide expert support reviewing and consulting on the contract requirements related to water pollution control, and provides expert technical assistance and training to the District 2 Division of Construction, the Construction Storm Water Coordinator, and resident engineers for use and account management of the SWRCB's SMARTS online account. In addition to ensuring successful completion of these responsibilities, David also provides expert reviews of Category 20 files, SWPPPs, WPCPs, and construction sites to verify proper preparation, implementation, and to identify and correct plan deficiencies associated with construction activities, and SMARTS online account assistance and training. <i>Project Fee: \$1,586,000</i> <i>Involvement: May 2011 to Present</i>	Ongoing	Ongoing
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0321 Field Activity Compliance Evaluations, Caltrans Statewide, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Reviewer. The project consists of providing expert water quality control independent assessments	Ongoing	Ongoing

of ongoing construction projects. The reviews consist of evaluation of administrative recordkeeping, SMARTS database management, and proper project reporting; field review consists of evaluation of field BMP controls for proper installation, maintenance, and management. Evaluation also includes all permits on the project, (RWQCB, Caltrans, California Fish and Wildlife, U.S. Forest Service, and ACOE). David serves as the reviewer for Districts 1 and 2, and has evaluated over 16 large scale projects with unique water quality risks and concerns. David has also provided feedback and review of the compliance reporting tools and participated in adjustment to meet the needs of Caltrans in regards to recordkeeping and reporting. <i>Project Fee: \$50,000</i> <i>Involvement: April 2015 to Present</i>							
c.	(1) TITLE AND LOCATION (City and State) Trinity River Restoration Program, Various Trinity River Watershed Locations, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2013</td> <td>2013</td> </tr> </table>		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2013	2013
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
	2013	2013					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Qualified Stormwater Developer. The Trinity River Restoration Project consists of 47 riverine rehabilitation projects on the 40 miles of the Trinity River below Lewiston Dam. David was WPCM for 3 of the 47 rehabilitation sites. The project includes reporting, project layout, site preparation, in-channel implementation, riverine implementation, upland implementation, final site preparation, and supply of coarse sediment gravel, stockpiled material installation, contour grading, and large wood. David served as QSD and provided instruction and training of field staff responsible for implementation of BMPs in the field, inspection of erosion and sediment controls, project document review, coordination and assistance with U.S. Bureau of Reclamation staff (including risk level determination), SMARTS upload and management, and CGP assistance. <i>Project Fee: \$15,000</i> <i>Involvement: June 2012 to July 2013</i>							
d.	(1) TITLE AND LOCATION (City and State) Contract No. 02-379804 I-5 Antlers Bridge Replacement, Caltrans District 2, Lakehead, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2011</td> <td>Ongoing</td> </tr> </table>		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2011	Ongoing
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
	2011	Ongoing					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Water Pollution Control Manager. This large-scale Risk Level 2 project replaces the existing four-lane steel bridge with a five-span, cast-in-place, segmental concrete box girder structure. David served as the WPCM on this project for more than 7 months throughout a particularly wet season. Total project is 51 acres, with the majority of the project area spanning Shasta Lake. This project requires construction of over 65,000 square feet of temporary trestle using pile driving efforts directly into the water body. Water pollution controls include soil stabilization of multiple stockpiles, including a 70-foot tall 4.5-acre soil stockpile with temporary geotextile fabric, floating silt curtains installed across project perimeters within the lake, and temporary active treatment system installation to dewater and release an estimated 4 million total gallons of water impacted by drilling activities within the temporary drilling casings. Work will also consist of demolition of the existing bridge structure when the new structure is complete. WPCM work on this project is dependent on working relationships with local RWQCB inspectors, Caltrans staff, and third-party inspection consultants. WPCM duties consist of contract review, compliance, and control activities to ensure the contractor stays in compliance with the six separate permits issued on the project. David also provided written Rain Event Action Plans, and sampling and analysis of storm water discharges from the site. David was also responsible for SWPPP development, implementation, and inspections; Numeric Allowable Limit (NAL) exceedance reports; certified ATS compliance under the new CGP; and relations with local and department personnel, RWQCB, Caltrans, Fish and Game, Forest Service Regulators. <i>Project Fee: \$125,000,000</i> <i>Involvement: August 2010 to May 2011</i>							
e.	(1) TITLE AND LOCATION (City and State) Contract 02-3C0004 – I-5 (Route 44) Freeway Widening Caltrans District 2, Redding, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION (if applicable)</td> </tr> <tr> <td>2011</td> <td>Ongoing</td> </tr> </table>		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2011	Ongoing
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)					
	2011	Ongoing					
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm SWPPP Developer. David performed SWPPP development and implementation consulting on this RL 2 highway widening project (the Sacramento River is a 303d waterway for sedimentation and is considered a receiving waterway for this project) in Shasta County. This project consists of structural construction and expansion of the current two-lane freeway to a three-lane freeway, including structural expansion of two overpasses to accommodate the additional lane. This project requires REAPs, routine site inspections, storm water sampling and analysis, and consulting relations with the local RWQCB representative to ensure project compliance. <i>Project Fee: Multi-Million Dollar Project</i> <i>Involvement: June 2010 to March 2011</i>							

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Steen Trump, CESSWI, QSP	Water Quality Assistance and Compliance	a. TOTAL 22 years	b. WITH CURRENT FIRM 9 years

15. FIRM NAME AND LOCATION *(City and State)*

ADH Environmental – McKinleyville, California

16. EDUCATION *(Degree and Specialization)*

B.A., Marine Biology

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

Certified Erosion, Sediment and Stormwater Inspector (CESSWI), No. 3060, 2012

Qualified SWPPP Practitioner (QSP), No. 23400, 2012

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Steen is an experienced environmental scientist performing stormwater/water quality, sediment dredge re-use/disposal, and biological monitoring programs, and is currently branch manager of ADH's McKinleyville office. His water quality experience includes support and lead roles for numerous NPDES Phase I and II stormwater and municipal wastewater monitoring programs conducted for government agencies and industrial facilities, as well as highway construction projects subject to the California CGP. Steen currently serves as assistant project manager for the Caltrans Districts 1, 4 and 5 Areas of Special Biological Significance (ASBS) stormwater monitoring program. For many projects, he has been solely responsible for original drafts and review of existing stormwater-related documents such as SWPPP, BMP program manuals for industrial operations, NPDES permits, industrial wastewater permits, annual reports to the RWQCB for stormwater discharges, and performing NPDES audits. Steen has expertise assisting clients in fulfilling NPDES permit obligations for construction, industrial, and commercial, projects requiring a thorough understanding of interpretation of the CGP, stormwater management plans, application of receiving water quality criteria such as the California Ocean Plan (COP) and the RWQCB's inland surface water, bays and estuaries receiving water criteria (Basin Plan), as well as providing expertise to NPDES permit holders assuring successful compliance. He has served as project scientist on numerous water quality and dredge re-use/disposal studies performed throughout central and northern California gaining extensive knowledge for proper application of respective WDRs. His training includes:

- 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response Training (40 hour)
- Rapid Biological Assessment Certification, California-Nevada Chapter of the American Fisheries Society, 1999

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 03A1573 Willits Bypass Water Quality Assessment Caltrans District 3, Willits, California	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Operations Manager. As mandated by the Clean Water Act Section 401 permit approved by the North Coast Regional Water Quality Control Board, Caltrans implemented a multi-year baseline monitoring study to characterize the water quality and stream flow rates within the watershed of Outlet Creek in Little Lake Valley. As subcontractor to ICF International, ADH designed, installed and operated 20 monitoring sites. Water quality instruments were selected, installed, calibrated and maintained for continual measurements of depth, temperature (water and air), conductivity, pH, turbidity, and dissolved oxygen. Monthly and storm event grab samples were collected at all 20 monitoring locations. High-flow stream gauging was performed by towing an acoustic Doppler current profiler across the surface of the water at each monitoring location over a wide range of stream flows. These data were used to develop head to flow relationships for development of time-series discharge data sets. Steen served as field operations manager; site selection, installation and operation of monitoring sites, monthly and storm event grab samples, operation of acoustic Doppler current profiler and flow data management. <i>Project Fee: \$606,000</i> <i>Involvement: July 2010 to December 2012</i>		
(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract Nos. 43A0288 and 43A0325 Areas of Special Biological Significance Stormwater Outfall and Ocean Receiving Waters Monitoring and Reporting, Caltrans Central and Northern California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Scientist and Project Manager. ADH supports Caltrans as a subcontractor to BC on the central and northern California ASBS sites. For this monitoring project, stormwater is collected as grab samples at non-coupled and coupled "outfalls" and ocean receiving water sites that are tributary to five ASBS for a suite of physical, microbiological, and chemical analyses, as well as 3-species toxicity testing. Monitoring of the Caltrans sites is performed in coordination with the central and northern California Regional Monitoring Groups' ocean outfall and receiving water sampling, and with Southern California Coastal		

Water Research Project (SCCWRP) ocean reference water sampling. Steen acts as the data manager for northern California ASBS data; responsible for data QA/QC and upload to California Environmental Data Exchange Network (CEDEN). Co-author of state-wide End Of Season Technical Memorandums. Responsible for safe and technically correct collection of stormwater and ocean receiving water samples. <i>Project Fee: \$1,405,000</i> <i>Involvement: December 2013 to Present</i>					
	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED			
	Contract No. 01-423704 Green Point Sinks Retaining Walls, Caltrans, Humboldt County, California	<table border="1"> <tr> <th>PROFESSIONAL SERVICES</th><th>CONSTRUCTION (if applicable)</th></tr> <tr> <td>2015</td><td>2015</td></tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2015
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)				
2015	2015				
c.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. The construction project area included a 1 mile section of State Route 299 (known as the "Green Point Sinks") along State Route 299 in Humboldt County. The project was designed to stabilize a section of hillside along State Route 299 and involved the construction of two approximately 500 ft. by 50 ft. soldier pile retaining walls consisting of wooden lagging, concrete walers and horizontal ground anchors, and two 800 cubic yard stockpiles; reconstruction of the affected roadway was also completed. The project was subject to both a SWPPP and a 401 Certification permit. Steen served as the SWPPP and 401 permit compliance project manager, as subcontractor to Mercer Fraser Company. Tasks included inspections (weekly, pre-storm, during-storm, post-storm and quarterly) of erosion and sediment controls and other stormwater BMPs; sampling and analysis of stormwater runoff at 10 discharge and run-on locations; pre-storm rain event action plans (REAPs); weekly, post-storm, and annual Caltrans SWPPP reports; rain event and monthly 401 permit compliance reporting; training and oversight of field staff; stormwater BMP and SWPPP training for construction workers; and communications with the construction project manager and site supervisor. <i>Project Fee: \$72,500</i> <i>Involvement: January 2013 to February 2015</i>				
	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED			
	Contract No. 43A0288 Blue Lake Sinks Groundwater Monitoring Caltrans, Blue Lake, California	<table border="1"> <tr> <th>PROFESSIONAL SERVICES</th><th>CONSTRUCTION (if applicable)</th></tr> <tr> <td>2011</td><td>2011</td></tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2011
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)				
2011	2011				
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. ADH supported Caltrans as a subcontractor to BC for this construction project, which involved a 0.3 mile section along State Route 299 in Humboldt County. The project consisted of the construction of three horizontal drain areas and four vertical drainage galleries and required the pre-construction characterization of groundwater quality at existing monitoring piezometers within the project area. Groundwater samples were collected from each of three general drainage areas and analyzed for a suite of physical and conventional parameters and for both total and dissolved metals. Steen served as the project manager as subcontractor to BC. Tasks included site orientation; mobilization and sample collection; sample handling and coordination with the laboratory; data review and write up of the Blue Lake Sinks Groundwater Monitoring Technical Memorandum. <i>Project Fee: \$7,000</i> <i>Involvement: April 2011 to April 201</i>				
	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED			
	Stormwater Management Improvement Project, City of Trinidad, California	<table border="1"> <tr> <th>PROFESSIONAL SERVICES</th><th>CONSTRUCTION (if applicable)</th></tr> <tr> <td>2015</td><td>NA</td></tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	2015
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)				
2015	NA				
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. As part of the City of Trinidad's Storm Water Management Improvement Project (2011-2015) to protect water quality in the Trinidad Head ASBS, ADH was responsible for the assessment of the project's success. The project consists of 1) continuous flow monitoring of the City's single stormwater outfall; 2) continuous rainfall data collection; 3) flow-weighted stormwater composite sampling for three storm events, both prior-to and following Project implementation; 4) ocean receiving water sampling concurrent with stormwater sampling; 5) sub-tidal sediment sampling prior-to and following Project implementation; 6) bioaccumulation sampling of mussels; and 7) data management and reporting. Steen served as the primary author of the Project Assessment and Evaluation Plan (PAEP), Quality Assurance Project Plan (QAPP), Water Quality Monitoring Plan, Preconstruction Sampling and Analysis Report, and Final Sampling and Analysis Report; supervising and performing equipment installation and personnel training; stormwater, ocean receiving water, and sub-tidal sediment sampling, and collection of California mussels for tissue chemistry analysis; and data management, including data QA/QC and upload of all water, sediment, tissue and toxicity data to CEDEN. <i>Project Fee: \$276,000</i> <i>Involvement: August 2011 to September 2015</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Peter Wilde	Water Quality Assistance and Compliance	a. TOTAL 36 years	b. WITH CURRENT FIRM 9 years

15. FIRM NAME AND LOCATION *(City and State)*

ADH Environmental – Soquel, California

16. EDUCATION *(Degree and Specialization)*

B.A., Physics and Information Sciences

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Peter has more than 30 years of experience performing stormwater and TMDL studies, including conceptual design, monitoring equipment custom configuration and installation, remote communications, statistical data management and analysis, modeling analysis, and compliance testing. Peter has developed and managed GIS and other types of databases of multi-year sampling programs, performed extensive statistical analyses, and written analyses of the respective data. He is experienced with using and supervising others with the SWAMP and CEDEN systems. He has served as QA/QC officer on various projects with different quality assurance protocols. As a technical editor, he has provided review of statistical reports and quality assurance project plans. He has created programs for various data loggers and interfaced sensors for automated stormwater sampling systems, and has designed and implemented user interfaces for these software systems.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	Contract No. 03A1573 Willits Bypass Water Quality Assessment Caltrans District 3, Willits, California	2012	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Data Manager. As mandated by the Clean Water Act Section 401 permit approved by the North Coast RWQCB, Caltrans implemented a multi-year baseline monitoring study to characterize the water quality and stream flow rates within the watershed of Outlet Creek in Little Lake Valley. As subcontractor to ICF International, ADH designed, installed and operated 20 monitoring sites. Water quality instruments were selected, installed, calibrated and maintained by ADH for continual measurements of depth, temperature (water and air), conductivity, pH, turbidity, and dissolved oxygen. Monthly and storm event grab samples were collected at all 20 monitoring locations. High-flow stream gauging was performed by towing an acoustic Doppler current profiler across the surface of the water at each monitoring location over a wide range of stream flows. These data were used to develop head to flow relationships for development of time-series discharge data sets. Peter provided data processing and management, quality assurance, time series data verification, and graphics. <i>Project Fee: \$606,000</i> <i>Involvement: July 2010 to December 2012</i>		
b.	Municipal Regional Stormwater Permit Monitoring Services, Contra Costa Clean Water Program, Contra Costa County, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Data Manager and QA/QC. Contra Costa Clean Water Program (CCCWP) is comprised of 21 municipal agencies whose mission is to fulfill the stormwater mandates of the Federal Clean Water Act. The State of California, through the San Francisco Bay and Central Valley RWQCBs, issued Municipal Stormwater NPDES Permits to Contra Costa County, which are referred to as the Municipal Regional Permit (MRP) and Region 5 Permit, respectively. Monitoring provisions of the MRP and Region 5 Permit allow for regional collaboration to coordinate and conduct monitoring activities. CCCWP is a part of a regional collaborative known as the Bay Area Stormwater Management Agencies Association (BASMAA) Regional Monitoring Coalition. ADH Environmental and its subcontractors has implemented monitoring requirements of the Municipal Regional Permit, including 8.e. Stormwater Pollutants of Concern and Long-Term Monitoring, and 8.c. Creek Status Bioassessment Monitoring. Peter is the QA/QC officer and provides management of the qualification and verification of SWAMP comparability of water quality, sediment chemistry, toxicity testing, indicator bacteria, and related data; supervision of project data submission to CEDEN; development of QA/QC add-on for project databases; time series data verification, display, and submittal to client; statistical analysis of time series data focused on various water quality objectives; GIS database development and management. In addition, Peter served as the Lead Storm Control, providing meteorological forecast reporting and storm tracking. He also provided data logger programming and water quality sensor calibration and testing. <i>Project Fee: \$2,715,000</i> <i>Involvement: August 2011 to Present</i>		
c.	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	

Contract Nos. 43A0208, 43A0288 and 43A0325 Areas of Special Biological Significance Stormwater Outfall and Ocean Receiving Waters Monitoring and Reporting, Caltrans, Central and Northern California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Data Manager and QA/QC. ADH supports Caltrans as a subcontractor to BC on the central and northern California ASBS sites. Stormwater is collected as grab samples at non-coupled and coupled "outfalls" and ocean receiving water sites that are tributary to ASBS located in Redwoods National Park, Saunders Reef, Fitzgerald Marine Reserve, Año Nuevo Point and Carmel Bay for a comprehensive suite of physical, microbiological, and chemical analyses, as well as 3-species toxicity testing. Monitoring of the Caltrans sites is performed in coordination with the respective central and northern California RMG ocean outfall and receiving water sampling, and with Southern California Coastal Water Research Project (SCCWRP) ocean reference water sampling. Peter acted as the QA/QC Officer. He provided supervision of analytical personnel; data set management; supervised personnel and participated in the submission of project data to CEDEN; communication with lab personnel in regard to data and methodological issues; statistical analytical approach research and commenting; and, management and analysis of rainfall data. Peter provides forecast synopses; storm control activities including short- and medium-term local forecasting; coordination with field crews; responses to various operational questions; and, compilation of forecasts. In addition, Peter authored QA/QC section and post-storm technical memoranda. Project Fee: \$1,405,000 Involvement: March 2013 to Present				
(1) TITLE AND LOCATION (City and State) Water Quality, Flow Monitoring and LID Implementation, Alameda County, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION (if applicable) NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Data Manager and QA/QC. The project purpose is to assist the District in implementing water quality and flow monitoring requirements of the Proposition 84 grant-funded LID demonstration study. This demonstration study is for stormwater BMP retrofitting of two parking lots located at 951 and 951A Turner Court, Hayward, California. This monitoring project characterized, through scientifically defensible methods, the quantity and quality of stormwater runoff during two pre-construction seasons and one post-construction season. The end-of-study monitoring report will highlight any statistically significant reductions in runoff volume and pollutant concentrations that are present in post-construction monitoring data. The monitoring station installed at 951 Turner Court may also serve as demonstration and community outreach purposes as it will be associated with the LID demonstration project. Peter served as the QA/QC officer. He provided supervision of analytical personnel; data set management; supervised personnel and participated in the submission of project data to CEDEN through Moss Landing RDC. Peter provides storm control activities, including short- and medium-term local forecasting; coordination with field crews. In addition, he authored the QA/QC section and contributed graphics. Project Fee: \$253,000 Involvement: October 2013 to Present				
(1) TITLE AND LOCATION (City and State) Storm Water Management Improvement Project, City of Trinidad, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION (if applicable) NA </td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Data Manager and QA/QC. As part of the City of Trinidad's Stormwater Management Improvement Project (2011-2015) to protect water quality in the Trinidad Head ASBS, ADH is responsible for the assessment of the project's success. The project consists of 1) continuous flow monitoring of the City's single stormwater outfall; 2) continuous rainfall data collection; 3) flow-weighted stormwater composite sampling for three storm events, both prior-to and following Project implementation; 4) ocean receiving water sampling concurrent with stormwater sampling; 5) sub-tidal sediment sampling prior-to and following Project implementation; 6) bioaccumulation sampling of mussels; and 7) data management and reporting. Peter served as the QA/QC officer. He provided supervision of analytical personnel; data set management; supervised personnel and participated in the submission of project data to CEDEN; communication with lab personnel in regard to data and methodological issues; statistical analytical approach research and commenting; and, management and analysis of rainfall data. Peter provided Northern and Central California forecast synopses; storm control activities, including short- and medium-term local forecasting; coordination with field crews; responses to various processing and operational questions; and, compilation of forecasts. In addition, he authored the QA/QC section and post-storm technical memoranda. Project Fee: \$276,000 Involvement: August 2011 to September 2015				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Khalil E. P. Abusaba, Ph.D.	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE a. TOTAL 29 years b. WITH CURRENT FIRM 2 years	

15. FIRM NAME AND LOCATION *(City and State)*

Amec Foster Wheeler Environment & Infrastructure, Inc. – Oakland, California

16. EDUCATION *(Degree and Specialization)*Ph.D., Chemistry
M.S., Marine Sciences
B.A., Chemistry**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Dr. Khalil Abusaba has been consulting for Caltrans' headquarters and district staff for the past 8 years. His understanding of the Clean Water Act and the California Water Code is informed by 3 years of experience working for the San Francisco Bay RWQCB and subsequently helping clients work with federal and state regulatory agencies. He specializes in surface water quality and development of monitoring strategies and best management practices for managing stormwater and non-stormwater discharges. The value he adds to the team is his ability to identify and clearly explain key water quality challenges, project constraints, and feasible solutions to Caltrans' decision makers and regulatory agencies.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Contract No. 04A312 as sub to WRECO. San Francisco-Oakland Bay Bridge Old Eastern Span Demolition, Caltrans District 4, Oakland, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2015
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE ☒ Check if project performed with current firm Water Quality Technical Expert. Working as a subcontractor for WRECO, Dr. Abusaba has led the development of a water quality study in support of the permitting for demolition of the old eastern span of the San Francisco-Oakland Bay Bridge. The water quality study identified potential project risks to water quality, and proposed mitigation and monitoring measures. Delivery of the work included preparation of a technical report and presentations before Caltrans' managers and regulatory agencies, including the SF Bay RWQCB, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Services, and California Department of Fish and Wildlife. Timely approvals to project SWPPP amendments from the SF Bay RWQCB and cost-effective monitoring strategies responsive to agency concerns helped keep the project on schedule. Project Fee: \$110,000 Involvement: January 2012 to Present		
Devil's Slide Tunnel Project Water Quality Support, Caltrans District 4, Pacifica, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2013
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE ☐ Check if project performed with current firm Water Quality Technical Expert. While working for BC, Dr. Abusaba supervised staff conducting weekly site inspections at the stormwater and non-stormwater treatment systems to ensure contractor compliance with the discharge permit. By overseeing the contractor, the team noted, corrected, and reported water quality problems to the SF Bay Water Board. Khalil supported Caltrans' staff in compliance with the new structural dewatering permit during structural relief dewatering. In addition, he reviewed contractor-proposed SWPPP amendments, and helped gather and review information related to differing site conditions claims by the contractor regarding treatment system operations. He responded to an emergency request for assistance with exceedance of hexavalent chromium criteria in the non-stormwater treatment system; a treatment modification was implemented within 24 hours that avoided significant and costly project delays and enforcement actions by the SF Bay Water Board. Khalil assisted with data analysis for compliance with the structural dewatering permit for hydraulic relief dewatering of the tunnel's north portal. Rapid response to hexavalent chromium exceedances with a modification to the non-stormwater treatment system avoided costly project delays and prevented a notice of violation from the SF Bay Water Board. Project Fee: \$150,000 Involvement: January 2008 to March 2010		

c.	(1) TITLE AND LOCATION (City and State) Caldecott Tunnel Fourth Bore Project Water Quality Support, Caltrans District 4, Oakland, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Water Quality Technical Expert. Dr. Abusaba assisted with the analysis of water quality data to implement permit requirements established by the SWRCB's CGP and the SF Bay RWQCB's general permit for structural dewatering. Khalil assisted the resident engineer with the CGP, including reviewing contractor plans for an Active Treatment System (ATS) and providing timely input that made the ATS plan approvable by the SF Bay Water Board, and leading the development and implementation of a method detection limit study for coagulants to be used by the ATS. Technical advice on specific analytical methods avoided false positive results that could have delayed permitting the ATS. Project Fee: \$50,000 Involvement: March 2011 to August 2011			
d.	(1) TITLE AND LOCATION (City and State) Contract Cycle Presidio Parkway Project, Caltrans District 4, San Francisco, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2014	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Water Quality Technical Expert. Dr. Abusaba oversaw the cleanup and impacts investigation of a contractor-caused sewage spill into Crissy Marsh that occurred during construction. He assisted with a review of active treatment system plans and specifications. He reviewed dewatering data from the southbound Battery Tunnel and helped develop a notification for conditional exemption of the dewatering discharge. Rapid response to regulatory needs helped avoid project delays. Project Fee: \$75,000 Involvement: June 2012 to August 2012			
e.	(1) TITLE AND LOCATION (City and State) Cured in Place Pipeline Design Specifications, Caltrans, Oakland, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Water Quality Technical Expert. Dr. Abusaba worked as a subcontractor for WRECO to provide a literature review as the basis for a 63-micrograms-per-liter (µg/L) threshold for residual styrene in water as an alternative to a more stringent 1 µg/L threshold proposed by the SF Bay Water Board. Khalil developed contractor specifications and monitoring requirements for implementation of the proposed threshold. Rapid response to requests for assistance by Caltrans' project manager led to timely approval of a much more feasible and implementable pollution prevention plan for a high-priority pipe rehabilitation project. Project Fee: \$15,000 Involvement: May 2012 to July 2012			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Brad Dickson	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance, Maintenance	14. YEARS EXPERIENCE a. TOTAL 18 years b. WITH CURRENT FIRM < 1 year	

15. FIRM NAME AND LOCATION *(City and State)*

Amec Foster Wheeler Environment & Infrastructure, Inc. – Oakland, California

16. EDUCATION *(Degree and Specialization)*B.S., Chemical Engineering
J.D., Law**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*

Professional Chemical Engineer, California No. 6008

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Brad has more than 18 years of professional experience as an environmental engineer and stormwater expert in the San Francisco Bay Area. He has reviewed and prepared SWPPPs, and conducted stormwater quality monitoring and construction site monitoring and inspection. He has over 12 years of experience assisting Caltrans and other clients with regulatory requirements. Brad has certifications in American Red Cross CPR and first aid, and OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER).

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Stormwater Inspection and Assistance, Caltrans District 4, Sonoma, Solano, Napa, and Marin Counties, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Engineer. Brad inspected highway and bridge construction sites and provided evaluation to the project resident engineer and Construction Stormwater Coordinator (CSWC) on the level of compliance with department policies, permits, specifications, agreements, contract documents, policy directives, and other applicable regulations. Brad evaluated the completeness and accuracy of water pollution controls, reporting and all associated documentation, effectiveness and need for temporary BMPs, and potential compliance failure. He reviewed water pollution control plans and SWPPPs and suggested improvements. Brad was present during quality assurance inspections conducted by regulatory agencies and Caltrans headquarters. He trained Caltrans' staff to conduct construction site stormwater inspections. A demonstrated history of faithful and competent service to Caltrans resident engineers and CSWCs will help keep projects moving. <i>Project Fee: \$500,000</i> <i>Involvement: July 2007 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> San Francisco–Oakland Bay Bridge Seismic Safety Project Stormwater and Environmental Compliance Services, Caltrans District 4, Oakland, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) Ongoing
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Engineer. During each phase of the SFOBB retrofit project, Brad reviewed SWPPP and SWPPP amendments, suggested BMPs, assisted with environmental engineering and compliance, conducted SWPPP inspections, selected stormwater sampling locations, negotiated and interacted with regulatory agencies, and interfaced with Caltrans' staff and contractors. Brad assisted with the responses to regulatory requests and compliance letters. In addition, he was involved with negotiating permit conditions regarding water quality requirements. Seeing a major Caltrans project to completion shows Brad's commitment to improving mobility across California. <i>Project Fee: \$150,000</i> <i>Involvement: July 2008 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0305 Caltrans Maintenance Site Wash Rack Evaluation, Central Valley, California	PROFESSIONAL SERVICES 2006	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Senior Engineer. Brad observed three department maintenance wash racks in the Central Valley used for vacuum truck cleaning and other vehicle cleaning. His evaluation of the wash rack operation led to recommendations of engineering, training, and administrative procedures to improve wash rack operation and effectiveness. Project experience working with Caltrans' Maintenance Division helps improve operational and structural BMPs. <i>Project Fee: \$75,000</i> <i>Involvement: January 2006 to December 2006</i>		
d. (1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	

Devil's Slide Tunnel Project Frog Pond Investigation, Caltrans, Pacifica, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Engineer. Brad investigated water levels in frog ponds that provided mitigation habitat enhancement for the tunnel project. In August 2011, he collected North Pond water level readings to determine how water levels fluctuate when water is added to the pond during the summer months. He summarized the readings and described the findings of the investigation. In July 2015, after the tunnel was completed, he conducted a study to evaluate the impact of residual chlorine on the ponds if potable water were to be added to maintain pond levels during the summer months. A thoughtful analysis of water usage helped frame a sustainable strategy for implementing a habitat mitigation requirement. Project Fee: \$20,000 Involvement: August 2011 to July 2015				
(1) TITLE AND LOCATION (City and State) San Francisco–Oakland Bay Bridge Construction Site Oil Spill Impact Study, San Francisco, California	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2008 </td> <td> CONSTRUCTION (if applicable) NA </td> </tr> </table>		PROFESSIONAL SERVICES 2008	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2008	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Senior Engineer. Brad conducted specialized water quality tests to determine the impact of the 2007 Cosco Busan oil spill on the SFOBB construction site and operations. He acquired appropriate sampling equipment, secured a boat from which to conduct sampling, and contacted laboratories to arrange for chemical analysis and toxicity analysis for sediment samples. He prepared a health and safety plan, coordinated and conducted all sample collection, and arranged for the shipment of samples to laboratories using appropriate chain-of-custody procedures. Rapid response and rigorous science helped Caltrans document oil spill impacts for the purpose of cost recovery. Project Fee: \$50,000 Involvement: November 2007 to November 2008				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME James Honniball, CPESC, QSD, ToR	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 28 years</td> <td>b. WITH CURRENT FIRM 24 years</td> </tr> </table>		a. TOTAL 28 years	b. WITH CURRENT FIRM 24 years
a. TOTAL 28 years	b. WITH CURRENT FIRM 24 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Amec Foster Wheeler Environment & Infrastructure, Inc. – Oakland, California					
16. EDUCATION <i>(Degree and Specialization)</i> M.S., Environmental Management B.S., Fisheries Biology		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional Erosion and Sediment Control (CPESC), No. 5872 CASQA QSD/QSP Certificate No. 00013 CASQA Trainer of Record and QISP for the NPDES Industrial General Permit Order 2014-0057-DWQ CASQA Trainer of Record and QSD/QSP for the NPDES Construction General Permit Order 2009-009 DWQ CASQA QISP Certificate No. 051			

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Jim specialized in water quality management and aquatic biology. He assists staff and project management in the design of stormwater management plans for municipal and private clients covered under NPDES stormwater general permits. He reviews water quality data from NPDES facilities to evaluate performance of BMPs. Jim designs water quality studies to assess water quality at industrial facilities, and he performs facility audits for NPDES compliance. Jim is a Trainer of Record (ToR), as certified by the California Stormwater Quality Association, which collaborates with the SWRCB to implement the NPDES permit for construction-related activities, Order No. 2009-0009-DWQ (CGP). Jim has prepared and implemented California RWQCB Drainage Area Management Plans (DAMPs), and he has extensive knowledge of the monitoring protocols established by the U.S. Environmental Protection Agency, NPDES permits, and the state's Surface Water Ambient Monitoring Program (SWAMP). Jim has worked extensively with regulatory personnel at the Regional Water Boards.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED			
Contract No. 43A0233, As-Needed Water Quality Services, Caltrans Headquarters, Sacramento, California	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA		
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Jim assisted the project manager for three task orders to support modifying and evaluating existing and new treatment systems at rest areas, wash racks, and maintenance facilities to achieve water quality standards, particularly in places where connecting to municipal sewers is not an option. The tasks included developing sampling and analysis plans; installing data loggers for tracking flow, vehicles, and people at rest areas and maintenance facilities; sampling at more than 20 representative locations throughout California; investigating the status and condition of septic tanks; developing conceptual design plans and specifications of pilot treatment systems (including filtration and microfiltration); constructing, installing, monitoring, and evaluating these pilot treatment systems; collecting sludge and water samples from sumps, clarifiers, and oil/water separators to characterize the waste as hazardous or nonhazardous, providing recommendations for disposal based on this characterization, and preparing a report summarizing the results. Experience managing Caltrans water quality projects sets the bar for safety and quality. Project Fee: \$3,000,000 Involvement: July 2009 to October 2010				
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0208 Statewide Characterization Study, Caltrans Headquarters, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2006</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2006	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2006	CONSTRUCTION <i>(if applicable)</i> NA			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager/Meteorologist. Jim conducted stormwater sampling for evaluation of eutrophication, metals, and toxicity of Caltrans right-of-way, which included highways, park and ride lots, maintenance stations, and rest areas. The evaluation of runoff from the right-of-way was performed to comply with the Caltrans statewide NPDES permit for stormwater. Tasks included managing, monitoring, and directing staff and subconsultants in stormwater collection and data evaluation. Jim served as meteorologist and monitored storm events through the National Climatic Data Center (part of the National Oceanic and Atmospheric Association [NOAA]), accessing NOAA satellite images, weather maps, and models through the Internet and collating rainfall data. He evaluated the minimum quantity precipitation forecast (QPF) and storm characteristics for field crews and mobilization criteria. Experience safely operating in the Caltrans right-of-way is essential to delivering on this contract. Project Fee: \$2,000,000				

Involvement: May 2005 to November 2006		
(1) TITLE AND LOCATION (City and State) SWPPP for Travis Air Force Base, Kinder Morgan Partners, Fairfield, CA	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Stormwater Compliance Manager. Prepared a Risk Level 1 and 2 SWPPPs in accordance with the NPDES general permit for storm water discharges associated with construction of an approximately 2-mile pipeline and three 150,000-barrel aboveground storage tanks on a 33-acre site in Solano County, CA. SWPPP included measures to protect sensitive species. Provided SWPPP training to personnel conducting inspections, prepared construction site monitoring and sampling programs and aided Kinder Morgan on permit compliance strategies with Travis Air Force Base Water Resources manager. Tasks included filing of Notice of Intent (NOI) and Notice of Termination (NOT). Project also included design of water retention/infiltration system to meet C.3 requirements. Experience with SWPPP development and training will help Caltrans maintain cost-effective compliance. Project Fee: \$50,000 Involvement: October 2012 to January 2013		
(1) TITLE AND LOCATION (City and State) Stormwater Pollution Prevention Plans, Lehigh Hansen, Various Facilities in Northern California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Jim led facility inspections and development of SWPPPs for compliance with the Industrial General Permit (IGP) on behalf of several cement, asphalt, and aggregate processing facilities throughout Northern California. He reviewed facility drainage maps and existing SWPPPs, inspected facility operations and BMP implementation, updated SWPPPs, and uploaded required documents to SMARTS. Facilities inspection experience under the IGP will help Caltrans audit, improve, and implement facilities pollution prevention plans and BMP design to minimize pollutants in stormwater. Project Fee: \$250,000 Involvement: February 2015 to December 2015		
(1) TITLE AND LOCATION (City and State) Stormwater Inspections, City of Oakland, Oakland, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Jim leads the City of Oakland's program to inspect businesses and high-priority trash management areas. Business inspections focus on facility-specific pollutants of concern and BMPs. In addition, conducting inspections in old industrial areas helps the City of Oakland prioritize areas for follow-up monitoring to identify potential track-out sources of polychlorinated biphenyls (PCBs). Visual surveys of trash management areas help the City comply with trash reduction requirements of the State Water Board's Municipal Regional Stormwater NPDES Permit. Experience with trash assessment and management can help Caltrans prioritize trash control measures for roadways through dense urban areas. Project Fee: \$350,000 Involvement: May 2013 to August 2016		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Emily Sportsman, PGeo	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 15 years	b. WITH CURRENT FIRM 9 years

15. FIRM NAME AND LOCATION *(City and State)*

Amec Foster Wheeler Environment & Infrastructure, Inc. – Oakland, California

16. EDUCATION *(Degree and Specialization)*

M.S.c., Applied Geochemistry

B.S.c., Geological Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

Professional Geologist, British Columbia, Canada, No. 39196

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Emily specializes in mine closure planning, metal leaching and acid/alkaline rock drainage characterization, water quality modeling, and environmental assessments (EAs). Her experience with a variety of mining, pipeline, construction, and environmental projects throughout the U.S. and Canada means she is well qualified to deal with water quality issues related to construction and transportation. She uses her strong background in geochemistry and geology to support a range of environmental projects, including petroleum and hydroelectric pipelines, road and quarry construction waste management, NPDES stormwater permits for municipal and industrial clients, and predictive water quality estimates for Caltrans. She is experienced in preparing and presenting technical presentations to a variety of project stakeholders, including local, state, and provincial regulators and environmental groups. Emily also has a solid background in planning and conducting rock, soil, and water sampling surveys; using GIS for survey design and data management; and providing quality control assessments.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
San Francisco–Oakland Bay Bridge Old Eastern Span Demolition, Caltrans District 4, Oakland, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Scientist. Working as a subcontractor to WRECO, Emily estimated water quality impacts to the San Francisco Bay from currently planned deconstruction of the old San Francisco–Oakland Bay Bridge. She interpreted water and sediment quality results from a sampling survey of the hollow caissons from Pier E3 to support the development of a water quality study for permitting the demolition of Pier E3. The study predicted potential impacts from temperature, nitrogen, and lead, as well as pH changes from explosives material and hexavalent chromium from exposure of Portland cement. The results, which were used to update a water quality study to support permitting the demolition, were presented at an interagency meeting hosted by Caltrans. Working as a subcontractor to BC, Emily also analyzed data on concentrations of polychlorinated biphenyl compounds (PCBs) present in paint and caulk samples from the cantilever section of the old eastern span of the San Francisco Oakland Bay Bridge. The analysis was used to develop an assessment of potential environmental risks and mitigation strategies related to the presence of PCBs in materials that could be mobilized during dismantling operations. Emily is currently working with WRECO and BC to implement an approved sampling and analysis plan to monitor water quality during the controlled implosion of Pier E3, scheduled for November 7, 2015. Clear, simple presentations helped agencies come to agreement on complex technical subjects related to water quality. Project Fee: \$137,000 Involvement: November 2014 to December 2015	Ongoing	2015
(1) TITLE AND LOCATION <i>(City and State)</i> Polychlorinated Biphenyl Stormwater Inspections, City of Oakland, Oakland, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Scientist. Emily assisted the City of Oakland in conducting visual assessments of historical industrial areas. She completed 45 site assessments to determine the potential for tracking of sediment from industrial sites that potentially contain PCBs. Data from the site assessments will be used to guide follow-up sample collection to help prioritize source control options. The project work is coordinated with Alameda County Clean Water Project to help meet the San Francisco Bay total maximum daily load reductions for PCBs. Identification of potential track-out sources can prevent PCBs from contaminating stormwater discharged from surrounding roadways. Project Fee: \$83,000 Involvement: February 2015 to April 2015	2015	NA

	(1) TITLE AND LOCATION (City and State) Stormwater Pollution Prevention Plans, Lehigh Hansen, Various Facilities, Northern California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA	
c.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Scientist. Emily assisted with facility inspections and development of stormwater pollution prevention plans for compliance with the Industrial General Permit (IGP) on behalf of several cement, asphalt, and aggregate processing facilities throughout Northern California. Facilities inspection experience under the IGP will help Caltrans audit, improve, and implement facilities pollution prevention plans. Project Fee: \$250,000 Involvement: February 2015 to July 2015		
	(1) TITLE AND LOCATION (City and State) Berkeley Transfer Station, City of Berkeley, Berkeley, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA	
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Geochemist. Emily reviewed historic and contemporary stormwater quality data at the Berkeley Transfer Station. The transfer station installed a stormwater treatment process that requires additional pre-treatment to meet applicable water quality guidelines. Researched passive treatment options for stormwater to provide pre-treatment capacity for selected metals and chemical oxygen demand. Stormwater treatment experience will help Caltrans optimize best management practices for inspection, enhancement, and effectiveness monitoring. Project Fee: \$30,000 Involvement: February 2015 to April 2015		
	(1) TITLE AND LOCATION (City and State) Mount Milligan Copper/Gold Mine, Terrane Metals Corp., Vancouver, BC	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) 2013	
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Assistant Discipline Lead and Project Geochemist. Emily collected water quality data, and led modeling and reporting for permitting of a major new copper and gold mine. The metals leaching /acid rock drainage (ML/ARD) assessment of a proposed copper/gold porphyry project involved interpretation of historical and current static and kinetic ML/ARD data and mineralogy, development of a detailed pit water quality model, sample collection coordination, liaison with analytical laboratories, and meetings with provincial/federal regulators. Emily supervised field staff for sample collection, participated in update and planning meetings with government regulators, and developed a mass balance water quality model and sensitivity analysis for the open pit. The model used results from the geochemical characterization program to assign variable loads to each rock type or water flow entering and leaving the open pit during closure and post-closure periods. The results of the open pit model were a component of the overall water quality model generated for the site environmental assessment. The project was awarded its environmental assessment certificate and the mine went into production in 2013. Experience leading major environmental sampling and modeling efforts will help Caltrans collect high quality stormwater monitoring data to develop meaningful pollutant load models. Project Fee: \$350,000 Involvement: January 2011 to December 2015		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Micah Swann	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE a. TOTAL 1 year b. WITH CURRENT FIRM 1 year

15. FIRM NAME AND LOCATION *(City and State)*

Amec Foster Wheeler Environment & Infrastructure, Inc. – Oakland, California

16. EDUCATION *(Degree and Specialization)*

B.S., Geology and Biology

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Micah is a geologist with experience in environmental site characterization and remediation. He has project experience conducting radioactive soil surveying, writing industrial SWPPPs, and inspecting commercial facilities for compliance with stormwater permits. He is trained in soil, air, and water sampling techniques, including groundwater and stormwater monitoring.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	San Francisco–Oakland Bay Bridge Old Eastern Span Demolition Water Quality Monitoring, Caltrans District 4, Oakland, California	2015	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Technician. Working as a subcontractor to BC, Micah has performed water quality monitoring aboard a small vessel in the vicinity of in-water activities related to the Pier E3 pilot demolition project. Collected data on pH and turbidity, reported attainment of action levels, performed visual inspections, and making photographic records of operations. Experience monitoring Caltrans construction operations adds to the team's safety and compliance expertise. <i>Project Fee: \$50,000</i> <i>Involvement: July 2015 to October 2015</i>		
b.	Contract No. 43A0305 Rest Stop Water Recycling Pilot Study, Caltrans Headquarters, Dunnigan, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Technician. Micah is a field technician for a pilot wastewater recycling program at a highway rest stop. In coordination with researchers from UC Davis, he conducts periodic sampling events of water from different sections of the water recycling system; this includes transporting the samples to labs for analysis. Junior staff with experience monitoring Caltrans facilities will be cost-effective for future monitoring tasks. <i>Project Fee: \$50,000</i> <i>Involvement: September 2014 to July 2015</i>		
c.	Stormwater Inspections, City of Oakland, Oakland, California	2015	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Lead. Micah is responsible for scheduling and performing inspections of auto maintenance facilities for the City's compliance with the NPDES Municipal Regional Permit. He schedules and oversees facility observations to obtain information on the implementation of structural and nonstructural stormwater BMPs, collecting information using a tablet computer application. Micah directs data management of the inspection forms and reports the results to the City as part of the Alameda County Clean Water Program's annual report. Experience using seamless tablet-forms and data management systems can help Caltrans improve inspection program efficiency. <i>Project Fee: \$300,000</i> <i>Involvement: January 2015 to Present</i>		
d.	Stormwater Monitoring Program, Amtrak Maintenance Facility, Oakland, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Lead. Micah is responsible for stormwater monitoring at the Oakland Amtrak Maintenance Facility for compliance with the NPDES General Permit for Industrial Facilities (IGP). He coordinates and conducts stormwater sampling events, monthly wet weather inspections, quarterly dry weather inspections, and the annual review of the site's compliance. Micah communicates the results to the client and provides recommendations for improving BMPs to increase the effectiveness of		

on-site stormwater filtration systems and decrease the contaminants in stormwater effluent. Facilities inspection experience under the IGP will help Caltrans audit, improve, and implement facilities pollution prevention plans. Project Fee: \$50,000 Involvement: January 2015 to Present		
(1) TITLE AND LOCATION <i>(City and State)</i> Stormwater Permit Compliance, Hanson Aggregates, Central Coast of California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> e. Task Lead. Micah updated SWPPPs for concrete mining and manufacturing facilities to comply with 2015 stormwater permit requirements. He conducted site inspections to assess the conditions of current pollution prevention practices. Micah wrote two industrial SWPPPs characterizing potential pollution sources and discharge points, and detailing BMPs to mitigate possible environmental impacts during storm events. SWPPP experience will help Caltrans optimize facilities pollution prevention plans and construction SWPPPs. Project Fee: \$177,000 Involvement: January 2015 to Present		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Chris Bowles, Ph.D., PE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 21 years</td> <td>b. WITH CURRENT FIRM 9 years</td> </tr> </table>		a. TOTAL 21 years	b. WITH CURRENT FIRM 9 years
a. TOTAL 21 years	b. WITH CURRENT FIRM 9 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> cbec, inc. eco engineering, West Sacramento, California					
16. EDUCATION <i>(Degree and Specialization)</i> Ph.D., Hydraulics M.S., CIWEM Water and Environmental Management B.Eng., Civil Engineering H.N.D., Engineering Surveying		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 76898, 2010			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Chris specializes in hydraulics, hydrology, geomorphology, water resources, water quality and environmental restoration. His technical expertise spans the range of hydraulic and hydrologic modeling (HEC software and a wide variety of 1D, 2D and 3D hydraulic models), geomorphology, GIS and field data collection (topographic and bathymetric surveying, water quality monitoring, flow gauging and sediment transport measurements). Chris regularly gives training courses in hydraulics and hydrology and has prepared and delivered courses to the SWRCB (and the Regional Boards), CDFW and UC Davis Extension.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Stream Stability Rapid Assessment Guidance, Caltrans, Sacramento/Sacramento County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Project Principal. cbec was contracted by Caltrans to develop a comprehensive Hydromodification Guidance Manual to address existing stormwater permit requirements. Chris was the Project Principal providing oversight for writing the guidance manual, developing example project conditions, performing field review, coordinating with regulatory agencies, and developing and presenting a training curriculum. Project Fee: \$75,000 Involvement: February 2013 to June 2014					
(1) TITLE AND LOCATION <i>(City and State)</i> Low Impact Development Guidebook Preparation, Placer County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2012</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Project Manager. Chris led the development of a Low Impact Development (LID) guidebook for Placer County that promotes and encourages the application of appropriate LID principles and strategies for planning, selecting, designing, constructing and maintaining new and redevelopment. As part of this process, site design and runoff management fact sheets were developed for selected LID measures. Project Fee: \$218,000 Involvement: 2009 to 2012					
(1) TITLE AND LOCATION <i>(City and State)</i> Alder Creek Hydromodification Assessment, Easton Development Company, LLC, Folsom/Sacramento County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2012</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> c. Project Director. Chris provided oversight for the assessment of hydromodification impacts of the planned Glenborough at Easton development on Alder Creek. Modified Draft Sacramento Stormwater Quality Partnership (SSQP) Hydromodification Management Plan (HMP) performance criteria were applied to hydraulic model results from long-term continuous simulations developed for existing and project conditions. Per the criteria, the hydromodification assessment for Glenborough at Easton demonstrated that erosion potential (EP) criteria were met when planned water quality (WQ) basins were modified and additional upslope basins were added to minimize potential hydromodification effects along Alder Creek's entire length below Prairie City Road to Lake Natoma. Project Fee: \$120,000 Involvement: November 2010 to June 2012					



	(1) TITLE AND LOCATION (City and State) Sacramento Area Sewer District On-Call Stormwater Support Services, Brown and Caldwell, Rancho Cordova/Sacramento County, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) Ongoing
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Geomorphologist. Chris assisted the BC team with assessing the geomorphic stability of existing stream sewer crossings to ascertain whether biotechnical bank stabilization was required to repair the crossing sites. Through this project, over 50 sites through the Sacramento region were assessed for stream stability issues with several sites recommended for bank stabilization. cbec then provided designs for each site, based on hydrodynamic modeling, from initial concepts through 100% designs and specifications. <i>Project Fee: \$150,000</i> <i>Involvement: 2008 to 2015</i>		
	(1) TITLE AND LOCATION (City and State) Elverta Specific Plan Hydrodynamic Modeling, Elverta Owners Group, Sacramento/ Sacramento County, California	(2) YEAR COMPLETED	
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Director. Chris provided oversight for a hydromodification impacts assessment of the Elverta Specific Plan (SP) on the receiving waters within and downstream of the SP area. The assessment was developed to inform the overall design of the planned multi-function open space corridors traversing the Project. cbec staff created a 1D hydraulic model to perform a long-term simulation analysis to determine hydromodification effects. cbec staff created a surface model of improvements to the waterway and incorporated it in a 2D model (SRH2D) that was evaluated to establish inundation patterns and habitat regions in the multi-purpose drainage corridor. <i>Project Fee: \$48,000</i> <i>Involvement: 2010 to 2015</i>	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Chris Campbell	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 18 years	b. WITH CURRENT FIRM 8 years

15. FIRM NAME AND LOCATION *(City and State)*

cbec, inc. eco engineering – West Sacramento, California

16. EDUCATION *(Degree and Specialization)*M.S., Biological and Agricultural Engineering
B.S., Agricultural Engineering (summa cum laude)**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*

Professional Civil Engineer, Idaho No. 4896, 1999

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Chris specializing specializes in hydrodynamics, physical hydrology, sediment transport, geomorphology, water resources, and ecosystem restoration. His technical expertise routinely involves the application of GIS and numerical models. He also performs field studies (e.g. topographic and bathymetric surveying, water quality monitoring, climate monitoring, flow gauging, sediment characterization, and sediment transport sampling) and uses the data to characterize site conditions and to develop, calibrate, and validate computational models.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Alder Creek Hydromodification Assessment, Easton Development Company, LLC, Folsom/Sacramento County, California	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Chris managed an assessment of hydromodification impacts of the planned Glenborough at Easton development on Alder Creek. Modified Draft Sacramento Stormwater Quality Partnership (SSQP) Hydromodification Management Plan (HMP) performance criteria were applied to hydraulic model results from long-term continuous simulations developed for existing and project conditions. Per the criteria, the hydromodification assessment for Glenborough at Easton demonstrated that erosion potential (EP) criteria were met when planned water quality (WQ) basins were modified and additional upslope basins were added to minimize potential hydromodification effects along Alder Creek's entire length below Prairie City Road to Lake Natoma. <i>Project Fee: \$120,000</i> <i>Involvement: November 2010 to June 2012</i>		
Elverta Specific Plan Hydrodynamic Modeling, Elverta Owners Group, Sacramento/ Sacramento County, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Chris managed a hydromodification impacts assessment of the Elverta Specific Plan (SP) on the receiving waters within and downstream of the SP area. The assessment was developed to inform the overall design of the planned multi-function open space corridors traversing the Project. cbec staff created a 1D hydraulic model to perform a long-term simulation analysis to determine hydromodification effects. cbec staff created a surface model of improvements to the waterway and incorporated it in a 2D model (SRH2D) that was evaluated to establish inundation patterns and habitat regions in the multi-purpose drainage corridor. <i>Project Fee: \$48,000</i> <i>Involvement: 2010 to 2015</i>		
Cordova Hills Geomorphic and Hydromodification Assessment, Sacramento/Sacramento County, California	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Chris managed this project for cbec as a subconsultant to Mackay & Soms Civil Engineers for stormwater drainage master planning for the Cordova Hills Specific Plan. Hydromodification mitigation was theoretically undertaken using LID and flow duration control approaches to match pre and post-project hydrology. cbec assisted with concept designs for multi-purpose flow duration control-water quality-storm detention basins. These technical studies were completed in anticipation of imminent stormwater requirements of the Regional Water Quality Control Board (RWQCB), including a Hydromodification Management Plan (HMP) to assess and mitigate for the effects of urbanization on the frequently occurring flow events passing to receiving waters. <i>Project Fee: \$52,000</i> <i>Involvement: 2009 to 2012</i>		



(1) TITLE AND LOCATION <i>(City and State)</i> Sacramento County Hydromodification Management, Sacramento County, Sacramento/Sacramento County, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> d. Project Engineer. Chris participated in a project with the County's Department of Water Resources to investigate new and innovative tools to assess the impacts of hydromodification and propose potential mitigation strategies. Hydromodification refers to the impacts of urbanization on the frequently occurring flow events (typically between the 2- and 10-year events) that primarily affect the geomorphology of receiving waters. cbec was recently selected to assist the Sacramento Stormwater Quality Partnership (SSQP) with the preparation of the HMP as part of their NPDES MS4 Stormwater Permit Renewal process. <i>Project Fee: \$178,000</i> <i>Involvement: 2010 to 2013</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Kevin Coulton, PE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 35 years	b. WITH CURRENT FIRM 3 years

15. FIRM NAME AND LOCATION *(City and State)*

cbec, inc. eco engineering, West Sacramento, California

16. EDUCATION *(Degree and Specialization)*M.S., Civil Engineering/Hydraulics
B.S., Civil Engineering
B.S., Landscape Architecture**17. CURRENT PROFESSIONAL REGISTRATION** *(State and Discipline)*

Professional Civil Engineer, California No. 70213, 2006

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Kevin specializes in stormwater management, water supply investigations, coastal and river flood risk and floodplain evaluations, fluvial geomorphology, reservoir operations, river engineering investigations, fish passage and fisheries habitat restoration, NPDES stormwater permitting and public education for storm water pollution prevention.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Stream Stability Rapid Assessment Guidance, Caltrans, Sacramento/Sacramento County, California	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technical Lead. cbec was contracted by Caltrans to develop a comprehensive Hydromodification Guidance Manual to address existing stormwater permit requirements. Kevin assisted with the preparation of a guidance manual, developing example project conditions, performing field review, coordinating with regulatory agencies, and developing and presenting a training curriculum. <i>Project Fee: \$75,000</i> <i>Involvement: February 2013 to June 2014</i>		
Advancing the Integration of Vegetation in Floodplain Modeling, California Department of Water Resources, Riparian Habitat Joint Venture, Sacramento/Sacramento County, California	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Kevin was responsible for managing the engineering and ecological research and developing design concepts and techniques that advance the integration of vegetation in floodplain modeling and management. Case studies using 2D numerical models were developed to show how placement of plants can direct overbank flows, improve flood storage, reduce scour and erosion, facilitate sediment transport, and alleviate other flood risk factors, while providing critical habitat. <i>Project Fee: \$145,000</i> <i>Involvement: June 2014 to July 2015</i>		
Cedar Mill / North Johnson Creek Stormwater Basin Master Plan, Clean Water Services, Hillsboro/Washington County, Oregon	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Project Manager. Kevin was responsible for applications of GIS and LIDAR data development for basin planning and developing flood management solutions involving the identification and prioritization of numerical model applications to assist in the development of strategies to reduce stream channel instabilities and erosion, provide floodplain connectivity, and increase riparian protection. Potential constraints, opportunities and environmental stressors were assessed in the development of the approach to the project. <i>Project Fee: \$60,000</i> <i>Involvement: January 2009 to December 2009</i>		



(1) TITLE AND LOCATION <i>(City and State)</i> Stormwater Facility Performance Evaluation and Master Planning, Clean Water Services, Hillsboro/Washington County, Oregon	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2003	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> d. Project Manager. Kevin managed and performed a pilot study to evaluate existing stormwater facilities and quantify hydromodification impacts on receiving waters for purpose of identifying ways in which existing engineering design standards could be revised to reduce cumulative effects of these facilities on stream systems, with specific regard to stream morphology and flooding. Several existing water quality facilities were analyzed for their performance and relative detention storage benefits. Hydrologic and geomorphic thresholds of urbanization, such as impervious area, flow duration, and shear stress were evaluated to develop standards for future design of detention facilities. Conceptual master planning was conducted using GIS, and data layers related to natural processes and cultural features, to locate new lower impact facilities in the CWS service area. <i>Project Fee: \$50,000</i> <i>Involvement: January 2003 to May 2003</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
F. Douglas Shields, Jr, Ph.D., PE	Water Quality Assistance and Compliance	a. TOTAL 41 years	b. WITH CURRENT FIRM 2 years

15. FIRM NAME AND LOCATION *(City and State)*

cbec, inc. eco engineering, West Sacramento, California

16. EDUCATION *(Degree and Specialization)*

Ph.D., Hydraulics
M.S., Environmental and Water Resources Engineering
B.S., Mathematics

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

Professional Civil Engineer, Mississippi No. 08360, 1981

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Doug specializes in water resources and environmental engineering, including 12 years for the U.S. Army Corps of Engineers and 22 years as a Research Hydraulic Engineer at the National Sedimentation Laboratory in Oxford, Mississippi. He has authored or co-authored more than 300 technical publications and is the senior author for the stream restoration chapter in the American Society of Civil Engineers Manual of Practice 110: Sedimentation Engineering: Processes, Measurements, Modeling, and Practice.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Stream Stability Rapid Assessment Guidance, Caltrans, Sacramento/Sacramento County, California	2014	NA
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Technical Lead. cbec was contracted by Caltrans to develop a comprehensive Hydromodification Guidance Manual to address existing stormwater permit requirements. Doug was the technical lead for writing the guidance manual, developing example project conditions, performing field review, coordinating with regulatory agencies, and developing and presenting a training curriculum. Project Fee: \$75,000 Involvement: February 2013 to June 2014		
Advancing the Integration of Vegetation in Floodplain Modeling, California Department of Water Resources, Riparian Habitat Joint Venture, Sacramento/Sacramento County, California	2015	NA
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Technical Director. Doug was responsible for engineering and ecological research and developing design concepts and techniques that advance the integration of vegetation in floodplain modeling and management. Case studies using 2D numerical models were developed to show how placement of plants can direct overbank flows, improve flood storage, reduce scour and erosion, facilitate sediment transport, and alleviate other flood risk factors, while providing critical habitat. Project Fee: \$145,000 Involvement: June 2014 to July 2015		
Evaluation and Assessment of Environmentally Sensitive Stream Bank Protection Measures, National Cooperative Highway Research Program, Washington DC	2015	NA
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ Check if project performed with current firm Co-Investigator. Doug performed a literature review, assessment of existing field sites and provided input on prototype-scale laboratory testing of biotechnical engineering treatments at Colorado State University. Acting as a subconsultant to Ayres Associates, Doug has served as a key part of the project team, authoring major sections of the final report. Project Fee: \$500,000 Involvement: June 2013 to December 2015		





E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Duncan Geddes, PG, QSD	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 23 years</td> <td>b. WITH CURRENT FIRM 3 years</td> </tr> </table>		a. TOTAL 23 years	b. WITH CURRENT FIRM 3 years
a. TOTAL 23 years	b. WITH CURRENT FIRM 3 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Leland Saylor Associates – San Francisco, California					
16. EDUCATION <i>(Degree and Specialization)</i> M.S., Earth Sciences B.S., Earth Sciences		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Geologist, California No. 6954 Qualified SWPPP Developer (QSD) California No. 1261 Certified Caltrans SWPPP Inspector No. 100915-1982-04 Certified Engineering Geologist California No. 2176			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Duncan has more than 20 years of professional experience as an engineering geologist and stormwater expert in the Monterey Bay area, and central and northern California. Duncan is a certified Caltrans SWPPP Inspection and for the last 6 years, he has served as a Senior Engineering Geologist/Stormwater Specialist performing Stormwater pollution prevention plans, Stormwater quality monitoring, construction site monitoring and inspections, QSD and QSP Tasks. Duncan's training also includes: • Certified Radiation Safety Officer (49 CFR 172, Subpart H - HAZMAT) • 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response Training (40 hour HAZWOPR) • Certified in Confined Space Entry California No. 20173					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0308, Caltrans Construction Field Assistance District 4, Sonoma and Marin Counties, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> 2015</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2015
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2015				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm X</i> Stormwater Compliance Inspector. Currently reviewing construction sites that pose a significant threat to water quality, or present a high risk of regulatory oversight, and provide feedback to the project RE and CSWC on the level of compliance with Department policies, permits, agreements, contract documents, orders, and other applicable regulations. Conducting specific audit-type reviews will be conducted to address completeness and accuracy of water pollution control, reporting and all associated documentation, effectiveness and need of temporary BMPs, and potential compliance failure with respective recommendations. <i>Project Fee: \$775,000</i> <i>Involvement: December 2012 to December 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Caltrans Devil's Slide Environmental Engineering Assistance, Pacifica, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2011</td> <td>CONSTRUCTION <i>(if applicable)</i> 2011</td> </tr> </table>		PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011
PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Duncan performed SWPPP inspection services for Construction General Permit Risk Level 2 and 3 projects. The two concurrent projects at Devil's Slide include the construction of twin 1,000-foot-long bridges and two tunnels. Duncan's responsibilities included monthly tunnel spoils disposal site monitoring and reporting in accordance with RWQCB discharge, requirements for on-site shotcrete solid waste disposal and biannual under-drain water quality monitoring, SWPPP field inspector for weekly and storm-event BMP effectiveness and shotcrete waste monitoring, and provided recommendations for alternate type(s) of BMPs with design and construction details and recommendations. <i>Involvement: January 2010 to February 2011</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Caltrans Stormwater Quality Monitoring and Reporting Services, Northern and Central California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2011</td> <td>CONSTRUCTION <i>(if applicable)</i> 2011</td> </tr> </table>		PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011
PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Duncan served as a field scientist and co-author of reports under several subcontractor task orders to provide technical and professional storm water quality monitoring and reporting services to Caltrans on two BMP efficacy studies and a mitigation study as follows: • Open/Gap Graded Asphalt Pavements Water Quality Project BMP Effectiveness Monitoring Study. • Ornamental Roadside Vegetated Treatment Sites Stormwater BMP Effectiveness Monitoring Study. • San Francisco–Oakland Bay Bridge Bio-Retention Basin Mitigation Study. <i>Involvement: November 2009 to January 2011</i>					

(1) TITLE AND LOCATION <i>(City and State)</i> Reconstruction of Route 92/Freeway 880 Interchange, Caltrans, Hayward, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Duncan performed Risk Level 2 SWPPP inspections and associated reports for the reconstruction of the interchange (including on-ramps, off-ramps and over-passes), between two major traffic arteries with the following responsibilities: • Implement, install and evaluate the effectiveness of constructed BMPs, and provided recommendations for alternate or additional BMPs. • Weekly inspections, and pre-, during, and post-storm inspections. • Meet and coordinated with the contractor and Caltrans personnel to review the ongoing project activities and discuss any SWPPP related issues. <i>Involvement: January 2011 to April 2012</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Napa Creek Restoration Project, Napa, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> 2010
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Duncan provided expert water quality and pollution prevention consultation, advice, and recommendations to the Contractor during the in-creek and creek-bank work to restore the water quality and condition of Napa Creek as it flows through downtown Napa. Duncan acted as the liaison between the Contractor and the regulatory agencies including the Regional Water Quality Control Board, the U.S. Army Corp of Engineers, Napa County Flood District, California Department of Fish and Game, City of Napa, County of Napa, and other regulatory agencies. Responsibilities included providing real-time recommendations for the implementation of the project SWPPP, BMP installation and regulatory agency requirements, maintained daily field logs describing the work, the project accomplishments, and project milestones, maintained a photographic diary of the restoration work during the project, and provided on-site liaison services between the contractor and regulatory agency personnel and inspectors <i>Involvement: April 2009 to December 2010</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Wynn Jason Paculba	13. ROLE IN THIS CONTRACT Maintenance	14. YEARS EXPERIENCE	
		a. TOTAL 13 years	b. WITH CURRENT FIRM 4 years
15. FIRM NAME AND LOCATION <i>(City and State)</i> Leland Saylor Associates – San Francisco, California			
16. EDUCATION <i>(Degree and Specialization)</i> NA		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Wynn has 13 of experience working as a Senior Environmental Technician using various sampling techniques. His responsibilities have included conducting site sampling of Air, Soil, Water, O&M of remediation system, chemical injection, construction / decommissioning of remediation systems, traffic control, Data collection for quarterly monitoring and semi-annual reporting for regulatory compliance, disposal of hazardous and non-hazardous waste per DOT standards, supervising and scheduling of sites for groundwater monitoring, and maintenance of remediation systems. Maintenance of Client-specific site binders including Job Safety Analysis and Waste Tracking.

Wynn has participated in numerous Groundwater Sampling and Monitoring programs. Performing Operations and Maintenance on various Environmental Remediation Systems. He has previous served as an On Call Stormwater technician sampling with Cal-Trans Contractor, performing sampling on various Caltrans sites within San Francisco Bay Area and On Call Stormwater technician sampling at BNSF Railroad yards throughout Northern California.

Wynn has also served as a Field Supervisor, providing oversight of Groundwater Monitoring and O&M Programs. Responsibilities included training of technicians on a variety of sampling techniques, calibration/maintenance of instruments, coordinated and scheduled internal field personnel and subcontractors. He has consolidated field data including field hours, equipment usage and waste disposal for site budgets, then generated reports for Senior Management. Provided driver training as a Smith System Driving Instructor and also provided safety training as a LPS T3 trainer for Exxon Mobil Projects.

Wynn's training includes: Current 40 hour HAZWOPER and 8 hour Refresher; CPR/First Aid/AED; LPS T3 Trainer; Smith System Driving Instructor; and Confined Space Entry,

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	North Coast Sediment Inventory, Caltrans, Various Locations in Bay Area, California	Ongoing	Ongoing
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm X</i> Stormwater Technician. Teamed with BC to identify areas within the Caltrans right-of-way throughout Northern California that have a potential to deposit sediment in watersheds. Thirty-six roadway segments were selected to be evaluated for their potential to impair watersheds. Duties included verify and record site conditions – rock/sediment percentage, slope in degrees/percentage, percent of vegetative coverage, and proximity to waterbody. Data collected was documented and backed with photos at each location. <i>Involvement: July 2015 to Present</i>		
b.	Total Maximum Daily Loads Project, Caltrans, Various Locations in Bay Area, California	Ongoing	Ongoing
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm X</i> Stormwater Technician. Teamed with BC on the TMDL Caltrans Project to comply with NPDES Permit. Monitor and sample TMDL sites. Produced a reliable, defensible set of monitoring data from samples collected at storm drain outfalls during the wet season (Oct.1 to April 30). Clean and Calibrate sampling equipment, collect samples and deliver to lab. Complete and document all activities during storm events. <i>Involvement: October 2013 to Present</i>		
c.	San Francisco-Oakland Bay Bridge Demolition Air Monitoring, Caltrans, California	Ongoing	Ongoing
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Senior Environmental Technician. Teamed with BC. Conducted Air Monitoring of airborne particulates released from demolition activities that may include torch cutting or mechanical shearing, bridge deck asphalt and concrete cutting operations. Monitor the release and dispersion of particulates into the air from these activities whether in fume or dust form. Conduct real-time site perimeter analysis combined with collecting air samples for lab analysis. Conduct daily inspection,		

calibration of air monitoring equipment and inventory, quality control of sampling media. <i>Involvement: May 2014 to Present</i>		
	(1) TITLE AND LOCATION (City and State) Caltrans California State Safety Roadside Rest Area Project, Various Locations in District 4 and District 3, California	(2) YEAR COMPLETED
		PROFESSIONAL SERVICES 2012
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Environmental Technician. Teamed with BC to develop a Facility Pollution Prevention Plan for each SRRA to comply with the Caltrans' NPDES Permit. Duties include a facility visit. Identify pollutant sources. Identify, assign, implement and inspect facility BMPs. Collect data describing Stormwater Pollution Prevention Practices at each facility. <i>Involvement: July 2012 to December 2012</i>	
	(1) TITLE AND LOCATION (City and State) San Francisco – Oakland Bay Bridge Bioretention Pilot, Caltrans, California	(2) YEAR COMPLETED
		PROFESSIONAL SERVICES Ongoing
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Stormwater Technician. Teamed with BC for various BMPs. Project Area was divided into six catchments. Modified, Cleaned, maintained Bio-Retention basins, H-flumes and inlet trenches. Designed, modified and installed inlet trench covers. Installed and maintained BMPs, sampling equipment, AVB, Thel-mar weirs, flow meters, composite samplers, Cellular modems, power supplies, solar panels and support equipment. Programmed composite samplers prior to rainfall. Sampled sites during rain events. Supervise Landscaping Crews, perform vegetation assessment and soil infiltration testing. Assigned to project. <i>Involvement: October 2011 to Present</i>	

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Matthew McKamey, PE, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 28 years </td> <td> b. WITH CURRENT FIRM 4 years </td> </tr> </table>		a. TOTAL 28 years	b. WITH CURRENT FIRM 4 years
a. TOTAL 28 years	b. WITH CURRENT FIRM 4 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> M3 Integrated Services, Inc. – Santa Rosa, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. 47591 Qualified SWPPP Developer and Practitioner (QSD), No. 23669			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Member American Society of Civil Engineers (ASCE), Society of American Military Engineers (SAME), North Coast Builder's Exchange (NCBE).					
19. RELEVANT PROJECTS					
a. (1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314-02 Districts 3 and 7 Low Impact Development Pilot Studies Phase II, Caltrans, Elk Grove and Sylmar, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> The project involved design and construction of Low Impact Development (LID) Linear Filtration BMPs. Linear Filtration BMPs included: Linear Filtration Trench, Bioretention Trench, Media Filter Drain and Linear Sand Filters. The District 3 site was located on the shoulder of Interstate 5 and the District 7 site was located on the shoulder of Interstate 210. M3 completed the construction of both projects on schedule and budget. <i>Involvement: August 2014 to November 2015</i>	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2015 </td> </tr> </table>			PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015				
b. (1) TITLE AND LOCATION <i>(City and State)</i> Contract No. HQ-D2 TO-07 Statewide Stormwater Support Services, Caltrans, Various Cities, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Matt developed curriculum and performed SWPPP field demonstrations on the proper installation of BMPs. Field demonstrations included re-enforced silt fence, wattles, storm inlet protection, rolled erosion control blankets, hydro mulch and bonded fiber matrix. Demonstrations were interactive and required class participation. <i>Involvement: March 2014 to November 2015</i>	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>			PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA				
c. (1) TITLE AND LOCATION <i>(City and State)</i> State Route 73 Conversion of Pilot Best Management Practices, Caltrans, Orange County, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. Project Manager for this Task Order to convert Pilot Stormwater Best Management Practice (BMP) detention and siltation basins along State Route 73 in Orange County to Caltrans "non-pilot" or standard BMPs. The work involved removal of pilot monitoring equipment, installation of sub drains, replacement of storm drain pipe through basin embankments, installation of staff gauges, fencing, and minor grading. The project was completed on schedule and budget. <i>Involvement: January 2014 to October 2014</i>	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>			PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014				
d. (1) TITLE AND LOCATION <i>(City and State)</i> Vineyard Development Plans, Rancho Salsipuedes Vineyard, LLC, Lompoc, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Developed grading and erosion control plans for the development of 200 acres of vineyard. Plan included four miles of road, a 50-acre-foot reservoir, 2,500 feet of drain lines and two irrigation wells. The project was permitted by Santa Barbara County and required a SWPPP for grading of the reservoir. <i>Involvement: January 2010 to September 2011</i>	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2011 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2011 </td> </tr> </table>			PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011
PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011				
e. (1) TITLE AND LOCATION <i>(City and State)</i> Wastewater Improvements, Calaveras Big Trees State Park, Arnold, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> M3 Integrated Services, as a subcontractor to Integrated Water Services, constructed the wastewater control building and	(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2013 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2013 </td> </tr> </table>			PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013				

concrete slab of over the wastewater holding tanks.

Involvement: August 2013 to October 2013

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Michael McKamey	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 26 years </td> <td> b. WITH CURRENT FIRM 4 years </td> </tr> </table>		a. TOTAL 26 years	b. WITH CURRENT FIRM 4 years		
a. TOTAL 26 years	b. WITH CURRENT FIRM 4 years						
15. FIRM NAME AND LOCATION <i>(City and State)</i> M3 Integrated Services, Inc. – Santa Rosa, California							
16. EDUCATION <i>(Degree and Specialization)</i> NA		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Licensed Contractor, California No. 966541 A&B					
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Member of North Coast Builders Exchange							
19. RELEVANT PROJECTS							
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0314-02 District 3 and District 7 Low Impact Development Pilot Studies Phase II, Caltrans, Elk Grove and Sylmar, California	<table border="1"> <tr> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2015 </td> </tr> </table>			(2) YEAR COMPLETED		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015
(2) YEAR COMPLETED							
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015						
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> The project involved design and construction of Low Impact Development (LID) Linear Filtration BMP's. Linear Filtration BMP's included: Linear Filtration Trench, Bioretention Trench, Media Filter Drain and Linear Sand Filters. The District 3 site was located on the shoulder of Interstate 5 and the District 7 site was located on the shoulder of Interstate 210. M3 completed the construction of both projects on schedule and budget. <i>Involvement: August 2014 to November 2015</i>							
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. HQ-D2 T0-07 Statewide Stormwater Support Services, Caltrans, Various Cities, California	<table border="1"> <tr> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> </td> </tr> </table>			(2) YEAR COMPLETED		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i>
(2) YEAR COMPLETED							
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i>						
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Developed curriculum and performed SWPPP field demonstrations on the proper installation of BMPs. Field demonstrations included re-enforced silt fence, wattles, storm inlet protection, rolled erosion control blankets, hydro mulch and bonded fiber matrix. Demonstrations were interactive with class participation. <i>Involvement: March 2014 to November 2015</i>							
(1) TITLE AND LOCATION <i>(City and State)</i> State Route 73 Conversion of Pilot Best Management Practices, Caltrans, Orange County, California	<table border="1"> <tr> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>			(2) YEAR COMPLETED		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(2) YEAR COMPLETED							
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014						
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Construction Manager. Construction Manager for this task order to convert Pilot Stormwater Best Management Practice (BMP) detention and siltation basins along State Route 73 in Orange County to Caltrans "non-pilot" or standard BMPs. The work involved removal of pilot monitoring equipment, installation of sub drains, replacement of storm drain pipe through basin embankments, installation of staff gauges, fencing, and minor grading. The project was completed on schedule and budget. The project was completed on schedule and budget. <i>Involvement: January 2014 to October 2014</i>							
(1) TITLE AND LOCATION <i>(City and State)</i> Wastewater Improvements, Calaveras Big Trees State Park, Arnold, California	<table border="1"> <tr> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td> PROFESSIONAL SERVICES 2013 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2013 </td> </tr> </table>			(2) YEAR COMPLETED		PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013
(2) YEAR COMPLETED							
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013						
d. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Construction Manager. Michael served as Construction Manager for this \$800,000 project to rebuild and upgrade the park's waste collection system to meet current code. M3 constructed the wastewater control building and concrete slab of over the wastewater holding tanks. The full project was completed on time and on budget. Project began in August of 2013 and was completed in October of 2013. <i>Involvement: August 2013 to October 2013</i>							
(1) TITLE AND LOCATION <i>(City and State)</i> Repair Stockade Wall, Fort Ross State Park, Jenner, California	<table border="1"> <tr> <th colspan="2">(2) YEAR COMPLETED</th> </tr> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>			(2) YEAR COMPLETED		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(2) YEAR COMPLETED							
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014						
e. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Demolition and construction of the existing southwest Ft Ross stockade wall. The fort was originally constructed in 1812 by							

Russian Settlers. The new wall was constructed of heavy redwood “puncheons” or timbers ranging in size from 8 in. thick by 12 in. to 24 in. wide and 10 ft. tall. The wall was supported by a concrete grade beam and topped with hand-split redwood pickets. All of the wood had notched-wood connections and hand-honed texture to recreate the historic look of the structure. The project was completed on schedule and budget.

Involvement: September 2014 to December 2014

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Lonnie Wise	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE a. TOTAL 20 years b. WITH CURRENT FIRM 4 years	

15. FIRM NAME AND LOCATION *(City and State)*

M3 Integrated Services, Inc. – Santa Rosa, California

16. EDUCATION *(Degree and Specialization)*

NA

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Lonnie is a member of the North Bay AutoCAD User Group, and holds Autodesk University 3D Certification and Traffic Control Safety.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
State Route 73 Conversion of Pilot Best Management Practices, Caltrans, Orange County, California a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Engineering Technician. Providing engineering and CADD support for this task order to convert Pilot Stormwater BMP detention and siltation basins along SR 73 in Orange County to Caltrans "non-pilot" or standard BMPs. The work involved removal of pilot monitoring equipment, installation of sub drains, replacement of storm drain pipe through basin embankments, installation of staff gauges, fencing, and minor grading. <i>Involvement: August 2014 to November 2015</i>	2014	2014
b. (1) TITLE AND LOCATION <i>(City and State)</i> Rancho Bernardo Pipeline 2, Black Mountain Road Pipelines Project, City of San Diego, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ Check if project performed with current firm Engineering Technician. Engineering Technician for a design/build project for the City of San Diego. Designed approximately five miles of 36-inch through 48-inch potable water transmission pipeline from the Mira Mesa area to the Rancho Penasquitos area. Included in the project was a tunnel crossing of Los Penasquitos Creek to minimize impact to sensitive habitat, complex traffic control required due to the alignment following high traffic volume roads and coordination with Caltrans for crossing freeway right-of-way. <i>Involvement: August 2010 to September 2011</i>	2011	2011
c. (1) TITLE AND LOCATION <i>(City and State)</i> Los Angeles Air Force Base North Perimeter Wall Project, Los Angeles, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Engineering Technician. Assisting in the \$1,200,000 civil design of North Perimeter Wall. Responsibilities included design, submittal review, contractor coordination, and client coordination. <i>Involvement: March 2015 to October 2015</i>	2015	2015
d. (1) TITLE AND LOCATION <i>(City and State)</i> Hodgdon Meadow Wastewater Improvements, Yosemite National Park, Mariposa County, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Engineering Technician. Engineering Technician for the \$840,000 emergency project to replace a failed existing wastewater treatment facility with a new duplex pump station, pump control building, force main, septic tank, dosing chamber, and leach field. M3 obtained RWQCB plan approval for the National Park Service in 6 weeks. <i>Involvement: September 2011 to December 2011</i>	2011	2011

e.	(1) TITLE AND LOCATION <i>(City and State)</i> Fern and Cooper Creek Restoration Project, Willamette Valley, Oregon	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE ☒ Check if project performed with current firm Field Technician. Field Technician overseeing the \$120,000 restoration and stormwater improvements project to Fern and Cooper Creek, tributaries to the Willamette River in Oregon. Work included vegetation removal, drainage improvements and the installation of BMPs to reduce runoff of sediment and other pollutants to watercourses. <i>Involvement: August 2012 to September 2012</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Jorge Beltran, PE, QSD	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance	14. YEARS EXPERIENCE a. TOTAL 14 years	b. WITH CURRENT FIRM 4 years

15. FIRM NAME AND LOCATION *(City and State)*

Montgomery & Associates – Sacramento, California

16. EDUCATION *(Degree and Specialization)*

B.S., Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*Professional Civil Engineer, California No. 75576
Qualified SWPPP Developer and Practitioner (QSD), California No. 22215**18. OTHER PROFESSIONAL QUALIFICATIONS** *(Publications, Organizations, Training, Awards, etc.)*

With more than a decade's experience managing water-related projects, Jorge has direct experience serving as a Resident Engineer for Caltrans District 3 where he provided RE oversight services to the construction of the Low Impact Development (LID) structural BMPs as well as stormwater compliance with the NPDES permit. Additionally, he has extensive experience with SWPPPs, SWMPs, Water Quality Technical Reports, drainage master plans, levee analyses/certifications, and storm drain collection system designs, hydrologic modeling, hydromodification analysis, and erosion control design.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	Contract No. 43-A0299 District 3 Low Impact Development Pilot Study Phase II, Caltrans, Sacramento, California	2015	2014
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Resident Engineer. Jorge served as the Resident Engineer for this project. As RE, he provided stormwater compliance with the Caltrans NPDES Permit and Resident Engineer oversight services to the construction of the Low Impact Development (LID) structural BMPs. By combining the roles of Water Pollution Control Manager and Resident Engineer, Jorge saved the district money and time the project would have needed to use in turnaround between two staff. <i>Involvement: July 2014 to April 2015</i>		
b.	On-Call Stormwater Services, Citrus Heights, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Consultant. Stormwater Consultant updating the Storm Water Pollution Prevention compliance language for the City's General Services Department Technical Provisions, which avoided significant potential fines for non-compliance. In addition, Jorge prepared Storm Water Pollution Prevention Plans (SWPPP) for three capital improvement projects to date and conducted Construction General Permit compliance inspections and reports for our client's capital improvement projects. The City of Citrus Heights is a member of the Sacramento Stormwater Partnership (the MS4 Phase I permitted entity comprised of one county and six cities). <i>Involvement: November 2010 to Present</i>		
c.	Contract No. 43-A0299 On-Call Headquarters/District Assistance, Caltrans, Various Counties, California	2014	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Inspector. Jorge assisted Caltrans in several districts by performing technical and professional stormwater quality compliance assurance services as a third-party oversight professional. He assisted by evaluating Caltrans' compliance with the State's NPDES permit as related to Caltrans' Maintenance Facilities, Maintenance Activities and Construction Projects. He performed Maintenance Facilities Inspections under the Annual Maintenance Facility Compliance Review Plan (AMFCRP), Maintenance Activities Inspections under the Annual Maintenance Activity Compliance Review Plan (AMACRP), and Construction Independent Assurance reviews under the CCEP to evaluate Caltrans' stormwater management practices for proper selection, location, installation, maintenance of BMPs, and documentation in accordance with the Department's Storm Water Quality Handbooks, Caltrans NPDES permit, Construction General Permit and construction contract requirements where applicable. <i>Involvement: January 2014 to June 2014</i>		



	(1) TITLE AND LOCATION (City and State) Missouri Flat Rd. Interchange/Highway 50 Phase 1B El Dorado County, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) 2013
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Jorge developed SWPPP for El Dorado County Local Agency Project with Caltrans Oversight (Highway 50/Missouri Flat Interchange). Risk Level 2 project, with a \$50,000,000 construction cost estimate. Jorge was responsible for amendments and compliance inspections and reporting. Duties included: weekly, quarterly, pre-rain event, during rain event, and post Qualifying Rain Event Action Plan development and weekly training of construction personnel. Performed sampling and analysis of effluent discharge of storm water for turbidity and pH. Compliance reporting used Caltrans CEM forms, and Jorge used Caltrans SWPPP template to bring grandfathered project into new CGP coverage. Project area included steep slopes and a direct discharge to an impacted creek. <i>Involvement: July 2011 to June 2013</i>		
	(1) TITLE AND LOCATION (City and State) Contract No. No. 01-262004 Highway 101/Willits Bypass, Caltrans Willits, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) 2014
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm QSD. Jorge served as the QSD on the Willits Bypass, a Risk Level 3 \$105,000,000 project to create a 5.8-mile long bypass to Highway 101 around downtown Willits. Jorge provides QSD oversight on this project with significant environmental permitting issues, and assists in compliance with Caltrans contract documents, the Construction General Permit, the Fish and Game 1602 Permit, the Central Valley RWQCB 401 Permit (with 47 conditions), and the USACE 404 Permit. <i>Involvement: May 2013 to June 2014</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Douglas Wathen, CESSWI, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 5 years </td> <td> b. WITH CURRENT FIRM 4 years </td> </tr> </table>		a. TOTAL 5 years	b. WITH CURRENT FIRM 4 years
a. TOTAL 5 years	b. WITH CURRENT FIRM 4 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Montgomery & Associates – Sacramento, California					
16. EDUCATION <i>(Degree and Specialization)</i> NA		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Erosion, Sediment, and Stormwater Inspector (CESSWI), No. 1977 Qualified SWPPP Developer and Practitioner (QSD), California No. 00461			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Doug has also engaged in Caltrans 24-hour Water Pollution Control training as well as OSHA Safety training.					
19. RELEVANT PROJECTS					
a.	(1) TITLE AND LOCATION <i>(City and State)</i> Feather River Boulevard Interchange, Caltrans 03-376111, Yuba County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> Ongoing </td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Doug served as the Stormwater Compliance Inspector for this Risk Level 2, \$18,000,000 project to create a full interchange at Highway 70 and Feather River Boulevard. The improved intersection includes elevating the four-lane roadway to cross over the newly-widened Highway 70, and five interchange ramps. <i>Involvement: July 2014 to October 2015</i>					
b.	(1) TITLE AND LOCATION <i>(City and State)</i> On-Call Stormwater Services, Citrus Heights, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> Ongoing </td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Stormwater compliance inspector for three Caltrans-oversight capital improvement projects to date. Performed CGP-required inspections and reports for the projects, including weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event. Used Caltrans CEM forms for reporting. Performed weekly tailgate training for on-site staff. The City of Citrus Heights is a member of the Sacramento Stormwater Partnership (the MS4 Phase I permitted entity comprised of one county and six cities). <i>Involvement: November 2010 to Present</i>					
c.	(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 09-237704 Construction on State Highway 395, Caltrans, Topaz, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2013 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2013 </td> </tr> </table>	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. As stormwater compliance inspector for a \$9,000,000, Risk Level 2 highway project, Doug performed CGP-required inspections and reports for such projects, including weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event inspections. Doug also developed Rain Event Action Plans, and performed effluent sampling for turbidity and pH, using Caltrans CEM forms for reporting. In addition, Doug performed weekly tailgate training for on-site personnel. Leveraging his experience, Doug helped in the design and development of on-site BMPs to reduce expenses and maintain compliance. <i>Involvement: August 2012 to August 2013</i>					
d.	(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 01-262004 Highway 101/Willits Bypass, Caltrans, Mendocino County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Compliance Inspector. Doug was the stormwater compliance inspector on this \$105,000,000 Risk Level 3 project. He performed CGP-required compliance inspections and reports, including weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event inspections. In addition, Doug developed Rain Event Action Plans, and performed weekly tailgate training for on-site personnel. <i>Involvement: January 2014 to August 2014</i>					



(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03-4M3204 1A43A4 SUT 99 Feather River Bridge, Caltrans, Sutter County, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Doug served as the stormwater compliance inspector for this \$56,000,000 project to widen from two lanes to four lanes the 3,148-foot bridge and a 3.3-mile long stretch of Highway 99. He performed CGP-required inspections and reports for the Risk Level 2 project, including weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event. He used Caltrans CEM forms for reporting, and he performed weekly tailgate training for on-site personnel. <i>Involvement: October 2013 to December 2014</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Michael Wathen, CPESC, CESSWI, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE	
		a. TOTAL 10 years	b. WITH CURRENT FIRM 5 years

15. FIRM NAME AND LOCATION *(City and State)*

Montgomery & Associates – Sacramento, California

16. EDUCATION *(Degree and Specialization)*

B.S., Business Administration

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

Certified Professional in Erosion and Sediment Control (CPESC), No. 6261
 Certified Erosion, Sediment, and Stormwater Inspector (CESSWI), No. 0335
 Qualified SWPPP Developer and Practitioner (QSD), California No. 00413
 Certified Professional in Stormwater Quality (CPSWQ), No. 919

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mike served as a District 10 Stormwater Coordinator for two months in 2014, and managed storm water compliance for approximately 20 projects. He conducted CEPP reviews in multiple districts (2010 to 2015). Mike has also engaged in Stormwater Pollution Control and Environmental Compliance training as well as OSHA Safety training, Caltrans District SWPPP training, and supervisors training for Teichert Construction, DeSilva Gates, and RGW Construction.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i> Interstate 80, Emigrant Gap, Caltrans 03-2C8604 (EGAP) Truckee, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Water Pollution Control Manager. Mike was the Water Pollution Control Manager for this Risk Level 2 \$90,000,000 project to replace the concrete on a 25-mile stretch of the four-lane highway. His duties included: weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event inspections and reporting. He conducted and certified sampling data on every storm on this project. He was also responsible for writing SWPPP amendments and delivering tailgate training weekly to on-site personnel. He used Caltrans CEM forms for all compliance reporting. By providing joint inspections with Teichert and Caltrans, Mike reduced potential project costs. <i>Involvement: January 2012 to July 2014</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> On-Call Stormwater Pollution Prevention Plan Services, City of Citrus Heights, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Mike developed the SWPPP for the City of Citrus Heights' Sunrise Boulevard Risk Level 2 project, \$6,000,000 construction cost estimate. Mike is responsible for amendments and compliance inspections and reporting. His duties include: weekly, quarterly, pre-rain event, during rain event, and post Qualifying Rain Event inspections. He is also responsible for Rain Event Action Plan development and weekly training of construction personnel, and he performs sampling and analysis of effluent discharge of storm water for turbidity and pH. Mike worked alongside the City SWPPP coordinator to minimize the associated costs for the City. <i>Involvement: November 2010 to Present</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03-3338U4 Highway 65/Lincoln Bypass Phases I and II, Caltrans, Lincoln, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Water Pollution Control Manager. Mike is responsible for SWPPP compliance inspections for this Risk Level 2, \$195,000,000 project. His duties include: weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event inspections and reporting. He reviews and certifies sampling data from sampling performed by others. He is also responsible for SWPPP amendments, and delivers tailgate training weekly to on-site personnel. He uses Caltrans CEM forms for all compliance reporting. Mike worked closely with Caltrans personnel throughout the project to ensure that costs were as low as possible for SWPPP services to the state. <i>Involvement: February 2011 to June 2014</i>		



	(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 01-262004, Highway 101/Willits Bypass, Caltrans, Mendocino County, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014	
d.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Water Pollution Control Manager. Mike served as the Water Pollution Control Manager on the Willits Bypass, a Risk Level 3 \$105,000,000 project to create a 5.8-mile long four-lane bypass to Highway 101 around downtown Willits. The project included significant environmental permitting issues, compliance with Caltrans contract documents, the Construction General Permit, the Fish and Game 1602 Permit, the CVRWQCB 401 Permit (with 47 conditions), and the USACE 404 Permit. Mike's duties included: weekly, quarterly, pre-rain, during rain, and post Qualifying Rain Event inspections and reporting. He conducted sampling and certified sampling data. He was also responsible for SWPPP amendments, and delivered tailgate training weekly to on-site personnel. <i>Involvement: May 2013 to June 2014</i>		
	(1) TITLE AND LOCATION <i>(City and State)</i> Central Galt Interchange, State Route 99, Galt, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012	
e.	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Mike developed the SWPPP for the City of Galt's project with Caltrans Oversight (Highway 99/C Street Interchange) Risk Level 2 project, with a \$40,000,000 construction cost estimate. He was responsible for amendments and compliance inspections and reporting. His duties included: weekly, quarterly, pre-rain event, during rain event, and post Qualifying Rain Event inspections. He was responsible for Rain Event Action Plan development and weekly training of construction personnel. He performed sampling and analysis of effluent discharge of storm water for turbidity and pH. Caltrans CEM forms used for all compliance reporting, and Caltrans SWPPP template used for SWPPP development. <i>Involvement: September 2011 to December 2012</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Shelby Zuppan, CPESC, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 5 years </td> <td> b. WITH CURRENT FIRM 3 years </td> </tr> </table>		a. TOTAL 5 years	b. WITH CURRENT FIRM 3 years
a. TOTAL 5 years	b. WITH CURRENT FIRM 3 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Montgomery & Associates – Sacramento, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Hydrology		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Qualified SWPPP Developer and Practitioner (QSD), No. 23510 Certified Professional in Erosion and Sediment Control (CPESC), No. 7086			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Shelby is a hydrology technician with experience developing Caltrans and CASQA SWPPPs and Water Pollution Control Drawings in compliance with the CGP for numerous projects. She has experience conducting stormwater field inspections on construction sites to ensure permit compliance, and she provides supervision to multiple employees in a mid-management position. Additional responsibilities include preparing and presenting SMARTS presentations, providing instruction on how to prepare Risk Level Assessments, use of the Revised Universal Soil Loss Equation (RUSLE) and the Modified Universal Soil Loss Equation (MUSLE), filing Industrial Annual reports and writing SWPPP amendments.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 01-262004 Highway 101 Willits Bypass, Caltrans, Mendocino County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Alternate Water Pollution Control Manager. Shelby was the Alternate Water Pollution Control Manager for this Risk Level 3, \$105,000,000 project to construct a four-lane bypass approximately 6 miles long, ensuring project compliance with the CGP. She performed routine weekly site inspections, Rain Event Action Plan site inspections, and inspections during and after a Qualifying Rain Event. During inspections, she recorded any BMP deficiencies and any corrective actions that need attention. Additionally, she provided training for the contractor and amended the project's SWPPP as site conditions changed and the project evolved. One amendment included collaborating with multiple agencies to add additional acreage to the SWPPP for mitigation measures of areas that were not previously included in the SWPPP, avoiding potential fines and ensuring the project did not have to stop to address the mitigation area. <i>Involvement: May 2013 to May 2014</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03-3338U4 Caltrans Highway 65 Lincoln Bypass Phase I and II, Caltrans, Lincoln, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2013 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2013 </td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Alternate Water Pollution Control Manager. Shelby was the Alternate Water Pollution Control Manager on this Risk Level 2, \$195,000,000 project that created a nearly 12-mile-long route around downtown Lincoln to alleviate traffic and congestion. Shelby performed routine weekly site inspections, Rain Event Action Plan site inspections, during rain event inspections, stormwater sampling analysis, and post rain event inspections. She recorded any BMP deficiencies and any corrective actions that need attention. Additionally, she provided contractor training and amended the project's SWPPP as site and project conditions changed. <i>Involvement: October 2012 to August 2013</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03-4E28U4 Highway 50, Missouri Flats Interchange Stormwater Pollution Prevention Plan, Caltrans, El Dorado County, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2012 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2012 </td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012
PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Shelby assisted the Water Pollution Control Manager on the Risk Level 2, \$50,000,000 interchange project with Caltrans oversight. Her duties included: revising Water Pollution Control Drawings, assisting with sampling and analysis of pH and turbidity during rain events, and assisting with SWPPP amendments. <i>Involvement: June 2012 to September 2012</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03-2C8604 Interstate 80 Emigrant Gap, Caltrans, Soda Springs, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2013 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2013 </td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> 2013				



(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Under the direction of the Water Pollution Control Manager, Shelby assisted with this Risk Level 2 \$90,000,000 project to replace the concrete on a 25-mile stretch of this 4-lane highway. Her duties included: revising Water Pollution Control Drawings, assisting with sampling and analysis of pH and turbidity during rain events, and assisting with SWPPP amendments. <i>Involvement: May 2012 to November 2013</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> U.S. Department of Agriculture Forest Service, Plumas National Forest Geographic Information System, Blairsden, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> e. Hydrologic Technician. As a hydrologic technician, Shelby completed soil and stream field surveys throughout uneven, remote terrain within Plumas National Forest while carrying up to 30 pounds of field equipment. She compiled collected data and used ArcGIS, ArcMap, and ArcCatalog to create associated shape files. She operated various GPS equipment including Garmin and Trimble models and accessories. She served as co-lead in completing the evaluation of 2010 BMPs as assigned by the SWRCB. She aided in restoration efforts/estimates with the restoration project in Lake Davis. In addition, she sterilized and calibrated hydrologic instruments. <i>Involvement: June 2009 to September 2010</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Amber Christian, CPESC, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 9 years </td> <td> b. WITH CURRENT FIRM 3 years </td> </tr> </table>		a. TOTAL 9 years	b. WITH CURRENT FIRM 3 years
a. TOTAL 9 years	b. WITH CURRENT FIRM 3 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> NV5, Inc. – Sacramento, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Project Management A.S., Construction Management		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Professional in Erosion and Sediment Control (CPESC), California, No. 6668 Qualified SWPPP Developer and Practitioner (QSD)			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Amber brings 9 years of experience as an inspector and office engineer on capital improvement projects, including highways and roadways constructed to Caltrans' standards. She is well versed in Caltrans construction practices and has a strong working knowledge of Caltrans' Standard Plans and Standard Specifications, Construction Manual, Storm Water Management Plan, and NPDES permit. She also is knowledgeable of the California Water Code, California Health and Safety Code, and 40 CFR 122.26. As a construction inspector, she has supported compliance with SWPPP inspections and water pollution control measures; analyzed work environments to identify hazards and enforced safe and healthy work practices; performed field verification and documentation of pay quantities for basis of payments; prepared field design change requisitions and as-built drawings; prepared daily diaries; submitted survey requests for roadway construction and detail; monitored compliance with contract requirements and industry standards for highway-related work; carried out inspections on work in progress for proper quality control and checks; monitored subcontractor operations for conformance with the scope of work; and maintained material safety data sheets and material certifications.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> TRIP Westside Parkway Phase 6C, City of Bakersfield, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Inspector. Amber served as a construction and SWPPP inspector for the \$29 million extension of the new freeway from Allen Road to Stockdale Highway/Health Road intersection, while integrating the previously constructed Phase 2 and Phase 6B projects. The project consists of 2 miles of six-lane freeway, two pumping plants, signalized intersection, cast-in-place post-tensioned box girder bridge, 350-foot-long double-box culvert and 700,000 cubic yards of earthwork. Inspected civil and structures construction. She was responsible for SWPPP inspections in accordance with Caltrans guidelines; reviewing the contractor's SWPPP amendments and REAPS; office engineering utilizing Primavera, including processing of monthly progress pay estimates and processing of daily extra work reports, responses to RFLs, review of submittals, preparation of contract change orders, and auditing certified payroll for compliance with prevailing wage law. <i>Involvement: August 2014 to August 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> TRIP Westside Parkway Phase 2, City of Bakersfield, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2013 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Inspector. Amber served as construction and SWPPP inspector for the \$90 million Truxtun Avenue to Allen Road: \$90 million completion of the east-west section of the freeway between Mohawk Street and Allen Road. The project included full interchanges at Mohawk Drive, Coffee Road, and Calloway Drive, and overcrossing bridge at Jewetta Avenue, three bridges over the Friant-Kern Canal, 4 miles of sound walls, 20 MSE and Type 1 retaining walls, a storm drain pump plant, and the City's second largest sewer lift station. Amber was responsible for SWPPP inspections in accordance with Caltrans guidelines; reviewing the contractor's SWPPP amendments and REAPS; office engineering using Primavera, including processing of monthly progress pay estimates and processing of daily extra work reports, responses to RFLs, review of submittals, preparation of contract change orders, and auditing certified payroll for compliance with prevailing wage law. <i>Involvement: October 2012 to March 2013</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> I-5 Lane Reconstruction, Caltrans District 6, Buttonwillow, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2012 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2012 </td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012
PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Engineer. Amber served as a field engineer for the \$31.8 million lane reconstruction on I-5 near Bakersfield in					

Buttonwillow. The project involved concrete panel replacement using continuously reinforced concrete pavement (CRCP). Responsible for reviewing and ensuring SWPPP compliance throughout construction; inspection of asphalt and concrete paving operations, rebar, drainage items, guardrail, and general roadway construction; and assisting with contract administration, including processing of progress estimates, drafting contract change orders, and reviewing RFIs and submittals. <i>Involvement: June 2012 to October 2012</i>				
(1) TITLE AND LOCATION (City and State) Fourth Street Bridge Widening, City of Manteca, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA			
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Inspector. Amber served as a structure and roadway construction inspector for the \$7.7 million project, which involved widening the existing three-lane overcrossing bridge to provide a six-lane overcrossing bridge with four through-lanes and two left-turn lanes; and the widening and reconstruction of Fourth Street to provide a four-lane divided street with a raised median. Inspected roadway and structures construction. She was responsible for SWPPP inspections in accordance with Caltrans guidelines; reviewing the contractor's SWPPP amendments and REAPS; preparing monthly progress estimates, including processing of daily extra work reports; preparing contract change orders and weekly statement of working days; and auditing certified payroll for compliance with prevailing wage law. <i>Involvement: March 2013 to January 2014</i>			
(1) TITLE AND LOCATION (City and State) Plaza Drive Interchange Widening, City of Visalia, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA			
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Inspector. Amber served as a construction and SWPPP inspector for the \$17.8 million Plaza Drive modification project, which involved the widening of Plaza Drive Bridge over State Route 198 from three to seven lanes with sidewalks and bike lanes; widening of existing ramps and replacement of asphalt with concrete paving; construction of four 25 to 30-foot-high Type 1 retaining walls to facilitate ramp widening; improvements to the main Industrial Park access on Plaza Drive; extension of the Mill Creek box culvert to widen Plaza Drive from a two-lane to a five-lane arterial; auxiliary lanes on State Route 198 and connection ramps to State Route 99; and complicated 25-stage construction plans and traffic handling configurations. Inspected roadway and structures construction. She was responsible for SWPPP inspections in accordance with Caltrans Guidelines; reviewing the contractor's SWPPP amendments and REAPS; preparing monthly progress estimates, including processing of daily extra work reports; preparing contract change orders and weekly statement of working days; and auditing certified payroll to ensure compliance with prevailing wage law. <i>Involvement: January 2014 to August 2014</i>			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Joy Denny, PE, QSD	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance	14. YEARS EXPERIENCE	
		a. TOTAL 18	b. WITH CURRENT FIRM 4

15. FIRM NAME AND LOCATION *(City and State)*
NV5, Inc. – Sacramento, California

16. EDUCATION *(Degree and Specialization)*
B.S., Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Professional Engineer, California No. C68248
Qualified SWPPP Developer and Practitioner (QSD), No. C68248

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Joy has 18 years of experience serving as project manager, resident engineer, structure representative, and construction inspector for bridge and highway projects designed and constructed to Caltrans standards. She is well versed in Caltrans' construction practices and has a strong working knowledge of Caltrans Standard Plans and Standard Specifications, Construction Manual, Storm Water Management Plan, and NPDES permit. She also is knowledgeable of the California Water Code, California Health and Safety Code, and 40 CFR 122.26. Her project portfolio includes the construction of various types of bridge projects, including concrete box girder, steel girder and concrete girder bridges over highways, railroad grade separations, and bridges over water. Joy has been responsible for supervising technical and field staff, managing contract administration, developing and reviewing critical path schedules, preparing and negotiating contract change orders, SWPPP inspections, and supporting compliance with SWPPPs.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Plaza Drive Interchange Widening, City of Visalia, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Resident Engineer. Joy acted as the resident engineer/structure representative for the award-winning \$17.8 million widening of Plaza Drive Bridge over State Route 198 from three to seven lanes with sidewalks and bike lanes; widening of existing ramps and replacement of asphalt with concrete paving; construction of four Type 1 retaining walls; extension of the Mill Creek box culvert to widen Plaza Drive from a two-lane to a five-lane arterial; auxiliary lanes on State Route 198 and connection ramps to State Route 99; and complicated 25-stage construction plans and traffic handling configurations. a. Responsible for contract administration, inspection, utility coordination, environmental compliance, and oversight of surveying and materials testing, and public outreach. She coordinated with multiple stakeholders and permitting agencies, including the California Department of Fish and Wildlife, Bureau of Reclamation, and the U.S. Army Corps of Engineers. As resident engineer, Joy reviewed and signed SWPPP inspection reports and BMP corrective reports from the contractor and inspection staff; coordinated the uploading of the Project Record Documents, including the Notice of Intent, Risk Determination, and SWPPP, to the RWQCB's SMARTS website; conducted SWPPP inspections, which entailed the inspection of BMPs implemented; reviewed general correspondence related to SWPPP; and prepared SWPPP reports and recommendations. Joy also facilitated closeout photos and Notice of Termination through the SMARTS system for closeout of the project. <i>Involvement: March 2012 to August 2014</i>	2014	2014
(1) TITLE AND LOCATION <i>(City and State)</i> I-10/Date Palm Interchange, County of Riverside, California (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Assistant Resident Engineer. Joy served as assistant resident engineer and office engineer for the \$15 million Date Palm Interchange project, which involved widening a cast-in-place reinforced concrete box girder bridge over I-10, demolition of existing bridge facilities, import of 65,000 cubic meters of material, 5,300 meters of jointed plane concrete paving, installation and modification of traffic signals, removal of soil nail wall, construction two of tieback walls, installation of column casings, placement of polyester concrete overlay, and utility relocations and installations. The project work took place over and around the UPRR railroad tracks. Coordination with UPRR was necessary when work was performed near or over the rail right-of-way. Joy's project responsibilities included office engineering duties; setting up job files, processing RFIs, submittals, materials to be used, survey staking and materials testing coordination, weekly meeting minutes, coordinating information for emergency services and community outreach, and review contractor submittals, and SWPPP inspections. All work was performed in accordance with the Caltrans Construction Manual, Bridge Construction Records and Procedures Manual, and Local Assistance Procedures Manual. Joy also coordinated the review and revisions of the contractor's SWPPP for approval through San Bernardino County and Caltrans, and coordinated uploading this information into SMARTS. b. <i>Involvement: June 2011 to March 2012</i>	2013	2013

c.	(1) TITLE AND LOCATION <i>(City and State)</i> State Route 99/Pelandale Avenue Interchange, City of Modesto, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Structure Representative. Joy is the structure representative for the \$31 million construction of two new bridges – a seven-lane bridge over State Route 99 and a southbound on-ramp bridge with a tight radius and 12 percent superelevation. Project included demolition of the existing bridge and traffic detours to facilitate the contractor’s demolition efforts. Construction includes newly configured on/off ramps, traffic improvements to the Salida Avenue Corridor, intersection improvements at the Sisk Road/Pelandale intersection, an extensive six-stage construction and traffic handling plan and detours, new traffic signals at four intersections, multiple retaining walls (Type 5, Type 1, and MSE designs), 618 driven concrete foundation piles, and extensive utility relocations. Joy is responsible for review and independent analysis of falsework plans and calculations, review and analysis of trenching and shoring plans, temporary retaining structures and MSE retaining walls; coordination of pile drivability analysis of monitoring piles on both bridges. She reviews, manages, and verifies source inspections for structural materials used on the site, monitor testing frequencies and make sure the minimum criteria are met, monitor surcharge at abutments and retaining walls, and ground improvement under the MSE walls. Additional duties include generating critical elevations for structures from four-scale drawings, preparing quantity sheets and pay estimates for structures items, monitoring lead testing of concrete and steel items on bridge prior to demolition, verifying proper permitting with the Air Quality Board, reviewing demolition plan for bridge removal, and coordinating major freeway closures and detours on State Route 99 for multiple structures activities. Joy is responsible for reviewing contractor BMPs throughout the construction site, reviewing contractor inspection reports, preparing inspection reports, and notifying the contractor when BMPs need attention. <i>Involvement: May 2014 to Present</i>		
d.	(1) TITLE AND LOCATION <i>(City and State)</i> State Route 99/Fourth Street Interchange Bridge Widening, City of Madera, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014	
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager/Resident Engineer. Joy was the project manager/resident engineer for the \$7.7 million widening the existing State Route 99/Fourth Street Interchange Bridge from three to six lanes, widening of a portion of Fourth Street, and reconstruction and widening of the Fourth Street off-ramp with a new retaining wall. Other improvements include the widening of part of Fourth Street, Sunset Avenue, and the State Route 99/Fourth Street off-ramp. Fourth Street will be widened from State Route 99 to the intersection with Sunset Avenue and the existing pavement section will be replaced. The balance of the Fourth Street widening will consist of a new pavement section at each edge of the roadway and an asphalt concrete pavement overlay. Joy managed the project with limited Caltrans oversight, and provided quality assurance in all phases of the work, performed daily construction observation and inspection, oversaw materials sampling, maintained daily diaries and Caltrans inspection records, and coordinated traffic control on State Route 99. Joy was responsible for reviewing the contractor’s SWPPP, coordinating SWPPP approval, NOI, verifying uploads to SMARTS by the contractor, and overseeing proper SWPPP permit closeout at project completion. <i>Involvement: July 2013 to April 2014</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Gary Mohler, PE, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 20 years </td> <td> b. WITH CURRENT FIRM 6 years </td> </tr> </table>		a. TOTAL 20 years	b. WITH CURRENT FIRM 6 years
a. TOTAL 20 years	b. WITH CURRENT FIRM 6 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> NV5, Inc. – Sacramento, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering A.S., Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Engineer, California No. 81926 Qualified SWPPP Developer and Practitioner (QSD), No. 81926			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Gary has 20 years of experience in civil construction and land surveying, first working as a contractor and operator, then as surveyor, and ultimately as a construction inspector. His portfolio features primarily transportation projects, including multiple bridge, highway, and roadway projects designed and constructed to Caltrans standards. He is well versed in Caltrans' construction practices and has a strong working knowledge of Caltrans' Standard Plans and Standard Specifications, Construction Manual, Storm Water Management Plan, and NPDES permit. He is also knowledgeable of the California Water Code, California Health and Safety Code, and 40 CFR 122.26. Gary has inspected a wide range of construction activities and is experienced in all aspects of field and office construction engineering work, including inspection of traffic control system compliance, constructability review, preparation of contract change orders, review of shop drawings, CPM schedule analysis, and SWPPP compliance monitoring.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> State Route 99 Corridor Improvements, Caltrans District 10, Central Valley, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Assistant Resident Engineer and Inspector. Gary acted as assistant resident engineer, office engineer, and inspector for the \$75 million improvements to the highway system along the State Route 99 corridor. The improvements involved the widening of 10 miles of existing freeway, the construction of new interchanges, relocation of a major municipal water distribution pipeline, and realignment of a grade separated railroad overcrossing. Gary was responsible for reviewing submittals, processing and reviewing contract change orders, coordinating with construction field inspectors, processing monthly pay estimates, coordinating with the California Highway Patrol and other responsible agencies, and field inspection. <i>Involvement: January 2011 to December 2012</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> State Route 99/219 (Kiernan Avenue) Interchange, County of Stanislaus, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Assistant Resident Engineer and Inspector. Gary served as assistant resident engineer, office engineer, and inspector for the \$25 million bridge replacement, freeway widening, interchange improvement, and pumping plant replacement project. The improvements will reconstruct the State Route 99/State Route 219 (Kiernan Avenue) interchange, replace the existing overcrossing spanning State Route 99, add four additional travel lanes to State Route 219 (Kiernan Avenue) within the project limits, and modify the existing interchange on-/off-ramps to and from State Route 99. The 7,750 gallons/per minute pumping plant was constructed 16 feet below the water table. Construction methods included sheet pile shoring, tie-backs, seal courses, and dewatering wells. Gary was responsible for preparing daily field reports, assisting with progress pay estimates, attendance and input at weekly meetings, preparing correspondence to the contractor, negotiating and preparing CCOs, and reviewing and responding to RFIs and project submittals. <i>Involvement: January 2015 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> TRIP Westside Parkway Phases 1 and 4, City of Bakersfield, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Engineer. Gary served as field engineer for the (1) \$28 million Phase 1 Mohawk Extension, which involved construction of a 1.2 mile, six-lane north-south connection; a BNSF railroad grade separation; a bridge over the future State Route 58 interchange; and an overcrossing spanning the Kern River. (2) The \$23 million Phase 4 tie-in project that connected previous improvements on Mohawk Drive and Westside Parkway and included three bridges, two of which are seven span crossing the Kern River, and two box culverts. Gary was responsible for assisting with field inspection/quality assurance; preparation of quantities for monthly progress pay estimates; monitoring traffic control; constructability review of the contract documents;					

and coordination of testing services, as needed. <i>Involvement: Intermittent work 2012 to 2014</i>		
(1) TITLE AND LOCATION (<i>City and State</i>) State Route 132 In-Fill, City of Modesto, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2009	CONSTRUCTION (<i>if applicable</i>) 2009
(3) BRIEF DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE ☒ <i>Check if project performed with current firm</i> d. Field Engineer. Gary served as field engineer for the in-fill project located on State Route 132 from Riverside Drive to Claus Road. This project included construction of a new drainage collection system, lane additions, pavement widening, a new median island, new traffic signalization at five major intersections, and significant profile corrections near the intersections. The profile changes and pavement widening associated with the project introduced significant challenges associated with the safe passage of the traveling public and maintaining adequate pedestrian access. Gary assisted with field inspection and quality assurance; prepared quantities for monthly progress pay estimates; monitored traffic control; provided constructability review of the contract documents; and coordinated testing services, as needed. <i>Involvement: March 2009 to December 2009</i>		
(1) TITLE AND LOCATION (<i>City and State</i>) State Route 99 Six-Lane Widening Phases 1-4, Caltrans District 10, Manteca, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (<i>if applicable</i>) 2014
(3) BRIEF DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE ☒ <i>Check if project performed with current firm</i> e. Assistant Resident Engineer. Gary served as assistant resident engineer and office engineer for the \$152 million series of projects, which will widen 11 miles of State Route 99 from four to six lanes and constructed new interchanges at Lathrop Road and French Camp Road. The project runs from south of State Route 120 to north of Arch Road. Gary was responsible for reviewing submittals, processing and reviewing contract change orders, coordinating with construction field inspectors, processing monthly pay estimates, coordinating with the California Highway Patrol and other responsible agencies, and field inspection. <i>Involvement: December 2012 to December 2014</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Stephen Walters, PE, QSD	Construction	a. TOTAL 14 years	b. WITH CURRENT FIRM 14 years

15. FIRM NAME AND LOCATION *(City and State)*
NV5, Inc. – Sacramento, California

16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering Certificate, Local Assistance Resident Engineer Academy/Institute of Transportation Technology	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Engineer, California No. C65342 Qualified SWPPP Developer and Practitioner (QSD), No. 01060

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Steve has 14 years of experience in construction management and civil engineering design for capital improvement projects, including bridges, highways, and roadway paving constructed to Caltrans standards. He is well versed in Caltrans' construction practices and has a strong working knowledge of Caltrans' Standard Plans and Standard Specifications, Construction Manual, SWMP, and NPDES permit. He also is knowledgeable of the California Water Code, California Health and Safety Code, and 40 CFR 122.26. Steve is experienced in all phases of bridge and civil construction inspection and contract administration and documentation.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
State Route 99/219 (Kiernan Avenue) Interchange, County of Stanislaus, Stanislaus, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Assistant Resident Engineer. Steve was the assistant resident engineer for the \$25 million bridge replacement, freeway widening, interchange improvement, and pumping plant replacement project. The improvements will reconstruct the State Route 99/State Route 219 (Kiernan Avenue) interchange, replace the existing overcrossing spanning State Route 99, add four additional travel lanes to State Route 219 (Kiernan Avenue) within the project limits, and modify the existing interchange on/off-ramps to and from State Route 99. The 7,750 gallons/per minute pumping plant was constructed 16 feet below the water table. Construction methods included sheet pile shoring, tie-backs, seal courses, and dewatering wells. Steve was responsible for constructability review, construction management, and inspection services. <i>Involvement: March 2013 to present</i>		
Grant Line Channel Restoration and Mitigation, City of Elk Grove, California	PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Resident Engineer and Inspector. Steve was the resident engineer and construction inspector for 1.5 miles of storm drain channel restoration and mitigation. The project included 10,000 cubic yards of embankment reconstruction, 600 cubic yards of rock slope protection, new downdrain structures and new v-ditch construction. Steve was responsible for all resident engineer duties, including project administration, permit compliance, schedule management, submittal review, change directives, public outreach, progress payments, negotiations, and contract change orders. Also directly responsible for all construction inspection duties, including inspections of embankment construction, coordination of materials testing, SWPPP inspections, and daily project documentation. <i>Involvement: June 2010 to January 2011</i>		
Laguna Creek Pedestrian Bridge, City of Elk Grove, California	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Resident Engineer and Inspector. Steve was the resident engineer and construction inspector for the \$1 million project, which involved construction of a 272-foot-long, prefabricated steel bicycle/pedestrian bridge over Laguna Creek and associated trail re-alignment. The project involved construction of a two-span, half-through H-section, structural-steel truss bridge supported on one concrete pier and concrete abutments. Pier and abutments are supported by cast-in-drilled-hole (CIDH) concrete piles 60 feet deep. This project also included demolition of the existing concrete low-water crossing that comprised three, 36-inch RCP culverts. Because construction affected wetlands, Waters of the State, and habitat of threatened or endangered species (specifically giant garter snake), permits from the RWQCB, Department of Fish and Wildlife, and U.S. Army Corps of Engineers were required. Steve was responsible for all resident engineer duties, including project administration, permit compliance, public outreach, progress payments, negotiations, and contract change orders.		

	Steve was also responsible for all construction inspection duties, including structural and civil inspections, coordination of materials testing, SWPPP inspections, and daily diaries. <i>Involvement: August 2008 to October 2009</i>		
d.	(1) TITLE AND LOCATION (City and State) Montalvin Manor Pedestrian and Transportation Access Improvements, Contra Costa, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2012
	Resident Engineer and Inspector. Steve was the resident engineer and construction inspector for the \$1 widening of 2,000 feet of San Pablo Boulevard and 750 feet of Kay Road. Improvements included new curbs, gutters, and sidewalks; bus stops; segmental retaining walls; 1,500 feet of new storm drain systems; reconstruction of a signalized intersection and modifications to another. Because the roadway widening was constructed on an existing slope, detailed daily inspections of earthwork activities were required to ensure sufficient clearing and grubbing. The new slope was properly keyed into the existing slope and sound compaction was performed to reduce the possibility of slip plane or other slope failures. Responsible for start-to-finish construction management and inspection services. Resident engineer duties included project administration, permit compliance, schedule management, submittal review, change directives, public outreach, progress payments, negotiations, and change orders. Steve also coordinated closely with utility companies during third-party utility relocations before construction began and during construction for work around high pressure gas lines. <i>Involvement: August 2011 to March 2012</i>		
e.	(1) TITLE AND LOCATION (City and State) South County Water Supply, City of Manteca, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) 2004
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Assistant Resident Engineer. Steve served as assistant resident engineer for the construction of 37 miles of 30- to 54-inch pipeline to carry 150 million gallons/day of treated water. Permits were required for two crossings of Caltrans freeways, a 1,600-foot longitudinal encroachment along Caltrans right-of-way, 10 UPRR crossings, and a BNSF railroad crossing. The project also included a 733-foot-long directional drill crossing of Paradise Cut, a 641-foot-long bridge over the San Joaquin River, and bore and jack crossings under railroads, pipes, culverts, roads, and channels. Steve was directly responsible for all resident engineer duties, including project administration, permit compliance, schedule management, submittal review, change directives, public outreach, progress payments, negotiations, and change orders. Steve also provided construction inspection to supplement the part-time inspector. <i>Involvement: August 2003 to September 2005</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Juan Zuniga, PE, CPESC, QSD	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 17 years</td> <td>b. WITH CURRENT FIRM 5 years</td> </tr> </table>		a. TOTAL 17 years	b. WITH CURRENT FIRM 5 years
a. TOTAL 17 years	b. WITH CURRENT FIRM 5 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> NV5, Inc. – Sacramento, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering,		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Engineer, California No. C62351 Qualified SWPPP Developer and Practitioner (QSP), No. 00212 Certified Professional Erosion and Sediment Control (CPESC), No. 4684			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Juan has 17 years of experience in civil engineering and 8 years of experience providing construction management services, including construction inspection of transportation improvements designed and constructed to Caltrans standards. He is well versed in Caltrans' construction practices and has a strong working knowledge of Caltrans' Standard Plans and Standard Specifications, Construction Manual, Storm Water Management Plan, and NPDES permit. Juan is knowledgeable of the California Water Code, California Health and Safety Code, and 40 CFR 122.26. He is experienced in the inspection of interchanges; paving; grading; underground utilities, including water, sewer, and storm drain systems; pavement delineation; electrical facilities; curbs, gutter sidewalks, and handicap ramps; and earth work. Juan is experienced in preparing SWPPP and monitoring and inspecting erosion control measures and SWPPP BMPs. He worked on the Caltrans Storm Water Management Task Force performing stormwater inspections for highway construction projects in the Northern Districts. He also served as the SWPPP inspector for more than 80 projects and support compliance with NPDES permits, contract requirements, and RWQCB special requirements.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> State Route 4 Widening, Caltrans District 10, San Joaquin, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2015</td> <td>CONSTRUCTION <i>(if applicable)</i> 2015</td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> 2015				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Inspector. Juan was the construction inspector for the \$8.6 million State Route 4 widening and overlay of the existing highway near Stockton from 0.1 miles east of Bacon Island Road to the San Joaquin River Bridge. Juan's responsibilities included reviewing and approving lane closures; daily coordination of lane closures and traffic control; field inspection of a large diameter (84-inch) reinforced concrete pipe installation; field inspection of drainage work, including construction of headwalls and wingwalls; field inspection of installation of SWPPP BMP measures on completed work areas; monitoring daily extra work operations and personnel; preparing daily diaries and progress payment quantities; and reviewing extra work reports. <i>Involvement: November 2014 to April 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Grant Line/State Route 99 Interchange and Sheldon Road/State Route 99 Interchange Landscaping, City of Elk Grove, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2011</td> <td>CONSTRUCTION <i>(if applicable)</i> 2011</td> </tr> </table>		PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011
PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> 2011				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Inspector. Juan was the SWPPP inspector responsible for coordinating the review and approval of landscape plans with public agencies, including the City of Elk Grove and the Sacramento Water Agency. Juan prepared contract change orders and supporting estimates. He also conducted SWPPP inspections, which entailed the inspection of BMPs implemented for the project; reviewed general correspondence related to SWPPP; and prepared SWPPP reports and recommendations. <i>Involvement: February 2011 to March 2011</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Stormwater Inspection, Caltrans Districts 1, 2, 3, 4, and 10, Northern and Central California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2008</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ <i>Check if project performed with current firm</i> Inspector. Juan was responsible for SWPPP inspection on more than 80 construction projects in Caltrans District 1, 2, 3, 4 and 10. He ensured that all projects were conducted in compliance with NPDES permits, the project contract requirements, the approved SWPPP, and RWQCB special requirements by providing necessary technical assistance to construction staff. Juan prepared daily diaries that described and evaluated the implementation of the approved SWPPP or Water Pollution Control Plan. He provided notes, observations, photographs, and documenting the implementation of the control plan. Compared field implementation against the contract requirements, SWPPP/WPCP, and Caltrans Storm Water Handbooks. Reviewed the project's category-20 files for required paperwork. Juan also attended preconstruction meetings as required					

and provided a final close out review for SWPPP designated projects to be accepted by the state. <i>Involvement: January 2003 to July 2005</i>		
(1) TITLE AND LOCATION (City and State) Bird Road/State Route 132 Interchange, County of San Joaquin, Tracy, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) 2014
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Resident Engineer and Inspector. Juan was the resident engineer, office engineer, and inspector for the \$11 million new Bird Road Bridge and interchange, which replaced the existing at-grade intersection with a new four-lane bridge over State Route 132. The new bridge required 155,250 cubic meters of import borrow. The project involved the upgrade of State Route 132 with additional auxiliary lanes, 3,850 cubic meters of PCC pavement, and 21,000 cubic meters of asphalt paving. The project required extensive coordination with several agencies, including Caltrans, the County of San Joaquin, San Joaquin County of Governments, and AT&T, for utility relocations and to resolve conflicts, and with Caltrans and the California Department of Fish and Wildlife for an extension of the 1602 Permit work window. The project encountered multiple challenges, including a delayed start and the preparation of a new SWPPP. The project start was delayed substantially, during which time a new NPDES Statewide General Permit came into effect. Although grandfathered in, the project was required to prepare a new SWPPP for approval and implementation before the start of construction. Coordination with stakeholders (Caltrans and County of San Joaquin) and the contractor enabled the team to identify new contractor requirements and expedite review of the new SWPPP to avoid delays. <i>Involvement: April 2012 to July 2012 and December 2012 to June 2014</i>		
(1) TITLE AND LOCATION (City and State) Cartmill Avenue Grade Separation, City of Tulare, Tulare, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2012
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Assistant Resident Engineer/Inspector. Juan was the assistant resident engineer/inspector for the \$12.5 million Cartmill Avenue grade separation project, responsible for contract administration, setting up files, processing RFIs, reviewing contractor request for progress payments, preparing contract change orders, and maintaining as-built drawings. As SWPPP inspector, Juan was responsible for the SWPPP review and coordinating the uploading of the Project Record Documents, including the Notice of Intent, Risk Determination, and SWPPP, to the RWQCB SMARTS website. Juan conducted SWPPP inspections, which entailed the inspection of BMPs implemented for the project; reviewed general correspondence related to SWPPP; and prepared SWPPP reports and recommendations. <i>Involvement: February 2011 to March 2011 and January 2012 to March 2012</i>		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Mike Broadwater, CPESC, QSD, ToR	13. ROLE IN THIS CONTRACT Enforcement and Prevention Assistance	14. YEARS EXPERIENCE a. TOTAL 24 years b. WITH CURRENT FIRM 20 years

15. FIRM NAME AND LOCATION *(City and State)*

Vali Cooper & Associates, Inc. – Sacramento, California

16. EDUCATION *(Degree and Specialization)*

B.S., Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

Engineer in Training Certification No. XE101658
 Qualified SWPPP Developer and Practitioner (QSD) No. 062
 Certified Professional in Erosion and Sediment Control (CPESC)
 No. 2096, 2000
 Trainer of Record (ToR)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mike has more than 24 years of experience, including 18 years working in the stormwater pollution prevention and erosion control field. As a CPESC and a former board member of the Western Chapter of the International Erosion Control Association (IECA), he has developed, reviewed, and implemented storm water pollution prevention guidelines and plans, sampling plans, conducted training seminars and workshops on the latest BMPs; NPDES permit compliance and other stormwater issues; reviewed and developed SWPPPs and water pollution control manuals; established, managed and audited stormwater programs; written technical water pollution control bulletins and articles; implemented structural stormwater treatment controls; and administered statewide contracts for Caltrans. He is extremely familiar with RWQCBs and other regulatory agencies, including the U.S. Environmental Protection Agency. Mike has provided stormwater services for the state (Caltrans), cities, county agencies, private companies, developers, utilities, and agencies of the federal government.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Caltrans District 43, Sacramento, California	Ongoing	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Manager. Mike serves as Field Manager for the VCA statewide contract with Caltrans Headquarters DEA. He assists on five separate task orders with monitoring the activities of a large team of consultants providing site compliance reviews for construction projects, maintenance facilities, and maintenance activities throughout the state, as well as performing actual field compliance reviews. He also documents and tracks all field activities, reports, and corrective actions via spreadsheets and a project specific SharePoint site. <i>Project Fee: \$6,000,000</i> <i>Involvement: September 2014 to Present</i>		
b.	Contract No. 43A0307 On-Call Stormwater District Assistance South, Caltrans District 43 (Subconsultant), Sacramento, California	2014	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Manager. Mike provided field visits to maintenance facilities and assisted with updating the Facility Pollution Prevention Plan (FPPP) in Districts 9 and 11. Specific tasks included attending a kickoff meeting; visiting sites to acquire all necessary information to develop site-specific FPPPs, including facility site maps; met with facility site supervisors to review facility layouts, facility activities, material storage areas (both hazardous and non-hazardous materials), and other aspects as described in the FPPP template; identified or verified existing or potential pollutant sources, facility appurtenances, discharge points, proximity to water bodies, and water and wastewater systems including water wells, injection wells and onsite wastewater treatment systems; and identify BMPs implemented. <i>Project Fee: \$57,600</i> <i>Involvement: May 2014 to August 2014</i>		
c.	Contract No. 43A0234 On-Call Stormwater District Assistance North, Caltrans District 43 (Subconsultant), Sacramento, California	2012	NA
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Subconsultant Project Manager. Mike served as Subconsultant Project Manager and Field Inspector for District Construction Stormwater Assistance, specifically in District 4. He managed staff providing assistance and training for Caltrans Resident Engineers and inspectors including reviews of projects, SWPPPs, and stormwater documentation.		

Project Fee: \$290,000 Involvement: January 2011 to December 2011		
(1) TITLE AND LOCATION (City and State) Contract No. 43A0255 On-Call Stormwater Analysis, Caltrans District 43 (Subconsultant), California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) NA
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm d. Trainer. Mike provided training to Caltrans engineers, inspectors, designers, and environmental staff at various locations throughout California. Training subjects included Qualified SWPPP Developer and Practitioner, water pollution control regulations, erosion and sedimentation processes, BMP installation and maintenance, dewatering operations, sampling and analysis, contract administration for water pollution control, and reviewing SWPPPs. Project Fee: \$52,000 Involvement: January 2012 to March 2014		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Tore Finnemyhr, CESSWI, QSP	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 40 years </td> <td> b. WITH CURRENT FIRM 10 years </td> </tr> </table>		a. TOTAL 40 years	b. WITH CURRENT FIRM 10 years
a. TOTAL 40 years	b. WITH CURRENT FIRM 10 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Vali Cooper & Associates, Inc. – Lathrop, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering Engineering Technician		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Erosion, Sediment, and Stormwater Inspector (CESSWI) No. 2804 Qualified SWPPP Practitioner (QSP) No. 22916			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Tore has more than 40 years of public works construction management experience serving as a resident engineer, assistant structure representative, and senior inspector on public works projects for both Caltrans and various cities. He has been responsible for construction management, inspection, contract administration and scheduling on many public works and development projects. Tore has extensive knowledge of Caltrans policies and procedures, as well as Caltrans construction standards and specifications. His experience includes bridges, highways, storm drain systems, sewer main lines, domestic water systems, joint utility trench, street lighting system, grading operation, roadway structural sections, asphalt and concrete placement, environmental compliance, public relations and traffic control implementation.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> I-5 and I-205 Construction Management Services, San Joaquin Council of Governments, Stockton, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> Ongoing </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm x</i> Assistant Resident Engineer. Tore was assistant resident engineer for this large \$140 million project to extend Highway 4 in Stockton from I-5 to the Port of Stockton. The project builds a viaduct and expands Navy Drive to four lanes. In addition to being the lead field inspector, Tore was Utilities Coordinator, facilitating biweekly meetings between the state, designer and all utilities performing relocations on the project. His duties included inspecting earthwork, utility work, paving and stormwater BMPs. Other duties included quantity takeoffs and calculations, daily field reports and SWPPP inspection reports. <i>Project Fee: \$140,000,000</i> <i>Involvement: July 2014 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Sacramento Railyards, City of Sacramento Department of Transportation and S. Thomas Enterprises, Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> Ongoing </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm x</i> Office Engineer and Senior Inspector. Tore was Office Engineer and Senior Inspector for this multiple construction contract work that included four bridges, three tunnels, several miles of rail realignment, utilities and roadway construction within the confines of the historic former Union Pacific Railroad (UPRR) yards, which are now privately owned. Coordination with multiple owners, Caltrans, UPRR, Amtrak, Capital Corridor, Sacramento RT, City of Sacramento DOT and Utilities, PG&E, SMUD, Surewest, Qwest, DTSC, RWQCB, AQMD and multiple prime contractors was required on what was the single most important project in the City of Sacramento's history. Tore's duties included inspecting and mentoring of junior inspectors on bridge and roadway construction, drainage and sewer facilities, large volume waterlines, utilities and rail. Tore also provided constructability reviews and contract administration. <i>Project Fee: \$80,000,000</i> <i>Involvement: July 2013 to July 2014</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> On-Call Professional And Technical Construction Engineering Services, Caltrans District 3, Nevada, Sierra, Placer and El Dorado Counties, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2015 </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(if applicable)</i> NA				

(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm x Assistant Resident Engineer. Tore is providing Assistant Resident Engineering, Office Engineering, material testing and claims support. For the past five years he has served in a variety of capacities, most recently as Lead Inspector on some very significant projects within the district including the \$71 million Donner 2 Project, a rehabilitation of Interstate 80 from the Soda Springs Interchange to Donner Summit. Work included PCC paving, drainage, bridge reconstruction and more. Tore previously was the Lead Inspector on the \$40.5 million Interstate 80 Rehabilitation from the I-80/193 separation to the Auburn Ravine Undercrossing and the Route 174/80 separation in Colfax, a distance of 14 miles. That project rehabilitated pavement and bridge decks and modified drainage and electrical systems. Construction items included grinding, asphalt concrete, culverts, inlets, headwalls, excavation, erosion control, aggregate base, joint seals, signage, striping and other elements. Traffic control was critical, including lane closures and coordinating with COZEED. <i>Project Fee: \$10,000,000</i> <i>Involvement: July 2012 to July 2013</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Caltrans District 3 On-Call Construction Support, Truckee and Auburn, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2010</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2010	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm x Construction Inspector. Tore was Construction Inspector for VC&A's prime contract with Caltrans District 3. He inspected work for compliance with plans and standards, wrote daily diaries and prepared monthly estimates for projects including the \$71 million Donner 2 Project, a rehabilitation of Interstate 80 from the Soda Springs Interchange to Donner Summit. Work included PCC paving, drainage, bridge reconstruction and more. Tore previously inspected the \$40.5 million Interstate 80 Rehabilitation from the I-80/193 separation to the Auburn Ravine Undercrossing and the Route 174/80 separation in Colfax, a distance of 14 miles. The project rehabilitated pavement and bridge decks and modified drainage and electrical systems. Construction items included grinding, asphalt concrete, culverts, inlets, headwalls, excavation, erosion control, aggregate base, joint seals, signage, striping and other elements. Traffic control was critical, including lane closures and coordinating with COZEED. <i>Project Fee: \$71,000,000</i> <i>Involvement: July 2008 to July 2010</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Richmond-San Rafael Bridge Retrofit, Caltrans District 4, Richmond, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2005</td> <td>CONSTRUCTION <i>(if applicable)</i> 2005</td> </tr> </table>		PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(if applicable)</i> 2005
PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(if applicable)</i> 2005				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Assistant resident Engineer. Tore spent nearly three years as Lead Assistant Resident Engineer responsible for construction management and inspection for the installation of temporary and permanent electrical, mechanical and seismic monitoring systems on this 4.5-mile toll bridge retrofit project. He coordinated with SBC for relocation of fiber-optic cable and installing new fiber-optic cable within the new bridge section. He also supervised and inspected emergency concrete bridge deck repairs throughout the bridge and oversaw daily traffic control implementation. <i>Project Fee: \$480,000,000</i> <i>Involvement: January 2004 to May 2005</i>					

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Jim Flanagan, CESSWI, QSP	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 33 years </td> <td> b. WITH CURRENT FIRM 3 years </td> </tr> </table>		a. TOTAL 33 years	b. WITH CURRENT FIRM 3 years
a. TOTAL 33 years	b. WITH CURRENT FIRM 3 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Vali Cooper & Associates, Inc. – San Luis Obispo, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Business Administration		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Certified Erosion, Sediment, and Stormwater Inspector (CESSWI) No. 4123 Qualified SWPPP Practitioner (QSP) No. 25184			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Jim has more than 33 years of experience covering a variety of construction management project responsibilities and tasks. He is viewed as one of the top storm water compliance inspectors in the state of California, having served on the Statewide Storm Water Task Force for many years. Jim's major strengths include his versatility and attention to detail, evidenced by his successful past experience as a construction inspector on virtually every type of highway transportation project. A recognized team player, he has developed a reputation across the industry as a highly qualified "firm but fair" inspector/administrator who has earned the respect of his peers during his accomplished career. Jim is typically in high-demand by all clientele with whom he has worked in the past.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Caltrans District 43 (Prime Consultant), Sacramento, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Compliance Monitor. Jim currently serves as Field Compliance Monitor for the VCA statewide contract with Caltrans Division of Environmental Analysis (Headquarters). He is responsible for providing Independent Quality Assurance reviews of Caltrans construction projects, maintenance facilities, and maintenance activities for stormwater compliance. He schedules project reviews, meets with Caltrans district and headquarters staff, provides written and photographic documentation of site visits, and attends team meetings to discuss stormwater trends. He has conducted maintenance reviews in all 12 Caltrans districts. Project Fee: \$6,000,000 Involvement: September 2014 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i> Pearblossom O&M Center, Southern Field Headquarters, Department of Water Resources, Pearblossom, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES 2014 </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Construction Inspector. Jim performed daily inspection to ensure contractor compliance with the contract plans and specifications while recording detailed daily inspection reports accurately reflecting construction progress. He also inspected change order work, and reviewed as-built drawings of actual construction and site conditions, and inspected both electrical and mechanical components. Additionally, he inspected civil items, which include 96-inch RCP, structure excavation and backfill for pipe, concrete repair, installation of asphalt mat sealer, and installation of shotcrete at the aqueduct. The Pearblossom O&M Center is a LEED Gold certified building. Project Fee: \$10,000,000 Involvement: August 2013 to May 2014					
(1) TITLE AND LOCATION <i>(City and State)</i> Cypress On-Call Construction Management / Engineering Support, Testing and Inspection, City of Cypress, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> 2014 </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2014
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2014				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Construction Inspector. Jim was responsible for inspecting daily construction activities, monitoring traffic control, inspecting contractor operations including mobilization, surveying, traffic control, crack sealing, removal and replacement of AC paving, removal of traffic striping and markers, Type I and II Slurry Seal with 2.5 percent Polymer Modified (Rubber Latex), replacing traffic striping, markers, and curb paint. Additional project elements included removing and replacing PCC curb and gutter, PCC sidewalk, PCC cross gutter and spandrel, ADA curb ramps, installing detectable warning surfaces, tree removal and stump grind, safety compliance and compliance with storm water pollution prevention plans. Project Fee: \$1,500,000					

Involvement: May 2014 to September 2014		
(1) TITLE AND LOCATION (City and State) Ultimate Bus Rapid Transit Stations, SANDAG, Escondido and Rancho Bernardo, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2012
d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Senior Construction Inspector. Jim was a senior inspector on this project for the San Diego Association of Governments. He was responsible for inspecting all items including grading, paving, fencing, guardrail, architectural walls, lighting, and landscaping. Project Fee: \$3,000,000 Involvement: October 2011 to June 2012		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section E for each key person.)

12. NAME Wesley Pipes, PE, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 20 years</td> <td>b. WITH CURRENT FIRM 1 year</td> </tr> </table>		a. TOTAL 20 years	b. WITH CURRENT FIRM 1 year
a. TOTAL 20 years	b. WITH CURRENT FIRM 1 year				
15. FIRM NAME AND LOCATION (City and State) Vali Cooper & Associates, Inc. – Emeryville, California					
16. EDUCATION (Degree and Specialization) B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline) Professional Engineer, California No. C60897 Qualified SWPPP Developer and Practitioner (QSD) No. 22122			
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Wesley has more than 20 years of experience in engineering and construction management for construction management firms and public agencies. His projects include working on highways, pipelines, heavy civil, rail transit, dams, and utilities. Wesley is familiar with Caltrans standards, policies and procedures. He has served in multiple roles assisting with the administration of projects constructed to Caltrans standards and within Caltrans right-of-way, including Lead Assistant Resident Engineer.					
19. RELEVANT PROJECTS					
a.	(1) TITLE AND LOCATION (City and State) State Route 4 Loveridge To 160 and EBART Projects, Caltrans District 4, Antioch/Pittsburg, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2014</td> <td>CONSTRUCTION (if applicable) 2014</td> </tr> </table>		PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) 2014
PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) 2014				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Lead Assistant Resident Engineer. Wesley was Lead Assistant Resident Engineer on this Caltrans District 4 project that entailed widening SR 4 from two to four lanes on four separate contracts for a total length of 5.5 miles. He was responsible for preparing progress payments, interpretation of contract specifications, SWPPP reviews and preparing reports, (REAP, during storm and post storm reports), preparation of annual reports for the Loveridge Project, water sampling for pH and turbidity, reviewing contractor's SWPPP documentation, inspection of SWPPP items, writing Corrective Action Plans, inspection of 18-inch waterline and storm drains, and landscaping inspection. Cost: \$70,000,000 Involvement: January 2012 to July 2014					
b.	(1) TITLE AND LOCATION (City and State) Interstate 80 HOV Lanes, Caltrans District 4, Fairfield, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2011</td> <td>CONSTRUCTION (if applicable) 2011</td> </tr> </table>		PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) 2011
PROFESSIONAL SERVICES 2011	CONSTRUCTION (if applicable) 2011				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Lead Assistant Resident Engineer. Wesley was the Lead Assistant Resident Engineer on this Caltrans District 4 project to widen I-80 for nine miles in both directions in order to add HOV lanes. He was responsible for supervising inspectors for civil and electrical work, overseeing the material testing for soils, preparing progress payments, managing RFI's, preparing drawings for contract change orders, and reviewing submittals. Cost: \$20,000,000 Involvement: January 2009 to January 2011					
c.	(1) TITLE AND LOCATION (City and State) State Route 4 Bypass, Segment 1, Contra Costa Transportation Agency, Antioch, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2012</td> <td>CONSTRUCTION (if applicable) 2012</td> </tr> </table>		PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2012
PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2012				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Lead Civil Engineer. Wesley was Lead Civil Engineer on this project to extend SR4 around the City of Antioch. His role on this project included: supervising inspectors for civil and electrical work, managing subconsultant surveying work, overseeing the material testing for soils, preparing progress payments, writing contract change orders, managing RFI's, and reviewing submittals. Cost: \$30,000,000 Involvement: January 2011 to January 2012					
d.	(1) TITLE AND LOCATION (City and State) U.S. 101/Millbrae Interchange Improvement, City of Millbrae, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2009</td> <td>CONSTRUCTION (if applicable) 2009</td> </tr> </table>		PROFESSIONAL SERVICES 2009	CONSTRUCTION (if applicable) 2009
PROFESSIONAL SERVICES 2009	CONSTRUCTION (if applicable) 2009				
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Resident Engineer. Wesley was the Resident Engineer on this large interchange project. His duties included monitoring work for conformance with contract plans and specifications; providing plan and specification interpretation; informing client and					

Caltrans oversight of project progress; managing supporting consultant contracts for the client; managing change orders; and providing constructability/bidability reviews. Wesley also supervised inspectors; chaired weekly meetings; reviewed contractors progress schedule; prepared progress payments; and managed the coordination of RFIs, submittals, and environmental work related to stream alterations and protection of endangered species.

Cost: \$35,000,000

Involvement: January 2007 to January 2009

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Darrah Ramsbotham, PE, QSP	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 20 years </td> <td> b. WITH CURRENT FIRM 3 years </td> </tr> </table>		a. TOTAL 20 years	b. WITH CURRENT FIRM 3 years
a. TOTAL 20 years	b. WITH CURRENT FIRM 3 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> Vali Cooper & Associates, Inc. – Murphys, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C42949 Qualified SWPPP Practitioner (QSP) No. 23159			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Darrah has more than 17 years of experience in engineering, project management and construction management. She brings strong analytical and problem solving skills to her projects, is results-oriented, and has the ability to make good decisions using sound engineering judgment. She provides efficient management and organizational abilities with an exceptional work ethic and excellent communication skills.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0321 On-Call Professional & Technical Stormwater Quality Assurance Services, Caltrans District 43 (Prime Consultant), Sacramento, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA			
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Field Compliance Monitor. Darrah currently serves as Field Compliance Monitor for the VC&A statewide contract with Caltrans Division of Environmental Analysis (Headquarters). She is responsible for providing Independent Quality Assurance reviews of Caltrans construction projects for stormwater compliance. She schedules project reviews, meets with Caltrans district and headquarters staff, provides written and photographic documentation of site visits, and attends team meetings to discuss stormwater trends. Contract Cost: \$6,000,000 Involvement: May 2015 to Present					
b. (1) TITLE AND LOCATION <i>(City and State)</i> U.S. 50 HOV Lanes Phase 0, El Dorado Hills Interchange, County of El Dorado, Placerville, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Assistant Resident Engineer. This project included construction of a new on- and off-ramp, as well as improvements to the local intersection and El Dorado Hills Boulevard. It consisted of a median widening and adding 15,000 feet of HOV lanes in the eastbound and westbound directions, replacing the undercrossings at Latrobe Road, and widening the Clarksville Undercrossing. Darrah served as the Office Engineer and Construction Inspector, and completed project close-out. Project Fee: \$11,000,000 Involvement: May 2012 to November 2012					
c. (1) TITLE AND LOCATION <i>(City and State)</i> U.S. 50, Missouri Flat Interchange, Phase 1b, County of El Dorado, Placerville, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012			
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Assistant Resident Engineer. Darrah served as the Office Engineer and Construction Inspector for the VC&A team, which provided construction support services on behalf of the County for this project consisting of constructing auxiliary lanes along U.S. 50 between Missouri Flat Road and Placerville Drive/Forni Road. The project also included widening and retrofitting Weber Creek Bridge; constructing retaining walls; performing road work and electrical work; and, constructing a bicycle/pedestrian path along the eastbound auxiliary lane. Major elements of the project include: constructing a new westbound on-ramp to Highway 50 from Ray Lawyer Drive; realignment and widening of Fair Lane; relocation of sewer facilities; and constructing a new storm water detention basin and drainage facilities. Project Fee: \$35,000,000 Involvement: May 2012 to November 2012					
d. (1) TITLE AND LOCATION <i>(City and State)</i> Western Placerville Interchange Phase 1a, City of Placerville, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014			

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* **AND SPECIFIC ROLE**

☒ *Check if project performed with current firm*

Assistant Resident Engineer. Darrah served as the Assistant Resident Engineer on this project for the City of Placerville. The project included constructing a new on-ramp and auxiliary lane, realignment of an adjacent roadway, as well as new utility infrastructure and retaining walls. The Western Placerville Interchanges Phase 1A project is the first in a six-phase project to transform Ray Lawyer Drive Bridge into an interchange, make improvements to Forni Road and eventually reconstruct the Forni Road Bridge at US Highway 50. Major elements of the project include: constructing a new westbound on-ramp to Highway 50 from Ray Lawyer Drive, realignment and widening of Fair Lane, relocation of sewer facilities, constructing a new storm water detention basin and drainage facilities, and roadway lighting. Darrah served as the Office Engineer, inspector, and QSP for the VC&A team.

Project Fee: \$5,940,000

Involvement: December 2012 to June 2014

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Dave Sluga, PE, CPESC, QSD, ToR	Enforcement and Prevention Assistance	a. TOTAL 26 years	b. WITH CURRENT FIRM 1 year

15. FIRM NAME AND LOCATION *(City and State)*

Vali Cooper & Associates, Inc. – Sacramento, California

16. EDUCATION *(Degree and Specialization)*

B.S., Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

Professional Engineer, California No. C51177
 Qualified SWPPP Developer and Practitioner (QSD) No. 047
 Certified Professional in Erosion and Sediment Control (CPESC),
 No. 5894
 Trainer of Record (ToR)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Dave has more than 26 years of construction industry experience as a contract administrator, construction manager, resident engineer, and project manager. He is also well versed in the implementation of environmental and pollution control requirements during planning, design, and construction phases of development. Dave is a registered civil engineer who has worked extensively with Caltrans as a District 7 resident and engineer and as a consultant. As such, he has extensive knowledge of the Caltrans Standard Specifications, Standard Plans, and the Policies and Procedures. During his career, the positions he has held have included construction inspector, resident engineer, project manager, and technical specialist in NPDES Permit compliance. Functioning as the project manager and task order manager, Dave assisted Caltrans with NPDES permit compliance at construction sites and maintenance facilities during the first series of contracts from the mid-1990s through early part of the next decade. For the last 10 years, Dave has assisted public agencies, property and facility owners, and contractors with stormwater compliance.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
Contract No. 43A0321 On-Call Professional and Technical Stormwater Quality Assurance Services, Caltrans District 43 (Prime Consultant), Sacramento, California	Ongoing	NA
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ Check if project performed with current firm Project Manager. Dave currently serves as Project Manager for the VC&A statewide contract with Caltrans DEA. He manages a large team of consultants providing site compliance reviews for construction projects, maintenance facilities, and maintenance activities throughout the state. He develops work plans, budgets, task orders, and protocols, as well as managing field staff. Client feedback is essential on this project, and Dave regularly meets with and discusses field issues with district and headquarters personnel. <i>Project Fee: \$6,000,000</i> <i>Involvement: September 2014 to Present</i>		
SANDAG, Assistant Resident Engineer, Del Mar Bluffs Stabilization Project III and Bayshore Bikeway Segments 7 and 8A Project, San Diego, California	2011	2011
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☐ Check if project performed with current firm Construction Manager. Dave was the Construction Manager for two concurrent contracts working with San Diego Association of Governments (SANDAG). He was responsible for contract documentation, quality assurance, contract change orders, contractor payments, communication with the contractor, railroad personnel, local agencies, and SANDAG managers. He also controlled the budgets of the construction contracts. The Del Mar Bluffs Stabilization Project III consisted of drilling 92, 36-inch diameter holes for soldier piles that were spaced approximately 10 feet on center and 40 to 65 feet in depth. Work involved installing steel reinforcement beams into the holes; backfilling the holes with concrete; installing tie-backs at some locations; and finishing with an architecturally enhanced pile cap. The project's total cost was \$2.2 million. The Bayshore Bikeway Segments 7 and 8A added 1.8 miles of a Class 1 bikeway facility from H Street to Palomar Avenue in the City of Chula Vista. In addition to the City, a portion of the facility traveled through railroad and the Port of San Diego District right-of-way. The \$1.2 million project had a number of challenges to overcome including special treatments for railroad crossings, expansive soils, areas prone to flooding, historic resources, and endangered species. <i>Project Fee: \$20,000,000</i> <i>Involvement: July 2011 to December 2011</i>		
c. (1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	

Stormwater On-Call Technical Assistance Of Planning And Design, Caltrans, Sacramento, California	PROFESSIONAL SERVICES 2008	CONSTRUCTION (if applicable) NA		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Task Order Manager. Dave served as Task Order Manager/Technical Specialist, assisting Caltrans with developing and conducting training programs for department staff on storm water pollution prevention concepts and practices related to the planning and design of transportation facilities. <i>Project Fee: \$10,000,000</i> <i>Involvement: July 2005 to July 2008</i>				
(1) TITLE AND LOCATION (City and State) Stormwater On-Call National Pollutant Discharge Elimination System Permit Obligations Concerning Guidance And Training, Caltrans District 43, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2005</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) NA			
d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Technical Specialist. Dave was a Technical Specialist assisting Caltrans with conducting training programs for department staff on water pollution control concepts and practices related to construction sites. He implemented a Train-the-Trainer program with the team, as well as trained hundreds of construction personnel. <i>Project Fee: \$6,000,000</i> <i>Involvement: January 2004 to January 2005</i>				
(1) TITLE AND LOCATION (City and State) Project Development Services For Stormwater Management Plan and National Pollutant Discharge Elimination System Permit Compliance, Caltrans District 43, Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2003</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES 2003	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2003	CONSTRUCTION (if applicable) NA			
e. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Project Manager. Dave was a Project Manager/Task Order Manager supporting Caltrans with implementation of a comprehensive storm water management program to evaluate compliance with NPDES permit requirements under two consecutive, multi-year, on-call task order contracts beginning in 1995 and continuing thru 2003. He was responsible for all aspects of evaluating compliance at construction sites and maintenance facilities in accordance with the developed Storm Water Management Plan. Dave helped develop inspection guidelines and criteria in accordance with permit requirements; assisted in establishing an inspection protocol to ensure statewide consistency and quality control; helped design and implement a database for central data storage and retrieval; and helped collect, analyze and publish inspection data. At the peak of compliance reviews, Dave managed more than ten field compliance inspectors who conducted multiple, daily compliance reviews throughout California. At last count, his team had conducted more than 5,000 onsite inspections. Dave was also responsible for developing annual reports, assisting with various BMP bulletins, and also helped develop NPDES training programs for construction staff. Dave also traveled the state conducting various training modules that were presented to Caltrans employees. <i>Project Fee: \$8,000,000</i> <i>Involvement: July 2000 to July 2003</i>				

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Andrew Chin	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 9 years</td> <td>b. WITH CURRENT FIRM 8 years</td> </tr> </table>		a. TOTAL 9 years	b. WITH CURRENT FIRM 8 years
a. TOTAL 9 years	b. WITH CURRENT FIRM 8 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> WRECO – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Environmental Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Engineer-in-Training, California No. 61526			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Andrew has experience in civil and environmental engineering studies. He performs stormwater treatment BMP design, such as biofiltration swales, ditches, and other treatment media, as well as drainage design. He is aiding in the transition of Caltrans District 4 construction projects into compliance with the new NPDES CGP. He also develops reports and presentations in the field of water quality and stormwater drainage, particularly Storm Water Data Reports (SWDRs) and Storm Water Information Handouts. He also wrote sample SWDRs for Caltrans. He is also familiar with drafting applications for design projects using MicroStation and AutoCAD and modeling tools such as the Bay Area Hydrology Model (BAHM) and Hydraflow. His training includes: 2009 NPDES CGP and Advanced BAHM.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Project Planning and Design Guide Revision, Caltrans, Statewide, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA			
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Hydraulic Engineer. As part of the Caltrans District 43 Stormwater Design Contract, this project was to assist the project team in revising the Project Planning and Design Guidelines (PPDG) based on user experience and to reflect the NPDES Statewide Storm Water Permit for Caltrans (Order 2012-0011-DWQ, NPDES No. CAS 000003), and Order WQ 3025-0077-DWQ, which amended the NPDES Permit. Andrew was responsible for assisting in the streamlining of the PPDG and revising the SWDR template and associated forms, worksheets, and checklists. The revisions to the PPDG also included developing guidance and procedures to assist engineers in developing a SWDR to meet Caltrans requirements. <i>Project Fee: \$140,000.</i> <i>Involvement: July 2014 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Stormwater Data Report Updates, Caltrans, Statewide, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA			
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Hydraulic Engineer. As part of the Caltrans District 43 Stormwater Design Contract, this project was to assist the project team in updating the SWDR examples that Caltrans posts on its website to reflect the recent updates to the PPDG and the design guidance for reference by project engineers. Andrew prepared sample SWDRs for Caltrans. The reports documented stormwater requirements and BMPs for nearly all Caltrans projects. The end product included 33 reports to be used by Caltrans staff and consultants throughout California. <i>Project Fee: \$84,000.</i> <i>Involvement: July 2014 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Caltrans Biofiltration Basin Basis of Design, Caltrans, Statewide, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA			
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Hydraulic Engineer. As part of the Caltrans District 43 Stormwater Design Contract, this project was to develop a basis of design for biofiltration basins to be used statewide. Andrew was responsible for evaluating a pilot bioretention basin proposed in Solano County that was sized using local criteria and comparing the sizing to that of an Austin Vault Sand Filter (AVSF), which is an approved Caltrans treatment BMP. Based on this comparison, recommendations were provided to assist in the future development of bioretention basin design criteria for statewide use. <i>Project Fee: \$140,000.</i> <i>Involvement: September 2013 to Present</i>					

	(1) TITLE AND LOCATION (City and State) Construction General Permit Registration Documents Preparation Project, Caltrans District 4, San Francisco Bay Area, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Water Quality Specialist. This project was to provide assistance to the Caltrans District 4 Offices of Water Quality and Environmental Engineering Support to ensure that construction projects comply with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Andrew assisted Caltrans personnel with evaluating whether construction projects meet the Notice of Termination (NOT) conditions of the CGP. Andrew was responsible for tracking the field locations of permanent stormwater treatment facilities with GIS, determining whether they were constructed as shown on the contract plans, and assessing their performance. If deficiencies were observed, Andrew provided recommendations to Caltrans personnel to ensure that stormwater treatment was provided. Project Fee: \$234,000. Involvement: April 2010 to Present		
	(1) TITLE AND LOCATION (City and State) U.S. 101 Auxiliary Lanes, Caltrans District 4, Cities of Mountain View and Palo Alto, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable) 2016
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Hydraulic Engineer. Andrew prepared the SWDR for Caltrans, detailing the design and implementation of temporary construction site and permanent stormwater BMPs. To determine whether the temporary BMP measures proposed were adequate for the project, Andrew calculated the project risk factor according to the NPDES CGP (Order No. 2009-0009-DWQ). For the permanent treatment BMP measures, Andrew worked in coordination with the drainage design team to determine feasible locations for biofiltration strips and swales. He performed hydraulic calculations to size the biofiltration devices to meet the current treatment design criteria for the area. Andrew also worked with the project team to modify the biofiltration swale design to meet the current bioretention area design criteria including the soil layers and underdrains. Included in this work was the calculation of the quantities and estimate related to treatment and hydromodification mitigation. Project Fee: \$727,000. Involvement: March 2009 to July 2014		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Robert Lawrence, PE, GE	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 21 years	b. WITH CURRENT FIRM 2 years

15. FIRM NAME AND LOCATION *(City and State)*
WRECO – Roseville, California

16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering M.S., Geotechnical Engineering Coursework	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C63076, 2002 Professional Geotechnical Engineer, California No. 2785, 2008

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Robert has more than 21 years of professional experience in the transportation and infrastructure industry, including extensive experience in geotechnical and structural design, construction management, and design-build projects. His specialties include bridge, roadway, and infrastructure projects throughout California, and his areas of expertise include large foundations and retaining structures, roadway embankment settlement analyses, and structural pavement rehabilitation and design. Robert's expertise is gained through large infrastructure projects performed throughout California and the northeastern/mid-Atlantic U.S., as well as through his education at the New Jersey Institute of Technology. He has a B.S. in Civil Engineering and has completed his coursework toward his masters in Geotechnical Engineering.

19. RELEVANT PROJECTS

Structures Design, Caltrans District 59, Statewide, California		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) NA
a.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Structures/Geotechnical Design Engineer. The proposed project consisted of widening I-405 in Los Angeles and SR 132 in Burbank, consisting of the following: • Ohio Avenue Undercrossing Widening • Wilshire Boulevard Undercrossing Widening • Constitution Boulevard Undercrossing Widening • Thompson Boulevard Pedestrian Undercrossing Lengthening • Justin Avenue Pedestrian Undercrossing Lengthening • Olympic Avenue Overhang • RW #77 • Hollywood Boulevard Overcrossing Lengthening • Alameda Boulevard Overcrossing Lengthening • Route 405/2 Separation Lengthening Robert was responsible for the coordination and QA/QC reviews for geotechnical work on more than 20 widening projects. He was the Engineer of Record for six widening Foundation Reports and two of the retaining wall reports. He worked closely with Caltrans' Geotechnical Branch and Structures design and was able to have all six reports approved on time for 100 percent PS&E submittal and subsequent bid advertisement. <i>Project Fee: \$4,000,000</i> <i>Involvement: August 2002 to December 2005</i>		
	(1) TITLE AND LOCATION (City and State) 24th Street Widening Project, Caltrans District 6, City of Bakersfield, California		
b.	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Geotechnical Project Manager. The project is for a 2-mile east-west connection from SR 99 to M Street, with three lanes in each direction. Construction will include a new widening of the structure over Carrier Canal, existing infiltration basin expansions, a new travel lane in each direction, new retaining and sound walls, new hot mix asphalt (HMA) and Portland cement concrete (PCC) pavement, in-place pavement recycling, and new concrete flatwork. Robert is responsible for preparing the Geotechnical Design Report and Materials Report for the roadway and standard wall improvements and a Foundation Report for the non-standard wall. All of the reports are currently being reviewed by Caltrans. <i>Project Fee: \$300,000</i> <i>Involvement: January 2014 to Present</i>		

	(1) TITLE AND LOCATION (City and State) Sacramento Railyards Pipe Jacking under Union Pacific Railroad Project, Granite Construction, City of Sacramento, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2013</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) NA				
c.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Geotechnical Project Manager. As part of the Sacramento Railyards Redevelopment Project, a new 42-inch City of Sacramento waterline pipe was to be installed via micro-tunneling under the existing active UPRR tracks on the south side of the project site. Robert was responsible for preparing and implementing the settlement monitoring for the new waterline, which was installed in a 42-inch micro-tunneled pipe sleeve. <i>Project Fee: \$20,000.</i> <i>Involvement: June 2012 to June 2013</i>				
	(1) TITLE AND LOCATION (City and State) Geotechnical Design Services for Emergency Slope Failure Repair along Cripple Creek at Mariposa Avenue, City of Citrus Heights, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA				
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Geotechnical Engineer. The proposed project is an emergency slope repair project. Vertical and horizontal displacements of up to 12 inches have led to closing the shoulder and potentially the roadway for safety reasons. Robert is leading the fast-track site investigation and Geotechnical Design Study for this emergency slope repair project. <i>Project Fee: \$47,000.</i> <i>Involvement: November 2014 to Present</i>				
	(1) TITLE AND LOCATION (City and State) Retaining Walls (Soil Nail) 327R, 335R, and 357R, District 11 On-Call, Imperial and San Diego Counties, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2005</td> <td>CONSTRUCTION (if applicable) 2009</td> </tr> </table>		PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) 2009
PROFESSIONAL SERVICES 2005	CONSTRUCTION (if applicable) 2009				
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☐ Check if project performed with current firm Design Reviewer. The project was to review designs for the Cost Reduction Incentive Program (CRIP) soil nail walls proposed to replace proposed Type 1 walls. Robert's responsibilities included review of the design calculations, plans, and special provisions to the construction specifications. <i>Project Fee: \$10,000,000.</i> <i>Involvement: August 2002 to December 2005</i>				



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Han-Bin Liang, Ph.D., PE, QSD	13. ROLE IN THIS CONTRACT Water Quality Assurance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 30 years</td> <td>b. WITH CURRENT FIRM 30 years</td> </tr> </table>		a. TOTAL 30 years	b. WITH CURRENT FIRM 30 years
a. TOTAL 30 years	b. WITH CURRENT FIRM 30 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> WRECO – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> Ph.D., Civil Engineering M.S., Civil Engineering B.S., Agricultural Engineering (Hydraulics)		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California No. C48404 Qualified SWPPP Developer and Practitioner (QSD), California No. 1130			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Dr. Liang has a strong career commitment in civil engineering, water resources, environmental hydrology, and coastal engineering. During his career, he has been involved in more than 1,000 infrastructure and water resources projects, performed hydraulic studies for nearly 400 bridges and major culvert crossings, and he has worked on Caltrans District 4 highway projects since 1989. He has been responsible for wetland mitigation, groundwater elevation monitoring, geomorphic assessments, hydromodification analysis and mitigation, water pollution control, erosion control, Water Quality Studies, and Storm Water Data Reports (SWDRs).					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 04A1441, 04A2191, 04A3350, and 04A4105 Hydraulic On-call Services, Caltrans District 4, San Francisco Bay Area, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> a. Project Manager. Dr. Liang directs a team of consultants to perform hydrologic and hydraulic studies and designs. Task orders for the contracts include riverine hydraulics, floodplain studies, fish passage restoration, wetland hydrology, stormwater treatment BMPs, drainage design, hydromodification, storm damage support, culvert rehabilitation, coastal wave study, construction support, and plan checks and review. Task orders have been performed to meet the required schedule and budget. Project Cost: \$10,000,000. Involvement: February 2002 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 04A2505, 04A2938, 04A3626, 04A4312, Water Quality Studies and Technical Services, Caltrans District 4, San Francisco Bay Area, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> b. Principal-in-Charge. Dr. Liang oversees a team of consultants to perform construction support for various projects, including, but not limited to, CGP compliance; SWPPP and Contract Change Order (CCO) review; stormwater BMP design; construction non-stormwater treatment design; Section 401 Water Quality Certification assistance; and hydromodification analysis and mitigation design. Project Cost: \$10,300,000. Involvement: February 2002 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 03A1103 (Civil) and 03A1051 (Environmental), Civil and Environmental On-call Services, Caltrans Districts 1, 2, and 3, California		(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2007</td> <td>CONSTRUCTION <i>(if applicable)</i> NA</td> </tr> </table>		PROFESSIONAL SERVICES 2007	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES 2007	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> c. Task Leader. Dr. Liang performed water quality studies and floodplain analyses and prepared the SWDRs for the following task orders: Hwy 101 Eureka Median Closure Project (District 1); Buckhorn Grade /State Route (SR) 299 Improvement Project (District 2); Third Feather River Project (District 3); SR 49 Project in Nevada County (District 3); and SR 101 Hopland Bypass Project (District 1). He also performed the drainage plans, specifications, and estimate for SR 89, SR 267, and I-50. Project Fee: \$493,000 (Civil) and \$92,000 (Environmental) Involvement: February 2007 to November 2007					

(1) TITLE AND LOCATION (City and State) Contract No. 06A0869 (Civil) 06A0852 (Environmental), Caltrans Central Region Civil and Environmental On-call Services, Districts 5, 6, and 10, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm d. Task Leader. Dr. Liang prepared the hydrologic and hydraulic calculations, including the Floodplain Location Hydraulic Study and Drainage Impact Study for SR 180 Route Selection Study; SWDRs for I-205 in San Joaquin County and SR 99 in Merced County; and a Floodplain Study for four SR 99 interchanges near the City of Bakersfield. Dr. Liang also oversaw the SR 99/Merced Safety Project, where WRECO staff was responsible for developing the drainage, erosion control, and water pollution control plans for the addition of four maintenance vehicle pullouts on both southbound and northbound SR 99 in the City of Merced. <i>Project Fee: Varies</i> <i>Involvement: January 2005 to November 2010 and February 2014 to Present</i>				
(1) TITLE AND LOCATION (City and State) Gleason Beach Highway 1 Relocation Project, Caltrans District 4, California	(2) YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) Ongoing</td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) Ongoing
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) Ongoing			
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm e. Project Manager. The purpose of this study is to estimate the future erosion rate at Gleason Beach on Hwy 1 in Sonoma County. Caltrans plans to realign Hwy 1 landward in this area and needed information to assess the proposed realignment and obtain a California Coastal Commission permit. Dr. Liang is responsible for performing a coastal erosion analysis, wave climate study, and tidal hydraulic study for the project to estimate the long-term shoreline erosion for the proposed highway realignment. The study takes into account the projected sea level rise. <i>Project Fee: \$103,000</i> <i>Involvement: April 2010 to Present</i>				



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Analette Ochoa, PE, QSD, ToR	13. ROLE IN THIS CONTRACT Maintenance, Water Quality Assistance and Compliance	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 22 years </td> <td> b. WITH CURRENT FIRM 8 years </td> </tr> </table>		a. TOTAL 22 years	b. WITH CURRENT FIRM 8 years
a. TOTAL 22 years	b. WITH CURRENT FIRM 8 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> WRECO – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering, University of California, Davis		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Professional Civil Engineer, California: No. C55279, 2006 Qualified SWPPP Developer and Practitioner (QSD), California No. 178, 2012 Qualified Construction General Permit QSD Trainer of Record (ToR), California HAZWOPER			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Analette is an expert in the fields of stormwater management and hydraulics with over 21 years of experience. She assisted Caltrans Headquarters, Office of Storm Water Management - Design, in their efforts to update the Caltrans Storm Water Quality Handbook: Project Planning and Design Guide (PPDG) and Storm Water Data Report (SWDR) Workshop Materials with new low impact development (LID) requirements. Additionally, Analette assisted in the statewide training of Caltrans staff on LID. Prior to joining WRECO, she was the Caltrans District 4 Storm Water Coordinator. She was responsible for the overall management of the Storm Water Program for the District and managed the District's projects in compliance with the NPDES Permit from the SWRCB. She also negotiated stormwater permit compliance with the RWQCB for all District projects.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 43A0254 and 43A0314 Statewide Stormwater Design, Caltrans District 43, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Specialist. Analette assisted Caltrans Headquarters' Office of Storm Water Management Design with updating the stormwater Project Planning and Design Guidelines (PPDG), as well as conducting Storm Water Data Reports preparation training for Caltrans in-house staff. She was also responsible for the preparation of sample Storm Water Data Reports for future statewide use. <i>Project Fee: \$162,000</i> <i>Involvement: June 2009 to June 2011 and December 2013 to May 2015</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract Nos. 04A2938, 04A3626, and 04A4312, Water Quality Studies and Technical Services, Caltrans District 4, San Francisco Bay Area, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> Varies </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Varies
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Varies				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Project Manager. For various task orders, Analette oversees various studies prepared for projects for CEQA and NEPA compliance with CWA, California Porter-Cologne Water Quality Control Act, Caltrans' Statewide NPDES permit and project-specific CWA 401 Certification and Waste Discharge Requirements, California Wetlands Policy, and Total Maximum Daily Loads (TMDL) and Water Quality Control Plans adopted by the RWQCBs and SWRCB. Analette is also responsible for construction support, risk assessments, construction general permit compliance, SWDRs, review of SWPPP amendments and conceptual SWPPPs. Analette is also overseeing inspections during construction of treatment BMPs to ensure compliance with applicable permits. <i>Project Fee: \$10,300,000</i> <i>Involvement: April 2011 to Present</i>					
(1) TITLE AND LOCATION <i>(City and State)</i> Contract No. 43A0316, Statewide Stormwater Design, Caltrans District 43, Statewide, California		(2) YEAR COMPLETED <table border="1"> <tr> <td> PROFESSIONAL SERVICES Ongoing </td> <td> CONSTRUCTION <i>(if applicable)</i> NA </td> </tr> </table>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA				
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Stormwater Specialist. Trash generation within the San Francisco Bay Area is a pervasive issue impacting the water quality and beneficial uses of the creeks, streams, waterways and the San Francisco Bay. Analette is responsible for identifying high trash generation areas along Caltrans District 4 Highways. She was responsible for coordinating with local agencies, Caltrans Municipal Separate Storm Sewer System (MS4), and Caltrans maintenance supervisors to prioritize high trash generation areas for cleanup. Analette is also assisting Caltrans Headquarters' Office of Storm Water Management Design with revisions					

to the Storm Water PPDG in compliance with the Caltrans MS4 Permit. <i>Project Fee: \$50,000</i> <i>Involvement: June 2015 to Present</i>		
(1) TITLE AND LOCATION (City and State) Vasco Winds Repowering SWPPP Project, Confidential Client, Contra Costa County, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2012
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm SWPPP Lead. Analette oversaw the construction inspection of the Vasco Winds Repowering Project. She ensured that WRECO's Qualified SWPPP Practitioner (QSP) staff conducted weekly site inspections per the requirements of CGP. Site inspections included documenting and photographing BMPs, recommending any additional BMPs and necessary maintenance and documentation of BMPs installed. Analette also oversaw the pre-, during-, and post-rain event inspections for any rain event predicted and ensured that turbidity and pH samples were taken during a rain event of a ½ inch or more precipitation. <i>Project Fee: \$209,000</i> <i>Involvement: June 2011 to June 2012</i>		
(1) TITLE AND LOCATION (City and State) Caldecott Tunnel 4th Bore Project, Caltrans District 4, Alameda and Contra Costa Counties, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable) 2013
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Senior Engineer. Analette developed a conceptual dewatering plan and temporary non-stormwater treatment alternatives for the Caldecott Tunnel Fourth Bore Project in compliance with applicable General NPDES permits. She reviewed SF Bay RWQCB General NPDES permits (Order No. R2-2006-0075 and R2-2007-0033) for applicability to the treatment and disposal of construction phase groundwater. Analette assisted Caltrans District 4 to transition this project to be in compliance with the NPDES CGP. <i>Project Fee: \$54,000</i> <i>Involvement: April 2008 to September 2010</i>		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Cuyler Stapelmann	13. ROLE IN THIS CONTRACT Water Quality Assistance and Compliance	14. YEARS EXPERIENCE	
		a. TOTAL 5 years	b. WITH CURRENT FIRM 3 years

15. FIRM NAME AND LOCATION *(City and State)*
WRECO – Walnut Creek, California

16. EDUCATION <i>(Degree and Specialization)</i> B.S., Conservation and Resources Studies	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Cuyler has more than 5 years of experience working on stormwater quality projects. He performs environmental sampling for regulatory compliance, including surface water, groundwater, and soil sampling for toxicity and geotechnical analysis; writes technical reports; and reviews specifications and plan sheets for water quality/stormwater BMPs. Cuyler's experience also includes developing SWPPPs and SWMPs; and performing site inspections. His training spans: Rare Ponds Species Survey Techniques, Beginning Birding with SF Audubon Society, Southwestern Desert Bat Class, SFSU's Conservation and Ecology of California Bats. Cuyler has HAZWOPER training.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
San Francisco-Oakland Bay Bridge Dismantling, Caltrans District 4, San Francisco and Oakland, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Staff Environmental Scientist. In an effort to minimize hydroacoustic impacts to aquatic life associated with mechanical removal, Caltrans proposes to implode Pier E3 of the existing SFOBB in a pilot demonstration project. In collaboration with a subconsultant, Cuyler prepared the water quality monitoring plan consistent with the NPDES permit and 401 Water Quality Certification issued to the project to assess impacts to special aquatic sites (eelgrass habitat) and water quality of San Francisco Bay. <i>Project Fee: \$252,000</i> <i>Involvement: August 2015 to Present</i>		
Marin-Sonoma Narrow Project, Contract B3, Caltrans District 4, Marin and Sonoma Counties, California	PROFESSIONAL SERVICES 2013	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Technician. This project was for Caltrans District 4 and Cuyler performed groundwater quality monitoring at a privately-owned springbox that would be impacted due to the proposed project in order to determine the appropriate mitigation for the property owner. He coordinated the field reconnaissance, measured pH with a handheld meter, collected samples for laboratory analysis, performed quality control, interfaced with the laboratory, and prepared the Chain of Custody and technical report summarizing the analytical results. <i>Project Fee: \$32,000</i> <i>Involvement: October 2012 to December 2013</i>		
Interstate 580 Eastbound Shoulder Running Lane and Bi-Directional Bike Lane, Transportation Authority of Marin, Marin County, California	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> NA
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Staff Environmental Scientist. Cuyler is assisting with the Natural Environment Study and Biological Assessment for this project. For this effort, he is performing special-status plant surveys, harbor seal monitoring at Castro Rocks, California red-legged frog habitat assessment, and habitat mapping. <i>Project Fee: \$190,000</i> <i>Involvement: July 2014 to Present</i>		

	(1) TITLE AND LOCATION (City and State) Doyle Drive Replacement Project, Caltrans District 4, San Francisco, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Staff Environmental Scientist. For this Caltrans District 4 On-call project, Cuyler is assisting with the long-term monitoring of potential impacts to existing wetlands associated with the construction of the battery tunnels. In addition, he is assisting with the long-term monitoring of the Dragonfly Creek riparian mitigation area and wetlands enhancement/restoration at Crissy Bluff. Tasks include plant sampling and wildlife identification. Project Fee: \$224,000 Involvement: July 2013 to Present		
	(1) TITLE AND LOCATION (City and State) Tolay Creek Ranch Mitigation Project, Caltrans District 4, Sonoma County, California	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) 2013
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE ☒ Check if project performed with current firm Biological Monitor. This project for Caltrans District 4 was mitigation for impacts to waters and riparian areas impacted by the Phase 1 Marin-Sonoma Narrows projects. Cuyler monitored the construction site for nesting birds and special-status species during the construction of grade control structures along a tributary to Tolay Creek. He also monitored the site to ensure compliance with regulatory permits, including the Biological Opinion, 401 Water Quality Certification, and the 1602 Streambed Alteration Agreement. Project Fee: \$15,000 Involvement: September 2013 to October 2013		



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT *(Complete one Section E for each key person.)*

12. NAME Alvin Yim, CPSWQ, QSD	13. ROLE IN THIS CONTRACT Construction	14. YEARS EXPERIENCE <table border="1"> <tr> <td> a. TOTAL 9 years </td> <td> b. WITH CURRENT FIRM 9 years </td> </tr> </table>		a. TOTAL 9 years	b. WITH CURRENT FIRM 9 years
a. TOTAL 9 years	b. WITH CURRENT FIRM 9 years				
15. FIRM NAME AND LOCATION <i>(City and State)</i> WRECO – Walnut Creek, California					
16. EDUCATION <i>(Degree and Specialization)</i> B.S., Civil Engineering		17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> Engineer-in-Training, California No. 124572 Certified Professional in Storm Water Quality, No. 0849 HAZWOPER Qualified SWPPP Developer and Practitioner (QSD), California No. 22771, 2012			
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Alvin has experience with construction inspection; CGP compliance including preparation of Permit Registration Documents and SWPPP amendments; contract change orders (CCOs) for water quality compliance; erosion control and BMP design; pump station design; water pollution control plans; environmental sampling; and Resident Engineer (RE) files and stormwater information handouts. He is currently providing drainage and stormwater BMP construction support for the BART Silicon Valley Berryessa Extension Project as well as construction inspection for water quality-related issues for the Belmont Creek Dredging Project.					
19. RELEVANT PROJECTS					
(1) TITLE AND LOCATION <i>(City and State)</i> State Route 84 Niles Canyon Project, Caltrans District 4, Alameda County, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(if applicable)</i> NA			
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Associate Engineer. Alvin prepared the stormwater information handout and the resident engineer file for CGP compliance. This project includes safety improvements, new retaining walls, bridge replacement, and roadway widening. Project Fee: \$120,000 Involvement: April 2008 to March 2011					
(1) TITLE AND LOCATION <i>(City and State)</i> Sonoma 101 Central Project, Caltrans District 4, Sonoma County, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> 2012			
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Associate Engineer. Alvin updated stormwater management specifications, determined the Risk Level, and reviewed the SWPPP to bring it up to conformance with the updated CGP guidelines. This project includes roadway widening, safety improvements, and stormwater treatment. Project Fee: \$485,000 Involvement: May 2009 to Present					
(1) TITLE AND LOCATION <i>(City and State)</i> Vasco Winds Repowering Stormwater Pollution Prevention Plan Project, Confidential Client, Contra Costa County, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(if applicable)</i> 2012			
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Associate Engineer. Under the supervision of a Qualified SWPPP Practitioner, Alvin performed weekly, pre-rain, and post-rain site inspections to make sure the project site complied with the CGP. Alvin also sampled and monitored stormwater flows during rain events. Project Fee: \$209,000 Involvement: November 2011 to June 2012					
(1) TITLE AND LOCATION <i>(City and State)</i> Belmont Creek Flood Protection, Novartis Pharmaceutical, San Carlos, California	(2) YEAR COMPLETED				
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(if applicable)</i> 2014			
d. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> QSD Inspector. Alvin was the QSD Inspector for a project to dredge a portion of Belmont Creek. The project was intended to help alleviate flooding of the adjacent Novartis property. Alvin developed the Water Pollution Control Plan used during construction and also collected surface water samples from Belmont Creek for a screening against water quality objectives in					

the San Francisco Bay Regional Water Quality Control Board Basin Plan. <i>Project Fee: \$313,000</i> <i>Involvement: January 2014 to October 2014</i>		
(1) TITLE AND LOCATION <i>(City and State)</i> BART Silicon Valley Berryessa Extension, Santa Clara Valley Transportation Authority, Santa Clara County, California	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> Ongoing
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.) AND SPECIFIC ROLE</i> ☒ <i>Check if project performed with current firm</i> Associate Engineer. Alvin performed drainage and stormwater treatment design and drainage calculations for the BART extension to San Jose. Alvin also worked closely with the construction side of the joint venture, providing construction support, including providing contract change orders, answering requests for information, updating drainage design to accommodate construction constraints and review of materials used for construction. This is a design-build project that includes upgrading the railway tracks, pump stations, bridge replacements and drainage upgrades along the railroad corridor between Warm Springs and San Jose. The project also included the restoration and enhancement of a portion of Upper Penitencia Creek by realigning the existing channel and creating a more natural channel with a widened floodplain and riparian habitat. <i>Project Fee: \$546,000</i> <i>Involvement: December 2011 to March 2014</i>		



Section F



Example Projects

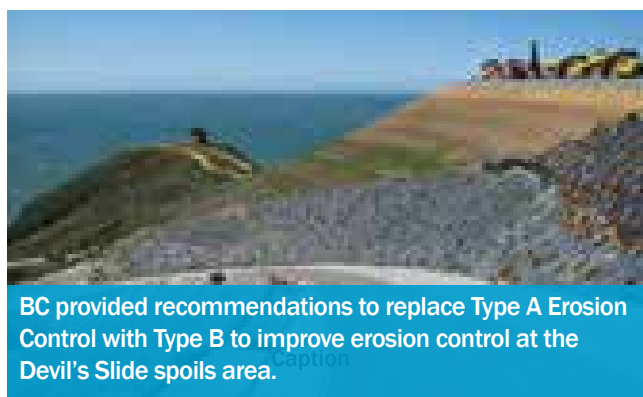
F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 1
21. TITLE AND LOCATION (City and State) Water Pollution Control Assistance – North Sacramento, California	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Caltrans	b. POINT OF CONTACT NAME Tom Huff	c. POINT OF CONTACT TELEPHONE NUMBER 209.663.1173
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>		

Since 2004, BC has provided short-term response assistance at Northern District construction and maintenance sites. These task orders are designed to provide immediate, time-critical assistance for unforeseen situations. To date, BC has completed 53 assistance requests. In all cases, the BC team has responded within 24 hours of the request and provided effective solutions. The process begins with a Site Assistance Request Form, through which Caltrans staff request assistance triggered by unusual circumstances, such as an enforcement order, severe erosion caused by poor material quality, or BMP placement questions due to extreme weather conditions or proximity to waterways.

BC provided help in the following categories:

Regulatory Agency Enforcement Response Assistance. BC has helped Caltrans staff and attorneys prepare technical reports and related information that responded to regulatory enforcement actions and penalties at sites such as Devil's Slide, Confusion Hill, Willits Bypass, Bear Creek, Lincoln Bypass, and Sonora Bypass. These responses were critical to Caltrans, and our support in all cases enabled Caltrans to meet compliance deadlines, minimize enforcement penalties, and keep projects on track. BC prepared a technical response to the EPA Administrative Audit, which was submitted to the EPA under the Caltrans Director's signature.

Erosion Control Response. BC has been called into action when severe weather, instability, or improper BMP implementation led to slope failure and/or severe slope erosion. BC's soil scientist and BMP experts recommended solutions such as erosion control mats to repair these slopes and improve BMPs to prevent future erosion. This



assistance was provided for Truckee, Willits, and Devil's Slide construction sites.

BMP Evaluations and Recommendations. Our team provided field BMP evaluations at difficult construction sites where standard BMPs were ineffective due to site conditions. BC evaluated Sonora Bypass, SFOBB West Approach, Devil's Slide Tunnel, and Lincoln Bypass, providing innovative solutions such as preparing a single-page summary of compliance requirements that improved contractor compliance efforts at the SFOBB.

Stormwater Treatment Engineering. BC evaluated the Highway 80 Roadway Widening project dewatering system, which was not adequately removing suspended clay particles. BC recommended adjustments to the filtering system (Baker tanks and sand filters) to optimize clay removal.

Contract No. 43A0308 TO 2 | Cost \$597,000

Contract No. 43A0175 TO 2 | Cost \$303,000

Contract No. 43A0234 TO 9 | Cost \$887,000

Relevance to this Contract



- For six construction site NOV's, BC staff helped Caltrans respond to RWQCB stormwater allegations.



- BC erosion control experts responded to slope failures with BMP recommendations to prevent off-site sediment discharges.



- BC tracked and documented compliance efforts at 55 construction and maintenance facilities to support Caltrans' response to the EPA audit.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime
b. Amec Foster Wheeler, Inc.	Oakland, California	Subconsultant

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ARCHITECTURAL & ENGINEERING (A/E) CONSULTANT REFERENCE AND VERIFICATION CHECK
 (Qualifications-Based Selection) (Rev 11/19/15)
 Page 1 of 2

ARCHITECTURAL & ENGINEERING CONSULTANT REFERENCE AND VERIFICATION CHECK

Caltrans Request for Qualifications (RFQ) Notice Number: 43A0347 Name of Consultant: Brown and Caldwell

Name of Key Member from Section G of the SF330: Randy Marx Employee of time or Sub Consultant (Circle one)?

Contract Manager (CM) or Key Member? (Circle one)? Project Number, example project Title, and location from Section F or H of the SF330: Water Pollution Control Assistance, Task Order 2, Contract 43A0308, Section F Example Project No. 1

Name of Project Owner (Agency): Caltrans

Please specify the roles and responsibilities that were performed by the Key Member on the example project named above (if necessary, please use additional sheets): Consultant Task Order Manager responsible for oversight of various assistance requests of short term assistance in responding to permit enforcement actions and other

Ranking

How did the CM or Key Member perform his/her job?	Excellent—took initiative, anticipated & solved issues, effective team work (E) Satisfactory—occasional unanticipated issues, few team mistakes (S) Poor—issues remained unresolved, frequent team mistakes (P)	E
Was the product and/or milestones delivered timely?	Excellent—always on time (E) Satisfactory—almost always on time (S) Poor—consistently late (P)	C
Were the products delivered within budget?	Excellent—always within budget (E) Satisfactory—almost always within budget (S) Poor—consistently over budget (P)	E
What was the quality of the deliverables?	Excellent—minimal corrections, review comments resolved during 1 st review (E) Satisfactory—review comments & corrections resolved in 2 to 3 submissions (S) Poor—repeatedly submitted deliverables without adequately addressing issues (P)	E
Describe the CM's or Key Member's willingness to cooperate and take directions from the owner	Excellent—invoices & progress reports, with rare exception, on time & complete; rarely disputed invoices (E) Satisfactory—invoices occasionally late or disputed; Progress Reports occasionally incomplete or late (S) Poor—invoices consistently late, often inappropriately billed, progress reports often incomplete & late (P)	E
What was the quality of the contract administration? (Applicable only if this is a reference check for a CM)	Excellent—always answered calls & correspondence promptly, flexible, open to suggestions (E) Satisfactory—answered calls & correspondence prompt most of the time, reasonably flexible & open when persuaded (S) Poor—frequently did not answer correspondence or return calls (P)	E

NPDES permit compliance tasks.

Please comment on any Poor (P) ranking:

Tom Huer Signature of Project Owner Representative Thomas Huer (205) 644-1173 Print Name WA Phone 12/4/2015 Email Address Date

Project Owner Representative's role on project: Caltrans Task Order Manager

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT (Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)	20. EXAMPLE PROJECT KEY NUMBER 2

21. TITLE AND LOCATION (City and State) Storm Drain System Inventory Statewide, California	22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing CONSTRUCTION (if applicable) NA

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Caltrans	b. POINT OF CONTACT NAME Gilbert Ogaz	c. POINT OF CONTACT TELEPHONE NUMBER 916.653.2351

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

The Permit requires Caltrans to complete a Storm Drain System Inventory (SDSI) of stormwater infrastructure elements along Caltrans' roadways. In 2000, BC developed the original SDSI for District 7. When Caltrans' regulatory requirements were expanded in 2003, BC's work was selected as the model to build the statewide inventory to house all 14 years of SDSI data. BC expanded the inventory, resulting in a comprehensive data repository of all SDSI data. This centralized database identifies stormwater features in GIS to support stormwater planning and analysis.

SDSI Program Administration. BC coordinated all SDSI data collection and management activities, including those of other Caltrans contractors. Through this statewide leadership, BC established procedures that enabled Caltrans to attain consistency, efficiency, and data integrity not achieved in previous efforts. BC reduced the field collection effort by 25 percent and eliminated legacy data processing steps while still maintaining data quality. BC set up the statewide data repository, established procedures and quality assurance checks to be implemented in the field, developed the data collection tool, loaded and integrated all collected SDSI data, and developed final SDSI reports. BC has helped the other SDSI consultant improve their data to meet the established data quality requirements.

SDSI Field Data Collection Northern California. BC provided field data collection activities in Northern California. BC's field teams surveyed 1,700 miles of roadway and collected 48,882 SDSI features, including 8,923 outfalls, 8,380 discharge points, 113,267 photographs, 18,359 inlets, and 9,070 tributary drainage areas. BC established procedures that enabled multiple field teams to simultaneously collect



BC field crews inventoried more than 1,700 miles of roadway to gather stormwater infrastructure elements.

and efficiently consolidate field data into a single database. BC developed the survey methodology and identified the technical capabilities needed to complete the survey.

Treatment BMP Inventory. BC created a statewide database of more than 4,000 Caltrans Treatment BMPs. This effort supported future Caltrans resource allocation, stormwater implementation programs, and regulatory documentation. This database supported Caltrans' goal to identify, evaluate, approve, and integrate stormwater BMPs into operations and onto state highways and facilities. BC reviewed as-built drainage drawings and coordinated all 12 districts to conduct field verification and assessment of 3,000 locations using Caltrans' stormwater treatment design specifications. This inventory was updated in 2015 with more than 1,700 additional devices identified. This allows Caltrans to inspect, monitor, and track the devices as required in the SWMP.

Contract No. 43A0308 TO 10 | Cost \$1,000,000

Contract No. 43A0234 TOs 2, 7, 13 | Cost \$1,547,000

Contract No. 43A0175 TOs 4, 10, 14 | Cost \$2,050,000

 Relevance to this Contract



- BC's SDSI database provided compliance for a critical Permit requirement.



- Maintenance can prevent off-site discharge in spill situations by accessing SDSI information on local drainage infrastructure.



- BC established the statewide SDSI database to track all Caltrans stormwater infrastructure attributes.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime
b. ADH Environmental	Soquel, California	Subconsultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT*(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)***20. EXAMPLE PROJECT KEY NUMBER**

3

21. TITLE AND LOCATION (City and State)**Facility Pollution Prevention Plans**
Northern California**22. YEAR COMPLETED****PROFESSIONAL SERVICES**

2014

CONSTRUCTION (if applicable)

NA

23. PROJECT OWNER'S INFORMATION**a. PROJECT OWNER**

Caltrans

b. POINT OF CONTACT NAME

Benhur Batoon

c. POINT OF CONTACT TELEPHONE NUMBER

916.654.5808

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Facility Pollution Prevention Plans (FPPPs), required by the Permit, specify procedures to prevent stormwater pollution from Caltrans' maintenance facilities. A 2010 U.S. Environmental Protection Agency Administrative Order of Compliance required Caltrans develop FPPPs under a strict compliance schedule. The USEPA Order revised the term "maintenance facilities" to include maintenance stations, equipment shops, waste disposal storage locations, material storage locations, sand and salt houses, roadside rest areas, the California Department of Food and Agriculture (CDFA) border protection stations, and the California Highway Patrol (CHP) commercial vehicle enforcement facilities. This resulted in an increase of Caltrans' facilities requiring FPPPs from 140 facilities to more than 400 facilities in Northern California. BC met Caltrans Headquarters and District needs to provide detailed site-specific plans on this aggressive regulatory compliance schedule within budget and on time.

Recognizing that Caltrans' original "one-size-fits-all" template did not accommodate the range of facility types now required to have FPPPs, BC developed six new templates. BC worked closely with Division of Maintenance and provided individual personalized support to the District Maintenance Stormwater Coordinators (DMSWC) to make certain the FPPPs met their individual specifications and Headquarter's needs.

BC assessed 344 of these stormwater facilities and conducted site assessments to evaluate potential stormwater pollutants from facility activities, materials storage, and facility water and wastewater utilities. BC also interviewed DMSWC, Equipment Division superintendents/supervisors, CDFA supervisors, and CHP onsite staff to verify collected



BC's FPPP evaluation at Kingvale Maintenance Facility led to recommendations for perimeter controls to prevent off-site discharges.

data. Following onsite field assessments, BC used the FPPP templates and prepared 344 FPPPs for maintenance facilities throughout Northern California.

BC developed a high-degree of FPPP proficiency, and our schedule became more aggressive and efficient. BC submitted as many as 86 final FPPP deliverables within a 3-month period. Continued efficiencies resulted in an overall average cost for the 344 FPPPs of less than \$3,000/FPPP, including travel and a detailed site figure for each site.

After completing site-specific FPPPs, BC initiated Equipment Shop Stormwater Training sessions for Northern California shop staff that integrated into existing regulatory training programs so staff time was used efficiently.

In 2014, BC continued to provide District 10 Maintenance FPPP support for new facilities as they came online, including permanent materials storage facilities and stockpiles.

Contract No. 43A0234 T0s 14 - 19 | Cost \$1,012,000

**Relevance to this Contract**

- BC's completion of 344 FPPPs met the USEPA mandate to apply FPPPs to a larger universe of Caltrans' maintenance facilities.



- BC developed a comprehensive Equipment Shop stormwater pollution prevention training program for shop staff.



- BC provided corrections and improvements to the tracking systems and inventories of maintenance facilities.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime
b. Leland Saylor Associates	San Francisco, California	Subconsultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 4
21. TITLE AND LOCATION (City and State) District 1 Construction Field Assistance Northern California	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Caltrans	b. POINT OF CONTACT NAME Walt Dragaloski	c. POINT OF CONTACT TELEPHONE NUMBER 707.445.6697
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>		

District 1 has particular stormwater challenges due to the presence of numerous sediment-sensitive waterbodies and erodible soils subject to slides and discharges. Since April 2007, BC has provided full-time field assistance to the District 1 Stormwater Coordinator. Cabe Silverhame has been on this assignment full-time since April 2007.

Cabe is at project sites almost every day, and emails daily written reports to the District Construction Stormwater Coordinator and site Resident Engineers. These projects are challenging construction projects that often have unique permit requirements specified by multiple agencies such as the North Coast RWQCB, the California Department of Fish and Game, the California Coastal Commission, and the U.S. Fish and Wildlife Service.

Cabe evaluates the stormwater-related requirements from each of these permits in assisting Caltrans with compliance strategies for particularly complex and challenging sites, such as Confusion Hill and Willits Bypass. Cabe prepared checklists of the multiple permit requirements to streamline permit compliance inspections.

Projects in District 1 are often located on erodible slopes. Cabe's background as a geologist helps him make sure slopes are stable during construction. Cabe has leveraged his 9 years of experience on the job to gain an understanding where slopes at particular District 1 locations can fail and in what circumstances due to soil type, location, slope grade, and history of slope failures. This knowledge enables Cabe to select and locate BMPs to best protect these locations from sediment discharges.



Cabe reviews permit and contract requirements related to stormwater and non-stormwater discharges and the implementation of BMPs as prescribed in the site-specific SWPPPs and Water Pollution Control Plans (WPCP). He submits daily reports that identify potential compliance issues and recommends improvements to existing BMPs or implementation of additional BMPs. District 1 projects that Cabe has contributed to include Confusion Hill, Willits Bypass, and Ten Mile Bridge.

Contract No. 43A0308 TO 6 | Cost \$694,000

Contract No. 43A0175 TO 12 | Cost \$428,000

Contract No. 43A0234 TO 5 | Cost \$1,418,000



Relevance to this Contract



- Cabe has dedicated 9 years to keeping more than 50 D10 construction sites in compliance.



- Cabe's knowledge of how site BMPs perform over multiple wet seasons provides insight into BMP protection to prevent discharges.



- Cabe developed an electronic inspection form to better track finding locations by overlaying contract drawings and site GIS layers.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT*(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)***20. EXAMPLE PROJECT KEY NUMBER**

5

21. TITLE AND LOCATION (City and State)**District 3 Construction Field Assistance**
Central Valley, California**22. YEAR COMPLETED****PROFESSIONAL SERVICES**

Ongoing

CONSTRUCTION (if applicable)

NA

23. PROJECT OWNER'S INFORMATION**a. PROJECT OWNER**

Caltrans

b. POINT OF CONTACT NAME

Dusty Giffin

c. POINT OF CONTACT TELEPHONE NUMBER

916.825.5357

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

District 3 construction projects face a number of stormwater challenges from sites in the snowy High Sierras to sites in the Central Valley with high clay sediment content. Since May 2010, BC has provided full-time field assistance to District 3.

Lincoln Bypass, one of the first major projects to use an advanced treatment system (ATS), has been particularly challenging. BC prepared the ATS Sampling and Analysis Plan that specified procedures and operations to satisfy Permit requirements. The Highway 80 Phase 3 project received a number of NOVs; however, with BC's assistance, RWQCB regulators are so satisfied with how the project has been brought into compliance that they have removed any post-project monitoring requirements. David Korfas and Chris Wilfong have been key in keeping high-profile Tahoe region projects in compliance.

At the E-Gap project, Dave found the turbidity meter being used by the Water Pollution Control Manager (WPCM) was not accurately reading turbidity units. By bringing this to the Resident Engineer's attention, Dave helped prevent erroneous data that could have led to NOVs from regulatory agencies.

Dave developed compliance checklists tailored to the Lake Tahoe Hydrologic Unit CGP. Dave coordinated with Caltrans Headquarters and incorporated changes from the team of DCSWCs, the Lahontan RWQCB, the Caltrans WPC inspector, the NPDES Coordinator, and the WPCM. This task greatly increased efficiency and accuracy of field data/information documentation, and greatly reduced redundancy.



BC oversight verified that BMPs near the sensitive Lake Tahoe watershed were functioning properly.

BC inspections track compliance through the Corrective Action Summary and follow up is required to be completed within five working days. Some sites depending on Corrective Actions will have a follow up review to determine whether corrective actions are implemented and documented correctly.

BC services also included:

- District-level stormwater assistance for Permit compliance.
- District-level stormwater assistance with drafting enforcement letters for project Resident Engineers.
- Delivery of expert stormwater compliance workshops to management, Senior Resident Engineers, Resident Engineers, and inspectors.

Contract No. 43A0308 TOs 4 and 7 | Cost \$1,265,000

Contract No. 43A0175 TO 11 | Cost \$50,000

Contract No. 43A0234 TO 12 | Cost \$1,424,000

**Relevance to this Contract**

- BC verified compliance status of D3 construction sites and identified findings that required correction.



- BC helped Caltrans respond to NOVs at the Highway 80 Phase 3 project to satisfy regulators that compliance had been achieved.



- BC's tracking of turbidity, monitoring results at the E-Gap project identified a malfunctioning turbidity meter.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ARCHITECTURAL & ENGINEERING (A&E) CONSULTANT REFERENCE AND VERIFICATION CHECK
(Qualifications-Based Selection) (Rev 11/19/15)
Page 1 of 2

ARCHITECTURAL & ENGINEERING CONSULTANT REFERENCE AND VERIFICATION CHECK

Caltrans Request for Qualifications (RFQ) Notice Number: 43A0347 Name of Consultant: Brown and Caldwell

Name of Key Member from Section G of the SF330: Chris Wilong Employee of Prime or Sub Consultant (Circle one)?

Contract Manager (CM) or Key Member? (Circle one)? Project Number, example project Title, and location from Section F or H of the SF330: District 3 Construction Assistance, Task Order 4, Contract 43A030B, Section F Example Project No. 5

Name of Project Owner (Agency): Caltrans

Please specify the roles and responsibilities that were performed by the Key Member on the example project named above (if necessary, please use additional sheets):

Ranking

How did the CM or Key Member perform his/her job?	Excellent—took initiative, anticipated & solved issues, effective team work (E) Satisfactory—occasional unanticipated issues, few team mistakes (S) Poor—issues remained unresolved, frequent team mistakes (P)	E
Was the product and/or milestones delivered timely?	Excellent—always on time (E) Satisfactory—almost always on time (S) Poor—consistently late (P)	E
Were the products delivered within budget?	Excellent—always within budget (E) Satisfactory—almost always within budget (S) Poor—consistently over budget (P)	E
What was the quality of the deliverables?	Excellent—minimal corrections, review comments resolved during 1 st review (E) Satisfactory—review comments & corrections resolved in 2 to 3 submissions (S) Poor—repeatedly submitted deliverables without adequately addressing issues (P)	E
Describe the CM's or Key Member's willingness to cooperate and take directions from the owner.	Excellent—invoices & progress reports, with rare exception, on time & complete; rarely disputed invoices (E) Satisfactory—invoices occasionally late or disputed; Progress Reports occasionally incomplete or late (S) Poor—invoices consistently late, often inappropriately billed, progress reports often incomplete & late (P)	E
What was the quality of the contract administration? (Applicable only if this is a reference check for a CM)	Excellent—always answered calls & correspondence promptly, flexible, open to suggestions (E) Satisfactory—answered calls & correspondence prompt most of the time, reasonably flexible & open when persuaded (S) Poor—frequently did not answer correspondence or return calls (P)	E

Please comment on any Poor (P) ranking:

Dusty Giffin Dusty Giffin 916-925-5357 dusty.giffin@dot.ca.gov
Signature of Project Owner Representative Print Name Phone Email Address Date

Project Owner Representative's role on project: TASK ORDER MANAGER 12/2/15

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

6

21. TITLE AND LOCATION (City and State)**District 4 Construction Field Assistance**
San Francisco Bay Area, California**22. YEAR COMPLETED****PROFESSIONAL SERVICES**

Ongoing

CONSTRUCTION (if applicable)

NA

23. PROJECT OWNER'S INFORMATION**a. PROJECT OWNER**

Caltrans

b. POINT OF CONTACT NAME

Dragomir Bogdanic

c. POINT OF CONTACT TELEPHONE NUMBER

510.622.0716

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

District 4 has some of the most complex transportation construction projects in the U.S., including the SFOBB and Devil's Slide Tunnel Corridor projects. Keeping these high-profile projects in compliance is essential to maintaining project schedules. Since 2004, BC has supplied continuous, full-time expert-level field assistance to Caltrans, assisting District 4 Office of Construction Environmental Engineering Support. BC's daily presence in the field enables immediate response and notification of appropriate Caltrans staff.

BC's duties include reviewing SWPPP, providing BMP recommendations, identifying instance of Illegal Connection/ Illicit Discharge (IC/ID), assessing compliance of BMPs with regulatory standards, performing project SWPPP inspections, preparing daily inspection reports, and accompanying Caltrans and regulatory agency staff on site inspections, and conducting outreach to staff and contractors to reinforce the importance of stormwater pollution prevention.

BC's support has been critical in maintaining stormwater compliance at the Devil's Slide Tunnel Corridor, SFOBB, Doyle Drive, and Caldecott Tunnel projects. The District Construction Stormwater Coordinator also uses BC's SWPPP specialists to represent Caltrans at project pre-construction meetings with Caltrans' staff, contractors, and public agencies.

BC provided compliance services for the Devil's Slide Active Treatment System. The RWQCB initially determined that



BC analyzed the Devil's Slide disposal site to determine if erosion control design changes were warranted.

Caltrans was the party responsible for exceedances of water quality standards from tunnel discharges due to sulfides in the groundwater. However, BC's analysis of the data determined the contractor, not Caltrans, was at fault.

Ralph Dodge, Chris Knoche, Duncan Geddes, and Brad Dickson from our current team have extensive experience with District 4 construction sites and staff. BC will leverage this experience to act as an extension of Caltrans staff in the field and provide significant value for stormwater compliance over the term of the new contract.

Contract No. 43A0308 TO 6 | Cost \$694,000

Contract No. 43A0175 TO 1 | Cost \$1,386,000

Contract No. 43A0234 TO 8 | Cost \$3,278,000

**Relevance to this Contract**

- BC educated Caltrans staff on stormwater compliance requirements and issues during pre-construction meetings.



- At Devil's Slide, BC's reviews helped keep the project on schedule, preventing \$80,000 per day charges for project slippage.



- BC staff developed tracking systems to manage multiple environmental compliance requirements for complex sites, such as SFOBB.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Walnut Creek, California	Prime
b. Amec Foster Wheeler, Inc.	Oakland, California	Subconsultant
c. Leland Saylor Associates	San Francisco, California	Subconsultant
d. NV5, Inc.	Sacramento, California	Subconsultant
e. Vali Cooper & Associates	Emeryville, California	Subconsultant

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ARCHITECTURAL & ENGINEERING (A&E) CONSULTANT REFERENCE AND VERIFICATION CHECK
(Qualifications-Based Selection) (Rev 11/19/15)
Page 1 of 2

ARCHITECTURAL & ENGINEERING CONSULTANT REFERENCE AND VERIFICATION CHECK

Caltrans Request for Qualifications (RFQ) Notice Number: 43A0347 Name of Consultant: Brown and Caldwell

Name of Key Member from Section G of the SF330: Ralph Dodge Employee of Prime or Sub Consultant (Circle one)?

Contract Manager (CM) or Key Member (Circle one)? Project Number, example project Title, and location from Section F or H of the SF330: District 4 Construction Assistance, Task Order 3, Contract 43AD308, Section F Example Project No. 6

Name of Project Owner (Agency): Caltrans

Please specify the roles and responsibilities that were performed by the Key Member on the example project named above (if necessary, please use additional sheets): Construction, environmental engineering support including document review and field assistance for storm water compliance, dewatering operations, permit enforcement and regulatory agency reporting. Also, trouble shooting on NPDES permit compliance. Ranking

How did the CM or Key Member perform his/her job?	Excellent—took initiative, anticipated & solved issues, effective team work (E) Satisfactory—occasional unanticipated issues, few team mistakes (S) Poor—issues remained unresolved, frequent team mistakes (P)	E
Was the product and/or milestones delivered timely?	Excellent—always on time (E) Satisfactory—almost always on time (S) Poor—consistently late (P)	E
Were the products delivered within budget?	Excellent—always within budget (E) Satisfactory—almost always within budget (S) Poor—consistently over budget (P)	E
What was the quality of the deliverables?	Excellent—minimal corrections, review comments resolved during 1 st review (E) Satisfactory—review comments & corrections resolved in 2 to 3 submissions (S) Poor—repeatedly submitted deliverables without adequately addressing issues (P)	E
Describe the CM's or Key Member's willingness to cooperate and take directions from the owner.	Excellent—invoices & progress reports, with rare exception, on time & complete; rarely disputed invoices (E) Satisfactory—invoices occasionally late or disputed; Progress Reports occasionally incomplete or late (S) Poor—invoices consistently late, often inappropriately billed, progress reports often incomplete & late (P)	E
What was the quality of the contract administration? (Applicable only if this is a reference check for a CM)	Excellent—always answered calls & correspondence promptly, flexible, open to suggestions (E) Satisfactory—answered calls & correspondence prompt most of the time, reasonably flexible & open when persuaded (S) Poor—frequently did not answer correspondence or return calls (P)	

Please comment on any Poor (P) ranking:

Signature of Project Owner Representative: DRAGONIC BOSDANIC Print Name: BOSDANIC Phone: 510-622-0716 Email Address: dragonic.bosdanic@dot.ca.gov Date: 12/04/15

Project Owner Representative's role on project: TASK MANAGER

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

7

21. TITLE AND LOCATION (City and State)**District 10 Construction Field Assistance**
Central Valley, California**22. YEAR COMPLETED****PROFESSIONAL SERVICES**

Ongoing

CONSTRUCTION (if applicable)

NA

23. PROJECT OWNER'S INFORMATION**a. PROJECT OWNER**

Caltrans

b. POINT OF CONTACT NAME

Cliff Adams

c. POINT OF CONTACT TELEPHONE NUMBER

209.333.6923

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

District 10 has wide-ranging site challenges, from construction sites in mountainous terrain, such as the Ferguson project, to large, complex projects in the Central Valley, such as the Sonora Bypass site. BC provided construction stormwater assistance for District 10 to help keep construction sites in compliance with the CGP and Permit. Assistance included field reviews of implemented BMPs, contractors' SWPPPs and Water Pollution Control Programs (WPCPs), stormwater inspections, and other stormwater-related reports. BC drafted letters documenting findings on reports based on field conditions and assisted Resident Engineers by drafting enforcement letters.

BC provided SMARTS input support, including uploading new Notice of Intent (NOI) records, erosivity waivers, and review and uploading of adhoc reports, SWPPP amendments, and stormwater annual reports for projects subject to the CGP.

BC prepared a Plant Establishment Phase SWPPP template for projects where the contractor was granted relief of maintenance but the project did not yet meet the requirements for NOTs under the CGP. BC QSDs inspected three projects as required by the CGP until a NOT was approved. BC support included CGP grab sampling and visual assessments during qualifying rain events, preparing exceedance and adhoc reports, as well as construction annual reports. BC uploaded all documents to SMARTS.

BC provided environmental permitting tracking to Resident Engineers by developing summaries of all environmental requirements. In one instance, BC provided monitoring support due to unfamiliarity of water quality test methods



Caltrans Maintenance implementing BMPs at a construction site where BC is providing QSD inspections.

and/or the SWRCB reporting protocols and schedule by the contractor. BC provided the various test methods and a reporting format needed to comply with the daily testing for in-water work as well as QC data review as part of the bi-weekly submittals to the SWRCB.

BC support included interaction with Construction and Maintenance stormwater coordinators, contractor's QSDs, and field inspectors. Some of the support included on-the-spot stormwater training for continuing and future compliance.

Contract No. 43A0308 TO 9 | Cost \$636,000

"You have a top flight team.... Sayra

[Hurley] was fantastic to work with."

Cliff Adams, Task Order Manager and
District 10 Construction Chief

**Relevance to this Contract**

- The Plant Establishment Phase SWPPP BC prepared for multiple sites specified activities required for sites to maintain CGP compliance.



- BC's successful completion of NOTs received RWQCB acceptance, allowing these sites to be removed from CGP oversight.



- BC developed a tracking system of environmental permit compliance requirements for D10 sites with multiple permits to assist Resident Engineers with site compliance.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ARCHITECTURAL & ENGINEERING (A&E) CONSULTANT REFERENCE AND VERIFICATION CHECK
(Qualifications-Based Selection) (Rev 11/19/15)
Page 1 of 2

ARCHITECTURAL & ENGINEERING CONSULTANT REFERENCE AND VERIFICATION CHECK

Caltrans Request for Qualifications (RFQ) Notice Number: 43A0347 Name of Consultant: Brown and Caldwell

Name of Key Member from Section G of the SF330: Sayra Hurley Employee of Prime or Sub Consultant (Circle one)?

Contract Manager (CM) or Key Member? (Circle one)? Project Number, example project Title, and location from Section F or H of the SF330: District 10 Construction Assistance, Task Order 8, Contract 43A0308, Section F Example Project No. 7

Name of Project Owner (Agency): Caltrans

Please specify the roles and responsibilities that were performed by the Key Member on the example project named above (If necessary, please use additional sheets): Sayra was the task manager on this task under the provided SWPPP site inspection, SWPPP's input, reviewed annual reports

As provided document reviewed

How did the CM or Key Member perform his/her job?	Excellent-took initiative, anticipated & solved issues, effective team work (E) Satisfactory-occasional unanticipated issues, few team mistakes (S) Poor-issues remained unresolved, frequent team mistakes (P)	E
Was the product and/or milestones delivered timely?	Excellent-always on time (E) Satisfactory-almost always on time (S) Poor-consistently late (P)	E
Were the products delivered within budget?	Excellent-always within budget (E) Satisfactory-almost always within budget (S) Poor-consistently over budget (P)	E
What was the quality of the deliverables?	Excellent-minimal corrections, review comments resolved during 1 st review (E) Satisfactory-review comments & corrections resolved in 2 to 3 submissions (S) Poor-repeatedly submitted deliverables without adequately addressing issues (P)	E
Describe the CM's or Key Member's willingness to cooperate and take directions from the owner.	Excellent-invoices & progress reports, with rare exception, on time & complete; rarely disputed invoices (E) Satisfactory-invoices occasionally late or disputed; Progress Reports occasionally incomplete or late (S) Poor-invoices consistently late, often inappropriately billed, progress reports often incomplete & late (P)	E
What was the quality of the contract administration? (Applicable only if this is a reference check for a CM)	Excellent-always answered calls & correspondence promptly, flexible, open to suggestions (E) Satisfactory-answered calls & correspondence prompt most of the time, reasonably flexible & open when persuaded (S) Poor-frequently did not answer correspondence or return calls (P)	E

Please comment on any Poor (P) ranking:

Signature of Project Owner Representative

Print Name

Phone

Email Address

Date

Project Owner Representative's role on project:

Const

Officer

Chief

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

8

21. TITLE AND LOCATION (City and State)**Construction Stormwater Capital and Support Costs**
Statewide, California**22. YEAR COMPLETED****PROFESSIONAL SERVICES**

2015

CONSTRUCTION (if applicable)

NA

23. PROJECT OWNER'S INFORMATION**a. PROJECT OWNER**

Caltrans

b. POINT OF CONTACT NAME

Tom Rutsch

c. POINT OF CONTACT TELEPHONE NUMBER

916.653.7396

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

As stormwater requirements have become more stringent, costs for compliance have risen. BC helped Caltrans prepare a life-cycle cost study to quantify the proportional stormwater costs in the construction phase of capital outlay projects and the impact of these more stringent requirements. The objective was to use a high-level data gathering approach to collect water pollution control (WPC) related capital and support costs for typical construction projects statewide.

BC led the 2014 effort to assess the statewide capital and support costs associated with temporary and permanent WPC. Information on approximately 50 project attributes and stormwater cost parameters were collected from 49 typical construction projects using a combination of interviews with key Caltrans staff (i.e., Resident Engineers, District Construction Stormwater Coordinators) and document reviews (i.e., Storm Water Data Reports, Contract Plans, Special Provisions, Final Estimates). Although the overall number of projects was small relative to the total number of construction projects completed annually by Caltrans, the aim was not to conduct a statistical sampling for project-level use, but rather a statewide sampling for program-level use.

BC worked with Caltrans to develop project selection criteria, a uniform approach, and standardized tools to collect data consistently across projects. BC applied these methods to gather data in the Northern Districts. Caltrans used these same standards to collect data for the Southern Districts.

Although capital costs were directly identified from project contract documents, such as Final Estimate Bid Items and project Contract Plans, a process was not yet in place to identify support effort. BC helped develop an approach to



derive the WPC-related support costs based on total project hours recorded in the Caltrans timesheet system, interviews with key project construction staff, and an average labor rate. The WPC portion of the capital costs were determined from temporary construction BMPs and permanent BMPs.

BC compiled, validated, and analyzed the statewide data, then reported findings and methodologies in a comprehensive report. Project costs and project attributes were incorporated into the analysis to determine program-level cost trends and cost drivers. The data were also used to create a planning-level WPC cost estimating tool. BC prepared recommendations on ways to improve the statewide dataset and to apply the data to improve the Stormwater Program and reduce overall project costs. Recommendations included: refining the Caltrans accounting mechanisms to better capture WPC support and capital costs, communicating permitting impacts to costs to the SWRCB, and presenting WPC cost drivers during training to Caltrans staff.

Contract No. 43A0308 TO 8 | Cost \$287,000

**Relevance to this Contract**

- Data from BC's life-cycle study can be applied to develop more cost-effective methods of achieving Permit compliance.



- Optimized expenditures of limited stormwater funds can better protect construction sites from enforcement actions.



- Tracking and cost analysis procedures jointly developed by BC and Caltrans can be used to optimize Program expenditures.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Rancho Cordova, California	Prime

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 9		
21. TITLE AND LOCATION (City and State) On-Call Professional and Technical Stormwater Quality Assurance Services Statewide, California		22. YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES Ongoing</td> <td>CONSTRUCTION (if applicable) NA</td> </tr> </table>	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA
PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) NA			
23. PROJECT OWNER'S INFORMATION				
a. PROJECT OWNER Caltrans	b. POINT OF CONTACT NAME Chris Igbiniedion	c. POINT OF CONTACT TELEPHONE NUMBER 916.657.5381		
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>				

The Permit requires Caltrans conduct self-audits of construction sites and maintenance facilities for compliance with stormwater regulatory requirements. Vali Cooper & Associates (VC&A) is the prime consultant on the Stormwater Quality Assurance Services Statewide contract, including independent quality assurance (IQA) reviews of construction sites, maintenance stations, commercial vehicle enforcement facilities, safety rest areas, material storage sites, and maintenance activities. Reviews are conducted to monitor stormwater BMPs and administrative items for compliance with the CGP, SWMP, and Caltrans Standard Specifications and Plans.

VC&A is managing five task orders. Task Order 1 consists of construction site and stormwater documentation reviews. Task Order 2 consists of maintenance reviews. Task Order 3 includes the development of a new Construction Compliance Review Plan and a new Annual Maintenance and Operation Compliance Review Plan. Task Order 4 includes development Annual Year's End Performance Reports for construction reviews and maintenance reviews. Task Order 5 consists of compliance inspections for District 7 under the Annual Construction Compliance Review Plan.

Staff duties include selecting projects for review, developing and implementing IQA procedures, providing notification to Caltrans staff, scheduling field compliance monitors to conduct the IQA reviews, developing revised IQA forms and checklists, conducting IQA reviews, writing reports with

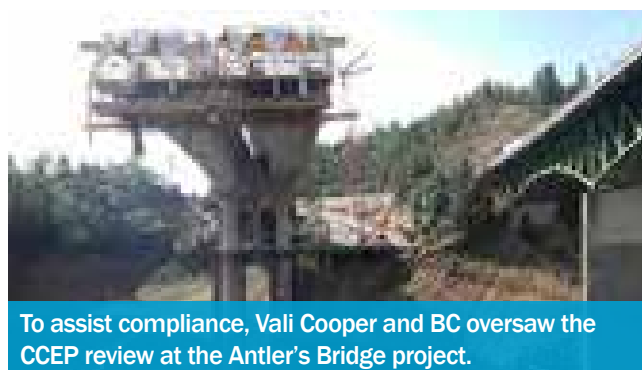


photo documentation, uploading the reports and data to a SharePoint site, developing and managing a database to store and analyze data from the reviews, holding monthly progress meetings with Caltrans staff, and maintaining quality control of field staff and all written deliverables.

A key subconsultant on this project, BC has authored a number of the key documents that direct the program, including the CCEP, Annual Maintenance and Operation Compliance Review Plan (AMOCRP), Year-End Performance Reports, and construction BMP checklists.

Contract No. 43A0321 | Cost \$6,000,000

Relevance to this Contract

- Construction and maintenance reviews support Permit and CGP compliance at sites and facilities.

- Project data is helping Caltrans identify trends in BMP compliance that will lead to Stormwater Program improvements.

- BC's Karen Cole prepared an Access database used to track all CCEP reviews.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Vali Cooper & Associates	Emeryville, California	Prime
b. Brown and Caldwell	Rancho Cordova, California	Subconsultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

10

21. TITLE AND LOCATION (City and State)**Willits Bypass Water Quality Assessment and Monitoring**
Willits, California**22. YEAR COMPLETED****PROFESSIONAL SERVICES**

Ongoing

CONSTRUCTION (if applicable)

NA

23. PROJECT OWNER'S INFORMATION**a. PROJECT OWNER**

Caltrans

b. POINT OF CONTACT NAME

Alex Arevalo

c. POINT OF CONTACT TELEPHONE NUMBER

707.441.4674

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Caltrans District 1 is constructing a \$210 million highway bypass project around the City of Willits in Mendocino County. This project will relieve congestion, reduce delays, improve safety for traffic that passes through Willits, and eliminate the only stoplights on Route 101 between San Francisco and Eureka.

The bypass project has impacts to natural resources and habitats occurring within and adjacent to the proposed bypass right-of-way. BC is helping Caltrans with surface water quality monitoring and reporting requirements associated with the Water Quality Certification (Certification) and Order R1-2010-0066 (MRP) issued by the North Coast RWQCB for the Willits Bypass Project (WDID No. 1B10019WNME). This effort covers a baseline phase (pre-construction) and construction phase for both the bypass alignment and mitigation sites for the project. Construction began on the bypass alignment in 2013, and the construction phase on the mitigation sites began in 2014. Monitoring will be needed through the construction phase (due to finish in 2017) with a year of post-construction monitoring.

BC has installed 25 water quality monitoring stations (both upstream and downstream of project areas) and a weather station to collect real-time construction water quality data for stream reaches along the bypass alignment and mitigation sites. BC uses the data to identify potential discharges of pollutants in stormwater runoff resulting from construction activities and to document compliance with project-specific permits and the statewide CGP.



In addition to monitoring, water quality monitors (WQMs) are assigned to the project full-time to visually observe construction activities and receiving waters. The WQMs help Caltrans develop daily, monthly, discharge, and rainy-day reports required by the Certification. In addition, the WQMs help protect water quality during construction by proactively identifying construction activities that may impact waterways, communicating water quality concerns identified during daily observations to both the contractor and to Caltrans field representatives, taking water quality measurements during in-water work activities, and using real-time data from the water quality monitoring stations to identify and address changes in the water quality of creeks and streams.

Contract No. 03A1923 TO 7 | Cost \$4,000,000

Contract No. 03A2360 | Cost \$7,500,000

**Relevance to this Contract**

- BC construction inspectors are approved by North Coast RWQCB in advance of assessment to Willits project.



- Early detection of discharges prevents downstream environmental impacts.



- Real-time tracking of water quality monitoring data is posted to SharePoint site to support decision making.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a. Brown and Caldwell	Walnut Creek, California	Subconsultant
b. ADH Environmental	McKinleyville, California	Subconsultant - ICF Contract

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL & ENGINEERING (A&E) CONSULTANT REFERENCE AND VERIFICATION CHECK

(Qualifications-Based Selection) (Rev 11/19/15)

Page 1 of 2

ARCHITECTURAL & ENGINEERING CONSULTANT REFERENCE AND VERIFICATION CHECK

Caltrans Request for Qualifications (RFQ) Notice Number: 43A0347 Name of Consultant: Brown and Caldwell

Name of Key Member from Section G of the SF330: Mike Flake Employee of Prime or Sub-Consultant (Circle one)?

Contract Manager (CM) or Key Member? (Circle one)? Project Number, example project Title, and location from Section F or H of the SF330: Contract 03A1923 (BC is sub to AECOM on this Caltrans contract) Task Order 7, Willis Bypass Water Quality Monitoring Project
Willis, California, Example Project No. 10

Name of Project Owner (Agency): Caltrans

Please specify the roles and responsibilities that were performed by the Key Member on the example project named above (if necessary, please use additional sheets): Assemble WQ monitoring and reporting team, manage project team, responsible party.

Ranking

How did the CM or Key Member perform his/her job?	<u>Excellent</u> -took initiative, anticipated & solved issues, effective team work (E) Satisfactory-occasional unanticipated issues, few team mistakes (S) Poor-issues remained unresolved, frequent team mistakes (P)	E
Was the product and/or milestones delivered timely?	<u>Excellent</u> -always on time (E) Satisfactory-almost always on time (S) Poor-consistently late (P)	E
Were the products delivered within budget?	<u>Excellent</u> -always within budget (E) Satisfactory-almost always within budget (S) Poor-consistently over budget (P)	E
What was the quality of the deliverables?	<u>Excellent</u> -minimal corrections, review comments resolved during 1 st review (E) Satisfactory-review comments & corrections resolved in 2 to 3 submissions (S) Poor-repeatedly submitted deliverables without adequately addressing issues (P)	S
Describe the CM's or Key Member's willingness to cooperate and take directions from the owner.	<u>Excellent</u> -invoices & progress reports, with rare exception, on time & complete; rarely disputed invoices (E) Satisfactory-Invoices occasionally late or disputed; Progress Reports occasionally incomplete or late (S) Poor-invoices consistently late, often inappropriately billed, progress reports often incomplete & late (P)	E
What was the quality of the contract administration? (Applicable only if this is a reference check for a CM)	<u>Excellent</u> -always answered calls & correspondence promptly, flexible, open to suggestions (E) - <u>Exceptional</u> Satisfactory-answered calls & correspondence prompt most of the time, reasonably flexible & open when persuaded (S) Poor-frequently did not answer correspondence or return calls (P)	E

Please comment on any Poor (P) ranking:

Alex Arévalo
Signature of Project Owner Representative

Alex Arévalo
Print Name

(707) 441-4674
Phone

alex.arevalo@dot.ca.gov
Email Address

12/2/15
Date

Project Owner Representative's role on project: Task order manager, Caltrans staff responsible for implementation.

[This page left intentionally blank.]

Section G



Key Personnel Participation in Example Projects

G | Key Personnel Participation
in Example Projects

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS											
26. NAMES OF KEY PERSONNEL <i>(From Section E, Block 12)</i>	27. ROLE IN THIS CONTRACT <i>(From Section E, Block 13)</i>	28. EXAMPLE PROJECTS LISTED IN SECTION F <i>(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role)</i>									
		1	2	3	4	5	6	7	8	9	10
Randy Marx, PE, CPESC, QSD	Project Manager, Task Order Manager	●	●	●	●	●	●	●	●	●	
Una Adkins	Health and Safety, Maintenance, Storm Drain System Inventory	●	●	●	●	●	●	●		●	●
Jeff Bold, Ph.D., CPESC, CPSS, QSD	Enforcement and Prevention Assistance Lead	●	●				●			●	●
Chris Clark	Tracking and Data Management										
Karen Cole	Tracking and Data Management									●	
Lowell Cottle, CESSWI, QSP	Water Quality Assistance and Compliance	●									●
Tina Crawford	Enforcement and Prevention Assistance, Tracking and Data Management, Storm Drain System Inventory	●	●	●						●	
Ron Crites, PE	Water Quality Assistance and Compliance										
Ralph Dodge	Construction						●				
Michael Flake, PE, QSD	Task Order Manager, Quality Assurance/Quality Control Technical	●	●				●				●
Nathan Foged	Water Quality Assistance and Compliance	●									
Chuck Frey	Storm Drain System Inventory		●	●					●		●
Valerie Fuchs, Ph.D., PE, QSD	Water Quality Assistance and Compliance										●
Jenny Gain, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance										
Matt Gerhardt, Ph.D., PE	Water Quality Assistance and Compliance	●									
Rene Guillen, PE, QSD	Water Quality Assistance and Compliance	●									●
Aren Hansen, PE, PMP, QSD	Task Order Manager, Enforcement and Prevention Assistance, Storm Drain System Inventory	●	●				●				
David Hart	Storm Drain System Inventory		●								
Seppi Henneman, PE	Water Quality Assistance and Compliance										
Sayra Hurley, PE, QSD	Task Order Manager, Encroachment and Right of Way Lead	●						●			
Amy Hwang	Storm Drain System Inventory		●								
Alexander Johnson, PE	Tracking and Data Management, Storm Drain System Inventory		●								
Chris Knoche, PG, QSD	Construction, Enforcement and Prevention Assistance		●				●			●	●
David Korfas, CPESC, QSD, ToR	Construction Lead, Enforcement and Prevention Assistance, Encroachment and Right of Way		●			●		●		●	●
David Lightle, CPESC	Water Quality Assistance and Compliance										
Richard Mattucci	Water Quality Assistance and Compliance										

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS											
26. NAMES OF KEY PERSONNEL <i>(From Section E, Block 12)</i>	27. ROLE IN THIS CONTRACT <i>(From Section E, Block 13)</i>	28. EXAMPLE PROJECTS LISTED IN SECTION F <i>(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role)</i>									
		1	2	3	4	5	6	7	8	9	10
Rhys McDonald	Water Quality Assistance and Compliance										●
David Morrow, PE, QSD	Task Order Manager, Maintenance		●	●					●		
Amy Neal, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance Lead										●
Chris Peters, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance										
Peter Ross	Tracking and Data Management, Storm Drain System Inventory		●								●
Allan Scott	Tracking and Data Management Lead, Storm Drain System Inventory Lead		●							●	
Cabe Silverhame, PG, CPESC, QSD	Construction, Enforcement and Prevention Assistance	●		●	●					●	●
Chris Wilfong, CPESC, QSD	Enforcement and Prevention Assistance, Maintenance, Storm Drain System Inventory	●	●			●		●		●	
Wellington Yee, CPESC, QSD	Enforcement and Prevention Assistance, Maintenance Lead, Encroachment and Right of Way, Storm Drain System Inventory	●	●	●		●	●	●	●	●	
Subconsultants											
Travis Deem, CPESC, QSD (ADH)	Construction										
Christian Kocher (ADH)	Water Quality Assistance and Compliance										
Kevin Lewis, CESSWI, QSP (ADH)	Water Quality Assistance and Compliance										
Armand Ruby (ADH)	Water Quality Assistance and Compliance										
Calvin Sandlin, CESSWI, QSP (ADH)	Storm Drain System Inventory		●								
David Skinner, CPESC, QSD (ADH)	Construction	●									
Steen Trump, CESSWI, QSP (ADH)	Water Quality Assistance and Compliance										
Peter Wilde (ADH)	Water Quality Assistance and Compliance										
Khalil Abusaba, Ph.D. (AMEC)	Water Quality Assistance and Compliance	●					●				●
Brad Dickson, ChE (AMEC)	Enforcement and Prevention Assistance, Maintenance	●	●				●				
James Honniball, CPESC, QSD, ToR (AMEC)	Water Quality Assistance and Compliance										
Emily Sportsman, PG (AMEC)	Water Quality Assistance and Compliance										
Micah Swann (AMEC)	Water Quality Assistance and Compliance										
Chris Bowles, PhD, PE (cbec)	Water Quality Assistance and Compliance										
Chris Campbell (cbec)	Water Quality Assistance and Compliance										

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS											
26. NAMES OF KEY PERSONNEL <i>(From Section E, Block 12)</i>	27. ROLE IN THIS CONTRACT <i>(From Section E, Block 13)</i>	28. EXAMPLE PROJECTS LISTED IN SECTION F <i>(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role)</i>									
		1	2	3	4	5	6	7	8	9	10
Kevin Coulton, PE <i>(cbec)</i>	Water Quality Assistance and Compliance										
Douglas Shields, Ph.D., PE <i>(cbec)</i>	Water Quality Assistance and Compliance										
Duncan Geddes, PG, QSD <i>(LSA)</i>	Enforcement and Prevention Assistance						●			●	
Wynn Paculba <i>(LSA)</i>	Maintenance			●							
Matthew McKamey, PE, QSD <i>(M3)</i>	Construction										
Michael McKamey <i>(M3)</i>	Construction										
Lonnie Wise <i>(M3)</i>	Construction										
Jorge Beltran, PE, QSD <i>(M&A)</i>	Enforcement and Prevention Assistance									●	
Douglas Wathen, CESSWI, QSD <i>(M&A)</i>	Construction										
Michael Wathen, CPESC, CESSWI, QSD <i>(M&A)</i>	Construction										
Shelby Zuppan, CPESC, QSD <i>(M&A)</i>	Construction										
Amber Christian, CPESC, QSD <i>(NV5)</i>	Construction										
Joy Denny, PE, QSD <i>(NV5)</i>	Enforcement and Prevention Assistance										
Gary Mohler, PE, QSD <i>(NV5)</i>	Construction										
Steve Walters, PE, QSD <i>(NV5)</i>	Construction										
Juan Zuniga, PE, CPESC, QSD <i>(NV5)</i>	Enforcement and Prevention Assistance										
Mike Broadwater, CPESC, QSD, ToR <i>(VC&A)</i>	Enforcement and Prevention Assistance									●	
Tore Finnemyhr, CESSWI, QSP <i>(VC&A)</i>	Construction										
Jim Flannigan, CESSWI, QSP <i>(VC&A)</i>	Construction									●	
Wesley Pipes, PE, QSD <i>(VC&A)</i>	Construction										
Darrah Ramsbotham, PE, QSP <i>(VC&A)</i>	Construction									●	
Dave Sluga, PE, CPESC, QSD, ToR <i>(VC&A)</i>	Enforcement and Prevention Assistance									●	
Andrew Chin <i>(WRECO)</i>	Water Quality Assistance and Compliance										
Robert Lawrence, PE, GE <i>(WRECO)</i>	Water Quality Assistance and Compliance										
Han-Bin Liang, Ph.D., PE, QSD <i>(WRECO)</i>	Water Quality Assistance and Compliance										
Analette Ochoa, PE, QSD, ToR <i>(WRECO)</i>	Maintenance, Water Quality Assistance and Compliance										●
Cuyler Stapelmann <i>(WRECO)</i>	Water Quality Assistance and Compliance										
Alvin Yim, CPSWQ, QSD <i>(WRECO)</i>	Construction										

29. Example Projects Key			
No.	Title of Example Project (from Section F)	No.	Title of Example Project (from Section F)
1	Water Pollution Control Assistance – North Sacramento, California	6	District 4 Construction Field Assistance San Francisco Bay Area, California
2	Storm Drain System Inventory Statewide, California	7	District 10 Construction Field Assistance Central Valley, California
3	Facility Pollution Prevention Plans Northern California	8	Construction Stormwater Capital and Support Costs Statewide, California
4	District 1 Construction Field Assistance Northern California	9	On-Call Professional and Technical Stormwater Quality Assurance Services Statewide, California
5	District 3 Construction Field Assistance Central Valley, California	10	Willits Bypass Water Quality Assessment and Monitoring Willits, California

Section H



Additional Information

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

Caltrans' mission is to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.

To support this mission and to avoid project slowdowns, regulatory enforcement actions, or environmental degradation, Caltrans needs effective strategies for Permit enforcement, prevention, and tracking.

BC brings new strategies and a renewed commitment to help Caltrans achieve Permit compliance.

The first step to Permit compliance is fully understanding regulatory requirements and concerns. Building on more than 20 years of experience supporting Caltrans' Stormwater Program, the BC team brings in-depth knowledge of the Permit drivers, as shown in Figure 2.1, and the unique compliance requirements for each division and district.

For example, the USEPA Order requires consistent documentation of corrective actions and Program implementation between Northern Districts. BC has noted that each district uses different inspection forms. Drawing from these types of observations, BC can provide recommendations and support documentation to bring consistency.

BC understands Illicit Connection/Illegal Discharge (IC/ID) is a common concern for Maintenance, Construction, and Right of Way (ROW), and that these divisions are understaffed to address this concern. BC field teams (e.g., on the SDSI project) are always on the lookout to locate, identify, report, and track IC/IDs within the Caltrans' right-of-way.

Through work with Headquarters DEA and the Northern Districts, the BC team has provided expert stormwater assistance and gained experience in all areas of the RFQ

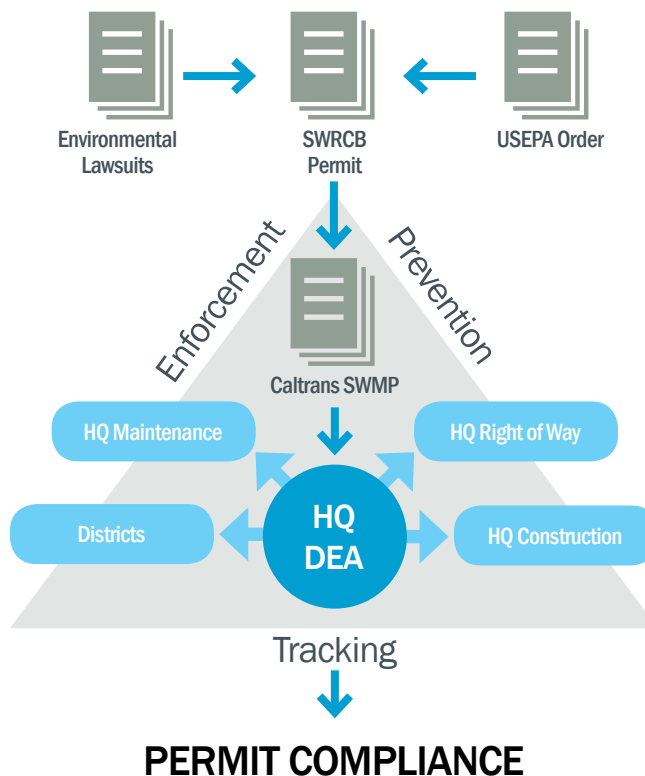


FIGURE 2.1 // BC's knowledge of Permit drivers and experience with enforcement, prevention, and tracking tools will support Permit compliance throughout Caltrans.

scope of work. The BC team brings both successes and lessons learned from past task orders, such as the ROW guidance manual where we adapted Caltrans stormwater processes to guide ROW agents and lessees. Past experience such as this, in combination with BC's history of close collaboration with Caltrans' staff, will help keep projects moving and in compliance.

Caltrans' Stormwater Program faces significant changes with a new SWMP and a new CGP. The BC team is focused on the future and leveraging past experience to apply consistent compliance processes throughout the Stormwater Program.

BC's Stormwater Program knowledge, technical stormwater skills, field-tested solutions, established relationships, and passionate service will provide the on-call support you need to achieve compliance through:



**Permit
Enforcement**



**Prevention of
Regulatory Agency
Enforcement
Actions**



**Compliance
Tracking**

Enforcement and Prevention



Caltrans has an excellent stormwater program and ample resources, however inconsistent field implementation can still inhibit compliance.



BC's expertise will identify appropriate strategies to achieve consistent Stormwater Program implementation.

Along with helping Caltrans develop programmatic guidance, BC staff have played a significant role in the field at Northern Districts making sure this guidance is properly applied.

Limiting exposure to enforcement using field focused experience.

Supporting construction site compliance will be a significant part of this contract as Caltrans' liability to fines and enforcement actions primarily occurs at construction sites, as shown in **Figure 2.2**. Caltrans' Enforcement Response Program (ERP) provides a toolbox of strategies to achieve field compliance. Program effectiveness can be increased through use of the ERP toolbox. BC's construction team experience will help to prioritize high risk sites and identify the appropriate strategies to use from Caltrans' ERP. These strategies may include prioritizing findings, preparing draft enforcement letters for Resident Engineers, or documenting noncompliant sites and corrective actions.

BC's team is field focused and familiar with how Caltrans builds projects and incorporates BMPs into site work. While contractors think schedule and budget, BC thinks clean and compliant. We understand how specific site BMPs and locations hold up during wet seasons, how BMPs work together to prevent stormwater discharges, and where BMPs tend to fail. When the District 4 Doyle Drive project began construction, Ralph Dodge applied his 15 years of full-time support on the Caldecott Tunnel, SFOBB, Devil's Slide, and other complex projects to help guide Caltrans staff on mission critical stormwater tasks for project Permit compliance. When Caltrans initiated construction of the Ten-Mile Bridge project, Cabe Silverhame was there to apply his knowledge of local soil conditions and sensitive water bodies gained in 9 years of District 1 assistance to focus efforts on the most critical BMPs.

Minimizing liability when regulatory agency enforcement actions are issued.

When NOV's or other enforcement actions occur, BC has helped Caltrans prepare discharge evaluations and technical reports for critical sites, including Devil's Slide, Confusion Hill, Lincoln Bypass, Sonora Bypass, and Willits Bypass. You brought us to a negotiation meeting with the Central Valley RWQCB to defend technical reports and assist in minimizing penalties on the Sonora Bypass site.

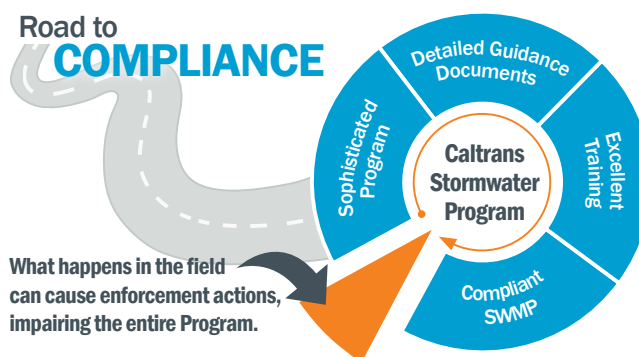


FIGURE 2.2 // BC's approach will eliminate road blocks to consistent field implementation.

Applying a proven process to efficiently develop Facility Pollution Prevention Plans.

Wellington Yee has been helping the Division of Maintenance with compliance since preparation of the original Maintenance Staff Guide in 1999. He led the BC team development of 344 FPPPs. Caltrans needed to prepare and update FPPPs for specified maintenance facilities. BC reduced the cost to complete each FPPP to less than \$3,000 and the delivery time to less than 1 week. Leveraging this experience, BC will accurately and efficiently develop any additionally required FPPPs. Wellington prepared the Annual Maintenance and Operation Compliance Review Plan (AMOCR) and Maintenance Year-End Performance Reports (YEPRs). These documents have focused maintenance staff on field compliance inspection processes and analyzed compliance trends.

Improving airspace property lease compliance with revised Right of Way manual.

ROW airspace leases involve multiple stakeholders and transitory activities that challenge stormwater compliance. Sayra Hurley, former District 11 Stormwater Coordinator, will be an excellent resource for ROW staff as she assisted with preparation of the ROW Property Management and Airspace Stormwater Guidance Manual in June 2015. The BC team presented training on this manual to more than 50 Caltrans ROW staff from all 12 districts. These staff can now more effectively implement stormwater requirements on airspace property leases.

Tracking



Caltrans needs accurate tracking of corrective actions to demonstrate compliance to the SWRCB and meet the USEPA Order.



BC's integrated information technology and stormwater approach supports seamless data migration to the Stormwater Portal.

BC's tracking approach, shown in [Figure 2.3](#), will provide inputs, i.e., NOV's, construction site reviews, maintenance compliance data, corrective action documentation, and inventories such as FPPPs and SDSI databases, into a SharePoint site for this contract. The site will enable seamless transfer of these inputs into the Caltrans Stormwater Portal. We can then facilitate outputs from the SharePoint site and Portal to assist Caltrans with analyses that can lead to Program benefits.

Closing the loop on corrective action findings to improve compliance.

The USEPA Order mandated that Caltrans improve processes to correct field findings and document corrective actions. BC has been helping Caltrans with the Construction Compliance Evaluation Plan (CCEP) program as a subconsultant to first PB Americas and now Vali Cooper & Associates. BC prepared the current CCEP and Maintenance AMOCR, developed the Access database of CCEP reviews, and has been preparing Year-End Performance Reports for 7 years. These YEPs evaluate BMP findings to identify trends and opportunities to improve compliance. The current Vali Cooper & Associates/BC team for the CCEP contract is well positioned to assist you in tracking and closing the loop on documenting corrective action findings in the required timeframe.

Expanding inventories to support compliance and enhance district programs.

The statewide SDSI database requires updating to cover locations not previously inventoried. BC's field teams have surveyed more than 1,700 miles of Caltrans roadway for SDSI attributes. Similarly, BC prepared Caltrans' statewide Treatment BMP Inventory and is positioned to continue fine tuning this data. Allan Scott will continue to lead SDSI efforts, as he has since 2005. Accurate and up-to-date SDSI and Treatment BMP Inventories will not only enable Caltrans to meet Permit requirements, but will also provide a planning tool to support numerous aspects of Caltrans' Stormwater Program (e.g., recommendations for new treatment BMPs can be used by designers).

Applying a life-cycle analysis approach will help control stormwater costs.

BC prepared the Construction Stormwater Capital and Support Costs Statewide Report in 2014 to quantify

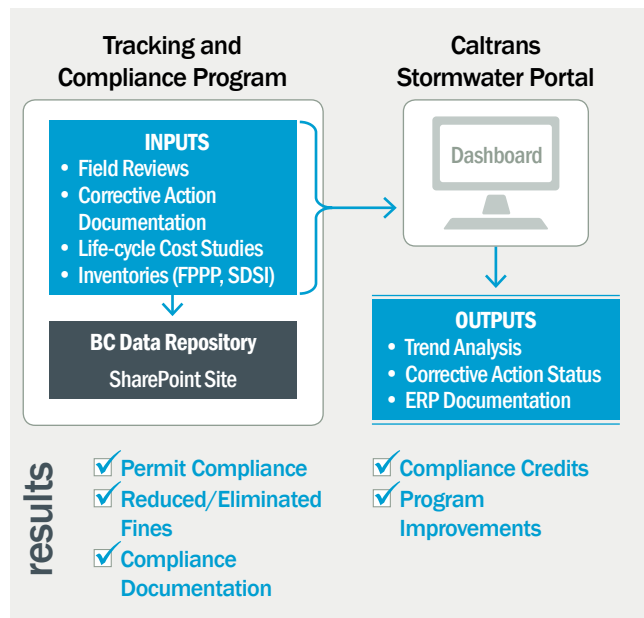


FIGURE 2.3 // BC's tracking programs improve Caltrans' compliance and document credits.

stormwater costs in the construction phase of capital outlay projects. This effort gathered data on water pollution control (WPC) related capital and support costs for typical construction projects statewide. Based on the results, BC prepared a planning-level WPC cost estimating tool that can be used to optimize WPC support and capital costs.

Tracking treatment facilities to demonstrate compliance and generate TMDL compliance units.

BC's experience as contributors to the Project Planning and Design Guide provides background knowledge to develop a tracking procedure so treated project areas are correctly delineated and post-construction treatment, alternative compliance credits, and TMDL compliance units are accurately calculated. BC will help streamline accounting of treated areas, including compliance units generated, by creating a map-based tool to track areas treated by BMPs. For example, the SDSI and Treatment BMP Inventory data we collect and information from the Caltrans as-builts could be used to delineate and map existing BMPs and their contributing drainage areas.

BC Team



Caltrans needs synergy with an experienced stormwater partner who will quickly identify workable solutions to achieve compliance.



BC's team of technical and field experts is tailored to serve Caltrans' Stormwater Program.

The BC team is structured to address the individual needs of Caltrans divisions and districts. BC's Project Manager, Randy Marx, is driven to provide exceptional service and eager to embrace new approaches to continually improve the team's performance.

The demonstrated characteristics of BC's team, shown in **Figure 2.4**, include responsiveness and seasoned advice from a deep bench of qualified and locally knowledgeable experts.

Collaborative approach benefits Caltrans' Stormwater Program.

Since the inception of the Stormwater Program in 1995, BC has collaborated closely with relevant public agencies and other Caltrans' consultants to provide the greatest benefit and meet Caltrans' objectives. We have worked successfully with all of Caltrans' current consultants and offer a proven record of cooperation. This includes coordination with the current Southern California District Assistance consultant for the past 9 years on mutual task orders such as Seed Testing, SDSI, FPPP development, construction site costing, and construction and maintenance compliance.

Commitment to health and safety reduces risks and increases productivity.

BC has had no health and safety incidents in more than 4,000 staff days in the field since beginning work on the Northern California District Assistance Contract. Field projects do not begin until a field work safety plan is prepared and approved by a safety professional.



FIGURE 2.4 // The BC team is aligned to support permit compliance and includes proven technical and field staff.

Randy Marx Project Manager



- History of successfully managing the Northern California District Assistance Contract since its 2004 inception.
- Proven dedication to Caltrans' Stormwater Program since 1999, managing 73 Caltrans stormwater task orders, all within budget and on schedule.
- Relevant professional qualifications, including PE, QSD, and CPESC.
- Strong working relationships with headquarters divisions and district staff.
- An understanding of the regulator's perspective from his 11 years working at Cal-EPA.
- Demonstrated responsiveness. Based in BC's Rancho Cordova office just 20 minutes away from Caltrans headquarters, Randy is always on call.



BC's seasoned team is ready to provide expert, field-savvy stormwater services to support Permit compliance.

I. Authorized Representative The foregoing is a statement of facts.

31. Signature

32. Date

December 18, 2015

33. Name and Title

Marc Damikolas, Senior Vice President

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

- California-certified DBE
- Specializing in stormwater and environmental services
- Corporate offices in District 5 and regional offices in Districts 1 and 2
- Extensive Caltrans Stormwater Program experience

About ADH Environmental

ADH Environmental (ADH) is a California Corporation established in 1999. ADH is certified as a Disadvantaged Business Enterprise (DBE) by the California Unified Certification Program and as a Small Disadvantaged Business (SDB) by the U.S. Small Business Administration. ADH corporate office is located in Soquel, California (in District 5, proximate to Districts 4 and 10), regional offices in McKinleyville and Redding (Districts, 1 and 2, respectively).

As an environmental consulting services firm, ADH's staff is comprised of Qualified Stormwater Pollution Prevention Plan Developers and Practitioners (QSD/Ps), surface water and stormwater quality management professionals, professional engineers, professional geologists, engineering geologists, hydrogeologists, oceanographers, biologists, GIS and database management personnel. ADH staff has successfully performed stormwater and water quality monitoring programs for municipal, industrial, commercial, federal, and state projects for over 25 years throughout the coastal oceans, estuaries, harbors, rivers, and waterway conveyances of the Western U.S. Additionally, our staff has provided professional consulting support services to Caltrans on numerous stormwater related contracts for over 20 years.

Professional Capabilities

ADH proposes to provide technical and professional support services to the BC team for Caltrans Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts. ADH brings extensive and comprehensive experience in assisting Caltrans and many other clients in compliance with NPDES and respective waste discharge requirements for construction projects and various monitoring programs and studies.

Related Experience

Serving Caltrans

ADH is currently contracted to perform services for Caltrans as a subcontractor under several contracts. Our services have included extensive environmental and regulatory support for Caltrans construction projects, and studies related to stormwater BMPs for highway infrastructure, construction sites, and department facilities. ADH's recent stormwater-related services for Caltrans under these contracts include:

District 2 Construction Assistance. Since May 2010, ADH, as a subcontractor to BC on Caltrans contracts 43A0234 and 43A0308, is providing expert Water Pollution Control assistance to the District-2 Division of Construction. ADH provides assistance on multiple "key" projects to ensure compliance with site NPDES permits, project contract requirements and permits, approved SWPPP, WPCPs, and any special requirements from the RWQCB and the SWMP. "Key" projects include: Anderson Grade; Tunnel Gulch Bridge Seismic Retrofit; I-5 Antlers Bridge; Spanish Creek Bridge Replacement; Burney Creek Bridge Replacement; North Fork Ash Creek Bridge Replacement; North Weed Long Life Pavement Rehabilitation; Trinity River Bridge Retrofit; Crawford Emergency Slide Repair; Buckhorn Capstone Roadway Realignment; and highway safety and rest area rehabilitation projects throughout the district. Project responsibilities with this contract include field reviews and SMARTS online stormwater database training and management.

Devil's Slide Tunnel and Bridge Construction Inspection Services. From February 2008 to March 2010 under Caltrans Contract 43A2906 with BC and from March 2010 to December 2011 under Caltrans Contract 43A3610 with TetraTech, Inc., ADH provided inspection services of stormwater and non-stormwater active treatment systems for construction activities at the Devil's Slide project. In addition, ADH provided weekly

SWPPP inspection services for bridge and tunnel construction, inspected stormwater BMP controls, and performed onsite tunnel shotcrete waste monitoring to determine conformance with regulatory conditions. Weekly and annual reports were prepared to summarize onsite activities, concerns, and recommendations.

Field Activity Compliance Evaluations – Construction Activities. Since April 2015, ADH, as a subcontractor to Vali-Cooper & Associates, Inc. on Contract 43A0321, provides field activity compliance reviews for construction activities in District 1. ADH provides technical and stormwater services to support compliance with the NPDES Permit and Statewide SWMP. Field reviews include section 20 review, field BMP implementation, contract and permit compliance, and report tracking. Field compliance review reports are prepared and delivered to District 1 staff shortly after the field reviews.

Non-Vegetated Erosion Control Pilot Study Plan. To help Caltrans evaluate appropriate erosion controls for construction sites, in 2007 ADH prepared a Pilot Study Plan as a subcontractor to URS on Caltrans Contract 43A0171 to statistically evaluate the water quality effectiveness and long-term performance of temporary, non-vegetative erosion control measures. The study is intended to provide Caltrans with the information necessary to choose appropriate temporary, non-vegetative soil stabilizers at Caltrans construction projects.

Teaming with Brown and Caldwell

ADH is currently providing or has provided technical and professional services as a subcontractor to BC on the following Caltrans contracts:

- 43A0234 - Stormwater District Assistance in Northern California (Task Order 1)
- 43A0175 - Stormwater District Assistance in Northern California (Task Order 2)
- 43A0308 - Stormwater District Assistance in Northern California (Task Order 3)
- 04A2906 - Construction Environmental Engineering Support Services
- 43A0325 - Stormwater Quality Monitoring and Reporting Services, Caltrans Districts 1, 4, and 5
- 43A0288 - Stormwater Quality Monitoring and Reporting Services, Caltrans Districts 1, 4, and 5 (TO 2)

Our Commitment

ADH has extensive experience in key areas related to the technical and professional consultant services required for Caltrans Solicitation 43A0347, and as a firm specializing in environmental regulatory and stormwater services, ADH is fully qualified to provide the following as-needed services:

- Attend construction meetings to provide expert guidance; reviewing and consulting on contract requirements related to water pollution control and permit compliance.
- Provide expert technical assistance and training to the District Division of Construction personnel, the Construction Storm Water Coordinator, and Resident Engineers. Train in use and account management of SWRCB's SMARTS online stormwater database, and department compliance with the current CGP.
- Reviews of project Category 20 files, SWPPPs, Water Pollution Control Plans (WPCPs).
- Perform construction site field inspections to verify proper preparation, implementation, and to identify and correct plan deficiencies associated with construction activities.
- Prepare conceptual SWPPPs as needed for fast-track projects.

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature



32. Date

August 5, 2015

33. Name and Title

David J. Skinner, Regional Manager

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)



Amec Foster Wheeler's partnership with Brown and Caldwell and Team Member WRECO helps Caltrans leaders keep the SFOBB Old East Span Demolition on schedule.

Executive Summary

Amec Foster Wheeler is pleased to present this Statement of Qualifications summarizing our experience in response to the State of California Department of Transportation (Caltrans) Request for Qualifications for Contract 43A0347, Stormwater Permit Enforcement, Prevention and Tracking Services for Northern Districts.

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) is dedicated to technical excellence in the field of stormwater compliance services. We have more than 200 technical and support professionals located in our four Northern California offices in Oakland, San Francisco, Petaluma, and Sacramento. For this contract, we are providing resumes of staff with experience in surface water monitoring, source identification, construction oversight, and groundwater monitoring. All of the Amec Foster Wheeler staff provided have prior experience with Caltrans monitoring projects and Caltrans construction support.

Teamwork Serving Caltrans

Amec Foster Wheeler and our predecessor companies have been working in partnership with Brown and Caldwell since the mid-1990s. Water Quality Expert Dr. Khalil Abusaba has been working with BC's Mike Flake since 2005, when he developed monitoring studies for the Orange County Nitrogen Selenium Management Program, with Mike Flake representing Caltrans in the stakeholder group. Khalil and Mike, along with team member Brad Dickson, have collaborated over the years since then, along with fellow subcontractors ADH Environmental, WRECO, and Leland Saylor on high-profile water quality monitoring projects supporting construction for Caltrans, including:

- The San Francisco Oakland Bay Bridge (SFOBB) Old East Span Demolition Project.
 - Working for Amec Foster Wheeler as a subcontractor to Brown and Caldwell, Khalil and Emily Sportsman have developed studies of Polychlorinated Biphenyl Compounds (PCBs) in bridge materials in compliance with SFRWQCB direction. Micah Swann is currently on the team monitoring water quality for in-water construction activities. Brad Dickson has provided environmental consulting services to both the SFOBB Seismic Retrofit and the Old East Span demolition project since 2007, working directly for Brown and Caldwell, and now as a subcontractor with Amec Foster Wheeler.
 - Khalil, Emily and Brad have worked as subcontractors to WRECO, in partnership with Brown and Caldwell, to develop a sampling and analysis plan for the Pier E3 Pilot Demolition Project.
 - As an indicator of how careful monitoring raises Caltrans' credibility in front of regulators, on September 17, 2015, the Bay Conservation Development Commission unanimously approved Caltrans' permit for a pilot test to remove the Old East Span Pier E3 foundation via controlled implosion. Commissioner's commended Caltrans for its well thought out plan and commitment to rigorous monitoring to evaluate the viability of this important tool for future projects to remove abandoned marine structures.
- SFOBB Bioretention Basins Stormwater Treatment Pilot Project
 - Stormwater monitoring on this mitigation project evaluated the feasibility and effectiveness of bioretention as a means of treating stormwater from over 104 acres of roadway. Annual reports led by Khalil while he was at Brown and Caldwell, and coordination with the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) kept Caltrans in compliance with commitments made in the project Waste Discharge Requirements. Khalil and Mike worked closely with ADH Environmental to deliver monitoring services on this project.
- The Devil's Slide Tunnel Project Active Treatment System (ATS) and Water Supply Studies
 - While at Brown and Caldwell, Khalil provided rapid response to exceedances of hexavalent chromium in ATS discharges, effecting a treatment modification within hours that eliminated the exceedances and avoided a notice of violation.

- While at Brown and Caldwell, Khalil developed preliminary studies of water supply options for a frog pond habitat mitigation. Later, working for Amec Foster Wheeler as a subcontractor to WRECO, Khalil directed Emily Sportsman and Brad Dixon in an estimation of residual chlorine in the frog ponds should potable water be used to keep them full.
- The Presidio Parkway Project
 - While at Brown and Caldwell, Khalil provided rapid response investigation of impacts from a sewage spill caused by the contractor, and provided review of contractor stormwater diversion and treatment plans.
- The Caldecott Fourth Bore Active Treatment System
 - While at Brown and Caldwell, Khalil developed and implemented a method detection limit study for the ATS coagulant, in compliance with requirements of the Construction General Permit.
- Stormwater Inspection and Assistance, Caltrans District 4
 - While at Brown and Caldwell, and later working for Leland Saylor and then Amec Foster Wheeler, Brad Dickson inspected highway and bridge construction sites and provided evaluation to the project resident engineer and Construction Stormwater Coordinator (CSWC) on the level of compliance with department policies, permits, specifications, agreements, contract documents, policy directives, and other applicable regulations.
- Oil Spill Impact Study, San Francisco–Oakland Bay Bridge Construction Site
 - While at Brown and Caldwell, Brad Dickson conducted specialized water quality tests to determine the impact of the 2007 Cosco Busan oil spill on the San Francisco–Oakland Bay Bridge construction site and operations.

Relevant Caltrans Experience

Amec Foster Wheeler has provided more than \$65M in stormwater field compliance monitoring and reporting services in California for linear construction projects, maintenance and industrial facilities, and other transportation facilities over the past five years alone. We have extensive experience performing large, on-call, contracts for Caltrans. Since 1990 we have completed 28 Caltrans contracts as a prime, including:

- 43A0233 Caltrans Statewide On-Call Water Quality Services
- 43A0208 Caltrans Districts, 1, 4, and 5 On-Call Monitoring
- 43A0324 Caltrans District 11,12 On-Call Stormwater Monitoring

This statewide experience has resulted in 32,000 BMPs inspected, 17,000 stormwater management practices recommended, and thousands of pollution control plans written and reviewed at diverse transportation facilities including:

- 625 maintenance activities and facilities
- 48 construction projects
- 342 other transportation-related facilities

In summary, we have the people, the skills and experiences, the location, the strong working relationships with the prime contractor and fellow subcontractors, and the desire and commitment to provide you with very best performance on this contract.

. Authorized Representative
The foregoing is a statement of facts.

31. Signature



32. Date

September 24, 2015

33. Name and Title

Khalil Abusaba, Senior Associate Scientist

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

- Certified California Small Business (micro) No. 53516
- Stormwater services include: LID design, SWPPP preparation, hydro-modification assessment
- 18 available staff in the Northern Districts with an office in West Sacramento
- Knowledge of Caltrans permits and inspection capabilities
- Past subcontracting collaboration with Brown and Caldwell providing services to Caltrans and the Sacramento Area Sewer District

About cbec, inc. eco engineering

cbec specializes in eco engineering. Eco engineering describes water resources engineering services that are concerned with developing and providing ecologically sensitive and environmentally sustainable solutions in the fields of hydrology, hydraulics, geomorphology and restoration and rehabilitation design. The diverse academic training and professional experience of our staff provide cbec with a unique set of qualifications to facilitate problem-solving.

Dr. Chris Bowles founded cbec in 2007 in West Sacramento. The company has expanded since then largely due to repeat business of satisfied clients. We now have staff stationed throughout California, along the West Coast in Oregon and Washington, and in the Midwest and Southeast regions of the United States. We have 18 staff located within the Caltrans Northern Districts and based out of our West Sacramento office. **cbec staff has a number of certifications including: California Professional Engineer (PE); Certified Professional in Erosion and Sediment Control (CPESC); Qualified SWPPP Developers (QSD); and, Certified Floodplain Manager (CFM).**

Professional Capabilities

cbec is leading innovative, sustainable stormwater management, including Low Impact Development (LID). We focus our energy on developing ecological engineering solutions to manage and mitigate for urban runoff. We are pioneers in the field of hydromodification planning and design and are influencing the way urban stormwater design is incorporated into new and infill development. We size and design LID facilities that maximize opportunities to work with the existing landscape. Our specialty is the creation or rehabilitation of innovative multi-objective creek corridors that are used to enhance the sociologic, economic, and ecologic value of urban development. **cbec has completed sustainable stormwater analyses and design for a multitude of clients, from municipalities to private developers.**

We are innovators in hydromodification, assessing and designing to reduce the impacts of frequent runoff from urban development on the geomorphology and ecology of our rivers and streams.

Our staff selected to assist Caltrans has a variety of specialized expertise in stormwater management, design, and permitting:

- **Chris Bowles, Ph.D., PE** has extensive experience in the development of Hydromodification Management Plans (HMPs) and has also managed HMP assessments and mitigation elements of six storm drainage masterplans developed in the last four years for large developments in the Sacramento Region. Chris is recognized as a state leader in the science of hydromodification and stormwater management, and is currently serving on the Statewide Hydromodification Task Force, organized by the State Water Resources Control Board (SWRCB). He recently assisted with the Caltrans Stream Stability Rapid Assessment Guidance training for Caltrans staff.
- **Doug Shields, Ph.D., PE** has provided expert witness services related to the examination of runoff, storm drainage, erosion and sedimentation issues and co-authored a paper on storm pesticide concentrations in receiving waters. He

recently led the Caltrans Stream Stability Rapid Assessment Guidance training for Caltrans staff.

- **Chris Campbell, MS** has extensive experience in hydromodification assessments and has prepared concept designs for multi-purpose flow duration control-water quality-storm detention basins. He assisted the Sacramento Stormwater Quality Partnership (SSQP) with the preparation of the HMP as part of their NPDES MS4 Stormwater Permit Renewal process.
- **Kevin Coulton, PE, CFM** became involved in providing NPDES support services in 1990 when the program was first introduced and he has prepared municipal and industrial SWPPP and stormwater drainage master plans, designed biofiltration swales and drainage systems, and analyzed the performance of stormwater BMP facilities. He recently assisted with the Caltrans Stream Stability Rapid Assessment Guidance training for Caltrans staff.

Related Experience

Serving Caltrans

cbec has previous experience working for Caltrans and jurisdictions with the Northern Districts; two representative projects are described below:

- **Caltrans Stream Stability Rapid Assessment Guidance, Caltrans, 2012-2014, Sean Penders, Caltrans, 916.653.5646** cbec prepared and provided training to Caltrans staff in order to comply with the hydromodification requirements of the Caltrans NPDES permit. Objectives of the training were to enable Caltrans staff to: determine when a rapid stability assessment is required for a given project; explain the significance of each of the 13 indicators of channel stability; perform a rapid stability assessment for any type of stream crossing; and, determine if advanced (Level 2 or Level 3) analyses are needed.
- **Low Impact Development Guidebook Preparation, Placer County, 2009-2012, Ed Sullivan, 530.745.3030** cbec partnered on a team led by Placer County to develop a Low Impact Development (LID) guidebook for eastern Placer County (above 5,000 feet). The purpose of the guidebook was to provide guidance on the use and implementation of LID techniques to protect and enhance the water quality of Placer County in the Yuba, Truckee and American River watersheds through the promotion of innovative, cost effective, stormwater management techniques in the higher elevations. cbec staff is currently assisting Placer County with the development of an LID Guidebook for western Placer County.

Teaming with Brown and Caldwell

cbec has teamed with Brown and Caldwell on several projects in recent years including Sacramento Area Sewer District (SASD) Stream Crossing assessment, Sacramento Hydromodification Plan, and several Caltrans contracts.

Our Commitment

cbec brings immense value to the Brown and Caldwell team in service of Caltrans' technical needs, including their extensive staff of highly qualified and experienced experts in stormwater management.

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature



32. Date

December 18, 2015

33. Name and Title

Chris Bowles, PE, PhD, President

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

- DVBE and SB certified
- Provide water-quality/water-pollution-prevention services
- Offices in San Francisco and Oakland with 2 committed staff members
- Caltrans experience, including knowledge of permits and inspection capabilities
- 13 years' collaboration with Brown and Caldwell

Leland Saylor Associates

Leland Saylor Associates (LSA), a certified Disabled Veteran Business Enterprise (DVBE) and Small Business (SB), was founded in 1997 to serve the needs of public and private clients in the areas of cost estimating and cost analysis, scheduling, construction inspection, and stormwater quality assurance services. LSA has an active civil construction-consulting practice that focuses on water infrastructure, highway construction, bridges, rail systems, and air and ship transport facilities. Large scale transit systems throughout the State of California we have served include Caltrans, Bay Area Toll Authority (BATA), Bay Area Rapid Transit (BART), California High Speed Rail Authority, Santa Clara Valley Transit Authority, Port of Los Angeles, Los Angeles County Transportation Authority (Metro) and Sonoma-Marín Area Rail Transit District (SMART).

Professional Capabilities

Saylor's proposed Stormwater Compliance Inspector, Duncan Geddes, has provided expert water-quality/water-pollution-prevention assistance for Caltrans for over 6 years. Mr. Geddes has provided expert assistance associated with regulatory enforcement actions for Caltrans. He participated in numerous inspections by the RWQCB inspectors/personnel of Caltrans project construction sites, provided expert advice/recommendations/presentations to Caltrans for correcting the deficiencies and violations identified by the RWQCB Inspectors during their inspections, and conducted field investigations of construction-by-others (i.e. County Public Works Departments, Cities, Transportation Agencies, etc.) within the Caltrans Right-of-Way and/or Impacting Caltrans Property that were identified by the RWQCB and/or other Regulatory Agencies and/or Anyone-Else/the-Public as potential sources of violations. He provided photographic diary of the field investigation and evaluation/advice/recommendations for corrective actions necessary to avoid NOV's from the RWQCB and/or other regulatory agencies.

Related Experience

Mr. Geddes has and continues to provide expert quality assurance inspections of over 50 Caltrans construction projects of all sizes and all CGP Risk-Levels including the following:

- Devil's Slide Bypass Tunnel and Bridge, Pacifica, California (RL 2 and 3);
- Demolition of the Existing Bridge and Construction of the New Hwy 101 Bridge over the Petaluma River, Petaluma, California (RL 2);
- Reconstruction of Hwy 12 through Jameson Canyon in Napa and Solano Counties (RL 2);
- Reconstruction of EB and WB Hwy 580 from Dublin to Altamont Pass (RL 2);
- New Retaining Walls and Hwy Reconstruction of Hwy 152 from Mount Madonna to Gilroy (RL 3);
- New Retaining Walls and Hwy Reconstruction along Hwy 9 in Areas from the downtown Saratoga to the Intersection with Hwy 35 (WPCPs, RL 3).

Mr. Geddes has also provided Expert Caltrans' oversight quality assurance Inspections for several construction projects within the Caltrans Right of Way, including:

- Reconstruction of Hwy 262/Mission Blvd. between Hwy 680 and Hwy 880 including two new RxR Bridges and a New OC for Kato Rd. in Fremont, California (Valley Transportation Agency);
- Reconstruction the Interchanges between Hwy 880 and Hwy 280 and between Hwy 880 and Steven's Creek Blvd. in San Jose, California (Valley Transportation Agency);
- Reconstruction of the Campbell Avenue UC below Hwy 17 in Campbell, California (City of Campbell).

Additionally, Mr. Geddes has provided expert water-quality/water-pollution-prevention assistance for PG&E including inspecting/evaluating PG&E facilities and sub-stations across central California for their conformance to the SWRCB and the IGP/CGP requirements. Mr. Geddes reviewed the existing PG&E facilities' and sub-stations' installed BMPs, standard operating procedures, and the facilities' and sub-stations' FPPPs/IGP-SWPPPs. Additionally, he provided specific detailed recommendations for upgrading PG&E facilities and sub-stations and their associated installed BMPs, standard operating procedures, and their FPPPs/IGP-SWPPP to meet the SWRCB and the IGP/CGP requirements. He assisted with "cost-versus-results" for various types of established and newly-created BMPs and standard operating procedures that could be installed/implemented at PG&E facilities and sub-stations.

Mr. Geddes's PG&E field-work included helping develop/write a trench and excavation dewatering guidance document for PG&E to submit to regulatory-agencies/SWRCB/RWQCBs and for use by PG&E field crews. He also assisted with developing procedures and correspondence for submittal to the SWRCB/RWQCB for "small water volume discharges" from PG&E field-work.

Teaming with Brown and Caldwell

Leland Saylor Associates is currently working with Brown and Caldwell on the Caltrans Northern California Stormwater District Assistance, Caltrans On-Call Technical and Professional Stormwater Services, and Caltrans Statewide Implementation Stormwater contracts.

Our Commitment

Leland Saylor Associates brings strong Caltrans stormwater compliance and related experience and is committed to providing Caltrans and the team with professional and experienced staff.

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature



32. Date

December 18, 2015

33. Name and Title

Brad Saylor, Vice President

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

About M3 Integrated Services, Inc.

M3 Integrated Services, Inc. (M3) is an engineering consulting firm focused on meeting the design and construction needs of our federal, state and local agency clients. The principals of M3 have over 60 years of combined engineering and construction experience. Our in-house capabilities allow us to manage our clients' projects from conception to completion.

M3 has performed the following services for Caltrans over the past three years: SWPPP and BMP installation training, conversion of Pilot Stormwater BMPs to non-Pilot BMP's. M3 is experienced in preparing Storm Water Pollution Prevention Plans (SWPPPs), Water Pollution Control Drawings and electronic submittal and to the State Water Board SMARTS system. Our staff has experience conducting site inspections after qualifying rainfall events to inspect the physical conditions of the BMP's and to monitor and sample storm water leaving the construction site.

In addition, we are a licensed General Engineering and Building Contractor. Our State of California construction clients include Caltrans, Department of Parks & Recreation and Department of General Services. Our most recent Caltrans construction services were installation of Low Impact Development (LID) Linear Filtration BMP's in Districts 3 and 7. Linear Filtration BMP's included: Linear Filtration Trench, Bioretention Trench, Media Filter Drain and Linear Sand Filters. M3 completed the construction of both projects on schedule and budget. The combination of our engineering and construction experience allows us to design-build fast track projects for our clients.

What Our Clients Are Saying About Us

M3 Integrated Services, Inc. takes great pride in the work we perform. Over 80 percent of our work is performed for clients we have worked with in the past.

Teixeira Ranch Residence and Horse Barn, Point Reyes National Seashore, CA

....M3 Integrated Services, Inc. was a pleasure to work with and completed the job on schedule and budget...

Daniel S. Brown
Exhibit Specialist, Cultural Resources
Point Reyes National Seashore

Hodgdon Meadows Wastewater Improvements, Yosemite National Park, CA

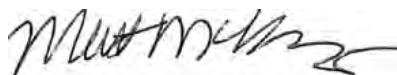
.... Overall M3 showed an outstanding level of professionalism and it was truly a pleasure to work with you on this project. We look forward to working with you on future projects and wish your company success.....

Aaron M. Arellanes, President
AMA Diversified Construction Group

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature



32. Date

August 3, 2015

33. Name and Title

Matt Mckamey, PE | Principal

[This page left intentionally blank.]

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

- California-certified small business
- Stormwater management and inspection services
- Local office 25 minutes from Caltrans Headquarters office
- Serving Caltrans Stormwater Program since 2010
- Collaboration with BC on two Caltrans stormwater contracts

About Montgomery & Associates

Montgomery & Associates, Inc. (M&A), founded in 2010, is a growing company comprised of 22 program management and construction professionals. Our people have a combined 150 years of construction experience. We have an extensive belief in teaming and partnering, which has allowed M&A to grow quickly and provide exceptional services to our clients. We are known throughout the state as an industry leader, with offices in Sacramento and San Diego. We are CA DGS Certified Small Business 1663340. CPUC DBE Certified – Woman owned. We have submitted our application to obtain DBE status through Caltrans and are awaiting our interview.

Professional Capabilities

Since 2010 we have teamed to provide stormwater management and inspection services to Caltrans, SDG&E, AT&T, and others, allowing for DBE participation while providing the highest quality value-added service. Our primary focus is to provide exceptional stormwater services, from assisting our clients through the budgeting process, to developing Stormwater Pollution Prevention Plans (SWPPP), inspecting the projects on our clients' behalf to ensure regulatory compliance, filing the Annual Reports, and obtaining Notice of Termination. Additionally, we conduct project risk assessments, compliance audits, rain event inspections and sampling, and customized weather monitoring and reporting—all of which we upload into the SWRCB's SMARTS system website. We manage several NPDES MS4 programs and have represented clients during EPA audits. For the industrial sector, we develop site-specific SWPP plans and Spill Prevention, Control and Countermeasures (SPCC) plans. We also have highly skilled stormwater engineers on our staff that have experience with preparing Drainage Studies, stormwater collection system design, Stormwater Management Plans that outline post-construction BMPs, Low Impact Development analyses and design, Hydromodification analyses and design, FEMA floodplain evaluations and flood insurance rate map change processing.

Stormwater Compliance Expertise

Recently M&A presented a national webinar for the International Erosion Control Association (IECA) members and guests. The presentation was called, "Got Stormwater Compliance Issues? What Now?" and focused on these five objectives:

- Components needed for successful stormwater program
- Penalties for non-compliance
- How to react to Notice of Violations and Fines
- How to seek expert assistance
- Spreading the word about your positive program

The IECA presentation was so successful that M&A will be conducting a full-day classroom presentation at the 2016 Annual IECA Conference in San Antonio, Texas.

Health and Safety

M&A strongly instills proper safety practices to its employees, including the emphasis we place on our internal safety manual. We require all of our subconsultants to adopt our manual unless theirs is superior. We will conduct

regular safety meetings and trainings to keep our team constantly aware of safety practices. Within M&A, we have designated two individuals to transmit and document our safety practices.

Related Experience

Serving Caltrans

M&A and BC have successfully teamed and are working together on the following recent projects:

- Caltrans District 3 LID Pilot Project
- Caltrans District 7 LID Pilot Project
- Caltrans CEM Form Revisions - Various Districts
- Caltrans Construction Stormwater Training Assistance - All Districts

M&A brings several additional stormwater professionals that are deeply familiar with Caltrans forms and procedures for stormwater compliance. Several key M&A staff members worked with BC on the Caltrans Forms Streamlining Task Order. M&A's QSDs have prepared and reviewed SWPPPs and WPCPs using the Caltrans templates. Our QSPs utilize the Caltrans standard forms for inspection reports, corrective actions, weather tracking, training, and water quality monitoring/sampling. Much of this experience comes from our work with AT&T throughout the State. M&A has been working with AT&T since 2010 to provide full QSD and QSP services, especially for their projects that encroach into a Caltrans Right of Way. Our approach is to keep both AT&T and Caltrans in compliance with NPDES permits, even though our direct client is AT&T for that contract. M&A knows that keeping Caltrans safe and compliant for work done within their Right-of-Way helps everyone involved in the projects.

Our Commitment

This new contract will focus primarily on field compliance and enforcement on all active Caltrans construction projects. M&A stands ready with Caltrans, assisting in the response and implementation of corrective actions measures and trainings. M&A has helped numerous clients throughout the State in responding to Notice of Violations (NOVs) and working with regulators to reduce levied fines. M&A has an excellent relationship with many State and Regional regulators which will be used in this contract to help Caltrans address NOVs and prevent future enforcement actions. Our proven approach includes **maintaining lines of communication with regulators throughout California** which have allowed us to **get interpretations early**, and **make the case for compliance** easier for our clients, thus **eliminating confusion, reducing risk, and ultimately creating efficiencies that have saved resources long-term**.

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature



32. Date

December 18, 2015

33. Name and Title

Elizabeth Gaylord, CPESC, QSD/QSP | President

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

Stormwater

Services:

- NPDES Permitting
- Site Inspections and Sampling
- GIS/Database Management
- Training
- Program Management/Owner's Representative
- Annual Compliance Reports
- Water Quality Technical Reports
- Low Impact Development
- Hydromodification Analysis
- Stormwater Best Management Practices
- Water Quality Monitoring and Modeling
- Third Party Audits

Caltrans Experience:

- Preferred Provider in Districts 6 and 10
- 10 Years of Continuous Services

About NV5

NV5 is a publicly-held C-Corporation that provides professional and technical consulting and certification services for the infrastructure, construction, development, and environmental markets. The firm provides specialized capabilities across five verticals – Construction Quality Assurance (Geotechnical Engineering), Energy, Environmental, Infrastructure, and Program Management. NV5 is headquartered in Florida, has 42 offices across the United States, and employs approximately 1,000 professional and administrative personnel.

NV5, Inc. (CA) was formed in 2010 with the acquisition of the full service engineering firm Nolte Associates, which specialized in construction management; transportation design (bridges, freeways, and light rail); water and wastewater design; program management; and mapping and surveying. Recently, Mendoza & Associates joined NV5, Inc., bringing its 20 years of expertise to the firm's construction management practice. The combined staff brings together approximately 100 construction management experts, including resident engineers, assistant resident engineers, structure representatives, office engineers, and inspectors.

Today, NV5, Inc. is a leading provider of engineering and construction management services to public sector clients in the transportation and infrastructure markets. The firm has played a major role in the shaping of the highway transportation system in Northern California, providing turnkey services for local roadway improvements; bridge replacements, retrofit, and widenings; interchange reconstruction; highway widening, new alignments, and rehabilitation; roadway surfacing; storm drainage systems; and landscaping projects with a construction value of more than \$1 billion.

Professional Capabilities

NV5's portfolio features three decades of stormwater and water resources services for a wide range of infrastructure improvements. Notable among our portfolio are just a few of our recent projects:

- **Technical and Professional Stormwater Services, Caltrans District 43:** NV5 was a key subconsultant on this contract responsible for providing stormwater compliance services statewide. NV5 worked on the task order to revise Caltrans CEM-Forms related to stormwater compliance reporting. NV5 also provided inspection services for existing Caltrans projects, including the review of BMP installation and compliance with project SWPPPs.
- **Stormwater Management Task Force, Caltrans District 4:** as a key subconsultant, NV5's subsidiary Mendoza & Associates was responsible for SWPPP inspections for highway construction projects in Districts 1, 2, 3, 4, and 10.
- **Highway 50 Storm Water Quality Improvements, Caltrans District 3:** as a key subconsultant, NV5's subsidiary Mendoza & Associates worked on the \$18 million construction of concrete

storm drains with sand filters; relocation of utilities for AT&T, gas and electric, and fiber optic lines; placement of hot mix asphalt paving; and striping.

- **Stormwater Management Services, University of California, San Diego:** prime consultant and NPDES Program Manager for QSD and QSP services for UCSD's Facilities Design and Construction Group. NV5 is responsible for reviewing contractor SWPPPs, performing monthly site visits to conduct BMP audits, preparing compliance reports, coordinating with contractors during rain events, and assisting with the preparation of Notice of Terminations for all permitted projects.
- **Stormwater Permitting and SWPPP Services, San Diego Gas & Electric Company:** NV5 has been working with SDG&E for the past 17 years to assist in their stormwater quality compliance efforts. NV5 has served as an extension of SDG&E's environmental department responsible for handling all SWPPP compliance. NV5 has prepared more than 75 SWPPPs for linear and traditional projects all of which conformed to the Construction General Permit. The firm has also been responsible for QSD and QSP services associated with the Construction General Permit.
- **Best Management Practices Program, Hydrologic and Stormwater Services, San Diego International Airport:** NV5 provided SWPPP audit services responsible for overseeing the contractor's QSP and making sure that everything was in compliance with the Construction General Permit. NV5 also prepared SWPPPs for three large parking lot improvement projects. NV5 also was responsible for performing stormwater inspections in association with the County's Municipal Stormwater Permit.
- **SWPPP Quality Assurance Program, County of San Diego:** as the prime consultant, NV5's subsidiary Mendoza & Associates supported the development of contract provisions related to the new statewide permit for stormwater pollution prevention. The firm was responsible for reviewing SWPPP for existing projects that were to be "grandfathered" under the new permit requirements and for providing inspection services for five sites that had been enrolled under the new permit.

Related Experience

Serving Caltrans

NV5, Inc. is a preferred provider with Caltrans, having held the on-call construction management prime contracts with Caltrans Districts 6 and 10 continuously since 2005 and 2006, respectively. We also provide similar services for other districts on a subconsultant basis. We bring extensive knowledge of Caltrans' construction procedures and consultant contract management processes and excellent working relationships with Caltrans personnel – relationships that equate to time and cost savings.

Teaming with Brown and Caldwell

NV5's subsidiary Mendoza & Associates is a key subconsultant on Brown and Caldwell's current contract with District 43. The firm also served on Brown & Caldwell's Caltrans District 4 Stormwater Management Task Force team.

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature



32. Date

December 18, 2015

33. Name and Title

Todd George, PE | COO, Civil Program Management

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

- Independent Quality Assurance stormwater reviews
- SWPPP Development
- Stormwater training
- Form development and database management
- Offices in Sacramento, Emeryville, Walnut Creek, Murphys, Lathrop, and San Luis Obispo
- Staffing – 9 staff listed, additional available
- Thorough understanding of CA CGP and Caltrans guidance documents, SWMP, Permit, and specifications and current policies and procedures for IQA reviews
- Worked with Brown and Caldwell for last 10 years on Caltrans stormwater contracts

About Vali Cooper & Associates

VC&A was founded 28 years ago solely to provide construction management to public agencies with an emphasis on Caltrans projects. Since that time, we have added other services such as stormwater compliance, and we have grown to more than 150 employees, which includes California-licensed engineers, inspectors, and QSDs/QSPs. Our professionals are experienced with stormwater NPDES compliance on Caltrans construction projects and maintenance facilities. We have offices throughout California, with six offices in Northern California to serve this contract.

Professional Capabilities

VC&A staff are experienced with Caltrans construction, maintenance and the stormwater NPDES regulations that govern them. Many of our proposed staff previously worked on, or are currently working on, projects to assist the Caltrans in meeting permit requirements. They are well versed in the policies, guidance documents, standard specifications, and standard operating procedures. **Our knowledge and experience also includes the current independent quality assurance reviews, corrective action procedures, and enforcement response plan procedures.**

Related Experience

Serving Caltrans

VC&A has successfully provided stormwater services to Caltrans during the last 18 years on several headquarter contracts. **In particular, we served on two previous District (North) assistance contracts and three previous stormwater compliance and monitoring contracts, two on a statewide basis and one in Northern California, where VC&A was the prime consultant.** These contracts provided assistance and monitoring for more than 2,000 project sites, including construction and maintenance, and numerous maintenance activities. VC&A currently serves as the prime consultant for the Caltrans Statewide Stormwater Quality Assurance Services contract, for which we are providing third-party oversight for construction projects, maintenance sites, and maintenance activities.

Teaming with Brown and Caldwell

VC&A has teamed with Brown and Caldwell on two previous District (North) assistance contracts. Brown and Caldwell is also currently a key subconsultant on our Statewide Stormwater Quality Assurance services contract, assisting us with task order management, construction site reviews, form development, and database management.

Our Commitment

VC&A is committed to providing the most qualified personnel in the most expedient manner possible to Brown and Caldwell and Caltrans. Our extensive experience with the Caltrans stormwater program and our proactive interaction with Brown and Caldwell and the Caltrans Department staff are what we bring to this contract. We

also take great pride in performing our jobs well, which is reflected by our excellent reputation. We are eager to continue our past success with Brown and Caldwell and Caltrans!

I. Authorized Representative
The foregoing is a statement of facts.**31. Signature****32. Date**

December 18, 2015

33. Name and Title

John Collins, PE – Chief Operations Officer

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. (Attach additional sheets as needed.)

WRECO

- SB and DBE firm
- Leading storm-water specialists
- Extensive Caltrans experience related to stormwater and water quality
- Worked with Brown and Caldwell on 5 Caltrans stormwater/water quality contracts including 19 task orders
- Coordination with RWQCBs
- Trainers for CA CGP and IGP

About WRECO

WRECO is a certified small business and minority-owned engineering consulting firm (California Unified Certification Program Underutilized Disadvantaged Business Enterprise Firm No. 30066 and State of California Small Business No. 60800). WRECO provides specialty services in environmental compliance, civil engineering, geotechnical engineering, and water resources.

Founded in 1995 and incorporated in 1996 as a standard California corporation, WRECO now has four offices located in the cities of Walnut Creek, Oakland, Roseville, and Sacramento, California. WRECO resolves sophisticated engineering and environmental problems in local communities, watersheds, streams, wetlands, estuaries, and coastal areas with feasible and cost-effective solutions.

WRECO has more than 40 staff members. Our technical personnel are composed of exceptional licensed civil engineers, hydraulic engineers, geotechnical engineers, hydrologists, biologists, geologists, stormwater specialists, environmental scientists, CADD technicians, Qualified SWPPP Developers and Practitioners (QSDs/QSPs), Certified Construction General Permit QSD/QSP Trainers of Record (ToRs), and Qualified Industrial Stormwater Practitioners.

Caltrans Experience

WRECO has substantial experience working with various Caltrans districts and regions. More than 60 percent of WRECO's current workload is for Caltrans highway facilities.

We have been involved in the following Caltrans on-call contracts, including collaboration with Brown and Caldwell.

- District 4 Water Quality Studies (*Prime Consultant*)
- District 4 Hydraulics On-call (*Prime Consultant*)
- District 4 Stormwater/Erosion Control (*Prime Consultant*)
- District 43 Statewide Stormwater Design (*Subconsultant to Brown and Caldwell*)
- District 43 Stormwater Policy Development and National Pollutant Discharge Elimination System (NPDES) Permit Support services (*Subconsultant*)
- District 4 Construction Environmental Engineering Support Services On-call (*Subconsultant to Brown and Caldwell*)
- District 43 Biological and Technical Support Services (*Subconsultant*)
- District 4 Environmental On-call (*Subconsultant*)
- Central Region Environmental On-call (*Subconsultant*)
- North Region Environmental On-call (*Subconsultant*)

Stormwater Expertise

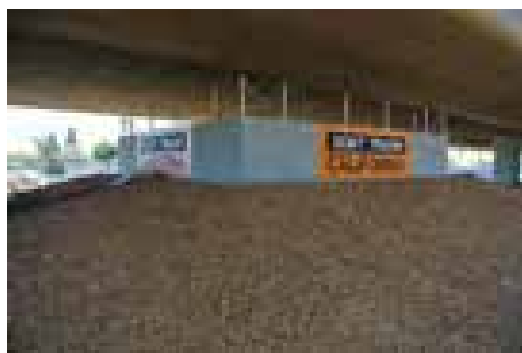
WRECO is working with Brown and Caldwell and Caltrans to modernize the Project Planning and Design Guide (PPDG) to comply with the statewide Caltrans National Pollutant Discharge Elimination System (NPDES) permit. This manual will be the primary resource for project engineers to ensure projects comply with the NPDES permit and Stormwater Management Plan, plus ensure statewide consistency for projects from project initiation to final design.

We are also currently working with Brown and Caldwell to perform soil testing. The task order is to provide needed guidance for soil amendments to optimize soil infiltration best management practices (BMPs). Together, we are writing the guidelines for the needed research for soil amendments that allow infiltration rates that comply with the Caltrans MS4 permit, Order No. 2012-0011-DWQ, NPDES CAS00003, section E.2.d.2.b.i. Guidance and studies are lacking on how to specify soil media (compost or other amendments) to optimize infiltration, and soil stability is very important when introducing additional water into highway slopes.

WRECO also assisted Brown and Caldwell and Caltrans in developing the Basis of Design Report for the Interstate 80/Interstate 680/State Route 12 Bioretention Basin. The report evaluates the addition of bioretention basins as an approved Caltrans treatment BMP by comparing design parameters used by other agencies to be considered as a basis of design. It also compares the parameters and equations used in the design of a bioretention basin for Caltrans. The Interstate 80/Interstate 680/State Route 12 interchange project will be monitored as a pilot project. The information will be used to assist Caltrans with creating a Basis of Design for bioretention basins.

For previous task orders, WRECO was also involved in providing revisions to the PPDG and provided statewide training to Caltrans staff regarding the changes made to the manual.

In addition to assisting Caltrans with revising its stormwater guidance, WRECO is familiar with other statewide, regional, and individual stormwater NPDES permits and programs. We have designed hundreds of BMPs statewide and have seen these projects from the planning phases through construction. We can apply our knowledge to help Caltrans better understand implementation concerns.



Standards and Availability

WRECO staff is very familiar with current Caltrans manuals and regularly checks for revisions to ensure that staff is working with the most updated reference materials available. WRECO has also been a part of the consultant teams for Caltrans on-call stormwater contracts; therefore, WRECO is exceptionally familiar with the operating procedures, schedule, and quality that are expected and required. WRECO staff is available to assist the team and Caltrans on all potential task orders associated with this contract.

I. Authorized Representative

The foregoing is a statement of facts.

31. Signature

32. Date

December 18, 2015

33. Name and Title

Han-Bin Liang, Ph.D., P.E., QSD/P - President



Headquarters and District 3 Local Knowledge

- ✓ 7 Local Offices
- ✓ 32 FPPPs Prepared
- ✓ 12 D3 Assistance Requests
- ✓ 8 HQ Assistance Requests
- ✓ 569 SDSI Miles Inventoried



Randy Marx

Rancho Cordova, CA

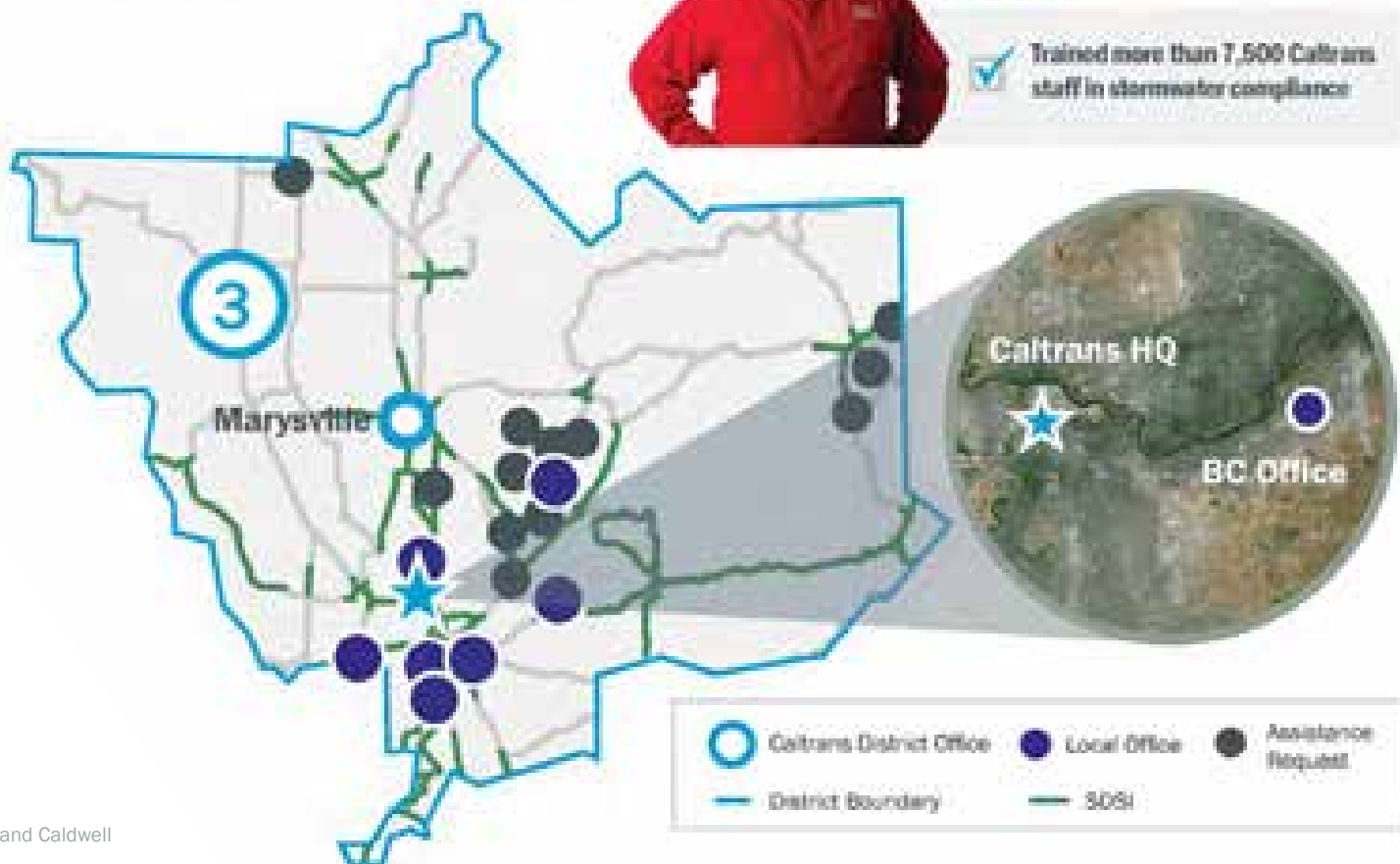
- ✓ Managed 75 Caltrans task orders on time and on budget
- ✓ Within 20 minutes of Caltrans Headquarters



David Korfas

Rocklin, CA

- ✓ Trained more than 7,500 Caltrans staff in stormwater compliance



Staff Availability

Section 3

NAMES OF KEY PERSONNEL (from Section E, Block 12)	ROLE	PERCENTAGE AVAILABILITY	
		2016	2017 - 2018
Randy Marx, PE, CPESC, QSD	Project Manager, Task Order Manager	75	75
Una Adkins	Health and Safety, Maintenance, Storm Drain System Inventory	50	70
Jeff Bold, PhD, CPESC, CPSS, QSD	Enforcement and Prevention Assistance Lead	50	70
Chris Clark	Tracking and Data Management	20	35
Karen Cole	Tracking and Data Management	30	40
Lowell Cottle, CESSWI, QSP	Water Quality Assistance and Compliance	30	70
Tina Crawford	Enforcement and Prevention Assistance, Tracking and Data Management, Storm Drain System Inventory	30	70
Ron Crites, PE	Water Quality Assistance and Compliance	30	70
Ralph Dodge	Construction	90	90
Michael Flake, PE, QSD	Task Order Manager, Quality Assurance/Quality Control Technical	50	70
Nathan Foged	Water Quality Assistance and Compliance	50	70
Chuck Frey	Storm Drain System Inventory	50	50
Valerie Fuchs, PhD, PE, QSD	Water Quality Assistance and Compliance	50	70
Jenny Gain, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance	40	40
Matt Gerhardt, PhD, PE	Water Quality Assistance and Compliance	25	50
Rene Guillen, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance	25	50
Aren Hansen, PE, PMP, QSD	Task Order Manager, Enforcement and Prevention Assistance, Storm Drain System Inventory	50	75
David Hart	Storm Drain System Inventory	50	70
Seppi Henneman, PE	Water Quality Assistance and Compliance	30	30
Sayra Hurley, PE, QSD	Task Order Manager, Encroachment and Right of Way Lead	90	90
Amy Hwang	Storm Drain System Inventory	50	70
Alexander Johnson, PE	Tracking and Data Management, Storm Drain System Inventory	20	40
Chris Knoche, PG, QSD	Construction, Enforcement and Prevention Assistance	90	90

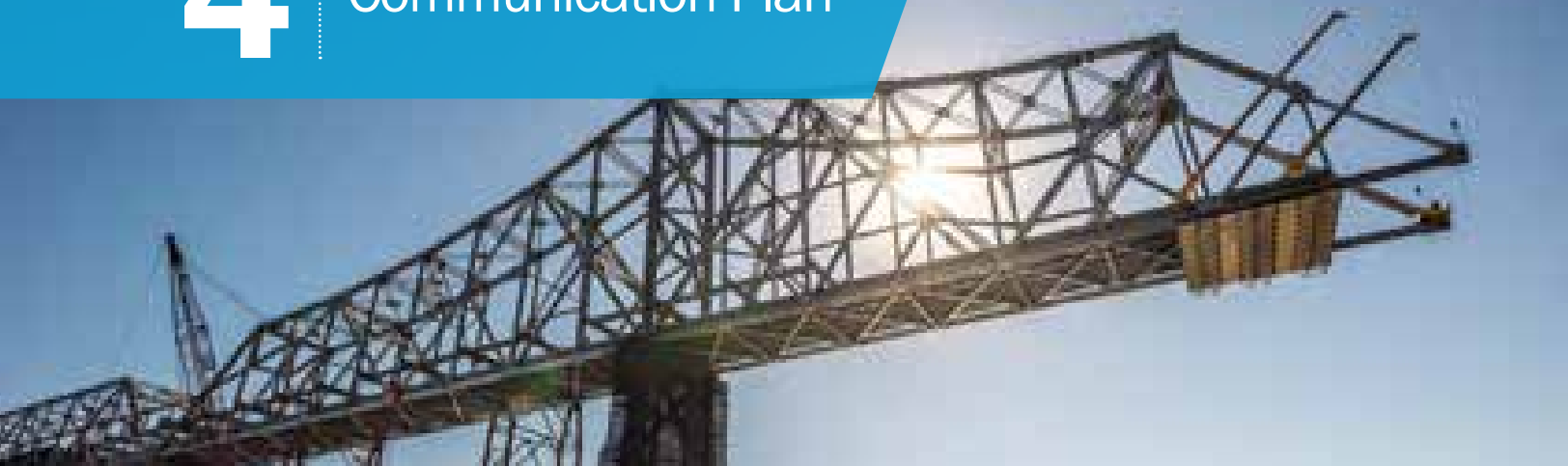
NAMES OF KEY PERSONNEL (from Section E, Block 12)	ROLE	PERCENTAGE AVAILABILITY	
		2016	2017 - 2018
David Korfas, CPESC, QSD, ToR	Construction Lead, Enforcement and Prevention Assistance, Encroachment and Right of Way	80	95
David Lightle, CPESC	Water Quality Assistance and Compliance	60	60
Richard Mattucci	Water Quality Assistance and Compliance	40	40
Rhys McDonald	Water Quality Assistance and Compliance	40	40
David Morrow, PE, QSD	Task Order Manager, Maintenance	50	70
Amy Neal, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance Lead	50	90
Chris Peters, PE, QSD	Task Order Manager, Water Quality Assistance and Compliance	50	90
Peter Ross	Tracking and Data Management, Storm Drain System Inventory	60	40
Allan Scott	Tracking and Data Management Lead, Storm Drain System Inventory Lead	20	40
Cabe Silverhame, PG, CPESC, QSD	Construction, Enforcement and Prevention Assistance	90	90
Chris Wilfong, CPESC, QSD	Enforcement and Prevention Assistance, Maintenance, Storm Drain System Inventory	90	90
Wellington Yee, CPESC, QSD	Enforcement and Prevention Assistance, Maintenance Lead, Encroachment and Right of Way, Storm Drain System Inventory	90	90
Travis Deem, CPESC, QSD (ADH)	Construction	40	40
Christian Kocher (ADH)	Water Quality Assistance and Compliance	20	20
Kevin Lewis, CESSWI, QSP (ADH)	Water Quality Assistance and Compliance	25	25
Armand Ruby (ADH)	Water Quality Assistance and Compliance	25	25
Calvin Sandlin, CESSWI, QSP (ADH)	Storm Drain System Inventory	25	25
David Skinner, CPESC, QSD (ADH)	Construction	100	100
Steen Trump, CESSWI, QSP (ADH)	Water Quality Assistance and Compliance	50	50
Peter Wilde (ADH)	Water Quality Assistance and Compliance	25	25
Khalil Abusaba, PhD (AMEC)	Water Quality Assistance and Compliance	50	50
Brad Dickson, ChE (AMEC)	Enforcement and Prevention Assistance, Maintenance	50	70
James Honniball, CPESC, QSD, ToR (AMEC)	Water Quality Assistance and Compliance	50	50
Emily Sportsman, PG (AMEC)	Water Quality Assistance and Compliance	75	100
Micah Swann (AMEC)	Water Quality Assistance and Compliance	75	100
Chris Bowles, PhD, PE (cbec)	Water Quality Assistance and Compliance	15	15
Chris Campbell (cbec)	Water Quality Assistance and Compliance	20	15
Kevin Coulton, PE (cbec)	Water Quality Assistance and Compliance	50	15
Douglas Shields, Ph.D., PE (cbec)	Water Quality Assistance and Compliance	25	25
Duncan Geddes, PG, QSD (LSA)	Enforcement and Prevention Assistance	100	100
Wynn Paculba (LSA)	Maintenance	40	60

NAMES OF KEY PERSONNEL (from Section E, Block 12)	ROLE	PERCENTAGE AVAILABILITY	
		2016	2017 - 2018
Matthew McKamey, PE, QSD (M3)	Construction	40	60
Michael McKamey (M3)	Construction	50	50
Lonnie Wise (M3)	Construction	60	60
Jorge Beltran, PE, QSD (M&A)	Enforcement and Prevention Assistance	30	30
Douglas Wathen, CESSWI, QSD (M&A)	Construction	35	45
Michael Wathen, CPESC, CESSWI, QSD (M&A)	Construction	25	25
Shelby Zuppan, CPESC, QSD (M&A)	Construction	50	50
Amber Christian, CPESC, QSD (NV5)	Construction	50	50
Joy Denny, PE, QSD (NV5)	Enforcement and Prevention Assistance	60	60
Gary Mohler, PE, QSD (NV5)	Construction	50	50
Stephen Walters, PE, QSD (NV5)	Construction	50	50
Juan Zuniga, PE, CPESC, QSD (NV5)	Enforcement and Prevention Assistance	40	60
Mike Broadwater, CPESC, QSD, ToR (VC&A)	Enforcement and Prevention Assistance	50	75
Tore Finnemyhr, CESSWI, QSP (VC&A)	Construction	75	100
Jim Flannigan, CESSWI, QSP (VC&A)	Construction	40	60
Wesley Pipes, PE, QSD (VC&A)	Construction	100	100
Darrah Ramsbotham, PE, QSP (VC&A)	Construction	75	100
Dave Sluga, PE, CPESC, QSD, ToR (VC&A)	Enforcement and Prevention Assistance	25	50
Andrew Chin (WRECO)	Water Quality Assistance and Compliance	70	80
Robert Lawrence, PE, GE (WRECO)	Water Quality Assistance and Compliance	50	60
Han-Bin Liang, PhD, PE, QSD (WRECO)	Water Quality Assistance and Compliance	40	40
Analette Ochoa, PE, QSD, ToR (WRECO)	Maintenance, Water Quality Assistance and Compliance	50	60
Cuyler Stapelmann (WRECO)	Water Quality Assistance and Compliance	70	80
Alvin Yim, CPSWQ, QSD (WRECO)	Construction	70	80

[This page left intentionally blank.]

4

Communication Plan



District 4 Local Knowledge

- ✓ 7 Local Offices
- ✓ 109 FPPPs Prepared
- ✓ 9 Assistance Requests
- ✓ 325 SDSI Miles Inventoried

////////////////////



Chris Knoche

Walnut Creek, CA



Seven years of full-time D4 construction reviews



Ralph Dodge

Sunnyvale, CA



Fifteen years of full-time D4 construction office support



Caltrans District Office



Local Office



Assistance Request



District Boundary



SDSI

Communication Plan

Section 4

At 5:20 am on November 19, 2015, a catastrophic slide occurred at the remote Caltrans Ferguson construction site on Highway 140 near Yosemite. Within 30 minutes, BC's Sayra Hurley discovered the slide and immediately notified District 10 to put compliance efforts in motion.

How was Sayra able to do this? BC has monitoring stations upstream and downstream on the Merced River. Sayra observes data from the monitoring stations hourly to check that Permit compliance triggers are not exceeded. On the 19th, she immediately noticed a large spike in the turbidity reading in the downstream monitor. She then observed the site from BC's onsite camera and notified Caltrans staff who initiated compliance actions, including RWQCB notification.



This is just one recent example of how the BC team focuses on communication and immediately brings urgent matters to the attention of Caltrans staff.

Commitment to 24/7 on-call availability brings peace of mind.

"Peace of mind" for Caltrans Stormwater Program staff in both Headquarter's divisions and Northern Districts is of paramount importance to BC, and **we are committed to being available 24/7** so Caltrans' needs are met. Project Manager Randy Marx will be your primary contact during and after business hours, with Wellington Yee and Michael Flake as first and second alternates. Randy checks email outside of business hours and will continue to be immediately available to respond to you, as he has in all instances since he began managing the Northern California District Assistance Contract in 2004.



1 Randy Marx
Project Manager

W | 916.853.5335
M | 916.221.1577



2 Wellington Yee
First Alternate

W | 530.204.5209
M | 530.902.2901



3 Mike Flake
Second Alternate

W | 925.210.2515
M | 925.286.5801

Randy will be available for any emergency call and will provide his contact numbers to the Caltrans Contract Manager, active Task Order (TO) Managers, and others as practical to allow Caltrans to connect with an environmental responder. As shown in [Figure 4.1](#), the environmental responder will report to Caltrans via phone within 60 minutes and then mobilize to a project location or assigned workplace. After evaluating the situation, our environmental responder will assemble the necessary experts to handle the situation. Our team includes six primary leadership contacts for the responder role – one for each district area of the contract. When needed, one of these leaders will dispatch appropriate response team members according to your direction.

A deep bench and full geographic coverage to quickly mobilize an emergency response.

BC has assembled a team of experienced professionals Caltrans can depend on to quickly mobilize other staff, materials, and subconsultants. These individuals are based in offices conveniently located throughout the Northern Districts, as illustrated in [Figure 4.2](#), and will apply experience from similar projects to think on their feet and act as your eyes and ears in an emergency or urgent situation.

Since beginning assistance under the predecessor Northern California District Assistance Contract in 2004, BC has completed 53 Assistance Requests for emergency tasks. In every instance, the BC team provided rapid effective response to meet the concern. BC has efficiently responded on projects involving regulatory agency enforcement responses, BMP evaluations, and stormwater treatment engineering. BC understands the importance of providing highly qualified staff as quickly as possible when a potentially urgent situation arises.

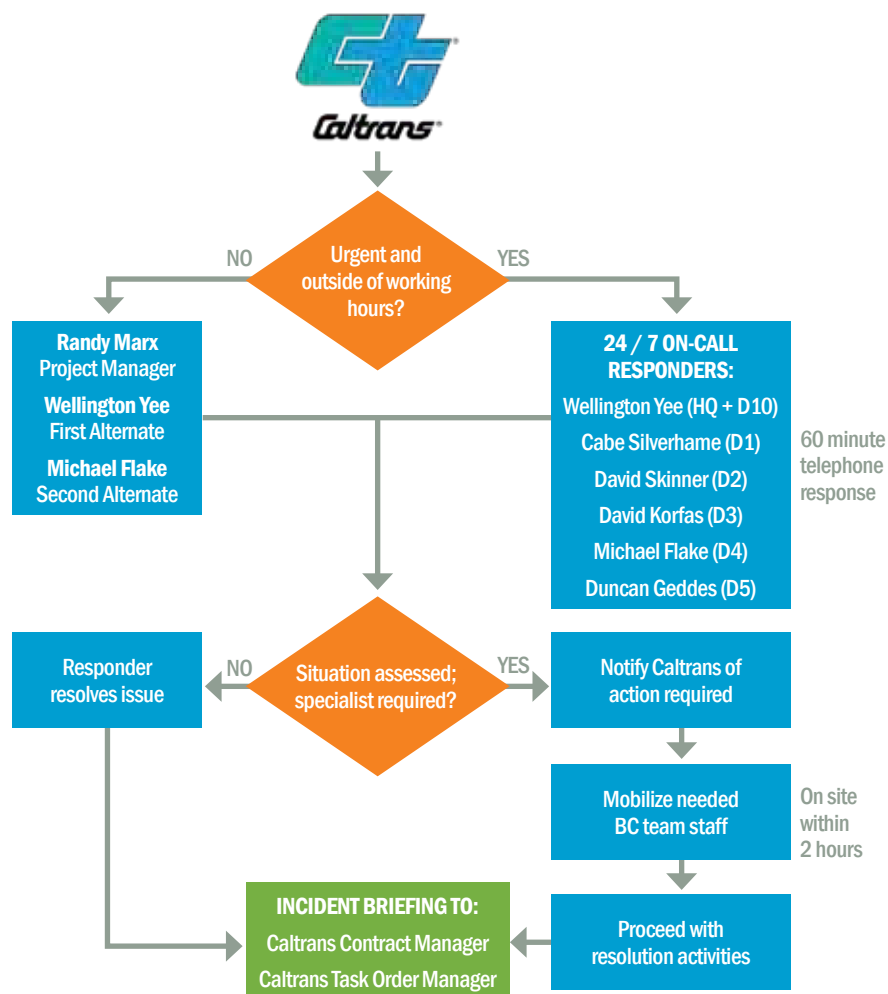


FIGURE 4.1 // BC's communication flowchart identifies lines of authority and team member roles to provide the rapid response you need in an emergency.

An effective Communication Plan starts before the project begins.

Regular communication amongst Caltrans staff and the BC team is essential throughout a project or task order. Our team members have a long history of working with your Program and bring close working relationships with Caltrans staff to facilitate effective communication.

At the outset, Randy Marx will work closely with the Caltrans Contract or TO Manager to help define and agree on the scope, schedule, personnel, and needed equipment. Once the needs are established, Randy and his team will formulate a proposed budget that satisfies both Caltrans and BC. When a final task order is authorized, a kickoff meeting will take place to further define and reinforce roles and responsibilities of all staff assigned to the project.

Thereafter, at a minimum, the assigned BC TO Manager or Project Manager will keep Caltrans staff informed through:

- Weekly email or telephone summaries of field activities, unless circumstances dictate more or less frequent updates.
- Monthly progress reports customized for financial needs as part of the invoice.
- Monthly progress reports customized for technical needs sent via email to the project team and attached to the invoice.

Established lines of communication keep the team on the same page.

The organization chart in Section D shows all communication is between BC Project Manager Randy Marx and Caltrans whenever a potential task order is presented. After this initial discussion, Randy will identify the appropriate BC TO Manager, as necessary, to help respond to the proposed work. Once a task order is in place, the primary project communication will be between the assigned BC TO Manager and Caltrans TO Manager. BC will facilitate a kickoff meeting or teleconference to identify personnel and project roles of both Caltrans and the BC team. Project stakeholders, such as Caltrans staff, contractors, or other individuals who may be present at kickoff meetings or other activities, will be identified in a site-specific communication listing.

BC and Caltrans Staff

BC staff will note specific direction from Caltrans staff. Information potentially inconsistent with the scope of the task order will be reported to the Caltrans TO Manager for resolution. Any direction from Caltrans staff inconsistent with the task order will not be put into effect until authorized by TO or Contract Manager. When direction is given, it will be documented in email or other appropriate form, such as a task order amendment.

Non-Caltrans Staff (Contractors and Consultants)

BC staff will occasionally interact with construction contractors or consultants working through other contracts. This communication may be routine as part of the task order, especially in gaining data or information in support of technical work. BC staff will not direct other contractors or consultants without authorization of the TO or Contract Manager; however, when unsafe conditions are noted or activities that might compromise permit requirements are evident, BC staff will inform the contractor and follow up promptly with the TO Manager.

External Stakeholders

BC staff may encounter external stakeholders such as regulators or media personnel. In these cases, BC staff will not discuss project activities with these stakeholders without authorization of the TO or Contract Manager. Should these stakeholders interfere with BC staff activities, then the task order activities will cease, and BC staff will immediately report to the TO Manager. Media and/or public records requests will be forwarded to the TO Manager. BC will not respond to these requests without direction of the TO or Contract Manager.

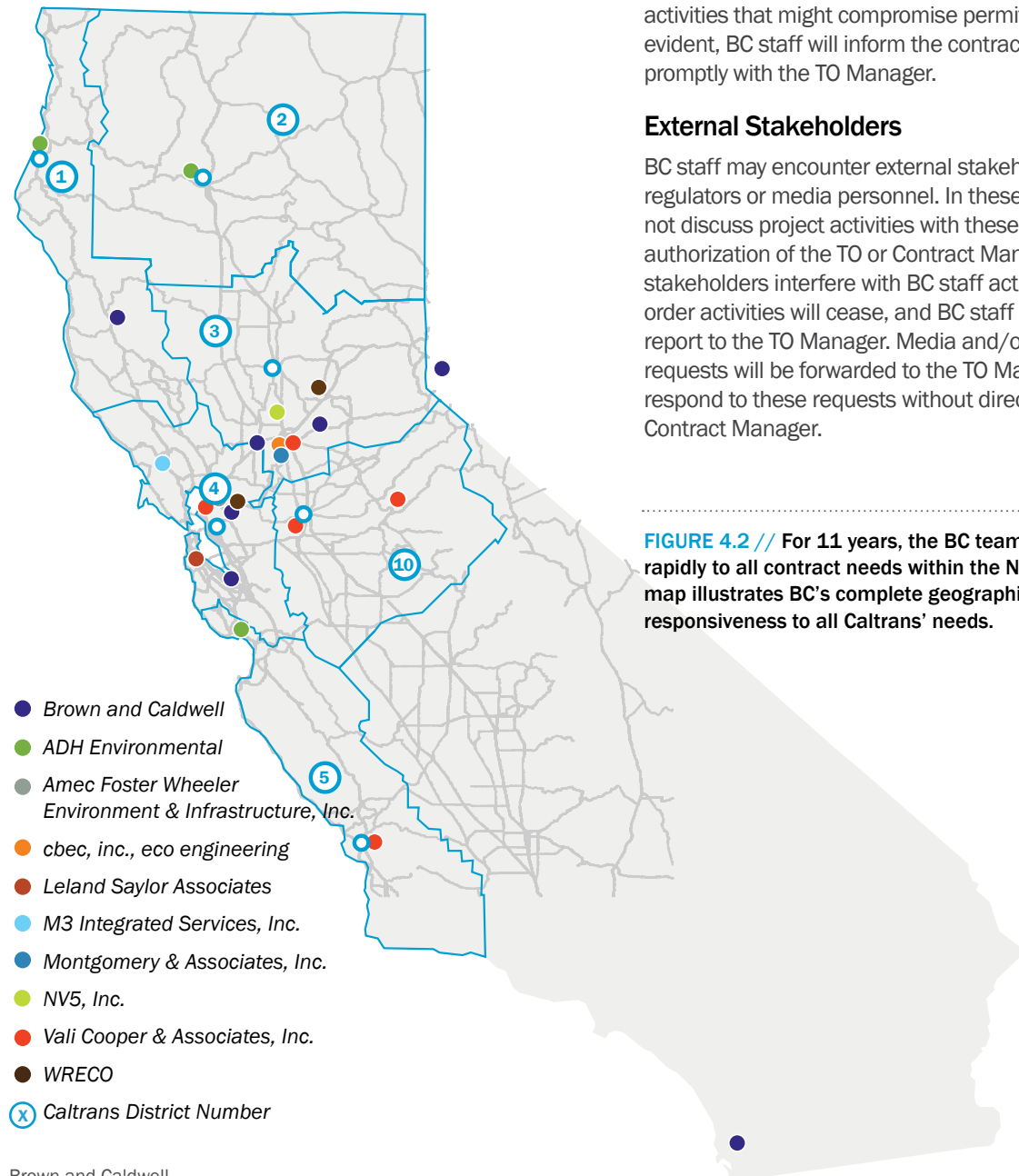


FIGURE 4.2 // For 11 years, the BC team has responded rapidly to all contract needs within the Northern Districts. This map illustrates BC's complete geographic coverage, facilitating responsiveness to all Caltrans' needs.

Communication tools to match the needs of each task order.

We have learned the communication needs of Caltrans Contract and TO Managers vary widely for each task order depending on the project scope and other factors. For each task order, an individual communication plan will be discussed and documented at the kickoff meeting and potentially within the task order as a functional deliverable.

In this contract, a data intensive project such as the SDSI, or a cost gathering project, may require a project SharePoint Site to provide continual updates on project information. Alternately, a project focused on field services may not necessarily require a SharePoint site, but rather the capability to easily transfer large files between Caltrans and BC staff.

A lesson learned on our past work is that Caltrans staff capabilities and office infrastructure vary widely throughout the organization, so it is essential that an appropriate communication tool be established for each Caltrans user. For example, BC's corporate standard for large file transfer is the Hightail tool. However, we have learned that some Caltrans staff have security blocks that do not allow this tool to function.

Contract services demand frequent communications to address myriad coordination, policy, and procedural issues. To address this need, BC anticipates a multi-faceted communication approach on this contract. Each project will specify a communication plan to meet the needs of the Caltrans TO Manager.



FIGURE 4.3 // BC has successfully used a SharePoint site to manage communication on the Willits Bypass Water Quality Monitoring and Assessment Contract. We envision use of another customized SharePoint site for this contract.

An established SharePoint site to facilitate project communications and data migration to the Caltrans Stormwater Portal.

We will create a secure SharePoint site specific to this contract, see [Figure 4.3](#) as an example. The site will memorialize communications, databases, and documents so that these materials are readily available to project team members. The site will be a dynamic repository of project documents that can be accessed by pre-authorized BC and Caltrans personnel at the inception of each task order.

We will store deliverables and interim documents on this SharePoint site, including summary action items, meeting minutes, and emails that outline specific task order direction or conversation records. It is not the intent to make communication records burdensome, but rather to clearly represent project progress and milestones to establish an accurate accounting of project activities.

The Caltrans Stormwater Portal will contain Stormwater Program data from a variety of sources, and the SharePoint site will enable seamless transfer of data generated by this Contract into the Portal. Our BC tracking team will work with the Portal gatekeepers to facilitate this data migration.



Responsiveness and effective communication are ingrained traits in all BC team members and recognized mission-critical attributes of our service to Caltrans.

5

Work Force Analysis Chart



Work Force Analysis

Section 5

The BC work force analysis chart below describes the total number and percentage of employees currently working in California. Work force analysis charts or work force analysis exemption statements for our subconsultants are presented in the following pages.

Brown and Caldwell California Work Force Analysis

	Caucasian		Black		Hispanic		Asian / Pacific Islander		Native American / Native Alaskan		Total California Work Force	
	M	F	M	F	M	F	M	F	M	F	M	F
Executives/Managers	26	5	0	0	1	0	4	1	0	0	31	6
Licensed Professional Engineers/Surveyors/Architects	48	18	1	1	4	5	15	9	0	0	68	33
Other Technical/Professional	47	32	0	3	1	2	11	5	1	0	60	42
Office/Clerical	2	17	0	2	1	8	2	5	0	0	5	32
Total	123	72	1	6	7	15	32	20	1	0	164*	113*
Percent of Total	43.46	25.44	0.35	2.12	2.47	5.30	11.30	7.07	0.35	0	59.01	41.00

*Race breakdown does not include:

Licensed Professional Engineers – Two or More Races: 2 (M)

Other Technical/Professional – Two or More Races: 3 (F)

Office/Clerical – Two or More Races: 1 (M)



[Strategy](#) • [Analysis](#) • [Solutions](#)

August 5, 2015

Randy Marx, PE, PMP, CPESC, QSD/QSP
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Re: Workforce Analysis Statement
Permit Enforcement, Prevention and Tracking North

Dear Mr. Marx:

ADH Technical Services, Inc. dba ADH Environmental is a small business conducting environmental consulting services. We have less than 50 employees and, therefore, are exempt from the Workforce Analysis requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

ADH Environmental

A handwritten signature in blue ink, appearing to read "D. J. Skinner", is written over a light blue rectangular background.

David J. Skinner
Regional Manager

ADH|cjd

AMEC Foster Wheeler California Work Force Analysis

	Caucasian		Black		Hispanic		Asian / Pacific Islander		Native American / Native Alaskan		Total California Work Force	
	M	F	M	F	M	F	M	F	M	F	M	F
Executives/Managers	19	11	0	0	0	4	1	2	0	0	20	17
Licensed Professional Engineers/Surveyors/Architects	219	117	3	4	12	15	35	29	1	1	270	166
Other Technical/Professional	68	15	4	0	10	2	11	1	0	0	93	18
Office/Clerical	3	32	1	6	1	9	2	2	0	0	7	49
Total	309	175	8	10	23	30	49	34	1	1	390	250
Percent of Total	48.2	27.3	1.2	1.5	3.5	4.6	7.6	5.3	0.1	0.1	60.9	39.1



Hydrology | Hydraulics | Stormwater Management | Design | Field Services

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Subject: Work Force Analysis Statement
Stormwater Permit Enforcement, Prevention, and Tracking Services for
Northern Districts
RFQ No. 43A0347

cbec is a small business conducting hydrology, hydraulics, hydromodification planning (HMP), Storm Water Pollution Prevention Plan (SWPPP) and Low Impact Development (LID) services, geomorphology, design and field services. We have fewer than 50 employees and, therefore, are exempt from the required Workforce Analysis Chart requirement. The signature below attests that this statement is truthful and accurate.

Sincerely yours,

Chris Bowles, PE, PhD, President
cbec, inc. eco engineering

2041 Industrial Blvd, West Sacramento, CA 95691 USA
T 916.221.2002 F 916.221.2000 E info@cbecinc.com
www.cbecinc.com

cbec, inc. is an Equal Opportunity Employer. Minorities and women are encouraged to apply.



101 Montgomery St, Suite 800
San Francisco, CA 94104
TEL: 415-291-3200
FAX: 415-291-3201
www.lelandsaylor.com

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Work Force Analysis Statement, Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts, RFQ No. 43A0347

Leland Saylor Associates is a small business conducting your specialty here. We have less than 50 employees and, therefore, are exempt from the Workforce Analysis requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad Saylor', is written over a light gray rectangular background.

Brad Saylor
Vice President



November 30, 2015

Randy Marx, PE, PMP, CPESC, QSD/QSP
Project Manager
Brown and Caldwell
Rancho Cordova, CA 95670

Re: Workforce Analysis Statement

M3 Integrated Services, Inc. is a small business conducting professional engineering services. We have less than 50 employees and, therefore, are exempt from the required Workforce Analysis requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt McKamey", is written over a light gray rectangular background.

Matt McKamey, P.E.
M3 Integrated Services, Inc.

M3 Integrated Services, Inc., Tesconi Circle Suite M Santa Rosa, California 95401
Office: (707) 495-6774 web: www.m3-co.com

STORMWATER CONSULTING & TRACKING SERVICES
PERMIT & CONSTRUCTION MANAGEMENT SERVICES



December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Work Force Analysis Statement
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts
RFQ No. 43A0347

Montgomery & Associates, Inc. is a small business conducting Stormwater Consulting and Survey Services. We have less than 50 employees and, therefore, are exempt from the Workforce Analysis requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

Montgomery & Associates, Inc. (M&A)

A handwritten signature in blue ink, appearing to read "Elizabeth Gaylord".

Elizabeth Gaylord, CPESC, QSD/QSP
President

1100 Corporate Way | Suite 140 | Sacramento, CA 95831 | 916.476.4903 | 916.706.3037
350 Tenth Avenue | 10th Floor | San Diego, CA 92101 | 619.344.2667 | 619.344.2501
2173 Salk Avenue | Suite 250 | Carlsbad, CA 92008 | 760.579.7331 | 760.579.7332
Montgomery-assoc.com

NV5, Inc. California Work Force Analysis

	Caucasian		Black		Hispanic		Asian / Pacific Islander		Native American / Native Alaskan		Total California Work Force	
	M	F	M	F	M	F	M	F	M	F	M	F
Executives/Managers	38	11	0	0	3	0	0	0	0	0	41	11
Licensed Professional Engineers/Surveyors/Architects	45	22	2	0	13	4	6	8	0	0	66	34
Other Technical/Professional	60	7	2	0	15	0	5	2	1	0	83	9
Office/Clerical	0	17	0	0	4	3	1	1	0	1	5	22
Total	143	57	4	0	35	7	12	11	1	1	195	76
Percent of Total	52.8	21.0	1.5	0	12.9	2.6	4.4	4.1	0.4	0.4	72.0	28.0

Vali Cooper & Associates California Work Force Analysis

	Caucasian		Black		Hispanic		Asian / Pacific Islander		Native American / Native Alaskan		Total California Work Force	
	M	F	M	F	M	F	M	F	M	F	M	F
Executives/Managers	2	2	0	1	0	0	0	0	0	0	2	3
Licensed Professional Engineers/Surveyors/Architects	26	5	0	0	4	0	5	0	0	0	35	5
Other Technical/Professional	64	11	3	1	20	1	5	2	0	0	92	15
Office/Clerical	2	19	0	4	2	3	0	1	0	0	4	27
Total	94	37	3	6	26	4	10	3	0	0	133	50
Percent of Total	51	20	2	3	14	2	5	2	0	0	73	27



1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Subject: Work Force Analysis Statement
Stormwater Permit Enforcement, Prevention, and Tracking Services for
Northern Districts
RFQ No. 43A0347

WRECO is a small business conducting best management practice (BMP) design, Storm Water Pollution Prevention Plan consultation, field BMP implementation and construction site stormwater compliance, and geotechnical support services. We have less than 50 employees and, therefore, are exempt from the Workforce Analysis requirement. The signature below attests that this statement is truthful and accurate.

Sincerely yours,
WRECO

Han-Bin Liang, Ph.D., P.E., QSD/P
President



Civil Engineering | Environmental Compliance | Geotechnical Engineering | Water Resources

6 | Nondiscrimination Plan

District 10 Local Knowledge

- ✓ 2 Local Offices
- ✓ 10 Assistance Requests
- ✓ 71 FPPPs Prepared
- ✓ 233 SDSI Miles Inventoried



Chris Wilfong

Visalia, CA

- ✓ Seven years of full-time construction reviews



Wellington Yee

Davis, CA

- ✓ Two years of D10 construction reviews and SDSI support
- ✓ Oversight development of 71 D10 FPPPs



Nondiscrimination Plan

Section 6

BC has an active program in place to prevent discrimination in the workplace, as well as provide compliance with the Americans with Disabilities Act and offer Equal Employment Opportunities. We continually demonstrate our commitment to fair employment and nondiscrimination, including through our prior and ongoing work for Caltrans. We include a statement of compliance and a description of our nondiscrimination program below.

Brown and Caldwell Affirmative Action Plan

BC is an Equal Employment Opportunity employer and does not discriminate in employment opportunities or practices on the basis of race, color, religion, ethnicity, gender, national origin, age, disability, sexual orientation, gender identity characteristics or expression, genetic information, veteran or marital status, or any other characteristic protected by state or federal law or local ordinance.

To ensure compliance, BC includes this information in its employee handbook (each employee receives a copy), as well as in its new employee orientation program, its supervisory/management training, and in other related company communications. In particular, it is the policy of the company:

- To recruit, hire, promote, reassign, compensate, and train qualified persons without regard to race, color, religion, sex, national origin, ancestry, age, or marital status.
- To undertake, through affirmative efforts, to improve employment opportunities for minorities, women, people with disabilities, and veterans.
- To administer all personnel actions such as compensation, benefits, transfers, layoffs, company-sponsored training, education, social, and recreational programs without regard to race, color, religion, sex, national origin, ancestry, or marital status.
- To provide reasonable accommodation when requested and feasible, and otherwise treat equally, qualified individuals with disabilities.

Programs that facilitate the employment of minorities, women, individuals with disabilities, and veterans, such as part-time employment, flexible hours, dependent care benefits, and high-school or college co-op programs are a focus for BC. Affirmative action steps BC has taken that have served to increase the number of minorities and/or women hired include:

- Participating in local and national job fairs sponsored by minority and women's outreach organizations, colleges, and professional associations.
- Sponsoring college internship programs which offer on-the-job training and employment opportunities to protected class students.
- Financially supporting the efforts of minority and women-focused professional organizations in their efforts to promote professional opportunities for their members.
- Using a company-wide job posting program designed to inform all employees of job opportunities.
- For all positions, sending a copy of the appropriate job specification to the local state employment office, and specific minority, female, and veteran job sites, in an effort to identify qualified protected class applicants.



Strategy • Analysis • Solutions

August 5, 2015

Randy Marx, PE, PMP, CPESC, QSD/QSP
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Re: Non-Discrimination Plan Statement
Permit Enforcement, Prevention and Tracking North

Dear Mr. Marx:

ADH Technical Services, Inc. dba ADH Environmental is a small business conducting environmental consulting services. We have less than 50 employees and, therefore, are exempt from the non-discrimination plan requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

ADH Environmental

A handwritten signature in blue ink, appearing to read "D. J. Skinner", is written over a light blue rectangular background.

David J. Skinner
Regional Manager
ADH|cjd

REAFFIRMATION OF THE EQUAL EMPLOYMENT OPPORTUNITY POLICY

TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT:

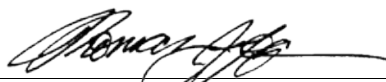
Amec Foster Wheeler Environment and Infrastructure, Inc. has consistently operated with a corporate policy of equal treatment for all persons without regard to age, race, color, sex, religion, national origin, disabled, or veteran status. We base decisions on employment so as to further the principle of equal employment opportunity. All aspects of employment including advertising, recruiting, interviewing, testing, employment, training, transfer, compensation, promotion, termination, layoff and recall, employee benefits, social and recreational programs shall be administered without regard to age, race, color, sex, religion, national origin, disabled, or veteran status. Affirmative action is undertaken to ensure that this commitment is observed.

The Company will maintain a working environment free from all forms of harassment and will fully comply with the spirit and intent of all related laws and regulations. Any incidents of harassment will be promptly and thoroughly investigated and appropriate corrective action will be taken.

It is the responsibility of each member of management, from the CEO to the first line supervisor, to support the policy of nondiscrimination and affirmative action through inspirational leadership and personal example. An integral part of our commitment is the inclusion of affirmative action as a part of our appraisal process for managers and supervisors. In addition, it is the duty of every employee of this Company to create a job environment atmosphere which is conducive to our nondiscrimination and affirmative action policies. Any willful or deliberate action policies or any procedure devised and implemented not to give that policy force in effect will be cause for disciplinary action.

If any employee or applicant feels that he or she has been adversely affected with respect to the denial of an employment-related opportunity because of his or her age, race, color, sex, religion, national origin, disabled status or veteran status, that person should notify the Company immediately. All employees and/or applicants are protected from coercion, intimidation, interference and discrimination for filing a complaint or assisting in an investigation.

Jayne Dinan, VP-Human Resources is designated the Equal Employment Opportunity Coordinator for Amec Foster Wheeler Environment and Infrastructure, Inc. and has full authority and responsibility for converting this reaffirmation of policy into a meaningful affirmative action plan in a timely manner. The Equal Employment Opportunity Coordinator will also work with each manager in furthering the implementation of the affirmative action plan and monitoring progress being made. The Affirmative Action Plan is available for inspection in the Human Resources office during regular business hours.



Thomas J. Logan, President
Amec Foster Wheeler Environment and Infrastructure, Inc.
January, 2015



Hydrology | Hydrology | Stormwater Management | Design | Field Services

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Subject: Nondiscrimination Plan Statement
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts
RFQ No. 43A0347

Dear Mr. Marx:

cbec, inc. eco engineering is a small business conducting hydrology, hydraulics, hydromodification planning (HMP), Storm Water Pollution Prevention Plan (SWPPP) and Low Impact Development (LID) services, geomorphology, design and field services. We have fewer than 50 employees and, therefore, are exempt from the required Nondiscrimination Plan. The signature below attests that this statement is truthful and accurate.

Sincerely yours,

Chris Bowles, PE, PhD, President
cbec, inc. eco engineering

1044 Industrial Blvd, West Sacramento, CA 95691 USA
707.927.4050 | 916.455.8888 | www.cbec-engineering.com
www.cbec-engineering.com

cbec, inc. eco engineering is a small business conducting hydrology, hydraulics, hydromodification planning (HMP), Storm Water Pollution Prevention Plan (SWPPP) and Low Impact Development (LID) services, geomorphology, design and field services.



101 Montgomery St, Suite 800
San Francisco, CA 94104
TEL: 415-291-3200
FAX: 415-291-3201
www.lelandsaylor.com

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Nondiscrimination Plan Statement, Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts - RFQ No. 43A0347

Leland Saylor Associates is a small business conducting your specialty here. We have fewer than 50 employees and, therefore, are exempt from the Nondiscrimination Plan requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad Saylor', is written over a light gray rectangular background.

Brad Saylor
Vice President



November 30, 2015

Randy Marx, PE, PMP, CPESC, QSD/QSP
Project Manager
Brown and Caldwell
Rancho Cordova, CA 95670

Re: Nondiscrimination Plan Statement

M3 Integrated Services, Inc. is a small business conducting professional engineering services. We have less than 50 employees and, therefore, are exempt from the required Nondiscrimination Plan. The signature below attests that this statement is truthful and accurate.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt McKamey", with a stylized flourish at the end.

Matt McKamey, P.E.
M3 Integrated Services, Inc.

M3 Integrated Services, Inc., 320 Tesconi Circle Suite M Santa Rosa, California 95401
Office: (707) 495-6774 web: www.m3-co.com

STORMWATER CONSULTING & TRACKING SERVICES
PERMIT ENFORCEMENT, PREVENTION, AND TRACKING SERVICES



December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, California 95670

Subject: Nondiscrimination Plan Statement
Stormwater Permit Enforcement, Prevention, and Tracking Services for Northern Districts
RFQ No. 43A0347

Montgomery & Associates, Inc. is a small business conducting Stormwater Consulting and Survey Services. We have fewer than 50 employees and, therefore, are exempt from the Nondiscrimination Plan requirement. The signature below attests that this statement is truthful and accurate.

Sincerely,

Montgomery & Associates, Inc. (M&A)

A handwritten signature in blue ink, appearing to read "Elizabeth Gaylord", is written over a faint, circular background.

Elizabeth Gaylord, CPESC, QSD/QSP
President

1100 Corporate Way | Suite 140 | Sacramento, CA 95831 | 916.476.4903 | 916.706.3037
350 Tenth Avenue | 10th Floor | San Diego, CA 92101 | 619.344.2667 | 619.344.2501
2173 Salk Avenue | Suite 250 | Carlsbad, CA 92008 | 760.579.7331 | 760.579.7332
Montgomery-assoc.com



Nondiscrimination Plan

NV5 is committed both to a policy of equal employment opportunity for qualified applicants and employees and to providing a work environment that is free from discrimination, harassment, and retaliation.

It is the policy of NV5 to hire, employ, train, retain, promote, demote, compensate, discipline, terminate, and otherwise treat all employees and job applicants on the same basis of merit, qualifications and competence, and without regard to sex, sexual orientation or preference, gender, race, color, religion, national origin, creed, citizenship status, ancestry, age, marital status, pregnancy, childbirth or related medical conditions, medical conditions including genetic characteristics, mental and physical disability, veteran status or any other characteristic protected by applicable federal, state, or local law, ordinance, or regulation. This policy prohibits discrimination, harassment, and retaliation on the basis of actual or perceived possession of a characteristic protected by any applicable law, ordinance, or regulation; and of association with any individual or group that actually has or is perceived to have any attribute protected by an applicable law, ordinance, or regulation.

The company believes that true equal employment opportunity cannot be accomplished if discrimination, harassment, or retaliation on the basis of sex, sexual orientation or preference, gender, age, national origin, race, or any other legally protected characteristic is tolerated. Accordingly, all such conduct is expressly prohibited. In keeping with this commitment, all NV5 employees are responsible for ensuring that the NV5 workplace is free from discrimination, harassment, and retaliation. It is the responsibility of each employee to ensure that discrimination on any of these bases or that prohibited harassment does not occur within the workplace. Employees who believe that any kind of illegal discrimination, harassment, or retaliation is occurring, are required to immediately report the fact of the incident(s) and

the name(s) of the part(y/ies) involved to a supervisor or manager, the director of employee relations, and/or the director of human resources. He/she may also contact the CEO of NV5 concerning such issues.

Employees who feel that they have been subject to discrimination or have any questions concerning the Company's EEO policy should immediately contact Human Resources. Complaints are investigated immediately and are handled in a confidential manner. NV5 prohibits retaliation (including but not limited to decisions regarding hiring, promotion, compensation, benefits, work and shift assignments, disciplinary action and counseling) against employees who have (a) made a good faith complaint of discrimination or harassment, (b) opposed in good faith discrimination or harassment, (c) testified, assisted, or participated in any investigation, proceeding, or hearing related to a complaint of discrimination or harassment, or (d) otherwise engaged in activity protected from retaliation under applicable law. Supervisors, managers, or employees found to have engaged in discriminatory conduct, harassment, or retaliation are subject to immediate disciplinary action, including possible termination of employment. In addition to notifying NV5 about discrimination, harassment, or retaliation complaints, affected employees may also direct their complaints to the federal Equal Employment Opportunity Commission ("EEOC") (1-800-669-4000) and, in California, to the California Department of Fair Employment and Housing ("DFEH") (1-800-884-1684).

NV5 provides ongoing training to ensure that all of its employees have the opportunity to work in an environment free of unlawful discrimination, harassment, or retaliation.

NV5 is in full compliance with equal employment opportunity goals and filing requirements. Our Affirmative Action Plan outlines actions to attain the goals. NV5 files the required Employer Information Report EEO-1. Both the Plan and the EEO-1 are available for review upon request.

A handwritten signature in blue ink that reads "Todd George".

Todd George, PE | COO, Civil Program Management
November 20, 2015



SECTION 6: NON-DISCRIMINATION PLAN

It is the policy of Vali Cooper & Associates, Inc. (VC&A) to base all decisions concerning employment so as to promote the principle of equal opportunity for employment. Accordingly, the employment policies and practices of VC&A are to recruit and hire employees without discrimination because of race, sex, color, religion, national origin, ancestry, pregnancy, age, marital status, sexual orientation, medical condition, or mental or physical disability as defined by law and to treat employees equally with respect to compensation and opportunities for advancement and promotion. Reasonable accommodation of otherwise qualified mentally or physically disabled persons and disabled or Vietnam era veterans will be made that does not result in undue hardship.

VC&A is committed to the continuation of employment policies and practices that are based upon merit, qualifications, and competence. VC&A is also committed to the recruitment of qualified minority and women candidates and to increasing the number of qualified minorities and women in the workforce surrounding our district offices. Specific examples of the company's efforts to recruit and retain minorities and women are cited in our Affirmative Action /EEO Highlights.

VC&A has established this Non-Discrimination Plan to reaffirm its continued commitment to equal opportunity employment and affirmative action, and to assure present and future compliance with Executive Order No. 11246, as well as applicable state and federal legislation.

The non-discrimination documentation shall consist of the Non-Discrimination Plan, the Non-Discrimination Policy and the Description of Previous Compliance with the Non-Discrimination/Affirmative Action/EEO Plan.

Responsibility for implementing both the policy and the Non-Discrimination Program has been assigned to Janet Medina, Human Resources Manager, 2000 Powell Street, Suite 550, Emeryville, California 94608 (Tel: 510.446.8301 Ext 513 Email: janet.medina@valicooper.com), who serves as VC&A's Equal Employment Opportunity Officer. The Board of Directors of Vali Cooper & Associates, Inc. and its officers are familiar with, and support completely, all elements of the Non Discrimination Policy.

Solicitation Number: 43A0347
Section 6: Non-Discrimination Plan

1760 CREEKSIDE OAKS DRIVE, SUITE 140 ❖ SACRAMENTO, CA 95833 ❖ (916) 925-0952 ❖ FAX: (916) 925-0954
❖ WWW.VALICOOPER.COM



1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

December 18, 2015

Randy Marx, PE
Project Manager
Brown and Caldwell
10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670

Subject: Nondiscrimination Plan Statement
Stormwater Permit Enforcement, Prevention, and Tracking Services for
Northern Districts
RFQ No. 43A0347

WRECO is a small business conducting best management practice (BMP) design, Storm Water Pollution Prevention Plan consultation, field BMP implementation and construction site stormwater compliance, and geotechnical support services. We have fewer than 50 employees and, therefore, are exempt from the Nondiscrimination Plan requirement. The signature below attests that this statement is truthful and accurate.

Sincerely yours,
WRECO

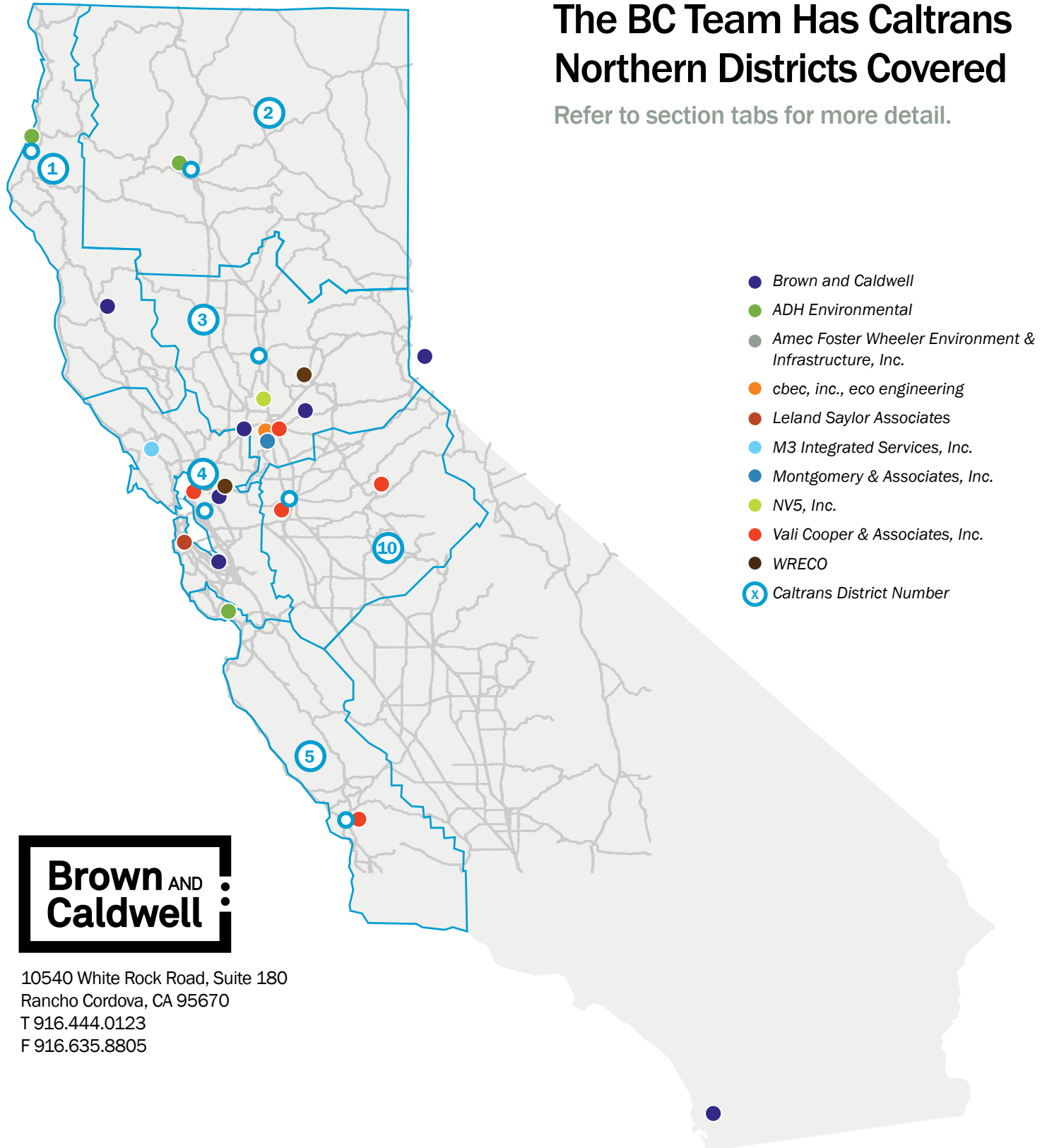
Han-Bin Liang, Ph.D., P.E., QSD/P
President



Civil Engineering | Environmental Compliance | Geotechnical Engineering | Water Resources

The BC Team Has Caltrans Northern Districts Covered

Refer to section tabs for more detail.



10540 White Rock Road, Suite 180
Rancho Cordova, CA 95670
T 916.444.0123
F 916.635.8805