

Meeting Date: 8/9/2016

Report Type: Consent

Report ID: 2016-00760

Title: Supplemental Agreement: FY2016/17 Stormwater Monitoring Services (I14010200)

Location: Citywide

Recommendation: Pass a Motion authorizing the City Manager or the City Manager's designee to execute Supplemental Agreement No. 1 to City Agreement 2015-1465 with Larry Walker Associates, Inc., to provide Stormwater Monitoring Services for FY2016/17 for an amount not-to-exceed \$652,778, bringing the agreement's total amount not-to-exceed \$1,252,778.

Contact: Dan Sherry, Engineering & Water Resources, (916) 808-1419; Sherill Huun, Supervising Engineer, (916) 808-1455; Dalia Fadl, Senior Engineer, (916) 808-1449, Department of Utilities

Presenter: None

Department: Department Of Utilities

Division: Environmental & Regulatory Com

Dept ID: 14001331

Attachments:

1-Description/Analysis

2-Background

3-Supplemental Agreement

City Attorney Review

Approved as to Form

Joe Robinson

8/2/2016 4:11:14 PM

Approvals/Acknowledgements

Department Director or Designee: Bill Busath - 7/22/2016 3:29:50 PM

Description/Analysis

Issue Detail: Staff recommends Council approve Supplemental Agreement No. 1 to City Agreement No. 2015-1465 with Larry Walker Associates, Inc. (LWA), to provide stormwater monitoring services for the Fiscal Year 2016/2017 monitoring season. In accordance with the National Pollutant Discharge Elimination System (NPDES) Stormwater Permit for the Sacramento County urban area, the City and other Permittees in the Sacramento Stormwater Quality Partnership (SSQP) are required to conduct a stormwater monitoring program.

Policy Considerations: The NPDES Stormwater Monitoring Program is a federally mandated program. Implementation of the 2016/2017 Stormwater Monitoring Program supports the following environmental resources goals and policies of the City's 2035 General Plan:

1. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines; and
2. The City shall control sources of pollutants and improve and maintain urban runoff water quality through storm water protection measures consistent with the City's NPDES permit.

Economic Impacts: None

Environmental Considerations: The Community Development Department, Environmental Services Manager has reviewed the project and has determined that the proposed project is exempt from the California Environmental Quality Act (CEQA) under section 15061(b)(3) of the CEQA Guidelines. The activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

Sustainability: The Stormwater NPDES permit requires implementation of the Stormwater Monitoring Program and the reduction of pollutants conveyed by stormwater runoff. The Stormwater Monitoring Program provides the data needed to develop pollution reduction programs. Completion of the tasks in this services agreement is consistent with the City Sustainability Master Plan. These activities advance the Sustainability Master Plan goals to:

1. Reduce the use of pesticides and other toxic materials;
2. Protect and restore the City's urban creek system; and
3. Conserve the use and protect the sources of water.

Commission/Committee Action: Not applicable

Rationale for Recommendation: Approval of the original services agreement was recommended to obtain professional services needed to comply with the requirements in the Stormwater NPDES permit. The City, on behalf of the Permittees, conducted a Request for Qualifications (RFQ) process in May 2015. The RFQ included various permit required monitoring tasks to be performed over a period of up to three years, including FY2015/2016, FY2016/2017, and FY2017/2018. Larry Walker Associates (LWA) was the only company that submitted a Statement of Qualifications (SOQ) in response to the RFQ. Based on LWA's knowledge, expertise, and experience, LWA was selected to provide the requested services. Approval of this supplemental agreement is recommended to obtain continuing professional services needed to comply with the requirements in the Stormwater NPDES permit.

Financial Considerations: The cost of the project will be shared by the City and other co-Permittees pursuant to the terms of a master Memorandum of Understanding (MOU), approved by the City Council on July 31, 2012 (City Resolution No. 2012-279). The proposed supplemental agreement, for an amount not to exceed \$652,778, will result in a new contract not-to-exceed amount of \$1,252,778. Sufficient funds exist in the FY10-FY14 NPDES Program Multi-Year Operating Project, Project No. I14010200 (Storm Drainage Fund, Fund 6011) to support the City's cost share \$245,523. The County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova will reimburse the City for their cost share amounts.

The following table summarizes the costs for the City and cost share partners.

Agency	Project	Fund	Multi-Year Operating Project (MYOP)	Total
City of Sacramento	FY10-FY14 NPDES Stormwater Program	6011	I14010200	\$245,522.47
Cost Share Partners	FY10-FY14 NPDES Stormwater Program	6211	I14010200	\$407,255.53
Total				\$652,778.00

Local Business Enterprise (LBE): Larry Walker Associates is not an LBE, but has partnered with two LBE firms, CDM Smith Inc. and Michael Baker International, for this agreement to meet the minimum LBE participation requirement.

Background

In April 2015, the Regional Water Quality Control Board - Central Valley Region (Regional Water Board) reissued a Limited Term (18 months) National Pollutant Discharge Elimination System (NPDES) permit (Permit No. CAS082597) to the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova (Permittees) regulating the discharge of stormwater into local water bodies. The permit requires implementation of programs to reduce the pollution conveyed by stormwater runoff into local water bodies and requires implementation of a stormwater monitoring program (Stormwater Monitoring Program).

The City is administering the contract for these services on behalf of the Permittees, and will receive reimbursement for the cost share of the other Permittees. The costs for implementing the Stormwater Monitoring Program are shared by the Permittees, based on population, as described in a master Memorandum of Understanding (MOU) approved by the City Council in 2012 (City Agreement No. 2012-279). The MOU includes administrative procedures for sharing of work products and apportionment of program costs, including monitoring activities.

A significant portion of the Stormwater Monitoring Program is accomplished through annual professional services agreements. These services include development of sampling plans, field sampling, equipment upgrades, technical assistance, laboratory analyses, target pollutant implementation support, and preparation of reports.

As allowed in the Limited Term Permit and approved by the Regional Water Board's Executive Officer in a letter dated August 3, 2015, the Permittees submitted a modified monitoring plan for FY 2016/2017 to the Regional Water Board. LWA prepared this scope and budget based on the modified monitoring plan with a total budget amount of \$652,778.

The FY2016/2017 services agreement scope includes regulatory reporting and consulting, participation in the Delta Regional Monitoring Program (RMP), and assistance with new water quality policy implementation (e.g., State Trash Amendment, State Toxicity Policy, total maximum daily loads, general permit compliance, Delta initiatives, and policy/objective development support, etc.). In addition, the Regional Water Board adopted the *National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements General Permit for Discharges from MS4s* (Region-wide Permit) in June 2016. The Region-wide Permit requires the Permittees to file Notices of Intent (NOIs) and then receive a Notice of Applicability (NOA) from the Regional Water Board Executive Officer. Stormwater monitoring services for this year

will include Region-wide Permit implementation assistance and NOI development assistance.

The cost of the FY 2016/2017 services agreement will be shared by the City and the Permittees according to the MOU as follows:

Permittees Cost Sharing	%	Amount
City of Sacramento	33.3	\$203,322.47
County of Sacramento	38.4	\$234,461.95
City of Citrus Heights	5.9	\$36,024.10
City of Elk Grove	10.9	\$66,553.00
City of Folsom	5.2	\$31,750.06
City of Galt	1.7	\$10,379.83
City of Rancho Cordova	4.6	\$28,086.59
Total	100	\$610,578.00
City of Sacramento Only		\$42,200.00
Total		\$652,778.00

LWA will provide as-needed services to the City that will not be billed to other SSQP members. It is expected that services will include work related to the sampling, drinking water, and water quality regulatory and monitoring issues specific to the City.

SUPPLEMENTAL AGREEMENT

Project Title and Job Number: Stormwater Monitoring Services (I14010200/201)

Date: 7/27/16

Purchase Order #: 00000030847

Supplemental Agreement No.: 1

The City of Sacramento ("City") and Larry Walker Associates ("Contractor"), as parties to that certain Professional Services Agreement designated as Agreement Number 2015-1465, including any and all prior supplemental agreements modifying the agreement (the agreement and supplemental agreements are hereafter collectively referred to as the "Agreement"), hereby supplement and modify the Agreement as follows:

1. The scope of Services specified in Exhibit A of the Agreement is amended as follows:

This supplemental agreement adds FY2016/2017 services to the agreement. Contractor shall perform the work and services specified in "Attachment 2 to Exhibit A", which is attached hereto and incorporated here in by this reference. The budget for performance of FY2016/2017 stormwater monitoring services is set forth in "Attachment 2 to Exhibit B", attached hereto and incorporated here in by this reference.

2. In consideration of the additional and/or revised services described in section 1, above, the maximum not-to-exceed amount that is specified in Exhibit B of the Agreement for payment of Contractor's fees and expenses, is increased by \$652,778, and the Agreement's maximum not-to-exceed amount is amended as follows:

Agreement's original not-to-exceed amount:	<u>\$600,000</u>
Net change by previous supplemental agreements:	<u>\$0</u>
Not-to-exceed amount prior to this supplemental agreement:	<u>\$600,000</u>
Increase by this supplemental agreement:	<u>\$652,778</u>
New not-to exceed amount including all supplemental agreements:	<u>\$1,252,778</u>

3. Contractor agrees that the amount of increase or decrease in the not-to-exceed amount specified in section 2, above, shall constitute full compensation for the additional and/or revised services specified in section 1, above, and shall fully compensate Contractor for any and all direct and indirect costs that may be incurred by Contractor in connection with such additional and/or revised services, including costs associated with any changes and/or delays in work schedules or in the performance of other services or work by Contractor.

4. Contractor warrants and represents that the person or persons executing this supplemental agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this supplemental agreement and bind Contractor to the terms hereof.

5. Except as specifically revised herein, all terms and conditions of the Agreement shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by this supplemental agreement.

Approval Recommended By:

Approved As To Form By:

Project Manager

City Attorney

Approved By:



Contractor

Attested To By:

Approved By:

City of Sacramento

City Clerk

Attachment 2 to Exhibit A

FY1617 LWA Monitoring and Regulatory Assistance Scope of Services

This Scope of Services describes the consulting services to be provided by Larry Walker Associates, Inc. (LWA) and its subcontractors (collectively, “Consulting Team”) to the Sacramento Stormwater Quality Partnership (SSQP) during the Fiscal Year 2016-2017 contract period, under the terms of LWA’s stormwater monitoring and regulatory support contract with the City of Sacramento Department of Utilities. LWA leads a consulting team that includes CDM Smith, Pacific EcoRisk, and Michael Baker International (Baker).

This Scope of Services assumes that the Central Valley Regional Water Quality Control Board (Regional Water Board) will continue to implement the monitoring requirements of the “Limited Term” National Pollutant Discharge Elimination System (NPDES) permit issued to the SSQP co-Permittees on April 17, 2015 (Order No. R5-2015-0023). This permit allows participation in the Delta Regional Monitoring Program in lieu of certain “local” monitoring requirements. The Regional Water Board adopted the Region-Wide Permit in June 2016, but its applicability requires the SSQP entities to first file Notices of Intent (NOIs) and then receive a Notice of Applicability (NOA) from the Regional Water Board Executive Officer. The Region-Wide permit states, “Prior to such approval, the Permittee shall continue full implementation of its preexisting Storm Water Management Program.” It is assumed that the SSQP interprets water quality monitoring to be performed according to the most recent Regional Water Board approved monitoring work plan that includes Delta RMP participation.¹ The SSQP interprets this to mean that only the discharge characterization stations are required to be monitored in FY16/17 and with continued participation in the Delta RMP, urban tributary monitoring is only required once per five years and the rivers monitoring is not required. The SSQP may elect to perform as-needed monitoring to support the Region-Wide monitoring plan development or achieve other goals (support modeling, delisting, etc.).

In addition to completion of the monitoring requirements, this Scope of Services includes compliance reporting, TMDL Compliance, and technical expertise tasks. Several sub-tasks in this Scope of Services are on an “as-needed” basis based on specific requests from SSQP staff. It is not expected that all of these tasks will be necessary and budget estimates are intended to be shared between subtasks depending on the level of effort requested. All major deliverables with specific deadlines are shown in the table below; however, SSQP and LWA may mutually agree to modify the deliverable schedule.

Subtask No.	Deliverable Name	Draft Date	Final Date	Region-Wide Permit Deadline
1.2	Quality Assurance Project Plan	9/15/16	10/15/16	NA
1.2	Sample Collection and Analysis Plan	9/15/16	10/15/16	NA
1.3	Daily Sacramento Forecast	Start 10/1/16	End 5/1/17	NA
1.4	Event summary email	Within 3 days of event		NA

¹ Creedon, Pamela, Executive Officer. Central Valley Regional Water Quality Control Board. *Approval to Allow the Sacramento Area Stormwater Agencies to Reduce Local Water Quality Monitoring and Participate in the Delta Regional Monitoring Program*. Letter communication. August 3, 2015.

Subtask No.	Deliverable Name	Draft Date	Final Date	Region-Wide Permit Deadline
2.2	Draft Discharge Characterization Monitoring Report	7/17/16	3 weeks after comments received	October 1, 2017
3.1	Preliminary Prioritization Approach	9/1/16	2 days after comments received	September 17, 2016
3.2	Draft PWQC Assessment	12/1/16	3 weeks after comments received; combined with prioritization	6 months after NOA
3.2	Draft PWQC Prioritization	12/15/16	3 weeks after comments received; combined with assessment	6 months after NOA
3.5	Regional Annual Report – Monitoring and Target Pollutant	8/1/17	3 weeks after comments received	October 1, 2017
4.2	Delta Methylmercury TMDL Compliance Strategy Memorandum, if necessary	7/1/17	9/15/17	October 2018 Final Report

TASK 1 MONITORING MANAGEMENT [\$160,030]

This task involves all work related to monitoring activity coordination, study planning documentation, pre-season equipment preparation, weather forecasting, equipment and program troubleshooting, and SSQP status updates following monitoring mobilization efforts related to this contract. These activities provide general monitoring support for all of the monitoring activities. Specific monitoring tasks are included under subsections in this Scope of Services to cover the individual study monitoring and reporting tasks.

Task 1.1 Discharge Characterization Station Refurbishment

The discharge characterization stations at Sump 111, North Natomas Basin No. 4 outlet, and Strong Ranch Slough have been used infrequently over the last three years. The Strong Ranch Slough location was recently removed due to safety concerns as an attractive nuisance. The Sump 111 location uses twenty-year-old equipment that may require upgrades to reliably work. The North Natomas Basin No. 4 outlet has been a temporary location that will require additional upgrades to collect samples in an equivalent manner to the other sites. The Consulting team will prepare all three stations for monitoring using storm compositing equipment.

Sump 111

Equipment upgrades are more limited to the City of Sacramento cleaning out the existing conduit and the Consulting Team replacing not-yet-identified failed equipment with contingency funding. This station will include volume measurement based on a SCADA connection provided by the City of Sacramento, rainfall measurement, and composite sample collection from a fixed elevation in the wet well. The City of Sacramento will provide a telephone land line.

North Natomas Basin No. 4 Outlet

The Consulting team will purchase a refrigerated composite sampler and reuse the existing enclosure. If the current or previous locations are not acceptable to the City of Sacramento, the Consulting Team

will provide a new location. The Consulting Team will provide cellular communications as a monthly vendor service, depth in the wet well, a volume discharge calculation based on information provided by the City of Sacramento SCADA (used in FY1516), a digital bottle scale to estimate sample volume captured, a sensor array that includes turbidity, dissolved oxygen, temperature, and FDOM, and a camera to record site conditions.

Strong Ranch Slough

The Consulting team will provide and install the following equipment on the existing pad or a new pad installed at a secure location by Sacramento County: steel jobsite box enclosure, conduit and anchors to the channel bottom, CR1000 datalogger, power supply, digital bottle scale, bubble level sensor, and cellular communication rental. Sacramento County will provide a concrete installation pad at a secure location and provide for fencing around the installation. It is expected that the adjacent Regional San facility will be used for the installation. The Consulting team will include some contingency to install additional equipment to optimize the new installation, especially the sample collection point that historically has been on the channel bottom. Certain sensors may also be recommended for short term periods as part of the contingency to better evaluate the impact of the change in sample collection location and equipment (e.g., turbidity).

Task 1.2 Preseason Preparations

Consulting Team will prepare a sample collection and analysis plans (SAP) and a Quality Assurance Project Plan (QAPP), and install all needed sample collection and sensor equipment for urban runoff (discharge) characterization at three sites, Sump 111, North Natomas Basin No. 4 outlet, and Strong Ranch Slough.

The Consulting Team will prepare the QAPP according to Statewide Ambient Monitoring Program (SWAMP) guidelines and incorporate a Sampling and Analysis Plan (SAP) within the document or as an appendix. The SAP documents will include site information, specific procedures and equipment, logistics planning, quality control plans, and schedules. These will be based on previous planning documents and SWAMP guidance. As needed, specific operating procedures (SOPs) will also be included. The analyses will follow the Monitoring and Reporting Program (MRP) Table B constituents in the Limited-Term permit and as-directed by the SSQP staff within the budget allocation.

The Consulting Team will collect equipment blank samples for Teflon tubing and composite bottles for total organic carbon, metals and trace organics, if necessary, based on actual equipment deployed. City operations staff will assist with the installation of equipment within any wet-wells or confined spaces. The LWA Health and Safety plan is intended to cover LWA staff. Subconsultant and SSQP staff will conform to their respective health and safety plans in the course of performing any field work associated with this project.

The Consulting Team will review laboratory performance and compliance with reporting limitation requirements specified in MRP Table B of the Limited-Term permit and provide recommendations for a primary and secondary laboratory.

The Consulting Team will plan, arrange and conduct a two hour training session for the Consulting Team field personnel (SSQP staff attendance will be optional and for oversight/informational purposes), covering clean sampling techniques and the procedures outlined in the SAP.

Task 1.3 Inter-event Preparations

Pre-storm activities comprise of the tasks performed by the Consulting Team immediately before a targeted storm event. These activities include procuring and mobilizing sampling equipment, reviewing updated weather forecast information, and coordinating field-staffing logistics.

Equipment Preparation

Consulting Team will prepare and mobilize all necessary equipment to complete monitoring activities, including composite bottles (carboys), pump tubing, sample bottles, portable pumps, field meters, coolers, ice, etc. The Consulting Team will mobilize equipment to the appropriate field staff, as necessary. Equipment that comes in direct contact with collected samples will be laboratory-cleaned according to the SSQP protocols.

Weather Tracking

This subtask involves all work related to providing weather updates to the SSQP through daily written forecasts during the business week and unlimited 24-hour, 7-day per week phone consultation, on request. A specialized weather consultant will be contracted to provide primary forecasting services. LWA will generally act as the primary point of contact for the forecaster unless alternative arrangements are made. LWA will provide forecast information to other consultants performing monitoring for the SSQP in the form of weekday written forecasts and business hour phone communication or pre-arranged after-hour support. The LWA Monitoring Manager is the primary storm contact and manages all technical and logistical operations (field crews, labs, etc.) as described in the QAPP and SAP. As candidate storm events are identified, the LWA Monitoring Manager will notify field crews and consult the SSQP, as necessary.

Study Coordination

LWA will maintain contact with all key field staff for each study. Consulting Team field crews will be updated, as necessary, according to the SSQP “storm action levels” which specify readiness and mobilization status. LWA will present monitoring options to the SSQP with regard to storm selection and event timing as forecasts develop. The SSQP “storm contact” staff will provide feedback on the decision to mobilize for a storm event or in scheduling dry weather events. Based on the pre-event plan, LWA will make necessary decisions based on best professional judgment to perform sample collection and analysis. Consulting Team will provide as needed coordination with other external monitoring programs when directed by SSQP staff. This may be required for TMDL compliance or coordination with the Delta Regional Monitoring Program or other monitoring efforts.

Task 1.4 Event and Post-event Logistics and Review

This subtask involves the general oversight and coordination by the Monitoring Manager during the storm event for all field activities. The LWA monitoring manager will remain available by phone throughout the entirety of the sampling event to coordinate weather forecast reporting, field condition evaluation, storm progress tracking, sample pick-up, staffing, equipment troubleshooting, as well as to provide essential mobilization and tracking duties. It may also be necessary for the monitoring manager to mobilize to the field for final site visits at the end of the monitoring event.

Sample Disposition

At the conclusion of each monitoring event Consulting Team will deliver the samples from the field stations to the staging area. The composite samples will be broken down by Consulting Team into

appropriate containers for all required analyses as specified in the SAP and placed on ice. All samples will be promptly packed and delivered to the analytical laboratories. Consulting Team will prepare chain of custody documentation to accompany the samples from staging area to laboratory. Consulting team will procure commercial delivery services, as needed.

Oversee Laboratory Activities

Laboratory turn-around times shall be 30 days from receipt of samples. Laboratories shall be requested to output analytical data into spreadsheet files in the format established for the Sacramento Stormwater Monitoring Database and provide them to the Consulting Team along with hard copy lab reports.

Consulting Team shall conduct follow-up communications with analytical laboratories, as needed, to confirm laboratory receipt of samples, verify laboratory instructions for sample preparation and analysis, and assist laboratory personnel with other questions or issues as they arise.

Summary E-mail Notification

This subtask involves distribution of status e-mails following any mobilization effort and event summary memoranda following successfully captured monitoring events. The post event status email will be sent to the SSQP within 48 hours of the completion of any mobilization effort whether it results in a successfully captured event or a false start. The e-mails will provide a brief summary of the forecast, decision-to-mobilize discussion, monitoring activities, problems encountered, rainfall totals, and any recommendations for future events.

Event Data Compilation

The Consulting Team will compile all the relevant event data including sample collection timing, rainfall, runoff, and sensor data for inclusion in annual data reporting.

TASK 2 DISCHARGE CHARACTERIZATION [\$122,343]

This task involves all specific work related to urban runoff discharge monitoring, including collection of samples, QA/QC data evaluation, and reporting. This task relates to monitoring activities on North Natomas Basin No. 4, Sump 111 and Strong Ranch Slough, as required by the Sacramento Limited Term Permit (MRP section II.C, Urban Discharge Monitoring).

Task 2.1 Discharge Characterization Monitoring

This subtask involves work related to discharge sample collection and analysis of samples from North Natomas Basin No. 4, Sump 111, and Strong Ranch Slough. Additional details on procedures will be included in the 2016/17 SAP.

Consulting Team shall conduct urban runoff discharge monitoring using composite collection equipment and existing permanent sampling stations at the three locations. Consulting Team shall collect samples during up to three wet storm events and one dry weather event at three urban runoff sites (North Natomas Basin No. 4, Sump 111, and Strong Ranch Slough) between September 1, 2016 – June 30, 2017, weather and other conditions permitting. Consulting Team shall be responsible for field supervisory activities prior to and during monitoring events. Consulting Team shall provide monitoring support services and all monitoring including maintenance/equipment calibration and troubleshooting.

Storm-length or 24-hour composites (whichever is less) shall be collected for each of the events monitored. Consulting Team staff shall be responsible for deploying, changing, and collecting

composite carboys as needed, and for collecting grab samples for constituents as specified in the SAP. Samples will be analyzed for constituents in Table B of the Limited Term Permit MRP, including pyrethroids, for all events. The SSQP may request as-needed additional analyses if sample volume is available.

False Starts

In the event that a storm is selected for monitoring and sample collection activities commence, but the storm does not or is not projected to produce sufficient rainfall within a reasonable period to produce adequate runoff to perform sampling, field crews will be demobilized and the event will be considered a false start. Labor hours and other direct costs are budgeted for two false starts.

Blackout periods

Monitoring will not be required under this Scope of Work during the following period (all dates inclusive): November 23, 2016 – November 27, 2016 and December 23, 2016 – January 2, 2017; and other periods to be determined jointly by Consulting Team and SSQP during the course of the wet weather monitoring season. The monitoring task manager will remind Partnership contacts and field crews in advance of these blackout dates.

Task 2.2 Discharge Characterization Reporting

The Consulting Team will prepare a report summarizing field activities and the reported data for the discharge characterization efforts described in Task 2.1.

Consulting Team will check all lab data reports to verify that all requested analyses were completed and that all requested results were reported (including laboratory internal QA/QC results), and that specifications for holding times, analytical methods, and reporting limits were met by the laboratories. Consulting Team will contact laboratory personnel to request that they correct errors, provide missing information, or rerun sample analyses as needed. The designated agency contacts will be copied on all formal memoranda sent to analytical labs at the request of SSQP staff.

Consulting Team will conduct a comprehensive evaluation of all QA/QC data produced by the analytical laboratories, apply the QA/QC results to the environmental sample data, and qualify any data which do not meet data quality objectives, according to protocols established in the QAPP. It is expected that the SSQP will convert reporting standards for compliance with CEDEN and SWAMP approaches, though the discharge characterization data is not expected to be uploaded to CEDEN.

Draft and Final Urban Runoff Discharge Characterization Monitoring Report

Consulting Team will prepare a draft discharge characterization monitoring report containing the results of all monitoring events, including a description of monitoring field activities, rainfall/runoff measurements during the monitoring events, antecedent precipitation conditions, analytical results, and the full documentation of the data evaluation according to the QAPP. The scope of prepared analyses and reporting (data plots, trend assessments, etc.) may be decreased to Program Effectiveness Assessment Level 1, at the direction of the SSQP, based on requirements for implementation of the Region-Wide Permit and agreements with Regional Water Board. The scope includes assessment of modifications to the historic data processing protocol to ensure CEDEN compatibility and to consider SMARTS compatibility, if it is ultimately required by the Regional Water Board. There is some uncertainty with the Region-Wide Permit requirements and how they will be phased-in during development of the SWMP. This scope will then be modified as-needed and with available funds to address any yet-unidentified needs. The Consulting Team will advise the SSQP on the most efficient

approach in preparing the data analyses to reduce duplication of effort and unnecessary work. Consulting Team will deliver draft report to Partnership by July 17, 2017 in electronic format (Microsoft Word and PDF format) for review and comment.

Consulting Team will respond to Partnership review comments on the draft report, incorporate changes where necessary, and deliver an electronic copy of the final report within three weeks of receipt of Partnership comments. As requested, Consulting Team also will provide up to twelve hard copies of the report and laboratory reports.

TASK 3 REGIONWIDE PERMIT IMPLEMENTATION ASSISTANCE [\$169,300]

The SSQP permittees are required to individually file the Notice of Intent (NOI) for coverage under the Region-Wide permit thirty days before (September 17, 2016) the expiration of the Limited-Term permit (October 17, 2016). When the Regional Water Board Executive Officer (EO) issues the Notice of Applicability (NOA) for each of the permittees, the permittee has deadlines for submittals according to the schedule in Section V.F.2 of the Region-Wide permit. Identification of priority water quality constituents (PWQCs) and the Reasonable Assurance Analysis approach are both likely due in FY1617 or in early FY1718, dependent on receipt of the NOA from the Regional Water Board. The SWMP and Monitoring Plan are other longer term deliverables that will be due within two years, but require an additional planning effort during FY1617 as well as coordination with the Regional Water Board.

Task 3.1 Notice of Intent Preparation

The Consulting Team will provide general as-needed support to prepare the NOI for coverage under the Region-Wide permit. The NOI requires submittal of the preliminary prioritization approach by September 17, 2016. The Consulting Team will prepare a technical memorandum summarizing the approach agreed-upon by the SSQP that is expected to be an update of the historic Target Pollutant Prioritization Process. A draft will be submitted to the SSQP by August 15, 2016. Some of this work effort will be completed under the FY1516 effort, but it is expected that this task will support follow-up work, including Task 3.2 and general strategic planning.

Task 3.2 PWQC Development

The Consulting Team will assist with PWQC development and prioritization based on the target pollutants approach previously developed. Under the Pollutant Prioritization approach in the Region-Wide permit, SSQP permittees must identify the highest PWQCs in the drainage areas under their jurisdiction that will be addressed by the SWMP. It is expected that the SSQP will prepare a countywide PWQC assessment rather than individual permittee assessments. The PWQC will use readily available and relevant existing data and information, and will be based on the approach in the Target Pollutant Prioritization prepared in previous years.

Assessment

The purpose of the PWQC assessment step is to develop a list of water quality constituents (WQCs) that may be adversely impacting water quality. In coordination with SSQP staff, the Consulting team will prepare a PWQC Technical Memorandum describing the methodology and all criteria used to identify local water quality issues, including (per the Region-Wide permit Section V.E.1):

- i. Data source(s) for each WQC;
- ii. The geographic extent of the WQC's impact, if known;

- iii. The temporal extent of the WQC's impact (e.g., dry weather and/or wet weather or other driving cyclic patterns, if known); and
- iv. The adequacy of available data and data gaps in the monitoring data relied on to develop a list of WQC.

The assessment will consider the following:

- i. Total Maximum Daily Loads (TMDLs) and CWA section 303(d) List
 - (1) TMDLs adopted and/or under development by the Central Valley Water Board for water bodies or segments of water bodies within the Permittee's Jurisdictional Runoff Area where the Permittee and/or water body or water body segment has received a waste load allocation (**Attachment G, Region-Wide permit**). Sources for pollutants should have been identified as urban runoff and/or storm water runoff; and
 - (2) The most current USEPA approved CWA section 303(d) listing of water bodies or water body segments and associated pollutants;
- ii. Results of water quality monitoring conducted by the Permittee;
- iii. Results of special studies conducted along receiving waters, including; (1) Bioassessment monitoring; (2) Sediment or water column toxicity monitoring; and (3) Constituent focused (e.g., dissolved oxygen, nutrients) monitoring;
- iv. Other monitoring efforts, such as:
 - (1) Litter/Trash impacts;
 - (2) Physical habitat;
 - (3) Hydromodification monitoring and implementation;
 - (4) Water and sediment quality data and information collected or compiled by other entities.

Prioritization

Based on the criteria approved by the SSQP staff, the Consulting Team will rank the assessed WQCs, thereby identifying the highest priority WQCs (i.e., PWQCs) to be addressed by the SWMP. Using the information obtained through the assessment step, the Consulting Team will generate a list of PWQCs that are not being attained within the receiving waters and for which the MS4 discharges are causing or contributing to exceedances of WQS, if any.

The Consulting Team will meet with SSQP staff up to three times as well as up to two additional teleconferences during the preparation of the assessment and prioritization. A draft assessment document, which will include a summary of the assessment process, results, and findings will be drafted by December 1, 2016. The draft prioritization will be prepared by December 16, 2016. Both draft documents would be finalized into one submittal for the Regional Water Board within three weeks of receiving comments from SSQP staff.

Task 3.3 Reasonable Assurance Analysis Approach

The Consulting Team previously evaluated multiple approaches to the Reasonable Assurance Analysis (RAA). The RAA is required to provide a "reasonable assurance that the Permittee's proposed strategies and activities will succeed in timely achievement of all water quality milestones, and final dates for attaining water quality standards." (Region-Wide permit section V.E.3..b). The RAA approach is due to the Regional Water Board along with the Assessment and Prioritization Results (Task 3.2.) six months following the NOA issuance from the Regional Water Board.

The Consulting Team will prepare a technical memorandum summarizing the proposed approach based on the results of the Phase 1 Pilot Modeling study prepared in the FY1516. The FY1516

modeling work evaluated multiple options and model types and included a more detailed task order scope-of-work for a not-to-exceed budget amount included in this Scope of Services. The task order may be adjusted based on input from the Regional Water Board and applicable guidance developed by EPA and/or the State Water Resources Control Board and approved by the SSQP. If these regulatory agencies do not provide specific guidance, the approach will present the significant assumptions and justification.

As part of the RAA development in FY1617, the Consulting Team will develop concepts for water quality milestones in collaboration with SSQP staff. The Consulting Team will develop options and recommend evaluation criteria (e.g., measurability, achievability over time, compliance with Region-Wide requirements, etc.). After consultation with SSQP staff the milestones will be presented to the SSQP Permittee group for further development, and then used for consideration during SWMP and FY1718 RAA development.

It is expected that the Consulting Team will need to use the pilot modeling and data compilation efforts to develop the proposed methodology.

Task 3.4 Stormwater Management Program Assistance and Coordination with Others

The SWMP will likely not be due to the Regional Board until after FY1617, however, the Consulting Team will provide as-needed support in coordinating and developing its development. It is expected that this task will include coordination of the other sub-tasks in the Region-Wide permit with other agencies outside of Sacramento County. This support task will also include coordination between SSQP permittees to provide coordination and general support of standard approaches.

As directed by the SSQP, LWA will assist with the development and identification of monitoring approaches necessary for SWMP development and to support RAA and milestones. The RAA development task will consider technical details of the milestones, while this task will consider the programmatic elements for the SSQP permittees. The proposed milestones will not be required before FY1718; however, it is recommended that they be considered as part of the prioritization, RAA development, and monitoring planning to ensure that they are measurable and consistent with the other efforts.

Task 3.5 Regulatory Reporting

The Consulting Team will support SSQP responses to specific requests from regulatory agencies and the Permit required reporting described in the tasks below. As-needed the Consulting Team will assist the SSQP in developing response letters, information requests, and technical analyses related to permit compliance.

Response to Regulatory Requests

As needed, the Consulting Team will respond to requests for information, reports, and data from regulatory agencies. This as-needed task will be at the direction of SSQP staff as issues requiring responses arise, including preparation of notice of violation response letters, preparation of compliance related analysis, and developing compliance strategies for issues not identified in other tasks. It has not been confirmed whether Notices of Water Quality Exceedance (NWQE) that are noted in the FY1617 Work Plan will be required as receiving water sample collection is not required in FY1617. However, the Partnership may request or perform collection of diazinon and chlorpyrifos sample collection to support urban tributary impairment delisting. It is not expected that will require NWQE reporting, but

the Consulting Team will notify the Partnership of any observed exceedances and then prepare the regulatory reporting document specified.

FY1718 Work Plan

The Consulting Team will assist the SSQP with preparation of the FY1718 Monitoring and Target Pollutant Work Plan, which includes participation in one planning teleconference and review of draft materials.

Regional Annual Report Preparation

The Consulting Team will provide assistance in the preparation of the Regional Annual Report (RAR) or the Partnership-prepared annual report prepared in response to the Region-Wide Permit, due to the Regional Water Board by October 1, 2017. The Consulting Team will prepare the monitoring section of the RAR/Annual Report, which summarizes all monitoring activities in which the SSQP participates and performs effectiveness assessments. LWA will provide as-needed assistance on the Target Pollutant section, including preparation of the initial draft, if requested. LWA will use previous Annual Reports as the template for the 2015-16 sections; however, interpretation of the Region-Wide Permit will likely change the organization and type of content. SSQP staff and the Consulting Team will agree on the organization, outline, and schedule for the monitoring section. It is expected that the draft section will be submitted to the SSQP by August 15, 2017, dependent on direction from SSQP staff.

TASK 4 TECHNICAL EXPERTISE [\$122,445]

Technical expertise tasks include the range of activities to support regulatory, monitoring, and technical evaluations to support the SSQP.

Task 4.1 Trash Amendment Assistance

The recently adopted Trash Amendments will be incorporated through a Water Code Section 13267 letter request from the Regional Water Board. As needed, LWA will work with the designated SSQP staff to develop a compliance strategy and approach to evaluating the pro/cons and costs of the implementation options (i.e., Track 1 vs. Track 2). It is expected that this effort by LWA will include at least six meetings or teleconferences, coordination with other MS4 agencies, summarizing lessons learned from other areas implementing the trash requirement, and preparation of technical information. Technical information can include, but is not be limited to effectiveness and implementation of trash surveys, and assessment of implementation options for compliance with the full capture equivalency.

Task 4.2 Target Pollutant and TMDL Implementation Support

LWA will provide as needed support including attending meetings, hearings, and providing technical analysis of Total Maximum Daily Load (TMDL) programs for pesticides, methylmercury, and others. LWA will also track and review updates to the Clean Water Act Section 303(d) water quality impairment listings.

Methylmercury TMDL Implementation

The SSQP is currently participating in Phase 1 of the Delta Methylmercury Total Maximum Daily Load (TMDL) implementation and is also subject to the forthcoming Statewide Mercury TMDL. The Delta Methylmercury TMDL includes a wasteload allocation for methylmercury for the land area within the legal definition of the Delta. The SSQP and Consulting Team developed and submitted a

Work Plan in April 2013 to address the Delta Methylmercury TMDL Control Study requirement. The SSQP submitted a Progress Report to the Regional Water Board on October 15, 2015 that identified multiple additional items beyond the completed control study report:

- Examine the relative impact of Partnership methylmercury discharge load reductions on Delta fish tissue concentrations;
- Evaluate the cost per mass methylmercury reduced based on Sylvan Community Center, City Hall Complex, and other LID sites in comparable regions;
- Participate in regional methylmercury groups, review of other Control Study results, and participation in Delta Regional Monitoring Program (RMP) methylmercury activities;
- Develop implementation scenarios for evaluated control strategies to determine the required control strategies to comply with the WLA;
- Develop achievable implementation schedules and cost estimates for the required control strategies based on expected rates of redevelopment within the TMDL urban area; and
- Prepare an evaluation of the overall feasibility of complying with the WLA.

The Consulting Team will assist the SSQP in performing these compliance feasibility assessments and developing a compliance strategy as part of the Phase 1 implementation. It is expected that the strategy will use tools and models developed previously, by others, including the RAA and SWMP development. In coordination with SSQP, the Consulting Team will develop a strategy that includes implementation options, schedule, and cost estimates to meet the expected Phase 2 requirements of the Delta Methylmercury TMDL. It is expected that the Regional Water Board will provide additional guidance on the level-of-effort, objectives, and scope of these compliance feasibility and strategy assessments. The Consulting Team will summarize these efforts in a memorandum or as part of the Regional Annual Report.

Diazinon and Chlorpyrifos 303(d) Delisting Support

The Consulting Team will work with the Partnership and Regional Water Board to determine whether sample collection by the Partnership will accelerate delisting in the Sacramento Urban Tributaries. It is expected that this would be limited to one wet weather grab sample collection event at five urban tributaries, and would only be performed at the direction of the Partnership.

Task 4.3 Delta RMP Support

The Delta RMP is supported by the Regional Water Board and a wide range of stakeholders to develop better and more comprehensive water quality science in the Delta. SSQP participation in the Delta RMP reduces NPDES permit monitoring requirements performed. LWA will provide support to the SSQP with implementation of the Delta RMP and development of the multi-year work plan. LWA will provide the following as-needed services:

- LWA will serve as a Technical Advisory Committee (TAC) member representing MS4 Phase 1 agencies and the SSQP, including attending up to eight meetings and teleconferences. LWA will prepare as needed reports on TAC activities to the SSQP and perform reasonable TAC-assigned follow-up tasks or special committee work.
- LWA will attend Steering Committee meetings to support the SSQP Steering Committee members.

- LWA will attend coordination meetings with the regulated entities to prepare for Steering Committee meetings. LWA will provide representation specific to the SSQP at these meetings. LWA will assist with facilitation and preparation for these meetings with Regional San and other partners, as-needed.
- LWA will provide technical support evaluating Delta RMP proposals and programs.
- LWA will lead the pathogen subcommittee as a joint activity with the City of Sacramento and the Sacramento Regional County Sanitation District.

Task 4.4 Delta Policy, TMDL, Central Valley, and Statewide Water Quality Policy Tracking

LWA will prepare a summary table of ongoing regulatory policies and plans under development that may be relevant to the SSQP on at least a quarterly basis, and upon request. This will include Federal, California, and regional issues with the intent of concisely stating status and potential impact on the SSQP agencies. Some of these regulatory efforts may require more active participation and/or commenting by the SSQP. The Consulting Team will assist the SSQP with as needed participation in regulatory effort participation.

LWA will provide as needed policy analysis and communication support to the Partnership related to water quality initiatives. Sacramento-San Joaquin Delta (Delta) issues include, but are not limited to, the Delta Plan, Delta Science Program, California Water Fix, California Ecorestore (formerly BDCP), and Bay-Delta Water Quality Control Plan amendments. Federal, statewide and other regional issues may also be covered on request. LWA will attend meetings, provide summary information and draft comments or talking points as needed to inform the Partnership, and develop comments from the Partnership on urban runoff or permit related matters. Individual SSQP agencies may still have comments specific to that agency or not related to urban runoff that may be submitted separately.

The State Water Resources Control Board (State Board) develops regulations through a number of efforts that may result in changes to the MS4 NPDES permits or indirectly function as guidance to Regional Water Boards that develop the MS4 permits. LWA will maintain a list of these identified issues and the SSQP staff or consultants that are actively participating on behalf of the SSQP. As needed, the Consulting Team will assist the SSQP in tracking, evaluating, and commenting on the following State Board policy efforts:

- 303(d) Impairment Delisting - Coordination with the Regional Board and preparation and submittal of data to support delisting water body impairments. The SSQP and Consulting Team will identify opportunities where submittal of such data will be considered and the SSQP will direct the as-needed effort.
- Policy for Toxicity Assessment and Control – Will require evaluation of toxicity using the “test for significant toxicity (TST)”, though the requirements for assessment of MS4 discharges may be specified in later guidance documents.
- Biological Integrity Assessment Implementation Plan – The State Board is developing an assessment program to identify numeric and narrative benchmarks for inland freshwater streams.
- Statewide Nutrient Objective Development– The State Board is developing a method to develop nutrient numeric objective based on causal effects.
- STORMS, including a potential statewide pesticide strategy.
- Statewide Bacteria Objectives - The State Board is proposing a statewide control program to protect recreational users from the effects of pathogens in California water bodies. The

program would be adopted as amendments to the Inland Surface Water, Enclosed Bays and Estuaries Plan.

- Others that are identified through the tracking process.

Task 4.5 Stormwater Resource Plan Assistance

The Consulting Team will provide coordination with the regional Stormwater Resource Plan (SWRP) development by the American Rive Basin IRWMP and CSUS OWP. This includes as-needed support as determined during the SWRP development and may include participation in technical tool development, meetings, review of documents, and coordination with other SWRP efforts and SSQP interests. These SWRP development review considerations may include:

- Coordination with Reasonable Assurance Analysis model development and other expected Regionwide permit requirements. Do the tools support the approach to be used for the RAA and permit compliance?
- Are the tools reasonably consistent with assumptions and results from the SAHM tool (hydrology only)?
- Do the tools adequately characterize pre-project and post-project conditions consistent with permitting and new development standards?
- Will the tools meet the Stormwater Resource Plan checklist?
- Is the performance of the tools reasonably comparable to other efforts?
- What descriptors are used for proposed projects (physical and performance characteristics)?
- What are the key water quality assumptions?

The Consulting Team effort can generally be coordinated with two specific tasks in the SWRP proposed work plan as submitted to the State Water Resources Control Board as part of the Proposition 1 Grant application.

2.b. Planning (\$3,000)

- Attend up to six meetings/teleconferences over course of project and provide input on overall approach and technical details.
- Provide input/information sharing from experiences on other efforts in California (Contra Costa, Ventura, and San Mateo)

2.c. Tool Box Development (\$7,000)

- Provide input and coordination during development and review for all tools with the most focus on the “Water Quality Projects Analysis” and “Integrated Metrics Based Analysis” tool(s) relative to quantification of benefits.
- Provide informal written comments and as-needed technical support directly to the ARB SWRP preparer (Office of Water Programs and the ARB IRWMP) to support tool development. Examples of possible technical support areas would be selection of modeling tools, review of tool assumptions, model error quantification and sensitivity analysis on assumptions, verification of tool outputs with existing SSQP datasets and approaches, and other as-needed efforts to optimize resources between the Stormwater Resource Plan and the RAA pilot program.
- Provide GIS support and coordination where there is overlap with the Arcade Creek RAA pilot modeling effort.

Task 4.6 Proprietary Device Review

Consulting Team will provide as-needed review of proprietary control performance data or proposed monitoring programs to assist the in SSQP analysis and response to manufactures and vendors. Consulting Team will also assist the SSQP in an overall review of available and SSQP-acceptable proprietary controls.

TASK 5 PROJECT COORDINATION [\$36,460]

The Consulting Team will provide staff planning to ensure a high level of responsiveness for all work and will provide SSQP with coordination of meetings, teleconferences, video conferences, note taking, and project progress reporting.

Task 5.1 Project Coordination and Planning

LWA will provide project management to ensure that the project is completed on time and within budget, including project coordination and administration necessary to achieve the tasks previously described and periodic communications with the SSQP and subcontractors. Consulting Team will provide qualified staff to complete all tasks as described in the preceding Scope of Services.

LWA will schedule, prepare for and attend bi-monthly progress meetings with the SSQP to discuss progress and results of the monitoring program. LWA will prepare an agenda and distribute it to SSQP agencies in advance of each scheduled progress meeting. At the request of the SSQP, LWA may schedule bi-monthly monitoring or effectiveness evaluation work group teleconferences in those months without progress meetings. At the request of the SSQP, LWA will periodically attend the Permittee meetings to update the Permittees on water quality regulatory issues.

LWA will produce Progress Reports for review at the progress meetings as needed to keep the SSQP appraised of work progress, schedule and budget status.

LWA will submit a monthly invoice with detailed budget status information on a subtask basis and a monthly written report describing project activities and expenditures during the period covered by the invoice.

TASK 6 CITY OF SACRAMENTO TECHNICAL AND REGULATORY TASKS [\$42,200]

LWA will provide as-needed services to the City of Sacramento that will not be billed to other SSQP members. It is expected that services will include work related to the sampling, drinking water, and water quality regulatory and monitoring issues specific to the City of Sacramento.

Task 6.1 Regulatory Expertise

LWA will provide policy analysis and communication support to the City of Sacramento related to water quality initiatives. Sacramento-San Joaquin Delta (Delta) issues include, but are not limited to, the Delta Plan, Delta Science Program, California Water Fix, California Ecorestore (formerly BDCP), and Bay-Delta Water Quality Control Plan amendments. Federal, statewide and other regional issues may also be covered on request by City of Sacramento staff. These services will be in addition to the support provided to the SSQP in this Scope of Services. LWA is not expected to attend all meetings related to the noted policy efforts, but the City may request representation or assistance at key meetings. Services to be provided include the review of selected portions of key Delta related reports and preparation of draft comments in support of applicable discharger considerations. Services may also provide assistance with tracking schedules for upcoming key documents, recommendations for

follow-up activities including additional policies and reports to track, and input on guiding principles. LWA will provide recommendations for input on other State Board or Central Valley Regional Water Board policies in support of discharger considerations, or additional support for follow-up on Delta policies.

Task 6.2 As Needed Regulatory, Compliance, and Field Services

Consulting Team will provide as-needed assistance to the City of Sacramento related to comment preparation on stormwater management plans and compliance assistance for City of Sacramento facilities and Stormwater Quality Improvement Plan (e.g., enforcement response documentation, etc.) and water quality regulatory and monitoring issues specific to the City of Sacramento. Consulting Team will provide as-needed field and analytical laboratory services related to inspections, illicit discharges, regulatory compliance, and spill response.

NOTES TO SCOPE OF SERVICES

- The period during which the LWA and Consulting Team services described herein will be performed is approximately from September 2016 through October 2017. However, upon mutual consent of City of Sacramento and LWA, some activities may extend beyond this time period.
- Contractor shall provide the City and Partnership with electronic copies of all work products and data files.
- Contractor shall not make public information releases or otherwise publish/release any information obtained or produced by it as a result of, or in connection with, the performance of services under this Scope of Work without the prior written authorization from City's contract manager in coordination with the Partnership.
- Remaining budget from FY2015/2016 may be utilized for assignments continuing in FY2016/2017.

Attachment 2 to Exhibit B

Larry Walker Associates Estimated Budget 2016-17 Sacramento Stormwater Quality Partnership Monitoring and Reporting Support

Task	DESCRIPTION	Vice President	Associate	Senior Eng/Sci	Project Eng/Sci 2B	Project Eng/Sci 2A	Project Eng/Sci 1B	Contract Management	Project Eng/Sci 1A	LAB COSTS [1]	OTHER DIRECT COSTS	TOTALS [1]
Monitoring Management												
1.1	Discharge Characterization Station Refurbishment	16	0	0	40	40	0	0	40	\$ -	\$ 23,375	\$ 54,695
1.2	Preseason Preparations	24	0	0	80	40	0	0	40	\$ 1,733	\$ 5,108	\$ 41,721
1.3	Inter-event Preparations	24	0	0	0	80	0	0	40	\$ -	\$ 6,534	\$ 32,814
1.4	Event and Post-event Logistics and Review	32	0	0	0	64	0	0	48	\$ 400	\$ 3,600	\$ 30,800
	Sub TOTAL LABOR HOURS	96	0	0	120	224	0	0	168			
	Sub TOTAL COSTS									\$ 400	\$ 33,509	\$ 160,030
Discharge Characterization												
2.1	Monitoring	0	0	0	16	0	0	0	36	\$ 59,639	\$ 5,524	\$ 79,263
2.2	Reporting	24	0	0	0	0	0	0	120	\$ -	\$ -	\$ 43,080
	Sub TOTAL LABOR HOURS	24	0	0	16	0	0	0	156			
	Sub TOTAL COSTS									\$ 59,639	\$ 5,524	\$ 122,343
Regionwide Permit Implementation Assistance												
3.1	Notice of Intent Preparation	8	0	0	8	0	0	0	0	\$ -	\$ -	\$ 3,720
3.2	PWQC Development	40	0	0	0	80	0	0	0	\$ -	\$ -	\$ 24,800
3.3	Reasonable Assurance Analysis Approach	80	64	0	180	0	180	0	0	\$ -	\$ -	\$ 101,180
3.4	SWMP Assistance	40	0	0	80	0	0	0	0	\$ -	\$ -	\$ 26,400
3.5	Regulatory Reporting	20	0	0	40	0	0	0	0	\$ -	\$ -	\$ 13,200
	Sub TOTAL LABOR HOURS	188	64	0	308	80	180	0	0			
	Sub TOTAL COSTS									\$ -	\$ -	\$ 169,300
Technical Expertise												
4.1	Trash Amendment Assistance	24	0	40	0	0	0	0	40	\$ -	\$ 38	\$ 21,118
4.2	Target Pollutant and TMDL Implementation Support	40	0	0	36	10	0	0	24	\$ 4,161	\$ 38	\$ 28,848
4.3	Delta RMP Support	64	0	40	0	16	0	0	0	\$ -	\$ 264	\$ 29,144
4.4	Delta Policy, TMDL, Central Valley, and Statewide Regulatory Support	64	0	0	0	40	0	0	0	\$ -	\$ 75	\$ 24,355
4.5	Stormwater Resource Plan Assistance	36	0	0	0	1	0	0	0	\$ -	\$ 85	\$ 9,980
4.6	Proprietary Control Review	4	0	36	0	0	0	0	0	\$ -	\$ -	\$ 9,000
	Sub TOTAL LABOR HOURS	232	0	116	36	67	10	0	64			
	Sub TOTAL COSTS									\$ 4,161	\$ 499	\$ 122,445
Project Coordination												
5.1	Project Coordination and Planning	64	0	0	24	0	0	100	0	\$ -	\$ -	\$ 36,460
	Sub TOTAL LABOR HOURS	64	0	0	24	0	0	100	0			
	Sub TOTAL COSTS									\$ -	\$ -	\$ 36,460
	SSQP TOTAL LABOR HOURS	604	64	116	504	371	386	100	388	\$ 64,200	\$ 39,532	\$ 610,578
	SSQP TOTAL COSTS											

Larry Walker Associates Estimated Budget 2016-17 Sacramento Stormwater Quality Partnership Monitoring and Reporting Support

Task	DESCRIPTION	Vice President	Associate	Senior Eng/Sci	Project Eng/Sci 2B	Project Eng/Sci 2A	Project Eng/Sci 1B	Contract Management	Project Eng/Sci 1A	LAB COSTS [1]	OTHER DIRECT COSTS	TOTALS [1]
City of Sacramento Only Services												
6.1	Regulatory Expertise	56	0	0	8	8	0	0	0	\$ -	\$ 39	\$ 18,119
6.2	As Needed Regulatory, Compliance, and Field Services	56	0	0	24	24	0	0	0	\$ -	\$ 81	\$ 24,081
	Sub TOTAL LABOR HOURS	112	0	0	32	32	0	0	0			
	Sub TOTAL COSTS	168	0	0	56	56	0	0	0	\$ -	\$ 120	\$ 42,200
	GRAND TOTAL	716	64	116	536	403	386	100	388	\$ 64,200	\$ 39,652	\$ 652,778

Notes:
 [1] Includes 10% LWA markup for lab costs and subcontractor labor.