

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

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TASK ORDER FORM

Date/Start Date: July 1, 2016
Consultant Name: EOA, Inc.
Contract: Countywide Water Pollution Prevention Program Technical Support – On-Call Contracts
Task Order No.: EOA-04
Task Order Name: Municipal Stormwater NPDES Permit Compliance Assistance
Scope of Work: General Technical Support, Subcommittee Support, Training, Trash, Mercury & PCBs. See attached scope of work
Deliverables: See attached scope of work
Budgeted Cost: Per attached Fiscal Year 2016-17 scope of work, not to exceed \$1,376,257
Completion Date: June 30, 2017

The parties indicated herein agree to execute this Task Order per the scope indicated above. No payment will be made for any work performed prior to the execution of this Task Order. Unless otherwise indicated, receipt of this executed Task Order is your Notice to Proceed with the work specified herein.

C/CAG

EOA, Inc.

Sandy Wong
Executive Director

Date

Date

**FY 2016/17
Municipal Stormwater NPDES Permit
Compliance Assistance**

Scope of Work and Budget

**Prepared for the
San Mateo Countywide
Water Pollution Prevention Program**



Prepared by EOA, Inc.



DRAFT May 2016

INTRODUCTION

EOA, Inc. prepared this scope of work to assist the San Mateo Countywide Water Pollution Prevention Program (Countywide Program or SMCWPPP) to comply with municipal stormwater permit requirements found in the recently reissued NPDES Permit No. CAS612008, commonly referred to as the Municipal Regional Permit (MRP 2.0). The following sections describe EOA's tasks, budgets, and deliverables for FY 2016/17 (i.e., July 2016 – June 2017). Table 1 and Exhibit A summarize the tasks and budgets. Exhibit A includes subtasks, estimated labor hours, and planning-level subcontractor and expense budgets. It should be noted that the actual distribution of hours and subcontractors/expenses within and among tasks may vary. EOA will conduct all work on a time and materials basis in accordance with the Agreement for Services between EOA, Inc. and the City/County Association of Governments of San Mateo County (C/CAG) dated August 13, 2015. The total budget will not be exceeded without C/CAG's authorization.

Table 1. Summary of Tasks and Budgets.

Task No.	Description	Budget
SM71	General Support to Program Manager	\$113,424
SM72	Subcommittee Support	\$148,382
SM73	Training	\$68,624
SM74	Water Quality Monitoring	\$640,527
SM75	Trash Load Reduction	\$259,204
SM76	Mercury and PCBs Load Reduction	\$98,004
SM77	Annual Reporting	\$48,092
Total Budget:		\$1,376,257

Note: See Exhibit A for more details.

TASK SM71 – GENERAL SUPPORT TO PROGRAM MANAGER

Jon Konnan, P.E. will continue to serve as the task leader for General Support for Program Manager as part of continuing his overall role as EOA's project manager for providing municipal stormwater permit compliance support to C/CAG. Jon will be assisted by other EOA staff as appropriate (e.g., component leaders providing presentations on priority topics at Stormwater Committee meetings). Subtask descriptions, deliverables and budgets are provided below.

SUBTASK SM71.01: GENERAL SUPPORT

EOA will continue to provide general support to assist C/CAG's Program Manager in running the Countywide Program, including planning budgets, scheduling committee/subcommittee meetings, strategic planning for regional vs. countywide projects, ensuring that permit compliance dates and deliverables are met, and other types of general technical support. This task includes on-call assistance to municipal staff members by responding to their emails and telephone calls.

Deliverables:

- General technical and regulatory support to C/CAG's Program Manager.
- On-call communications with municipal staff.
- Overall project management including preparation of invoices detailing the work completed each month by subtask.

Budget: \$39,584

SUBTASK SM71.02: STORMWATER COMMITTEE SUPPORT

EOA will continue to support to the Program Manager in facilitating C/CAG's Stormwater Committee (which generally meets bimonthly), including assistance in preparing agenda and minutes and providing presentations. EOA will also assist the Program Manager to facilitate an annual meeting of the Countywide Program's Stormwater Committee permit implementation workgroup. This workgroup generally focuses on providing guidance from higher-level municipal staff on implementation of priority permit provisions including trash controls, green infrastructure, and mercury and PCBs controls and associated compliance issues. Further details regarding this subtask's description, deliverables, and budget are provided below in Table 1.2.

Deliverables:

- Assistance with agenda and minutes and participation in six Stormwater Committee meetings.
- Presentation provided at two meetings.
- Assistance with agenda and participation in one meeting of the Stormwater Committee permit implementation workgroup.

Budget: \$22,216

SUBTASK SM71.03: MONTHLY DIGEST AND QUARTERLY MRP COMPLIANCE CHECK-IN TABLE

EOA will continue to prepare a monthly digest that summarizes the schedule for upcoming meetings and trainings and compiles summaries of the previous month's subcommittee and workgroup meetings. EOA will also prepare a MRP compliance check-in table each quarter that summarizes MRP compliance tasks that member agencies should have completed the previous quarter and tasks that need to be completed during the upcoming quarter.

Deliverables:

- 12 monthly digests.
- Four MRP compliance check-in tables.

Budget: \$9,896

SUBTASK SM71.04: BASMAA ACTIVITIES SUPPORT

EOA will continue to provide support to the Program Manager regarding BASMAA activities and generally assist the Program Manager with coordination between BASMAA and Countywide Program activities. This will include support for monthly Board of Directors (BOD) meetings, including review and comment on agenda items, and participation in the meetings.

Deliverables:

- Review and comment on agenda packages and participation in monthly BASMAA BOD meetings.

Budget: \$14,844

SUBTASK SM71.05: BASMAA REGIONAL PROJECTS PLANNING SUPPORT

EOA will continue to provide support to the Program Manager in planning for and supporting implementation of BASMAA regional projects, including preparation of budget projections, coordinating C/CAG's role and tracking C/CAG's budget share of all BASMAA projects to which C/CAG is a participant, and participating in review of and comment on BASMAA documents, including annual reporting materials. Please note that EOA budget does not include C/CAG's share of BASMAA regional projects.

Deliverables:

- Preparation of budget projections.
- Coordinating C/CAG's role and tracking C/CAG's budget share of all BASMAA projects to which C/CAG is a participant.
- Participating in review of and comment on BASMAA documents, including Annual Reporting materials.

Budget: \$9,896

SUBTASK SM71.06: COORDINATION AND INTEGRATION

This subtask addresses the need for general support activities not covered by other subtasks, many of which are related to optimizing coordination and integration among all permit compliance related activities performed by C/CAG staff and its consultants. As needed, EOA will continue to coordinate with the Program Manager and other C/CAG municipal stormwater permit compliance consultants via meetings, conferences calls and emails. As directed by the Program Manager, EOA will also perform peer reviews of selected draft documents prepared by other permit compliance support consultants (e.g., documents related to public outreach strategic planning, green infrastructure planning, and Reasonable Assurance Analysis). In addition, EOA will work with the Program Manager to annually revise EOA's tasks and budgets. This subtask also includes budget for EOA to provide other types of miscellaneous support (e.g., grant applications, addressing issues at the Bransten Road site, and providing support related to developing a countywide Stormwater Resource Plan).

Deliverables:

- Coordination with the Program Manager and other C/CAG municipal stormwater permit compliance consultants via meetings, conferences calls and emails.
- As directed by the Program Manager, peer reviews of selected draft documents prepared by other permit compliance support consultants.
- Annual revisions of EOA's tasks and budgets.
- Other types of miscellaneous support.

Budget: \$16,988

TASK SM72 – SUBCOMMITTEE SUPPORT

SMCWPPP's subcommittees provide regular forums for engagement with member agency staff on key permit implementation issues. EOA will continue to assist with planning and facilitating subcommittee/workgroup meetings, including working with chairs to develop agendas and discussion materials, participating in meetings, developing and giving presentations on technical and regulatory information, and preparing meeting summaries. SMCWPPP's subcommittees are generally chaired by staff from one of the member agencies who volunteered for the position. EOA will continue to work with subcommittee chairs to develop meeting agendas so that the meetings will address the most critical aspects of MRP compliance from the municipal staff viewpoint.

Subcommittee coordination will be provided by EOA staff members with specific expertise in the topic areas associated with each subcommittee, with oversight from Jon Konnan, the task leader for General Support to Program Manager. Subtask descriptions, deliverables and budgets are also provided below. The EOA lead for each subcommittee is described below with each corresponding subtask description.

SUBTASK SM72.01: MUNICIPAL MAINTENANCE SUBCOMMITTEE

EOA will continue to facilitate and provide staff support to quarterly meetings of the Countywide Program's Municipal Maintenance Subcommittee, with a focus on compliance with MRP Provisions C.2 (Municipal Operations), C.7.a (Storm Drain Inlet Marking), and C.10 (Trash Controls). Municipal

Maintenance Subcommittee meetings are typically one hour held over lunchtime. A large portion of the meeting time is dedicated to information sharing. This is the most important aspect for this committee. Municipal maintenance staff from the various municipal agencies in San Mateo County can ask questions, share problems and solutions, discuss issues and provide important information and feedback at the meeting. Kristin Kerr, P.E., will continue to serve as EOA's lead for facilitation of the Municipal Maintenance Subcommittee and related work under this subtask.

EOA finalized model full trash capture device O&M verification program documents during FY 2015/16. In FY 2016/17, the Municipal Maintenance Subcommittee will be the primary forum for discussing issues and perspectives of member agency staff on inspection and maintenance frequencies, field forms and data tracking mechanisms.

EOA will continue to facilitate quarterly Municipal Maintenance Subcommittee meetings, including working with the chair to develop meeting agendas, prepare meeting materials (e.g., handouts and presentations), participate in the meetings, and prepare meeting summaries that include action items agreed upon during the meeting. Between meetings, EOA will provide on-call assistance to municipal staff members by responding to their emails and telephone calls, communicate pertinent information to the Subcommittee via email (e.g., training opportunities external to the Countywide Program), and maintain the Subcommittee contact list. EOA staff will also participate on behalf of C/CAG's member agencies in BASMAA's Municipal Operations committee. In addition, under this subtask EOA will prepare the content for the section of the SMCWPPP Annual Report that addresses MRP Provision C.2.

Deliverables:

- Participation in quarterly Municipal Maintenance Subcommittee meetings, meeting agendas, other meeting materials, and meeting summaries.
- On-call communications with municipal staff, periodic communications to the Subcommittee of pertinent information, and updates to the Subcommittee contact list.
- Participation on behalf of C/CAG's member agencies in BASMAA's Municipal Operations committee.
- SMCWPPP Annual Report content for the section that addresses MRP Provision C.2.

Budget: \$16,220

SUBTASK SM72.02: NEW DEVELOPMENT SUBCOMMITTEE

EOA will continue to support the Countywide Program's New Development Subcommittee (NDS), with a focus on compliance with MRP Provisions C.3 (New Development), C.6 (Construction), and C.13.a (Architectural Copper). New Development Subcommittee meetings are typically two hours and held on the 2nd Tuesday of the month, quarterly. Attendees are generally Permittee staff from planning, building, engineering and public works departments from the various municipal agencies in San Mateo County. Guidance documents, checklists and other information related to development projects and updates on countywide and regional activities are the typical items on the agenda. The meetings provide opportunities for member agency staff to ask questions, share problems and solutions, discuss issues and provide important information and feedback among themselves.

Peter Schultze-Allen will continue to serve as EOA's lead for facilitation of the NDS and related work under this subtask. Jill Bicknell, P.E., will continue to work closely with Peter on this task. Kristin Kerr, P.E. will also provide technical assistance on construction-related topics and as lead for the Municipal Maintenance Subcommittee will coordinate on green infrastructure maintenance issues.

EOA will continue to facilitate quarterly NDS meetings, including working with the chair to develop meeting agendas, preparing meeting materials (e.g., handouts and presentations), participating in the meetings, and preparing meeting summaries that include action items agreed upon during the meeting. Between meetings, EOA will continue to provide on-call assistance to municipal staff members by responding to their emails and telephone calls, communicate pertinent information to the NDS via email (e.g., training opportunities external to the Countywide Program), and maintain the NDS contact list. EOA staff will also participate on behalf of C/CAG's member agencies in BASMAA's Development Committee and other pertinent Committee and Work Group meetings (e.g., Biotreatment Soil Specification Work Group). In addition, EOA will prepare the content for the section of SMCWPPP's Annual Report that addresses MRP Provisions C.3, C.6 and C.13.a. EOA will serve as a liaison between the NDS and the Green Infrastructure Technical Advisory Committee (GI TAC) and attend GI TAC meetings as needed, in order to keep the NDS updated on its activities and upcoming GI-related tasks. EOA will continue to update Development Project Review Checklists, Biotreatment Soil specification information and guidance, print copies of the C.6 inspection forms and other materials as needed to assist the Permittees. EOA will also submit the annual report to the County Mosquito Abatement District on behalf of the Permittees. In addition, updates to the development pages on the Program website will be submitted as needed to the Program webmaster.

Deliverables:

- Participation in quarterly NDS meetings, meeting agendas, other meeting materials, and meeting summaries.
- On-call communications with municipal staff, periodic communications to the NDS of pertinent information, and updates to the NDS contact list.
- Participation on behalf of C/CAG's member agencies in BASMAA's Development Committee.
- SMCWPPP Annual Report content for the section addressing MRP Provisions C.3, C.6 and C.13.a.
- Printing of Construction Inspection Forms for Permittees.
- Revisions to development guidance documents and materials as needed.
- Biotreatment Soil Specification updates (coordinated with BASMAA and customized for SMCWPPP as needed).
- Annual Report to the County Mosquito Abatement District (submitted each year by September 30).
- Updates as needed to the development pages on the Countywide Program website.

Budget: \$68,222

SUBTASK SM72.03: COMMERCIAL/INDUSTRIAL/ILLICIT DISCHARGE SUBCOMMITTEE

EOA will continue to support the Countywide Program's Commercial / Industrial/ Illicit Discharge (CII) Subcommittee, with a focus on compliance with MRP Provisions C.4 (Industrial and Commercial Site Controls), C.5 (Illicit Discharge Detection and Elimination), C.13.b and c (Copper Controls) and C.15 (Exempted and Conditionally Exempted Discharges). Kristin Kerr, P.E., will continue to serve as EOA's lead for facilitation of the CII Subcommittee and related work under this subtask.

In San Mateo County there is a Memorandum of Agreement (MOA) between most cities and San Mateo County Environmental Health (CEH) for CEH to conduct stormwater inspections of businesses on the city's behalf. Facilitating the CII Subcommittee therefore requires working closely with the lead stormwater staff from CEH. The CII Subcommittee provides an important forum for communication among the CEH and individual cities on the inspection program. In addition, a portion of the CII meeting time is dedicated to general information sharing. Municipal staff from the various municipal agencies in San Mateo County can ask questions, share problems and solutions, discuss issues and provide important information and feedback among themselves.

A Business Inspector list and Illicit Discharge contact list that reside on the Countywide Program's website should be periodically updated. A mobile business enforcement action table also resides on the CII section of the member's only portion of the Countywide Program's website, allowing agencies in the county to share enforcement actions taken on mobile businesses. EOA assisted the CII Subcommittee in developing this strategy to help meet MRP requirements for reducing pollutant discharges from mobile businesses. The mobile business enforcement action table should also be periodically updated.

Only minor changes were made to MRP Provisions C.4, C.5, C.13.b and c, and C.15 when the permit was recently reissued.¹ Therefore we do not see a need for developing new guidance materials or field forms related to compliance with this provision. We anticipate that the CII Subcommittee will request minor revisions to current inspection forms, data tracking tables, the Business Inspection Plan (BIP) template, and/or Enforcement Response Plan (ERP) template.

The most important change to CII-related MRP provisions with the permit reissuance was to the Provision C.5.e (Control of Mobile Sources) reporting requirements. EOA has previously worked with the CII Subcommittee to develop a BMP brochure for mobile cleaner businesses, a web-based method to share enforcement actions on mobile businesses, and outreach to mobile cleaner businesses through social media (i.e., Facebook post). We anticipate that the CII Subcommittee will request additional assistance with developing improved mobile business inventories, conducting additional outreach to mobile businesses, and/or developing BMPs for additional types of mobile businesses. Any outreach to mobile businesses should be conducted in close coordination with SMCWPPP's PIP Subcommittee.

EOA will continue to facilitate quarterly CII Subcommittee meetings, including working with the chair to develop meeting agendas, prepare meeting materials (e.g., handouts and presentations), participate in the meetings, and prepare meeting summaries that include action items agreed upon during the meeting. Between meetings, EOA will provide on-call assistance to municipal staff members by responding to their emails and telephone calls, communicate pertinent information to the CII Subcommittee via email (e.g., training opportunities external to the Countywide Program), and maintain

¹ With the exception that requirements related to potable water discharges were deleted from MRP Provision C.15. These requirements are now in a recently adopted statewide general NPDES permit and therefore will no longer be under the purview of the Countywide Program.

the CII Subcommittee contact list. EOA will also prepare the content for the section of the Countywide Annual Report that addresses MRP Provisions C.4, C.5, C.13.b and c., and C.15. In addition, EOA will periodically provide the webmaster with the information needed to update the Business Inspector list and Illicit Discharge contact lists that reside on the Countywide Program's website and the mobile business enforcement action table on the CII section of the member's only portion of the website. EOA will also work with the CII Subcommittee to make minor revisions to current inspection forms, data tracking tables, the BIP template, and/or the ERP template, and to develop improved mobile business inventories, conduct additional outreach to mobile businesses, and/or develop BMPs for additional types of mobile businesses.

As part of this task, EOA will continue to provide support for updating the MOAs to clarify the commitments and timelines involved, including work with staff from CEH and the relevant cities to develop an updated MOA template.

Deliverables:

- Participation in quarterly CII Subcommittee meetings, meeting agendas, other meeting materials, and meeting summaries.
- On-call communications with municipal staff, periodic communications to the CII Subcommittee of pertinent information, and updates to the CII Subcommittee contact list.
- Countywide Annual Report content for the section addressing MRP Provisions C.4, C.5, C.13.b and c., and C.15.
- Periodic information needed to update the Business Inspector list, Illicit Discharge contact list, and the mobile business enforcement action table.
- Minor revisions to current inspection forms, data tracking tables, the BIP template, and/or the ERP template.
- Improved mobile business inventories, additional outreach to mobile businesses (in coordination with SMCWPPP's PIP Subcommittee), and/or BMPs for additional types of mobile businesses.
- Updated template for MOAs between CEH and cities and related support.

Budget: \$25,176

SUBTASK SM72.04: TRASH SUBCOMMITTEE

EOA will continue to support the Countywide Program's Trash Subcommittee, which provides a forum for member agency representatives to share information related to trash reduction in San Mateo County and discuss compliance activities required by the MRP. As part of meeting facilitation, EOA staff will update Subcommittee members on regional and countywide projects/tasks and solicit input and perspectives from members on key decision points. Subcommittee meetings will also serve as the key forum to discuss trash-related issues related to MRP 2.0 compliance, in particular load reduction calculations and reporting requirements. Chris Sommers will continue to serve as EOA's lead for facilitation of the Trash Subcommittee and related work under this subtask, with support from experience senior and associate level staff. For continuity, Chris will also continue to represent the Countywide Program on the BASMAA Trash Committee.

EOA will continue to facilitate quarterly Trash Subcommittee meetings, including working with the chair to develop meeting agendas, prepare meeting materials (e.g., handouts and presentations), participate in the meetings, and prepare meeting summaries that include action items agreed upon during the meeting. Between meetings, EOA will provide on-call assistance to municipal staff members by responding to their emails and telephone calls, communicate pertinent information to the Trash Subcommittee via email and maintain the Trash Subcommittee contact list. EOA will also prepare the content for the section of the Countywide Program's Annual Report that addresses MRP Provision C.10. In addition, EOA will continue to periodically provide the webmaster with the information needed to update the trash related pages of the Countywide Program's website.

Deliverables:

- Participation in quarterly Trash Subcommittee meetings, meeting agendas, other meeting materials, and meeting summaries.
- On-call communications with municipal staff, periodic communications to the Trash Subcommittee of pertinent information, and updates to the Trash Subcommittee contact list.
- Countywide Program Annual Report content for the section addressing MRP Provision C.10.

Budget: \$18,448

SUBTASK SM72.05: WATERSHED ASSESSMENT AND MONITORING SUBCOMMITTEE

EOA will continue to support the Countywide Program's Watershed Assessment and Monitoring (WAM) Subcommittee, with a focus on compliance with MRP Provision C.8 (Water Quality Monitoring) and portions of Provisions C.11/12 (Mercury/PCBs Controls). WAM Subcommittee meetings are typically two hours in length. A large portion of the meeting time is dedicated to information sharing. This is the most important aspect for this committee. The complex monitoring requirements of the MRP are described, recent monitoring results are presented (often within the context of historical results), ideas and results for Stressor/Source Identification Projects are discussed, and the relationship between Pollutants of Concern Monitoring and Mercury/PCBs load reduction targets are explored. Interested staff from the various municipal agencies in San Mateo County can ask questions, share problems and solutions, discuss issues and provide important information and feedback among themselves. Bonnie de Berry will continue to serve as EOA's lead for supporting the WAM Subcommittee and related work under this subtask.

EOA will facilitate biennial WAM Subcommittee meetings, including working with the chair to develop meeting agendas, prepare meeting materials (e.g., handouts and presentations), participate in the meetings, and prepare meeting summaries that include action items agreed upon during the meeting. Between meetings, EOA will provide on-call assistance to municipal staff members by responding to their emails and telephone calls, communicate pertinent information to the subcommittee via email, and maintain the subcommittee contact list. In addition, EOA will prepare the content for the section of the Countywide Annual Report that addresses MRP Provision C.8. This is typically a very short summary that is expanded upon in the Provision C.8 deliverables that are scoped and budgeted separately (e.g., Urban Creeks and Pollutants of Concern Monitoring Reports).

Deliverables:

- Participation in biennial Watershed Assessment and Monitoring Subcommittee meetings, meeting agendas, other meeting materials, and meeting summaries.
- On-call communications with municipal staff, periodic communications to the Subcommittee of pertinent information, and updates to the Subcommittee contact list.
- Countywide Program Annual Report content for the section addressing MRP Provision C.8.

Budget: \$12,100

SUBTASK SM72.06: PARKS MAINTENANCE AND INTEGRATED PEST MANAGEMENT (IPM) WORKGROUP

EOA will continue to support twice yearly meetings of the Countywide Program's Parks Maintenance and IPM (PM&IPM) Workgroup, with a focus on compliance with MRP Provision C.9. This workgroup provides a forum for member agencies to share information related to implementing pesticide toxicity controls. Historically, the workgroup has mostly been attended by parks maintenance staff and focused on pest management issues in municipal parks, landscapes and right-of-ways. However, the overall focus of MRP Provision C.9 (Pesticides Toxicity Control) is broader and includes the following requirements:

- Maintain and Implement an IPM Policy or Ordinance and Standard Operating Procedures (C.9.a).
- Train Municipal Employees (C.9.b).
- Require Contractors to Implement IPM (C.9.c). It should be noted that MRP 2 includes additional focus on pesticides that are used for structural pest control, e.g., addressing pests such as rodents, ants, and cockroaches in municipal buildings.
- Interface with County Agricultural Commissioners (C.9.d)
- Public Outreach (C.9.e)
- Track and Participate in Relevant Regulatory Processes (C.9.f)
- Evaluate Implementation of Pesticide Source Control Actions (C.9.g)

EOA has recently begun to broaden the focus of the meetings to provide guidance to municipal staff on meeting all of the requirements in C.9 and the associated reporting needs. We have begun to encourage municipal staff with broader stormwater permit compliance responsibilities (including annual reporting) to attend these meetings. Vishakha Atre will continue to serve as EOA's lead for facilitation of the PM&IPM Workgroup and related work under this subtask.

EOA will continue to facilitate PM&IPM Workgroup meetings twice per year, including working with the chair to develop meeting agendas, prepare meeting materials (e.g., handouts and presentations), participate in the meetings, and prepare meeting summaries that include action items agreed upon during the meeting. Between meetings, EOA will continue to provide on-call assistance to municipal staff members by responding to their emails and telephone calls, communicate pertinent information to the PM&IPM Workgroup via email (e.g., training opportunities external to the Countywide Program), and maintain the PM&IPM Workgroup contact list. EOA staff will also participate on behalf of C/CAG's member agencies in BASMAA's Municipal Operations committee. In addition, EOA will prepare the content for the section of the Countywide Annual Report that addresses MRP Provision C.9.

Deliverables:

- Participation in PM&IPM Workgroup meetings twice per year, meeting agendas, other meeting materials, and meeting summaries.
- On-call communications with municipal staff, periodic communications to the PM&IPM Workgroup of pertinent information, and updates to the PM&IPM Workgroup contact list.
- Countywide Annual Report content for the section addressing MRP Provision C.9.

Budget: \$8,216

TASK SM73 – TRAINING

Training workshops cover a variety of municipal stormwater permit compliance topics. Objectives include assisting member agencies to meet specific MRP requirements, educating municipal staff on new requirements in the reissued permit, informing staff about Countywide Program policies, procedures or findings, and providing orientation or refresher trainings, especially in light of inevitable municipal staff turnover. EOA will work with the appropriate subcommittees to plan and implement a training program with a schedule that is tied to MRP compliance priorities. Typical training workshop tasks include: develop and complete a workshop registration list, draft and final workshop flyer and agenda, coordinate the workshop location and arrange for food catering services, arrange for outside speakers, prepare workshop materials (e.g., folders with various handouts including evaluation forms), facilitate and staff the workshop, prepare presentations and give them at the workshop, prepare a summary of the completed evaluation forms, prepare certificates of completion for participants fulfilling continuing education requirements, and submit workshop materials (e.g., presentations and evaluation summaries) for posting on the Countywide Program’s website. Based on EOA’s experience working with subcommittees to plan training workshops, it is essential to leverage efforts from individual member agency representatives and the workshop facilitation approach may be adapted based on member agency staff availability.

In addition to the standard training workshop format of speakers giving power point presentations, EOA has incorporated videos, field trips, hands-on training, inspection scenarios for group exercises, plan review for group exercises, and product vendors into past trainings. Planning and development of training opportunities starts with understanding the target audience. For example, municipal maintenance staff often respond well to field exercises. Construction site inspectors and staff performing activities related to Integrated Pest Management (IPM) value trainings that provide continuing education hours required for certifications. Most workshops have focused on training municipal staff, but some have targeted other audiences, such as builders and development consultants.

Conventional trainings with PowerPoint presentations are a relatively low cost way to provide materials for staff that could not attend the trainings or staff that will use the materials to train others in their municipality. However, municipal staff also value trainings in the field without formal presentations. For example, a well-received approach that we utilized recently was organizing field visits to several corporation yards in San Mateo County to discuss Corporation Yard BMPs required by MRP Provision C.2.f.

EOA utilizes evaluation forms at all of our workshops to identify opportunities to improve future workshops and focus them on topics that are identified as priority by municipal staff. In addition to evaluation forms, EOA may utilize “before” and “after” quizzes to gauge if important topics were effectively communicated to workshop attendees.

Kristin Kerr, P.E. will serve as the overall task leader for the Training task. Subtask descriptions, deliverables and budgets are provided below.

SUBTASK SM73.01: BUSINESS INSPECTION AND ILLICIT DISCHARGE TRAINING PROGRAM

EOA will continue to work with the Commercial, Industrial and Illicit Discharge (CII) Subcommittee to plan and implement a business inspection and illicit discharge training program with a schedule that is tied to MRP compliance priorities. MRP Provision C.4.e requires focused training for industrial and commercial site inspectors and illicit discharge detection and elimination (IDDE) inspectors annually. At a minimum, the inspection training must cover the following topics within the 5-year permit term:

- Urban runoff pollution prevention;
- Inspection procedures;
- Business Inspection Plan (BIP);
- Enforcement Response Plan (ERP);
- IDDE; and
- Appropriate BMPs to be used a different industrial and commercial facilities.

SMCWPPP provided a template for the BIP and ERP to municipalities with the adoption of the 2009 MRP. Municipalities could use the template and revise according to their specific municipal procedures, businesses and enforcement tools. Since each municipalities’ BIP and ERP are specific to their jurisdiction it would be difficult to provide a Program training for these topics. EOA has provided guidance material to the CII Subcommittee on how to meet the annual training requirements as self-training and document this for Annual Reporting. Other ideas on how to incorporate these topics into a Program training would be to provide the municipal specific BIPs and ERPs to workshop attendees for review during the lunch break or incorporate these documents into a group exercise that requires attendees to review the documents and compare content to other municipalities.

There were minor changes to MRP Provision C.4, C.5 and relevant sections of C.13 and C.15. Therefore the regulatory context will continue to play a secondary role at trainings. The focus of the trainings will be on inspection procedures and BMPs with the incorporation of BIPs and ERPs. Municipal staff also request workshop topics related to the State Industrial Stormwater General Permit. SMCWPPP is a CWEA approved training organization, therefore municipal inspectors can receive continuing education hours needed to keep certifications current.

For the past several years the SMCWPPP budget has allowed for a training workshop every two years and a smaller budget for focused training tasks during the other years to assist municipalities meet the annual MRP training requirements. In the past EOA has used this budget for such activities as developing the self-training materials, holding a small roundtable IDDE training and updating the *How to Conduct Stormwater Inspections* guidance document. During FY 2016/17, EOA will work with the CII Subcommittee to identify and implement focused training activities.

Deliverables:

- Typical deliverables for the focused training include guidance documents, outreach materials, or inspector roundtable meetings.

Budget: \$6,868

SUBTASK SM73.02: NEW/REDEVELOPMENT AND CONSTRUCTION SITE MANAGEMENT TRAINING PROGRAM

MRP 2.0 expands the focus of Provision C.3 by including GI Planning requirements in Provision C.3.j and by linking it to implementation of GI in both private and public areas in Provisions C.10, C.11 and C.12 to reduce pollutant loading in the SF Bay. There are several opportunities that Permittees often have to retrofit existing areas within the public right-of-way and convert existing gray infrastructure to LID drainage systems. Municipalities that have development occurring in their jurisdiction can leverage private development projects that have requirements for public improvements on their parcel frontages. Additionally municipal projects such as those included in Capital Improvement Programs (CIP) can be modified to include GI. MRP 2.0 frames this as a challenge to Permittees to avoid “Missed Opportunities” and so the goals of Task 3.2 are to assist municipal staff and other stakeholders in meeting that challenge and complying with all aspects of the development provisions of the permit.

This challenge requires a training effort that integrates guidance and knowledge across several disciplines and multiple departments of municipal agencies. EOA will work with the New Development Subcommittee (NDS), the new GI TAC and the Municipal Maintenance Subcommittee to design a training program that meets those needs.

The permit also requires that municipal staff receive training to achieve permit compliance and also to keep up to date on the State Construction General Permit (CGP) requirements for construction sites. In addition, Provision C.13.a requires that municipal staff be aware of architectural copper best management practices in development projects in order to educate installers and operators.

The training program will include workshops for municipal planning, building, engineering and maintenance staff covering the development and retrofit of public and private projects, including topics such as:

- Design review of LID systems (C.3);
- Inspection of LID systems during construction (C.3);
- Inspection and enforcement of construction phase controls with site visits and vendor demonstrations (C.6 and the State CGP);
- Inspection of LID systems at the completion of construction and on-going (C.3.h);
- Requirements for third-party inspections of vault-based systems (C.3.h);
- Architectural copper issues (C.13.a);
- Example projects and case studies;
- Parks, landscaping and urban forestry opportunities for LID; and
- New approaches and technologies for LID and GI.

EOA will continue to facilitate an annual C.3 LID training workshop and a separate C.6 construction training workshop, and provide training on additional topics as needed up to the available budget. EOA will continue to develop new training content for the new C.3 and C.6 requirements in MRP 2.0 as needed and requested by the NDS.

Deliverables:

- Facilitation of up to three workshops, including the following deliverables for each workshop:
 - Workshop location coordinated;
 - Workshop registration;
 - Draft and final workshop flyer and agenda;
 - Workshop materials (e.g., folders with various handouts including evaluation forms and/or quizzes);
 - Food catering services;
 - Staffing of the workshop;
 - Presentations by EOA staff and outside speakers;
 - Certificates of completion for participants fulfilling continuing education requirements (if needed).
 - Summary of the completed evaluation forms and/or quizzes; and
 - Workshop materials submitted for posting on the Countywide Program’s website.

Budget: \$40,464

SUBTASK SM73.03: TRASH LOAD REDUCTION TRAINING PROGRAM

EOA will continue to work with the Trash Control Subcommittee and, as appropriate, the Municipal Maintenance Subcommittee, to plan and implement a trash load reduction training program with a schedule that is tied to MRP compliance priorities. MRP Provision C.10.b contains new requirements for the inspection and maintenance of full trash capture devices and on-land visual assessments of trash generation areas. EOA staff has conducted trainings on these topics in the past; however, the new and more specific requirements in MRP 2.0 requires more focused training for municipal staff. During FY 2016/17, EOA will facilitate an on-land visual trash assessment training.

Deliverables:

- Workshop location coordinated;
- Workshop registration;
- Draft and final workshop flyer and agenda;
- Workshop materials (e.g., folders with various handouts including evaluation forms and/or quizzes);

- Food catering services;
- Staffing of the workshop;
- Presentations by EOA staff and outside speakers;
- Certificates of completion for participants fulfilling continuing education requirements (if needed).
- Summary of the completed evaluation forms and/or quizzes; and
- Workshop materials submitted for posting on the Countywide Program's website.

Budget: \$10,016

SUBTASK SM73.04: PESTICIDE TOXICITY REDUCTION TRAINING PROGRAM

EOA will continue to work with the Countywide Program's Parks Maintenance and IPM (PM&IPM) Workgroup to plan and implement a pesticide toxicity reduction training program with a schedule that is tied to MRP compliance priorities. The MRP Provision C.9.b requires municipal employees who, within the scope of their duties apply or use pesticides, to be trained in IPM practices and the Permittee's IPM policy, ordinance and/or standard operating procedures. Historically, the trainings have mostly been attended by parks maintenance staff, and have focused on pest management issues in municipal parks, landscapes and right-of-ways. Due to the additional focus in the reissued MRP on pesticides that are used for structural pest control, it is important that the trainings also focus on pest issues encountered in the maintenance of municipal buildings (e.g., rodents, ants, and cockroaches).

In the past EOA has held separate trainings specifically for municipal staff involved with structural pest control in an attempt to get them more involved in the program. To potentially save costs, we will explore with the PM&IPM Workgroup the feasibility of conducting a combined annual training that covers landscape and structural IPM.

There is typically excellent turn out at training workshops by the municipal Parks Maintenance staff because they must have continuing education credits to maintain their pesticide applicator license. SMCWPPP has been able to offer these continuing education credits at past trainings in coordination with San Mateo County Agricultural Weights and Measures representatives. This also assists with meeting MRP Provision C.9.d requirement to maintain communications with county agricultural commissioners.

During FY 2016/17 EOA will facilitate the annual pesticide training workshop. It will include guest speakers from vendors, local pest control contractors implementing IPM, and/or the UC Cooperative Extension. Example topics will include pesticides and water quality, new IPM techniques for pest control, information on alternatives to pesticides of concern, respirator regulatory refresher and online pesticide use reporting.

Deliverables:

- Workshop location coordinated;
- Workshop registration;
- Draft and final workshop flyer and agenda;

- Workshop materials (e.g., folders with various handouts including evaluation forms and/or quizzes);
- Food catering services;
- Staffing of the workshop;
- Presentations by EOA staff and outside speakers;
- Certificates of completion for participants fulfilling continuing education requirements (if needed).
- Summary of the completed evaluation forms and/or quizzes; and
- Workshop materials submitted for posting on the Countywide Program’s website.

Budget: \$11,276

TASK SM74 – WATER QUALITY MONITORING

In accordance with the MRP, water quality monitoring is conducted on a water year basis. Sampling is conducted from October 1 through September 30 of the named water year. Reports presenting the foregoing water year data are submitted to the Regional Water Board the following March 31. For example, the results of sampling during Water Year 2017 (i.e., October 1, 2016 – September 30, 2017) are documented in a report submitted March 31, 2018. Because the fiscal year and water year are not aligned, field sampling associated with a particular water year occurs during parts of two adjacent fiscal years.

Under this task EOA will continue to work closely with the San Francisco Estuary Institute (SFEI), which manages the San Francisco Estuary Regional Monitoring Program (RMP), and EOA staff participates on the RMP Technical Review Committee (TRC) and RMP Workgroups and Strategy teams. This participation helps to ensure that RMP monitoring effectively addresses the management questions of interest to SMCWPPP and all of the BASMAA regional partners.

Bonnie de Berry will continue as the water quality monitoring task leader. Similar to recent years, Kinnetic Laboratories, Inc. (KLI) will provide technical field work support, and analytical laboratories will include Caltest, BioAssessment Services, EcoAnalysts, Pacific EcoRisk, ALS, or a qualified substitute(s).

SUBTASK SM74.01: REGIONAL COORDINATION

Regional collaboration has been an essential part of SMCWPPP’s water quality monitoring approach, is encouraged by MRP 2.0 provision C.8.a.i, and creates opportunities for cost sharing, information exchange, and more effective planning. EOA will continue to assist SMCWPPP to collaborate and coordinate with other Bay Area municipal stormwater management agencies on all water quality monitoring tasks. This will include representing SMCWPPP on BASMAA’s Monitoring/Pollutants of Concern (MPC) Committee and the Regional Monitoring Coalition (RMC) Workgroup. This effort includes serving as the chair for the RMC Workgroup, participating in related email and telephone communications, and reviewing pertinent regional documents. During FY 2016/17 these groups will continue to address interpretations of the reissued MRP and development of new regional project descriptions that address new permit requirements, such as improvements to the regional database, the

five-year regional stream conditions report, and the regional PCBs in caulks/sealants study². This task will also include planning efforts in preparation for the Integrated Monitoring Report which must be submitted by March 31 of the fifth year of the permit. This task may also include occasionally attending relevant policy meetings (e.g., bio-integrity objectives development, bacteria objectives, nutrient endpoints, wetland/riparian policy, Caltrans workplans) and/or commenting on related documents. It is assumed that the BASMAA MPC Committee will continue to meet monthly and the RMC Workgroup will meet bimonthly.

In accordance with provision C.8.b, all monitoring data must be State of California Surface Water Ambient Monitoring Program (SWAMP) comparable, data quality must be consistent with the SWAMP Quality Assurance Project Plan (QAPP), and data collection and analytical methods must follow the SWAMP Standard Operating Procedures (SOPs). These requirements are included in the BASMAA QAPP and SOPs that were developed and maintained during MRP 1.0 and updated in FY 2015/16 to capture new MPR 2.0 requirements for Creek Status and Pesticides and Toxicity Monitoring. It is assumed that BASMAA RMC participants will continue to work together to maintain these documents throughout the term of MRP 2.0. EOA will assist with ongoing updates on behalf of C/CAG and its member agencies.

BASMAA Regional Project Task RMC 3c assists all RMC participants in effective collaboration and consistent implementation of regional monitoring projects. Task RMC 3c is not funded by SMCWPPP or SCVURPPP. Instead EOA on behalf of SMCWPPP and SCVURPPP provides in-kind services at a comparable level (\$14,000 annually). In FY 2016/17, EOA will continue to provide these services on behalf of SMCWPPP at a population-adjusted level of \$4,675 (approximately 1/3 of \$14,000). These services include: close technical database assistance to RMC programs, annual compilation of RMC program Creek Status data into one database, serving as the link between the RMC and the CEDEN Regional data node (SFEI), and management of the Creek Status Probabilistic Monitoring design and site Evaluation process.

Deliverables:

- Participation in 12 monthly meetings of BASMAA's MPC Committee and six bimonthly meetings of BASMAA's RMC Workgroup on behalf of C/CAG and its member agencies.
- As chair, on behalf of all member agencies, development of six meeting agendas for BASMAA's RMC Workgroup.
- Telephone and email communications and comments on pertinent regional documents and participation in related meetings.
- Compilation of RMC program Creek Status data into one database.

Budget: \$33,702

SUBTASK SM74.02: REGIONAL MONITORING PROGRAM PARTICIPATION

Provision C.8.c requires that Permittees "participate in implementing an Estuary receiving water monitoring program, at a minimum equivalent to the San Francisco Estuary Regional Monitoring Program by contributing their fair-share financially on an annual basis." The budget for this subtask does

² The regional PCBs in caulk/sealants study is required by Provision C.12.e but will be used towards compliance with Provision C.8.f (Pollutants of Concern Monitoring).

not include financial contributions to the RMP, but does include participation in various RMP Workgroups and Strategy Teams to provide input and leadership to the RMP and identify opportunities to direct RMP funds and monitoring activities towards meeting both short- and long-term MRP 2.0 requirements.

On behalf of C/CAG and its member agencies, EOA will participate in the RMP's Sources, Pathways, and Loadings Workgroup (SPLWG) which ensures that RMP projects and products are relevant and help to answer management questions in the context of TMDLs and attainment of water quality standards. The SPLWG meets approximately twice yearly. EOA will also participate in Strategy Teams that inform the SPLWG such as the Small Tributary Loading Strategy Team (STLS) that meets monthly and the STLS Long-Term Trends Strategy Team that is assumed to meet quarterly. STLS participation includes selection of stations where monitoring may take place and review of monitoring plans. EOA will ensure that STLS monitoring will maximize compliance with and address management questions related to Provisions C.8 (Pollutants of Concern Monitoring) and C.11/12 (Mercury/PCBs TMDLs). In recent years this has included assisting with the selection, mapping, and logistical facilitation of wet weather monitoring stations where pollutants of concern (e.g., PCBs and mercury) data are collected by the RMP. The data are being used to identify watersheds where PCBs and mercury control actions are likely to have the highest load reduction benefit.

EOA will also participate in the RMP's PCBs Strategy Team which integrates across RMP Workgroup areas and oversees special studies specifically designed to address PCBs in the San Francisco Bay (rather than tributaries to the Bay). In 2015 the PCBs Strategy Team began implementation of a multi-year study plan that includes collection of sediments from Bay margins and modeling (hydrologic and water quality) of high priority Bay margin areas. It is assumed that the PCBs Strategy Team will meet approximately two times per year.

This subtask includes email and telephone communications and review of and comment on documents and RMP work products (e.g., Regional Watershed Spreadsheet Model report, PCB Synthesis update, monitoring reports). In addition, EOA will represent C/CAG and its member agencies or the BASMAA RMC in other Workgroups and Strategy Teams as needed (e.g., RMP's Nutrient Technical Workgroup or Emerging Contaminants Workgroup).

Deliverables:

- Participation in two meetings of the RMP's SPLWG Workgroup, 12 monthly meetings of the STLS Team, four quarterly meetings of the STLS Long-Term Trends Strategy Team, and two meetings of the PCBs Strategy Team on behalf of C/CAG and its member agencies. It is assumed that approximately half of these meetings will be attended via conference call.
- Maps and tables describing recommended STLS sampling stations.
- Comments on pertinent RMP-related documents and work products.
- Telephone and email communications.

Budget: \$21,440

SUBTASK SM74.03: CREEK STATUS MONITORING

EOA will perform all aspects of the countywide Creek Status Monitoring program, in accordance with MRP Provision C.8.d. The primary objectives of Creek Status Monitoring are to gather information on whether numeric and narrative water quality objectives are being met in creeks and whether creek conditions are supporting designated beneficial uses (e.g., aquatic habitat, recreational uses). Creek Status Monitoring will follow the probabilistic and targeted designs that were developed by the BASMAA RMC during MRP 1.0 and are now specified in MRP 2.0.

Creek Status Monitoring is conducted on a water year basis (October 1 through September 30 of the named water year). Field activities associated with a given water year span parts of two fiscal years, with data review and reporting occurring during the second fiscal year.

Probabilistic (Random) Design

The probabilistic design involves use of a master list³ to randomly identify sample stations (i.e., the sample draw) for bioassessment monitoring. The random nature of the sampling design allows for statistically significant evaluation of ambient creek conditions within San Mateo County, region-wide, and state-wide. Potential probabilistic stations from the “sample draw” are evaluated using a defined process that addresses site permissions, logistical considerations, and sampleability as described in the BASMAA RMC Creek Status and Long-Term Trends Monitoring Plan (BASMAA 2011). SMCWPPP is required to conduct bioassessment monitoring at ten sites per year⁴. EOA will conduct site evaluations to develop a list of ten sampleable probabilistic sites for each water year. Site evaluations will include development of maps, communications with Creekside landowners to obtain permissions, acquisition of permits from agencies, and site reconnaissance visits in the fall to determine access and safety and to check for obstructions (e.g., culverts, grade controls) that would affect bioassessment results. The site evaluation results are tabulated each year and added to a regional database that will eventually be evaluated to determine the statistical confidence level in the full probabilistic dataset.

EOA will collect the types of screening-level biological, physical, and chemical water quality data at the ten probabilistic sites required by Provision C.8.d.i. Field activities will include biological community sampling (benthic macroinvertebrate and algae bioassessments), full characterization of physical habitat, sonde measurements of general water quality parameters, and collection of water samples for laboratory analysis of nutrients. All sampling will be conducted by EOA’s SWAMP-trained field crew under our Scientific Collection Permit from the California Department of Fish and Wildlife. Bioassessments will be conducted during the index period (April 15 – June 30) according to the most recent version of SWAMP SOPs for Bioassessment. MRP 2.0 has increased the level-of-effort associated with bioassessment monitoring by adding some physical habitat measurements that were not required under MRP 1.0. It is assumed that EOA’s four-person field crew can continue to complete an average of 1.5 bioassessments per day; however, a small contingency is built into the budget to account for the possibility of an extra day of field sampling resulting from the new requirements.

Provision C.8.d.i.(2) requires that all field crews participate in a SWAMP-approved inter-calibration exercise at least once during the permit term to ensure that bioassessment field measurement data are accurate, reliable, and comparable among the various countywide teams. In coordination with

³ EOA has housed and managed the master list since it was developed in 2009 and will continue to do so throughout MRP 2.0.

⁴ Beginning WY2017, SMCWPPP will have the option of selecting two of the ten required bioassessment sites on a targeted basis to evaluate temporal trends, creek response to management/restoration actions, or address other impacts to aquatic life condition.

SMCWPPP's BASMAA RMC partners, this exercise took place during FY 2015/16. In FY 2016/17 and subsequent years, EOA's field crew will conduct an annual pre-season field practice session.

Benthic macroinvertebrate samples will be sent to BioAssessment Services in Folsom, CA for SAFIT Level 1 analysis. Algae samples will be sent to EcoAnalysts in Moscow, ID for species-level identification of soft-bodied algae and diatom algae. Nutrient samples will be sent to Caltest in Napa, CA for laboratory analysis. EOA has worked with these laboratories for many years to ensure that they will report data in SWAMP-comparable format and with quality controls required by the California Environmental Data Exchange Network (CEDEN) according to provision C.8.h.ii.

Chlorine monitoring required by provision C.8.d.ii will be conducted with a field spectrometer at the probabilistic sites concurrent with bioassessment monitoring.

Targeted Design

The targeted design focuses on continuous water quality monitoring using multi-parameter probe measurements (i.e., pH, temperature, specific conductance, and dissolved oxygen) and temperature loggers, as well as grab samples for pathogen indicators. As the name implies, targeted monitoring can be conducted along any creek where data are needed. The focus will be on collecting general water quality and temperature data in creeks that currently or historically supported cold water fisheries. Pathogen indicator sampling will occur in creeks where recreational uses are plausible or where the data can be used to support multiple uses (e.g., TMDLs, Stressor/Source Identification studies). During the site selection process maps are developed, permissions are obtained (if needed), and a site reconnaissance visit is conducted to confirm safe access. Continuous monitoring with the multi-parameter probes must be conducted at two stations per year during two two-week deployments (concurrent with bioassessment monitoring and summer). Temperature logging must be conducted at four stations per year from April through September. Pathogen indicator sampling must be conducted at five stations per year during the dry season.

Data Quality Objectives

In accordance with provision C.8.b, all probabilistic and targeted monitoring data will be SWAMP comparable, consistent with the SWAMP and BASMAA Quality Assurance Project Plans (QAPPs), and data collection and analytical methods will follow the SWAMP and BASMAA Standard Operating Procedures (SOPs). EOA will keep abreast of SWAMP procedures which are continually reviewed and updated at the State level. We will confirm that all analytical laboratories participating in the contract are using the most current requirements.

Quality assurance and quality control (QA/QC) review (i.e., data validation) of Creek Status Monitoring data will be conducted according to the BASMAA QAPP which specifies quantitative and qualitative data quality objectives (DQOs) for accuracy, precision, and completeness. Data not meeting the defined DQOs will be corrected if possible and flagged as necessary. The data validation process takes several months to complete and typically occurs between August and December as field data sheets are entered, laboratory reports are received, and the online SWAMP and CEDEN data checkers are accessed. The resulting validated spreadsheets tabulating all Creek Status Monitoring data will be uploaded to the BASMAA Regional Monitoring Database which is currently managed and maintained by EOA.

Summary of FY 2016/17 Tasks

EOA creek status monitoring tasks during FY 2016/17 are summarized by Water Year as follows:

- WY2016 tasks:
 - Summer deployment and retrieval of continuous monitoring sondes at two sites.
 - Retrieval of four temperature loggers.
 - QA/QC of Creek Status Monitoring data.
- WY2017 tasks:
 - Site evaluation associated with selecting probabilistic and targeted monitoring sites.
 - Laboratory communications.
 - Participation in pre-season bioassessment practice session.
 - Bioassessment monitoring at ten sites.
 - Spring deployment and retrieval of continuous monitoring sondes at two sites.
 - Installation of four temperature loggers.
 - Collection of five pathogen indicator samples.

Deliverables:

- WY2016 Creek Status Monitoring data that has undergone QA/QC review for all parameters required in Provision C.8.d.
- Populated database with all data.
- WY2017 site evaluation data.
- Completed bioassessment monitoring field forms.
- Completed field work as described above.

Budget: \$185,073

SUBTASK SM74.04: STRESSOR/SOURCE IDENTIFICATION PROJECTS

Provision C.8.e requires that Permittees develop and maintain a list of candidate Stressor/Source Identification (SSID) Projects based on Creek Status and Pesticides and Toxicity Monitoring Data that exceed “triggers” identified in the MRP. SSID Projects must follow the stepwise process described in Provision C.8.e. As first step, a work plan describing the problem and how it will be investigated is developed. Step two includes implementation of the work plan which may include field (e.g., sample collection) and desktop (e.g., mapping, modeling) studies. Step three includes follow-up actions, as appropriate (e.g., implementation of new BMPs). Specific details of the SSID Projects will depend on what type of stressor (e.g., dissolved oxygen, pathogen indicators, temperature, condition index, and toxicity) is being investigated.

As a participant in the BASMAA RMC, SMCWPPP and its regional partners are required to initiate a combined total of eight new SSID Projects during the term of the MRP (one of which must investigate

toxicity). On behalf of SMCWPPP, EOA is coordinating with the BASMAA RMC Workgroup to make decisions regarding how to parse out the required SSID Projects among the RMC partners and which stressors should be investigated. The goal is to develop an equitable plan with a variety of stressor investigations that will result in mutually beneficial conclusions. SMCWPPP will likely conduct one or two SSID Projects during the permit term of MRP 2.0.

It is assumed that one SSID Project work plan will be developed in FY 2016/17. At this time, specific details of the SSID Project work plan are unknown and will depend on what type of stressor (e.g., dissolved oxygen, pathogen indicators, temperature, condition index and toxicity) is being investigated. The work plan will be submitted to C/CAG member agencies for review and comment. Upon finalization, the work plan will be submitted to the Water Board with the subsequent Urban Creeks Monitoring Report (UCMR) (likely with the WY2017 UCMR on March 31, 2018). Field and desktop investigations may begin in FY 2016/17 and will continue through FY 2017/18; however, the budget for these investigations depends on type of stressor being investigated and therefore is uncertain at this time. A placeholder budget of \$10,000 is included to initiate the field investigation in FY 2016/17. Scheduling of the Final SSID Project Report will depend on the nature of the study and related findings.

The BASMAA RMC is also required to submit unified, regional-level SSID reports to the Regional Water Board. On behalf of SMCWPPP, EOA will work with the BASMAA RMC Workgroup to decide on the format and content of the Regional SSID Report, and subsequently contribute to the development of the annual report. It is assumed that the Regional SSID Report will consist primarily of a large-format table describing the status and conclusions (if available) of all SSID Projects completed, underway, and planned. It will be submitted to the Regional Water Board annually concurrent with the UCMR beginning March 31, 2017.

In accordance with Provision C.8.b, all SSID Monitoring data will be SWAMP comparable, data quality will be consistent with the SWAMP and BASMAA QAPPs, and data collection and analytical methods will follow the SWAMP and BASMAA SOPs.

QA/QC review (i.e., data validation) of SSID Monitoring data will be conducted according to the BASMAA QAPP which specifies quantitative and qualitative data quality objectives (DQOs) for accuracy, precision, and completeness. Data not meeting the defined DQOs will be corrected if possible and flagged as necessary. The data validation process takes several months to complete and typically occurs between August and December as field data sheets are entered, laboratory reports are received, and the online SWAMP and CEDEN data checkers are accessed. At this time the BASMAA Regional Monitoring Database is not set up for SSID data.

During FY 2016/17, EOA will update the list of candidate SSID Projects based on WY2016 Creek Status, Pollutants of Concern, and Pesticides and Toxicity Monitoring results. The list will be submitted with the WY2016 UCMR that is due to the Water Board by March 31, 2017. On behalf of C/CAG member agencies, EOA will work with the RMC to develop the Regional SSID Report which will be submitted concurrent with the WY2016 UCMR. EOA will also develop one SSID Project work plan during FY 2016/17. Details will be determined based on which type of stressor is being investigated. Following approval from C/CAG member agencies, the SSID Project work plan will be submitted to the Regional Water Board with the annual UCMR by March 31, 2018.

Deliverables:

- List of candidate SSID Projects for UCMR.

- Regional SSID Report sections.
- SSID Project work plan for C/CAG member agency approval.

Budget: \$33,667

SUBTASK SM74.05: POLLUTANTS OF CONCERN MONITORING

Provision C.8.f requires Pollutants of Concern (POC) Monitoring for PCBs, mercury, copper, emerging contaminants, and nutrients. The MRP defines yearly (i.e., water year) and total (i.e., permit term) minimum numbers of samples for each POC. Five priority POC management information needs are identified including Source Identification, Contributions to Bay Impairment, Management Action Effectiveness, Loads and Status, and Trends. The MRP specifies the minimum number of samples for each POC that must address each information need. Provision C.12 requires a regional PCBs in caulk monitoring study that can be used towards satisfying Provision C.8.f requirements. In addition, monitoring data collected by the RMP can be used towards satisfying Provision C.8.f requirements. SMCWPPP is in the process of developing a Draft POC Monitoring Framework that describes anticipated compliance with Provision C.8.f requirements over the next five years. A more detailed plan for POC Monitoring in WY2016 was also developed. It is assumed that both of these documents will be updated in FY 2016/17. The update for WY2017 will include geographic information system (GIS) mapping tasks, reconnaissance visits, and coordination with municipal agency staff to select specific sample stations and assess safety and logistics. Participation in the BASMAA MPC by EOA staff focusing on PCBs and mercury controls is also included under this subtask.

WY2017 POC Monitoring will continue to focus on identification of source areas of PCBs and mercury to the MS4 and San Francisco Bay, an immediate information need that meets requirements of Provision C.8.f and C.11/12. Results of the monitoring will be used to identify watersheds and management areas where PCBs and mercury control measures will be implemented during the permit term. WY2017 POC Monitoring will likely include wet weather sampling of catchments that contain relatively high proportions of land uses associated with PCBs and dry weather sampling of urban sediments from manholes, catch basin inlets, and street gutters⁵. WY2017 POC Monitoring will also need to address minimum sampling requirements for copper and nutrients. It is possible that copper samples could be collected concurrent with wet weather sampling of PCBs and mercury. Bottom-of-the-watershed stations could be established for nutrient sampling, perhaps downstream and synoptic with a subset of probabilistic Creek Status Monitoring stations. The cost estimate associated with WY2017 POC Monitoring will be refined after the details of the WY2017 POC Monitoring Plan are better defined.

In accordance with Provision C.8.b, all POC Monitoring data will be SWAMP comparable, data quality will be consistent with the SWAMP and BASMAA QAPPs, and data collection and analytical methods will follow the SWAMP and BASMAA SOPs.

QA/QC review (i.e., data validation) of POC Monitoring data will be conducted according to the BASMAA QAPP which specifies quantitative and qualitative data quality objectives (DQOs) for accuracy, precision, and completeness. Data not meeting the defined DQOs will be corrected if possible and flagged as necessary. The data validation process takes several months to complete and typically occurs between August and December as field data sheets are entered, laboratory reports are received, and the online

⁵ Dry weather sediment sampling provides a cost-effective approach to characterizing larger geographic areas and targeting specific areas of interest. It can also be applied in catchments with logistical constraints to water sampling (e.g., tidally influenced areas).

SWAMP and CEDEN data checkers are accessed. The resulting validated spreadsheets tabulating all POC Monitoring data will be uploaded to the BASMAA Regional Monitoring Database which is managed and maintained by EOA and is currently being updated to house POC Monitoring data.

Reports summarizing, accounting, interpreting, and mapping POC Monitoring data will be developed under this subtask. The MRP requires two POC reporting documents. Provision C.8.h.iv requires submittal of an annual POC Monitoring Report by October 15 of each year (beginning in 2016). The POC Monitoring Report focuses on describing the allocation of sampling efforts for the forthcoming water year and accounting of what was accomplished during the preceding water year. Samples collected through the RMP will also be included in the account. The timeline for the POC Monitoring Report (15 days after the end of the water year) is not sufficient to QA/QC the data and fully develop interpretations. Therefore, an additional POC Interpretive Monitoring Report presenting the data and analyses will be developed and submitted with the UCMR that is due March 31 of each year. Data interpretations will seek to address the management questions and will be used to refine POC Monitoring approaches in subsequent years. EOA will add the data to the existing GIS database which already contains PCBs collected over the past fifteen years and is continually updated as new information is obtained from a variety of sources. GIS maps will be developed and data will be analyzed using GIS tools as well as spreadsheet and statistical software.

EOA POC monitoring tasks during FY 2016/17 are summarized by Water Year as follows:

- WY2016 tasks:
 - QA/QC of WY2016 POC Monitoring data.
 - Development of WY2016 POC Monitoring Report due Oct. 15, 2016.
 - Development of WY2016 POC Interpretive Report due March 31, 2017.
- WY2017 tasks:
 - Refinement and implementation of WY2017 POC Monitoring approaches.

Deliverables:

- WY2016 POC Monitoring Report for Oct. 15, 2106 submittal.
- WY2016 POC Monitoring data that has undergone QA/QC review for all parameters required in Provision C.8.f.
- WY2016 POC Interpretive Report for UCMR.

Budget: \$306,900

SUBTASK SM74.06: PESTICIDES AND TOXICITY MONITORING

EOA will perform all aspects of the required Pesticides and Toxicity Monitoring specified in MRP 2.0 provision C.8.g, which requires that Permittees conduct dry weather and wet weather monitoring of pesticides and toxicity in urban creeks. San Mateo County Permittees are required to sample one dry weather station per year for water column toxicity (five test organisms), sediment toxicity (two test organisms), and sediment chemistry (pesticides, PAHs, metals, total organic carbon, grain size). EOA, on behalf of C/CAG and its member agencies, will coordinate dry weather sampling with its RMC partners

to realize cost savings on QA/QC samples (e.g., field duplicates, matrix spikes). Dry weather Pesticides and Toxicity Monitoring for WY2016 will take place in July 2016 (i.e., FY 2016/17). Planning for WY2017 Pesticides and Toxicity Monitoring will take place during FY 2016/17 and samples will be collected in July 2017 (i.e., FY 2017/18). EOA will subcontract with KLI to conduct the sampling and KLI will contract with the analytical laboratories (Pacific EcoRisk and Caltest).

MRP 2.0 defines wet weather sampling requirements on a regional basis. The RMC must collect a total of ten wet weather samples over the permit term, with a minimum of six samples collected by the end of the third water year (WY2018). Wet weather samples must be analyzed for water toxicity (five test organisms) and water chemistry (pesticides). It is likely that C/CAG and its member agencies will be responsible for two of the ten required wet weather samples. It is assumed that wet weather Pesticides and Toxicity Monitoring by SMCWPPP will be implemented during a winter rain event in WY2018.

In accordance with Provision C.8.b, all Pesticides and Toxicity monitoring data will be SWAMP comparable, data quality will be consistent with the SWAMP and BASMAA QAPPs, and data collection and analytical methods will follow the SWAMP and BASMAA SOPs. Quality assurance and quality control (QA/QC) review (i.e., data validation) of Pesticides and Toxicity Monitoring data will be conducted according to the BASMAA QAPP which specifies quantitative and qualitative data quality objectives (DQOs) for accuracy, precision, and completeness. Data not meeting the defined DQOs will be corrected if possible and flagged as necessary. The data validation process takes several months to complete and typically occurs between August and December as field data sheets are entered, laboratory reports are received, and the online SWAMP and CEDEN data checkers are accessed. The resulting validated spreadsheets tabulating all Pesticides and Toxicity Monitoring data will be uploaded to the BASMAA Regional Monitoring Database which is managed and maintained by EOA.

EOA Pesticides and Toxicity Monitoring tasks during FY 2016/17 are summarized by Water Year as follows:

- WY2016 tasks:
 - Dry weather pesticides and toxicity sampling at one station.
 - QA/QC of Pesticides and Toxicity Monitoring data.
- WY2017 tasks:
 - Telephone and email communications in preparation for FY 2017/18 (WY2017) pesticides and toxicity sample collection.

Deliverables:

- WY2016 Pesticides and Toxicity Monitoring data that have undergone QA/QC review for all parameters required in Provision C.8.g.

Budget: \$27,707

SUBTASK SM74.07: PROVISION C.8 REPORTING

Provision C.8.h requires annual and comprehensive reporting of data collected pursuant to Provision C.8, in SWAMP-comparable format as appropriate for submittal to the Regional Water Board, and submittal of applicable data to the California Environmental Data Exchange Network (CEDEN). During

the contract period, EOA will develop all required reporting materials for review and comment by C/CAG member agencies prior to Regional Water Board submittal.

Electronic Monitoring Data Reports will be submitted annually (by March 31) to the Regional Data Center (i.e., SFEI) for upload to CEDEN. The Electronic Monitoring Data reports will include all data that CEDEN can accept, which is limited to receiving water data. Examples of data exempt from this requirement include upland urban sediments and MS4 outfall data. Each Electronic Monitoring Data report will include monitoring results conducted pursuant to Provisions C.8.d (Creek Status), Provision C.8.e (SSID Projects), C.8.f (POCs), and C.8.g (Pesticides and Toxicity) for the preceding water year.

Urban Creeks Monitoring Reports (UCMR) will be submitted annually (by March 31) to the Water Board. Each annual UCMR will summarize results and provide interpretations of data collected pursuant to Provisions C.8.d (Creek Status), Provision C.8.e (SSID Projects), C.8.f (POCs), and C.8.g (Pesticides and Toxicity) for the preceding water year. Bioassessment data will be evaluated using the California Stream Condition Index (CSCI). As the probabilistic dataset grows, statistically significant assessments of ambient stream conditions in San Mateo County can be made. Creek Status and Pesticides/Toxicity data will be compared to the “triggers” listed in the MRP. Triggers are numeric thresholds above (or below) which impacts to water quality may occur. They consist of water quality objectives from the Basin Plan as well as state and federal regulatory guidance and peer reviewed literature. Data exceeding the triggers will be compiled in the list of candidate SSID Projects. Monitoring stations and results will be presented in GIS maps and will be analyzed using spreadsheet and statistical software. The SSID and POC reporting elements will be developed as stand-alone reports under their respective subtasks described above and attached to the UCMR as appendices.

Pollutants of Concern Monitoring Reports will be submitted annually (by October 15) to the Water Board per Provision C.8.h.iv. The POC Monitoring Reports will describe the allocation of sampling efforts for the forthcoming water year and what was accomplished during the preceding water year. Data and interpretations associated with the POC Monitoring Reports will be submitted with the Electronic Monitoring Data Report and UCMR.

An Integrated Monitoring Report must be submitted by March 31 of the fifth year of the permit term in lieu of the annual UCMR. This report is not due until March 31, 2020; however, planning for the report in terms of data collection and reporting formats will be conducted.

During FY 2016/17, EOA will develop the WY2016 Electronic Monitoring Data Report, UCMR, and POC Monitoring Report. Deliverables related to SSID and POC Monitoring will be developed separately under their subtasks but will be summarized in the UCMR and included as appendices. EOA will also continue planning for the Integrated Monitoring Report.

Deliverables:

- WY2016 POC Monitoring Report (October 15, 2016).
- WY2016 Electronic Monitoring Data Report (March 31, 2017).
- WY2016 UCMR (March 31, 2017).

Budget: \$32,038

TASK SM75 – TRASH LOAD REDUCTION

The development and implementation of stormwater trash control programs is a high priority component in the reissued MRP (i.e., MRP 2.0). These programs are designed to significantly reduce trash and litter discharged from municipal stormwater systems and protect local creeks and San Francisco Bay. Under the MRP 2.0, SMCWPPP Permittees are required to achieve challenging trash reduction goals (i.e., 60%, 70% and 80%) over an aggressive timeframe. SMCWPPP member agencies are primarily focused on addressing and achieving trash load reduction goals through the cost-effective implementation of control measures. To achieve this objective, EOA will continue assisting SMCWPPP with ongoing tasks conducted in previous years under the oversight of the Trash Committee - a forum to share information on trash controls among member agencies, present approaches to compliance with trash reduction goals, and coordinate the implementation of MRP required studies and projects. These tasks will include providing assistance on updating and implementing long-term Trash Reduction Plans, including trash generation maps; identifying optimal locations for trash full capture devices; developing and implementing trash assessment strategies, including the mapping of full capture treatment areas and conducting on-land visual trash assessments for C/CAG member agencies; and calculating and reporting trash load reductions to the SFRWQCB in compliance with MRP 2.0. Additionally, the EOA project team will continue supporting the Litter Work Group, a group of member agency representatives focused on reducing the stormwater impacts of illegal dumping and inadequate waste management practices in the County.

Chris Sommers, the current trash load reduction coordinator for SMCWPPP, will continue as the task leader for the trash load reduction task, supported by senior and associate level staff at EOA (e.g., John Fusco and Nick Zigler). Subtask descriptions, deliverables and budgets are provided below.

SUBTASK SM75.01: LONG-TERM TRASH LOAD REDUCTION PLAN SUPPORT

EOA will continue providing guidance on long-term trash planning, including trash mapping and data management services, and revisions to trash generation, full capture system, and hot spot GIS data layers during the MRP 2.0 permit term. During FY 2016/17 EOA will:

- **Guidance on Trash Management Strategies** - Provide on-call guidance on long-term plan implementation and perspectives on optimization of control actions for trash management via conference calls and meetings with C/CAG member agencies.
- **Maintain GIS Data Layers and Mapping** - Provide guidance on revisions to baseline trash generation map data layers and revise trash generation rates and jurisdictional areas based on direction from C/CAG member agencies.

Deliverables:

- On-call guidance and participation in meetings/calls to discuss long-term plan implementation, provide perspectives on control actions for trash management, and discuss assessment results and other pertinent topics.
- Updated/revised trash generation and full capture system maps and GIS data layers in preparation for FY 2016/17 Annual Report submittals.

Budget: \$41,320

SUBTASK 75.02: LITTER WORKGROUP

In 2013 the EOA project team assisted SMCWPPP in convening the Litter Work Group, which is intended to provide a forum for sharing trash management information among member agencies, solid waste haulers, county recycling and waste management program staff, and other stakeholders. Through this subtask EOA will continue to coordinate and facilitate Litter Work Group meetings, develop annual work plans, conduct annual roundtable workshops, and implement high priority tasks outlined in future work plans recommended by the SMCWPPP Trash Committee. During FY 2016/17 EOA will:

- **Litter Work Group Coordination** - Facilitate Litter Work Group meetings. As part of this coordinator role, EOA will develop and distribute meeting agendas, prepare meeting materials as needed, participate in meetings, and prepare and distribute meeting summaries.
- **Annual Work Plan Development** - Coordinate with the Litter Work Group on the identification of high priority tasks that should be conducted by SMCWPPP in FY 2017/18. A draft Work Plan will be distributed to the Trash Committee for review.
- **Annual Roundtable Workshop** - Plan and facilitate an annual workshop in FY 2016/17 with input from the Litter Work Group. The goal of the workshop will be to collectively identify opportunities to reduce the contributions of litter generated from hauler-associated sources (e.g., transporting garbage/recyclables and overflowing containers) or other sources (e.g., illegal dumping) to the storm drainage system. EOA will assist in the coordination and planning of the workshop, including developing and coordinating workshop planning meetings that will include Permittees and hauler representatives and other interested parties, preparing workshop agendas and materials (e.g., presentations), identifying and confirming workshop speakers, and documenting action items and next steps.

Deliverables:

- Facilitation of four Litter Work Group meetings, including preparation of meeting agendas, agenda support materials and meeting summaries.
- Draft and final FY 2017/18 Work Plan for Litter Work Group.
- Planning and facilitation of the Annual Roundtable Workshop.

Budget: \$35,148

SUBTASK 75.03: TRASH LOAD REDUCTION ASSESSMENT PROGRAM

The EOA project team will assist C/CAG member agencies by continuing to implement and manage the SMCWPPP Trash Load Reduction Assessment Program developed by EOA in FY 2013-14. The Assessment Program is consistent with MRP 2.0 requirements and includes the use of the *On-land Visual Trash Assessment Protocol* developed by EOA and designed to assess the levels of trash that are generated onto streets, including directly by vehicles, that may enter the stormwater conveyance system. The on-land assessment method provides a method by which Permittees can demonstrate progress towards trash load reduction goals included in the MRP. SMCWPPP incorporated the protocol in its 2014 *Pilot Trash Load Reduction Assessment Strategy* submitted to the Water Board with member agency Long-term Trash Load Reduction Plans.

Through implementation of this subtask, EOA will continue to manage the SMCWPPP trash load reduction assessment program, which entails annually selecting on-land visual assessment sites (streets and sidewalks), conducting trash assessments at the frequencies described in MRP 2.0 (or equivalent), implementing appropriate quality assurance and control procedures, and managing assessment data via the SMCWPPP on-land visual assessment database.

During FY 2016/17 EOA will coordinate the SMCWPPP trash load reduction assessment program including the selection of on-land assessment sites and implementation of assessments during dry and wet seasons (to the extent possible) at frequencies outlined in the MRP 2.0 Factsheet. Assessment sites will be located in high priority trash management areas identified by member agencies. EOA will annually conduct on-land visual assessments and manage the associated data in the SMCWPPP on-land visual assessment database developed by EOA. To the extent feasible EOA will use trained interns to conduct these assessments to reduce per-assessment costs. Additionally, EOA will coordinate with member agencies on all assessments and compile assessment data collected by member agencies into the SMCWPPP database system.

Deliverables:

- Completion of 1,000 on-land visual assessments.
- Assessment results and populated SMCWPPP On-land Assessment Database.
- Ongoing technical support on assessments and associated data.

Budget: \$136,980

SUBTASK SM75.04: TRASH HOT SPOT CLEANUP TRACKING AND REPORTING

MRP 2.0 requires Permittees to annually remove trash to a level of “no visual impact” from a minimal number of trash hot spots in creeks and shorelines within their jurisdictions. Additionally, Permittees are required to record the volumes of trash removed from these hot spots. During MRP 1.0, the EOA project team assisted Permittees in selecting and reporting hot spot locations to the Regional Water Board, provided guidance on collecting and reporting trash cleanup data, and managed these data (i.e., trash volumes, types and sources) via the SMCWPPP trash hot spot database on behalf of all C/CAG member agencies. Through implementation of this subtask, EOA will continue to provide guidance to member agencies on hot spot selection, manage the data collected by member agencies during hot spot cleanups, and develop standardized reporting formats populated with historical and current hot spot data for each member agency to satisfy annual reporting requirements.

During FY 2016/17, EOA will continue to provide guidance and tools to member agencies, including data collection and load removal calculation tools associated with creek and shoreline cleanup activities. The guidance and tools are intended to maintain the quality and consistency of data collected via cleanup activities by member agencies and allow evaluation of trends over time. EOA will also input all member agency data into the existing Countywide Program cleanup database and manage those data on behalf of all member agencies. Output information from the Countywide Program database will be used by EOA to populate member agencies’ trash load reduction annual report forms in relation to cleanups.

Deliverables:

- Annual reporting and data collection guidance on the standardized reporting of trash reductions associated with creek and/or shoreline cleanups.
- Creek and shoreline hot spot database populated with annual hot spot trash data collected by all member agencies.
- Annual Report tables populated with hot spot cleanup data for current and previous fiscal years.

Budget: \$ 15,076

SUBTASK SM75.05: ASSIST WITH ANNUAL REPORTING AND LOAD REDUCTION CALCULATIONS

C/CAG member agencies are required to annually report on progress towards trash load reduction goals, and compare their load reductions to-date against these goals in 2016, 2017 and 2019. Any lack of demonstration of achievement of goals could result in enforcement by the Regional Water Board or litigation by third parties. During MRP 1.0, EOA assisted all C/CAG member agencies in successfully demonstrating trash load reductions resulting in determinations of compliance for nearly all San Mateo County cities and the County. The accounting system previously utilized has been revised via the adoption of MRP 2.0 so that further guidance and assistance on load reduction accounting during MRP 2.0 is needed.

During FY 2016/17, EOA will provide technical support to all member agencies on annual reporting. EOA will assist with developing each member agency's trash load reduction section of their Annual Reports by providing guidance to municipalities for completing Annual Report forms and developing load reduction calculations for full capture systems, institutional controls (via on-land assessment results), source control actions, and creek and shoreline cleanup offsets. For those municipalities that provide draft Annual Report sections before a certain date (to be determined), EOA will review the forms and provide comments, to the extent feasible within available budget.

Deliverables:

- Updated Countywide Program's guidance to member agencies for completing Trash Load Reduction section of each Annual Report.
- Draft and final calculations of trash load reductions for each member agency for each fiscal year, and draft annual report sections.
- Comments on trash control sections of individual municipal Annual Reports as applicable and feasible within available budget.

Budget: \$30,680

TASK SM76 – MERCURY AND PCBs LOAD REDUCTION

With the adoption of MRP 2.0 and the directly enforceable numerically-based load reduction performance criteria, the development and implementation of control programs for mercury and PCBs has become an increasingly high priority component of municipal stormwater management in the Bay

Area. Jon Konnan, P.E. will continue to serve as the task leader for Mercury and PCBs Load Reduction. Subtask descriptions, deliverables and budgets are provided below.

SUBTASK SM76.01: PARTICIPATE IN CLEAN WATERSHEDS FOR A CLEAN BAY

During FY 2016/17, EOA will continue to participate on behalf of C/CAG and its member agencies in the remainder of BASMAA's EPA-funded Clean Watersheds for a Clean Bay (CW4CB) grant program. The end date of the project has been extended to April 2017. The project study design team is currently providing assistance with disseminating the project results as soon as possible (e.g., via presentations, technical memorandums and web sites) with a focus on how the BMP effectiveness evaluation results can inform planning for PCBs load reductions required under MRP 2.0.

Deliverables:

- Helping facilitate repairs at the Bransten Road project.
- Ongoing tracking and reporting of C/CAG's matching funds contributions.
- Reviewing draft early data dissemination and BMP effectiveness information.
- Participate in one CW4CB project team meeting.
- Review and prepare comments on the draft project report.

Budget: \$10,168

SUBTASK SM76.02: IDENTIFY MANAGEMENT AREAS AND CONTROL MEASURES

With the adoption of MRP 2.0, San Mateo County and other Bay Area Permittees are required to demonstrate implementation of mercury and PCBs control measures in areas where benefits are most likely to accrue (i.e., "focused implementation"). In what may be one of the more challenging requirements in the reissued permit, Provision C.12.a requires Bay-area wide PCBs load reductions of 500 gram/year by June 30, 2018 and 3 kg/year by June 30, 2020.⁶ The portions of these reductions required of San Mateo County Permittees, which are based on relative population, are 60 gram/year by June 30, 2018 and 370 gram/year by June 30, 2020. The focus of this subtask will be for EOA to assist San Mateo County Permittees to take credit for existing and planned PCBs control measures and, to the extent needed, plan and implement new control measures to achieve these load reductions. This will necessitate continuing the process of identifying which pollutant source areas in San Mateo County provide the greatest opportunities for cost-effectively implementing controls to reduce discharges of mercury and PCBs.⁷

Taking credit for PCBs loads reductions associated with existing and planned activities such as redevelopment (and associated site abatement and C.3 treatment), contaminated site cleanups, and any enhanced stormwater conveyance cleanouts (e.g., channel dredging) in old urban (and especially old industrial) land uses will be an important part of the strategy to meet these requirements in the most

⁶ It is important to note that the latter requirement is distinct from the Provision C.12.c requirement for a 3 kg/year Bay-area wide PCBs load reduction via green infrastructure by the year 2040.

⁷ During the term of MRP 2.0, the general assumption will continue to apply that controls measures should be selected to reduce PCBs loads and the ancillary benefits of those measures in reducing mercury loads will be sufficient for addressing mercury.

cost-effective manner. EOA will work closely with municipal staff to identify the types and locations of existing and new control measures that will be implemented and associated implementation schedules.

Work that will be conducted under MRP 2.0 to identify pollutant source areas (Pollutant of Concern Monitoring) is closely related to this subtask. EOA will therefore integrate this subtask with implementation of Provision C.8.f. (see Subtask SM74.05). Implementation of this subtask will also be informed by the Countywide Program's ongoing coordination of efforts to address mercury and PCBs with other Bay Area countywide stormwater programs through the BASMAA MPC Committee.

During FY 2016/17, EOA will continue to assist San Mateo County Permittees to make further progress towards:

- Identifying the watersheds or portions of watersheds (management areas) in which PCBs control measures are currently being implemented and those in which new control measures will be implemented during the term of this permit.
- Identifying the control measures that are currently being implemented and those that will be implemented in each watershed and management area, including the number, type, and locations and/or frequency (if applicable) of control measures and a description of the contaminated sites referred to the Regional Water Board.
- Developing clear statements of the roles and responsibilities of each participating Permittee for implementation of the control measures.
- Submitting a schedule of control measure implementation, including interim implementation progress milestones (e.g., construction milestones for structural controls or other relevant implementation milestones for structural controls and non-structural BMPs) and a schedule for milestone achievement.
- Planning and implementing reasonable control measures towards achieving San Mateo County's load reduction performance criteria.
- Demonstrating PCBs and mercury load reductions using the interim accounting methodology that BASMAA is currently developing. Beginning with the FY 2017/18 Countywide Program Annual Report, Permittees are required to annually report load reductions calculated for all applicable controls and progress towards meeting June 30, 2018 and June 30, 2020 load reduction requirements.

This subtask will also include reconvening the Countywide Program's PCBs Workgroup.

Deliverables

- Report (submitted with the 2016 Countywide Program Annual Report) documenting progress towards identifying priority PCBs control watersheds and management areas, specific control measures, an implementation schedule, and a strategy for meeting June 30, 2018 and June 30, 2020 load reduction requirements.

Budget: \$81,000

SUBTASK SM76.03: RISK REDUCTION COORDINATION AND REPORTING

MRP 2.0 Provision C.12.h, Implement a Risk Reduction Program, requires Permittees to conduct or cause to be conducted an ongoing risk reduction program with the potential to reach 3,000 individuals annually (Bay Area-wide total for all MRP 2.0 Permittees) who are likely consumers of San Francisco Bay-caught fish. Permittees are required to report on the status of the risk reduction program in each of their Annual Reports, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish.

EOA will assist C/CAG and its member agencies to coordinate and report on efforts to comply with Provision C.12.h. EOA will work with the Program Manager to coordinate related efforts by San Mateo County Environmental Health (CEH) and any related efforts by others in light of the permit requirements. EOA will also compile available related data from CEH and others and use these data to prepare a section of the Countywide Program's Annual Report that addresses the C.12.h reporting requirement.

Deliverables

- Coordination with CEH and any other related efforts.
- Section of the Countywide Program's Annual Report that addresses the C.12.h reporting requirement.

Budget: \$6,836

TASK SM77 – ANNUAL REPORTING

EOA will continue to assist the Countywide Program with annual compliance reporting. This includes preparation of the Countywide Program annual report and, for individual municipal annual reports, developing guidance and templates, conducting preparation workshops, reviewing agency draft reports, and compiling and submitting reports to the Regional Water Board in compliance with the MRP.

Member agencies are required to annually report on progress towards trash load reduction goals. EOA's technical support to member agencies on this aspect of annual reporting is scoped and budgeted for separately under the Trash Load Reduction task. In addition, review of the trash control sections of member agency annual reports is covered under the Trash Load Reduction task (see Subtask SM75.05).

Jon Konnan, P.E. will serve as the task leader for Annual Reporting as part of continuing his overall role as EOA's project manager for providing municipal stormwater permit compliance support to C/CAG. Subtask descriptions, deliverables and budgets are provided below.

SUBTASK SM77.01: COUNTYWIDE PROGRAM ANNUAL REPORT

EOA will prepare the Countywide Program's Annual Report, which documents all activities performed by the Countywide Program during the year on behalf of member agencies. EOA will develop a draft report annually by mid-August for C/CAG and member agency review and comment and final report for submittal by the annual September 30 due date in the MRP. The budget for this task assumes that all of the content for the Annual Report will be prepared under SM72 (Subcommittee Support) or by C/CAG's

other consultants (e.g., public outreach content to be prepared by SGA, content related to green infrastructure planning to be prepared by CD+A, and content related to Reasonable Assurance Analysis to be prepared by Paradigm). This subtask will consist of obtaining, compiling and formatting that information, preparing standard report features such as a table of contents and executive summary, and facilitating the review process.

Deliverables

- Draft of the Countywide Program's 2016 Annual Report by mid-August and final report for submittal by September 30.

Budget: \$9,096

SUBTASK SM77.02: ANNUAL REPORT GUIDANCE

EOA will develop an annual report guidance package for member agencies to use in preparing their own annual reports. The package will include a version of the BASMAA Annual Report form customized and annotated with guidance for San Mateo County municipalities, a model certification statement and cover letter, and a memorandum that explains all of the facets of the annual reporting process and summarizes essential dates and milestones. This task does not include developing the public outreach parts of the customized Annual Report form since it is assumed SGA will conduct that work.

EOA and SGA will develop an annual report guidance package including a customized and annotated annual report form, a model certification statement and cover letter, and a memorandum that explains all of the facets of the annual reporting process and summarizes essential dates and milestones.

Deliverables

- Annual report guidance package for electronic submittal to member agencies and posting on Countywide Program website, annually by mid-July.

Budget: \$6,384

SUBTASK SM77.03: ANNUAL REPORTING TRAINING

EOA will plan and facilitate an annual reporting training workshop. The annual report guidance package (Subtask SM77.02) should be finalized and submitted to member agencies and posted on the Countywide Program website by the date of annual report training, which will be scheduled for a date no later than the end of July.

Deliverables

- Workshop location coordinated;
- Workshop registration;
- Draft and final workshop flyer and agenda;
- Workshop materials (e.g., folders with various handouts including evaluation forms and/or quizzes);

- Food catering services;
- Staffing of the workshop;
- Presentations by EOA staff and outside speakers;
- Certificates of completion for participants fulfilling continuing education requirements (if needed).
- Summary of the completed evaluation forms and/or quizzes; and
- Workshop materials submitted for posting on the Countywide Program’s website.

Budget: \$19,656

SUBTASK SM77.04: REVIEW DRAFT PERMITTEE ANNUAL REPORTS

EOA will review and comment on draft member agency annual reports prior to submittal of final reports to the Regional Water Board. Member agencies will be required to submit a draft of their annual report to EOA by a certain date (TBD) in order to be guaranteed of the review, but EOA will make every effort to review and comment on draft reports that are submitted late. We assume that the planned review period will be approximately the first two weeks of September.

This task does not include review of the public outreach section of each member agency’s annual report since it is assumed that SGA will review that section.

Deliverables

- Review and comment on Permittee draft Annual Reports during the first two weeks of September.

Budget: \$10,456

SUBTASK SM77.05: SUBMIT PERMITTEE ANNUAL REPORTS

EOA will electronically obtain available Annual Reports from San Mateo County Permittees and upload to the Regional Water Board’s FTP site. EOA will also print a hard copy of each Annual Report and deliver to the Regional Water Board’s offices in Oakland.

Deliverables

- Available annual reports submitted electronically to Regional Water Board by September 30 each year. Hard copies submitted by October 15.

Budget: \$2,500

DRAFT EXHIBIT A

EOA FY 2016/17 Municipal Stormwater Permit Compliance Assistance to SMCWPPP

	Principle	Manager III	Manager II	Manager I	Senior III	Senior II	Senior I	Associate II	Associate I	Technician	Clerical	Expenses/Subs	Budget
EOA Hourly Rate for SMCWPPP:	\$215	\$202	\$199	\$197	\$181	\$160	\$144	\$134	\$109	\$88	\$65		
General Support to Program Manager													
71.01 General Support	0	192	0	0	0	0	0	0	0	0	0	\$800	\$39,584
71.02 Stormwater Committee Support	0	108	0	0	0	0	0	0	0	0	0	\$400	\$22,216
71.03 Monthly Digest and Quarterly MRP Compliance Check-in Table	0	48	0	0	0	0	0	0	0	0	0	\$200	\$9,896
71.04 BASMAA Activities Support	0	72	0	0	0	0	0	0	0	0	0	\$300	\$14,844
71.05 BASMAA Regional Projects Planning Support	0	48	0	0	0	0	0	0	0	0	0	\$200	\$9,896
71.06 Coordination and Integration	0	72	0	0	0	0	0	16	0	0	0	\$300	\$16,988
	0	540	0	0	0	0	0	16	0	0	0	\$2,200	\$113,424
Subcommittee Support													
72.01 Municipal Maintenance Subcommittee	0	0	80	0	0	0	0	0	0	0	0	\$300	\$16,220
72.02 New Development & Construction Subcommittee	0	64	4	0	0	288	0	22	0	0	28	\$3,650	\$68,222
72.03 Commercial/Industrial/Illicit Discharges Subcommittee	0	0	124	0	0	0	0	0	0	0	0	\$500	\$25,176
72.04 Trash Subcommittee	0	32	0	0	64	0	0	0	0	0	0	\$400	\$18,448
72.05 Watershed Assessment and Monitoring Subcommittee	0	16	0	44	0	0	0	0	0	0	0	\$200	\$12,100
72.06 Parks Maintenance and IPM (PM&IPM) Workgroup	0	8	0	0	0	40	0	0	0	0	0	\$200	\$8,216
	0	120	208	44	64	328	0	22	0	0	28	\$5,250	\$148,382
Training													
73.01 CII Focused Training	0	0	32	0	0	0	0	0	0	0	0	\$500	\$6,868
73.02 New/Redevelopment and Construction Training	0	32	40	0	0	112	0	0	0	0	48	\$5,000	\$40,464
73.03 Trash Load Reduction Training	0	8	0	0	0	0	0	40	0	0	16	\$2,000	\$10,016
73.04 Pesticide Toxicity Reduction Training Program	0	8	0	0	0	32	0	0	8	16	4	\$2,000	\$11,276
	0	48	72	0	0	144	0	40	8	16	68	\$9,500	\$68,624

Water Quality Monitoring													
74.01 Regional Coordination	0	0	8	144	0	0	0	23	0	0	0	\$660	\$33,702
74.02 Regional Monitoring Program Participation	0	12	0	94	0	0	0	0	0	0	0	\$498	\$21,440
74.03 Creek Status Monitoring	0	24	0	156	0	272	0	292	218	24	42	\$38,241	\$185,073
74.04 Stressor/Source Identification Projects	0	2	0	48	0	48	0	48	16	24	2	\$5,709	\$33,667
74.05 Pollutants of Concern Monitoring	0	280	0	120	0	60	0	400	100	0	40	\$150,000	\$306,900
74.06 Pesticides and Toxicity Monitoring	0	2	0	12	0	6	0	12	0	0	2	\$22,241	\$27,707
74.07 Reporting	0	16	0	40	0	40	0	52	60	0	6	\$628	\$32,038
	0	336	8	614	0	426	0	827	394	48	92	\$217,977	\$640,527

Trash Load Reduction													
75.01 Long-Term Trash Load Reduction Plan Support	0	60	0	0	40	0	0	80	80	0	8	\$2,000	\$41,320
75.02 Litter Workgroup	0	64	0	0	0	104	0	0	40	0	8	\$700	\$35,148
75.03 Trash Load Reduction Assessment Program Management	0	60	0	0	40	0	0	300	80	400	400	\$7,500	\$136,980
75.04 Trash Hot Spot Cleanup Tracking And Reporting	0	4	0	0	32	0	0	48	16	0	0	\$300	\$15,076
75.05 Assist with Annual Reporting and Load Reduction Calculations	0	24	0	0	32	0	0	80	80	0	0	\$600	\$30,680
	0	212	0	0	144	104	0	508	296	400	416	\$11,100	\$259,204

Mercury and PCBs Load Reduction													
76.01 Participate in Clean Watersheds for a Clean Bay	0	24	0	0	0	32	0	0	0	0	0	\$200	\$10,168
76.02 Identify Management Areas and Control Measures	0	100	0	0	0	200	0	200	0	0	0	\$2,000	\$81,000
76.03 Risk Reduction Coordination and Reporting	0	8	0	0	0	32	0	0	0	0	0	\$100	\$6,836
	0	132	0	0	0	264	0	200	0	0	0	\$2,300	\$98,004

Annual Reporting													
77.01 Countywide Program Annual Report	0	8	0	0	0	12	0	40	0	0	0	\$200	\$9,096
77.02 Annual Report Guidance	0	8	8	0	4	8	0	8	0	0	0	\$100	\$6,384
77.03 Annual Reporting Training	0	16	24	0	0	32	0	0	32	0	16	\$2,000	\$19,656
77.04 Review Draft Permittee Annual Reports	0	16	16	0	0	24	0	0	0	0	0	\$200	\$10,456
77.05 Submit Permittee Annual Reports	0	4	0	0	0	0	0	8	0	0	8	\$100	\$2,500
	0	52	48	0	4	76	0	56	32	0	24	\$2,600	\$48,092

Total Budget:	\$250,927	\$1,376,257
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Notes:

Labor hours are based upon the approximate level of effort for each task.

Subcontractors and expenses are planning-level estimates.

Actual distribution of hours and subcontractors/expenses within and among tasks may vary.

Total budget will not be exceeded and contingency item budgets will not be utilized without C/CAG's authorization.

Expenses/subcontractors budgets shown include 10% overhead.