

SAN FRANCISCO ESTUARY PARTNERSHIP

FFY 2015 WORK PLAN AND BUDGET

OCTOBER 1, 2014 - SEPTEMBER 30, 2015

The San Francisco Estuary Partnership	2
Our Estuary	2
Funding	3
Goal 1: Build Estuary resilience against the effects of climate change	5
1. A. Climate Change Research and Creek and Wetland Conservation and Restoration....	5
Goal 2: Increase watershed health	9
2.A. SFEP Watershed Program.....	10
2.B. Aquatic Invasive Species.....	11
2.C. Water Conservation	12
2.D. Support Flow Studies and Efforts to Restore SF Bay Flows.....	13
Goal 3: Improve water quality	13
3.A. TMDL /Pollution Prevention Implementation	14
3.B. Green Infrastructure/Low Impact Development (LID)	16
Goal 4: Champion the Estuary	18
Goal 5: Continue to improve management of the Partnership; funding sources ..	20
Program Organization:.....	21
Key Implementation Partners:.....	21
Program Tracking and Reporting:.....	21
Ecosystem Tracking: Status and Trends:.....	22
Technical Assistance to SFEP Partner Agencies	22

Attachment 1: Estimated FFY 15 Budget

Attachment 2: SFEP Staff List

Attachment 3: Funds Used for Travel

Attachment 4: Completed Projects

INTRODUCTION

THE SAN FRANCISCO ESTUARY PARTNERSHIP

The San Francisco Estuary Partnership works collaboratively with federal, state, and local agencies to restore and improve the health of the San Francisco Estuary. The Partnership developed and tracks implementation of the Estuary's environmental master planning document, the *Comprehensive Conservation and Management Plan*, (Comprehensive Plan or CCMP); manages over 40 implementation and restoration projects throughout the greater San Francisco Bay Area; and educates the public about Bay-Delta ecological issues including wetlands, wildlife, aquatic resources, land use, and pollution prevention. We also sponsor scientific conferences and colloquia including the biannual State of the Estuary Conference and publish reports such as *The State of the Bay* (2011). The work of the Partnership is currently supported by more than 40 federal, state, and local grants and contracts and by the San Francisco Bay Regional Water Quality Control Board, which houses our offices, and the Association of Bay Area Governments, our parent agency.

This work plan implements a cooperative agreement between the U.S. Environmental Protection Agency, the Association of Bay Area Governments, and the San Francisco Bay Regional Water Quality Control Board. It supports the continued implementation of the Comprehensive Plan.

OUR ESTUARY

At 1,600 square miles, the San Francisco Estuary is the largest on the West Coast and drains over 40 percent of California's land area. Extending into the Sacramento-San Joaquin River Delta, the Estuary supplies irrigation water to four million acres of farmland. Although significantly altered since 1850 -- more than 90 percent of original tidal wetlands since the Gold Rush have been lost--the Estuary still

- provides drinking water to nearly two-thirds of the state's population
- supports significant wildlife; about two-thirds of the state's salmon travel through the estuary as young fish and return to spawn as adults
- supports almost half of the migratory birds on the Pacific Flyway
- provides many important wetland functions, acting as natural pollution filters, trapping sediment, providing flood protection, and offering habitat for fish, shellfish, waterfowl, and other wildlife.

Acquisition and restoration of the region's wetlands has long been a top priority among CCMP actions, and the Partnership supports numerous efforts to protect and restore this critical habitat.

Our Bay Area/Sacramento-San Joaquin River Delta economy includes industry, shipping, fishing, farming, and recreation, all of which generate point source and nonpoint source pollution. Water quality is impaired throughout the Estuary's aquatic systems due to legacy pollution, such as PCBs and mercury; and new compounds found in pesticides, fertilizers, industrial processes, and personal care products. Urban runoff, especially challenging, is a significant source of many contaminants, including mercury, PCBs, pathogens, a new generation of pyrethroid pesticides, nutrients, and trash. Introduced, invasive aquatic plant and shellfish species take a toll on the health of the Estuary's ecosystems.

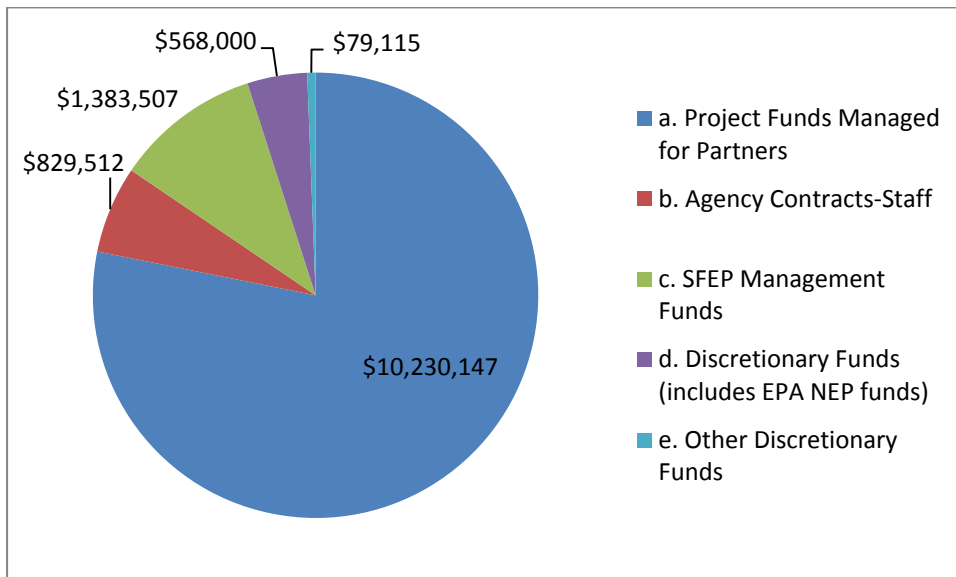
In all estuaries, the amount of fresh water that flows in from upland watersheds defines the quality and quantity of estuarine habitat. Most of the fresh water that flows into the San Francisco Estuary comes from the Sacramento and San Joaquin River basins, which provide more than 90 percent of total inflow in most years. Smaller local streams, principally the Napa and Guadalupe Rivers and Alameda, San Francisquito, Coyote, and Sonoma Creeks, contribute the balance.

Freshwater flows into the San Francisco Estuary have been greatly altered by upstream dams and water diversions. California's State Water Resources Control Board determined in 2010 that to protect public trust resources in the Sacramento-San Joaquin Delta and the Estuary, 75 percent of runoff from the Sacramento and San Joaquin River watersheds would need to flow unimpaired out of the Delta and into the estuary. From 2000 to 2009, on average, only 52 percent of estimated unimpaired inflow actually flowed into the estuary. How to address the needs of the estuary for additional flow is the subject of several major concurrent efforts at the regional and state levels. SFEP will continue to closely track and influence these processes. (See www.sfestuary.org for additional information about the Estuary.)

FUNDING

FFY 15 BUDGET ESTIMATE: SFEP's manages a total of over **\$33 million** in multi-year project and contract funding. This \$33 million includes four categories of funds: 1) project funds we are awarded and manage for our partners; 2) funds from contracts for technical support related to permit compliance; 3) operating funds for work done to manage over 40 grants and contracts, and 4) discretionary staff support/project funds we receive each year from our Section 320 grant through the US EPA along with incidental funds received through conference fees and donations.

- a. Project funds we are awarded and manage for partners: This includes the FFY 14 portion of the \$20 million that ABAG/SFEP was recently awarded for a Proposition 84 IRWMP Implementation Grant from DWR, which we manage on behalf of 19+ partners; the \$400,000 that we manage for the Delta Science Program; and the total of funds we manage for projects being accomplished by nearly 40+ other partners working under grants received by SFEP. Total amount of managed funds estimated for FFY14-15 is \$10,230,147.
- b. Agency contract funds for technical support staff related to permit compliance: Total funds estimated for FFY 2014-15 to support 7 staff positions [likely to go to 5 before the end of 2014] we share with the Regional Water Board for permit assistance is \$829,512.
- c. Grant management operating funds. Funds included in awarded grants for SFEP management and financial activities for this fiscal year is estimated at \$1,383,507 for the over 40 grants we manage for ourselves and for our partners.
- d. Discretionary funding includes the annual NEP EPA funds of \$538,000 for this fiscal year as well as a separate award of \$30,000 to go towards updating the current CCMP.
- e. Other Discretionary Funds: Includes funds raised to support the biennial State of the Estuary Conference; currently \$ 79,115.



Clean Water Act Section 320 Funding. Our EPA FY 14 allocation will be **\$538,000**, -- 27 percent of SFEP's total operating budget (total of grant management and discretionary funds; \$1,982,349). These highly leveraged National Estuary Program dollars provide partial support for salary, benefits, and other fixed costs for 10 core staff. An additional

4-5 staff work under agreements with local agencies or entities, on clean water efforts and also focuses on CCMP implementation. Their work is also reflected in this work plan. [See staffing details in Attachment 2].

Match Funds. Our Section 320 funding must have a 50 percent match. The San Francisco Bay Regional Water Quality Control Board provides grant match for Section 320 funding through in-kind support for office space, computers, phones, mailing, supplies, etc. This is estimated to total over **\$938,000** annually. Local agency contracts for technical support related to permit compliance also contribute to the **NEP leveraged funds** [funds above the required match]. Additionally, ABAG provides direct project match as well as in-kind support for financial statements, payable reports, invoicing, and legal assistance.

SFEP consistently leverages NEP funds by amounts ranging from 14:1 (2006) to 16:1 (2012). This Work Plan implements the 2014 Strategic Plan goals which follow.

THE STRATEGIC PLAN: 2014 – 2018 GOALS

Goal 1: Build Estuary readiness to deal with the effects of climate change

Expand the toolbox of habitat protection measures needed under a changing climate regime and provide the necessary baseline information to adaptively manage the health of our waterways.

Goal 2: Increase watershed health

Integrate projects within key watersheds, from headwaters to tidal waters. Increase the health and resilience of watersheds and increase active partnerships in the region to improve water quality and habitat health.

Goal 3: Improve water quality

Focus on pollution prevention, urban runoff/stormwater quality, and “Green Infrastructure” projects (“low impact development,” or LID).

Goal 4: Champion the Estuary

Develop and implement a communications program to raise the visibility and increase support of SFEP’s Bay protection and restoration activities.

Goal 5: Continue to improve management of the Partnership; diversify funding sources

The Work Plan below is divided into sections related to the 5 Strategic Goals. Work under each Strategic Goal is organized into specific areas of effort [**1. A,1.B, 1.C...**], and projects under each area are described as follows:

Manage and Implement Current SFEP-led Projects

Projects for which SFEP staff are the overall lead or contribute substantially.

Manage and Assist Current Partner-led Implementation Efforts

Projects for which SFEP is not the day-to-day lead but provides oversight, coordination and grant management support.

Potential New Initiatives

Priority areas for new efforts, should funding be secured.

2014-2015 WORK PLAN ELEMENTS: IMPLEMENTING THE STRATEGIC PLAN

GOAL 1: BUILD ESTUARY READINESS TO DEAL WITH THE EFFECTS OF CLIMATE CHANGE

1. A. Climate Change Research and Creek and Wetland Conservation and Restoration

Objectives:

- Support research and analysis into effects of climate change on the ecology of the estuary
- Support and implement stream, wetland, riparian and fluvial/tidal restoration
- Implement multi-benefit climate adaptation strategies including flood protection
- Support sediment/sand research and policy development
- Refine existing and create new environmental indicators to measure and report health of the estuary

Measures of Success:

- Acres of restored habitat
- Refined estuary health indicators

Key successes of the previous year:

- The SF Bay Restoration Board is ready to vote in late May on the question of if there should be a ballot measure to fund wetland restoration in 2014 which would provide a substantial increase in restoration funds.
- SFEP reported that over 29,000 acres of regional wetlands were improved [25K spartina removal] and restored last year and estimates that regional agencies and NGOs will restore nearly 1490 acres in the next FFY
- The Stanley Reach re-oaking project has nearly completed a mile of stream restoration which will be a model project in the Livermore valley area. (see 1.A.2.a below)
- An update to the *2011 State of the Estuary Report* is now underway; work will include the review, refinement and creation of new benchmarks and indicators with an emphasis on climate change impacts.
- Creosote pilings are being pulled from San Francisco Bay, implementing the Subtidal Habitat Goals Report with a \$2 million grant from the National Fish and Wildlife Federation to the Coastal Conservancy.

1.A.1 Manage and Implement Current SFEP-led Projects

Actions/projects	Activities	Timeline	Resources
a) Support research and analysis into effects of climate change on the ecology of the estuary to support adaptation and resilience efforts.	Staff the Joint Policy Committee Support Goals studies and revisions SFEP staff coordinates ABAG's efforts with other agencies on the Resilient Shorelines Program	Quarters 1-4	<i>\$320 funding/State bond money through ABAG</i>
b) Support the SF Bay Restoration Authority.	Staff support to the Board of the Authority as it carries out its mission to find local funding for regional wetland restoration. Continue to support RA	Quarters 1-4	<i>\$320 funding</i>

Actions/projects	Activities	Timeline	Resources
c) Refine existing and create new environmental indicators to measure and report health of the estuary	Reconvening indicator science team and beginning the process of indicator evaluation, refinement, and additions. A <i>State of the Estuary Report 2015</i> is underway.	Quarters 1-4	\$320 funding
d) Creek Mouth Assessment Tool	Create a user-friendly online web tool that will help agencies, organizations and volunteer stewardship groups understand both regional opportunities and constraints for creek mouth restoration/flood protection projects. Phase I completed; considering next steps and funding needs	Quarters 1-4	Needs additional funds
e) Provide Regional Board Stream and Wetland Protection amendments for SF Bay Water Quality Control Plan (Basin Plans)	Develop a Stream and Wetland Protection Basin Plan amendment for public review and comment. SFEP staff works with the Regional Board to develop an amendment to the Water Quality Control Plan for the San Francisco Bay Region to protect streams and wetland systems. The amendment will be accompanied by a Staff Report to support the public review process	Quarters 1-4	EPA grant funds
f) Statewide Wetland Area Protection Policy	Continue coordination between State and Regional Board efforts; provide technical support to State Board on key Policy elements including a revised wetland definition, procedures for the review of proposed discharges of dredge and fill material to wetlands, and the use of a watershed approach. Phase 2 of the policy is being developed and is proposed to include wetland beneficial uses, water quality objectives, and water quality control activities/practices that can be implemented to prevent and correct water pollution and nuisance.	Quarters 1-4	EPA grant funds

g) Statewide Wetland Water Quality Standards	<p>Develop report on integrating wetland water quality standards into Water Board programs including implementation and assessment strategies.</p> <p>Policy demonstration projects are being conducted with multiple Regional Boards to identify ways of writing and refining Phase 2 of the policy, which contains the wetland water quality standards, so that the policy can be implemented practically and effectively and incorporate existing, innovative permitting practices used by the Regional Boards to support wetland protection and conservation goals.</p>	Quarters 1-4	EPA grant funds
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1.A.2 Manage and Assist Current Partner-led Implementation Efforts

Actions/projects	Activities (vary by project)	Timeline	Resources/Partners
<p>Projects</p> <ul style="list-style-type: none"> • Chelsea Wetland Restoration Project • Flood 2.0: Rebuilding Habitat and Shoreline Resilience through a New Generation of Flood Control Channel Design and Management • Re-oaking Stanley Reach of Alameda Creek • Stonybrook Creek Bank Stabilization • San Francisco Bay Living Shorelines • Watershed Scale Map Tools and Shoreline Change Study • Yosemite Slough Wetlands Restoration • Stream Restoration with schools in Disadvantaged Communities of the North Bay (STRAW) • Bay Point Stormwater and Flood Reduction Strategies Pilot Project 	<ul style="list-style-type: none"> • Monitor project progress • Submit quarterly reports • Perform site visits • Provide administrative support and management for SFEI monitoring efforts • Coordinate sub-recipient activities • Manage contracts for implementation of project - specific actions • Process invoices and assist with audit questions • Prepare progress and final reports 	Quarters 1-4	<div data-bbox="1055 829 1494 913" style="border: 1px solid black; padding: 2px;">EPA/West Coast Estuaries Initiative</div> <p>Partner: Ducks Unlimited</p> <div data-bbox="1055 945 1494 1029" style="border: 1px solid black; padding: 2px;">EPA/San Francisco Bay Water Quality Improvement Fund</div> <p>Partners: BCDC, San Francisco Estuary Institute, Co of Marin, San Francisco JPA, SF Bay Joint Venture/Pt. Blue</p> <p>Urban Creeks Council</p> <p>Alameda RCD</p> <p>State Coastal Conservancy</p> <p>San Francisco Estuary Institute</p> <p>California State Parks Foundation</p> <p>Point Blue Conservation Science</p> <div data-bbox="1055 1764 1494 1869" style="border: 1px solid black; padding: 2px;">DWR Integrated Regional Water Management Plan (IRWMP) Phase 1 implementation grant</div> <p>Partner: The Watershed Project</p>

<ul style="list-style-type: none"> Richmond Shoreline & San Pablo Flood Project San Francisquito Watershed Design Curves Pescadero Integrated Flood Reduction and Habitat Enhancement Project SFEI Flood Infrastructure Mapping & Communication Tool Napa Co Milliken Creek Flood Damage Reduction Oakland Sausal Creek Restoration Petaluma Flood Reduction, Water and Habitat for Capri Creek Redwood City Bayfront Canal Flood Management and Habitat Restoration Richmond Breuner Marsh Restoration San Francisco Bay Climate Change Pilot Projects (including Oro Loma Ecotone) San Pablo Rheem Creek Wetlands Restoration St. Helena Upper York Creek Dam Removal and Ecosystem Restoration 			<p>Urban Tilth</p> <p>Committee for Green Foothills</p> <p>San Mateo RCD</p> <p>San Francisco Estuary Institute</p> <p>DWR Integrated Regional Water Management Plan (IRWMP) Phase 2 implementation grant</p> <p>Napa County</p> <p>City of Oakland</p> <p>City of Petaluma</p> <p>City of Redwood City</p> <p>East Bay Regional Park District</p> <p>Oro Loma Sanitary District</p> <p>Contra Costa Water District</p> <p>City of St. Helena</p>
<ul style="list-style-type: none"> Coastal Regional Sediment Management Plan for SF Littoral cell 	<ul style="list-style-type: none"> Lead public outreach and coordinate public comment on Plan Investigate governance structure, possible lead for ABAG to coordinate post-Plan RSM activities Pending approval of additional funding proposal: Activities as above 	<p>Quarters 1-4</p>	<p>Dept. of Boating & Waterways</p> <p>U.S. Army Corps of Engineers</p>

1.A.3 Potential New Initiatives			
Actions	Activities	Timeline	Resources
a) Develop and implement methodology to measure and credit climate change adaptation benefits from wetland restoration, grasslands and forests.	<ul style="list-style-type: none"> • Identify and secure funding • Identify potential partners and projects • Further develop and refine project 	Quarter 4	<i>\$320 funding</i> New funding
b) Phase 2: Evaluate creek mouth restoration projects	<ul style="list-style-type: none"> • Identify and secure funding • Complete regional assessment of creek mouth restoration opportunities • Identify potential partners and projects • Further develop and refine projects 	Quarter 3	<i>\$320 funding</i> New funding
c) Expand Flood 2.0 Project	<ul style="list-style-type: none"> • Identify and secure funding • Identify potential partners and projects • Further develop and refine project 	Quarter 3	<i>\$320 funding</i> New funding

GOAL 2: INCREASE WATERSHED HEALTH

Objectives:

- Build, promote and support community based approaches to watershed protection, restoration and stewardship
- Increase watershed management capacity of local governments
- Support implementation and management of the state aquatic invasive species management plan
- Support and promote new water use conservation methods
- Support efforts to restore adequate flows to bay tributaries

Measures of Success:

- Increased number of watershed restoration projects
- Acre feet of water conserved by new water conservation projects

Key successes of the previous year:

- SFEP awarded \$50,000 in micro and small grants to 20 entities for projects that supported watershed improvement to eleven Bay Area watersheds; funds went to local creek groups, non-profits, and special districts working in watersheds across the Bay Area.
- Even prior to the Governor's drought announcement(s), SFEP partners have been implementing innovative projects to recycle wastewater or increase water supplies through conservation programs. Several of the

IRWMP funded projects are included below: Regional Water Conservation Project, SFPUC regional groundwater storage and recovery project; San Francisco International Airport Industrial Waste and Reclaimed Water Facility; East Bayshore recycled water pipeline (EBMUD); North Bay Water Reuse Program-SCWA and Roseview Heights Water Supply Infrastructure Upgrades.

- Friends of the Estuary, with SFEP support, has worked with Napa, Sonoma, Marin and Contra Costa and other counties on Resolutions calling for increased freshwater flows. Resolutions are being discussed in Sacramento as the region weighs in more heavily on State Board’s actions on Bay Delta flow allocations

2.A. SFEP Watershed Program

2.A.1 Manage and Implement Current SFEP-led Projects			
Actions/projects	Activities	Timeline	Resources
Watershed Program	<ul style="list-style-type: none"> • Managing currently funded IRWMP Prop 84 Disadvantaged Communities projects and assist with IRWMP update outreach. • Coordinate the Bay Area Watershed Network (BAWN) and its working groups. • Maintain BAWN online resources. • Awarded \$50,000 in micro and small grants to 11 entities to make watershed improvements • Project management ongoing and basic support for BAWN, but funding has ended for other program efforts 	Quarters 1-4	DWR Integrated Regional Water Management Plan Implementation Grant-Prop 84 <i>\$320 funding</i>

2.A.2. Manage and Assist Current Partner-led Implementation Efforts

Actions/projects	Activities	Timeline	Resources/Partners
<ul style="list-style-type: none"> • Lagunitas Creek Watershed Sediment Reduction & Management • Marin/Sonoma: Conserving Our Watersheds: Agricultural BMP project • Pescadero Water Supply and Sustainability project • Students and Teachers Restoring a Watershed (STRAW) 	<ul style="list-style-type: none"> • Monitor project progress • Review & submit quarterly reports and invoices • Provide administrative support and management • Coordinate sub-recipient activities • Manage contracts for implementation of project -specific actions • Review and submit draft and final reports 	<p>Efforts began in spring 2014</p> <p>Local project sponsor (sub-recipients) agreements expected July 2014</p>	<p>DWR Integrated Regional Water Management Plan (IRWMP) Phase 2 implementation grant</p> <p>County of Marin</p> <p>Marin RCD</p> <p>San Mateo County</p> <p>Point Blue Conservation Science</p>

2.B. Aquatic Invasive Species

2.B.1. Manage and Implement Current SFEP-led Projects

Actions/projects	Activities	Timeline	Resources/Partners
<ul style="list-style-type: none"> • National Aquatic Nuisance Species Task Force • Western Regional Panel (WRP) on Aquatic Nuisance Sp. • The Marine Invasive Species Program's Tech. Advisory Com • Quagga-Zebra Mussel Action Plan Team 	<p>Provide continued staff support to panels and programs. Key activities include:</p> <ul style="list-style-type: none"> • Developing new policies and programs to reduce the spread of aquatic invasive species • Developing and reviewing regional and species management plans • Prioritizing key activities for implementation and funding • Coordinating activities at the federal, state, and local levels • Staff attends Fall and Spring ANS Task Force Meetings, the Annual WRP meeting held in the fall, and MISP meetings and QZAP meetings as they are scheduled. • The following document was just released and was a part of the WRP efforts: <i>Preventing the Spread of</i> 	<p>Quarters 1-4</p>	<p>§320 funding</p> <p>U.S. Fish & Wildlife Service</p>

	<i>AIS by Recreational Boats: Model Legislative Provisions & Guidance to Promote Reciprocity among State Watercraft Inspection and Decontamination Programs.</i>		
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2.B.2. Potential New Initiatives

Actions/projects	Activities	Timeline	Resources
a) Strengthen early detection programs for aquatic invasive species in the San Francisco Estuary	Partner with Bay Area Early Detection Network and explore other opportunities to expand early detection efforts to wetland and aquatic species	Quarter 1	\$320 funding New funds
b) Expand aquatic invasive species outreach to targeted audiences including: recreational boaters, aquarium hobbyists, water gardeners, live bait distributors, etc.	<ul style="list-style-type: none"> Identify partners Develop program Identify resources Distributing AIS information at boat shows, but not creating new materials. 	Quarter 1	\$320 funding New funds

2.C. Water Conservation

2.C.1. Manage and Implement Current SFEP-led Projects

Actions/projects	Activities	Timeline	Resources
Support and promote new methods of water use and conservation within the estuary watersheds	Support current and potential projects	Quarters 1-4	DWR IRWM Prop 84

2.C.2. Manage and Assist Current Partner-led Implementation Efforts

Actions/projects	Activities	Timeline	Resources/Partners
<ul style="list-style-type: none"> SFPUC regional groundwater storage and recovery San Francisco International Airport Industrial Waste and Reclaimed Water Facility East Bayshore recycled water pipeline (EBMUD) Bay Area Regional Water Conservation Project North Bay Water Reuse Program Roseview Heights Water 	<ul style="list-style-type: none"> SFEP will manage grant projects Monitor project progress Review & submit quarterly reports and invoices Provide administrative support and management Coordinate sub-recipient activities Manage contracts for implementation of project-specific actions Review and submit final 	<p>Grant Agreement expected June 2014</p> <p>Local project sponsor (sub-recipients) agreements expected July 2014</p>	<p>DWR Integrated Regional Water Management Plan (IRWMP) Phase 2 implementation grant</p> <p>City & Co San Francisco</p> <p>East Bay Municipal Utility District</p> <p>13 regional water agencies</p> <p>Sonoma County Water Agency</p> <p>Roseview Heights MWD</p>

Supply Infrastructure Upgrades	reports		
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2.D. Support Flow Studies and Efforts to Restore SF Bay Flows

2.D.1. Manage and Implement Current SFEP-led Projects			
Action	Activities	Timeline	Resources/Partners
Support flow studies and efforts to restore adequate flows in Bay tributary rivers and streams	<ul style="list-style-type: none"> • Continue distribution of SFEP Flows Fact Sheet • Provide annual updates of fish and flows analysis • Continue to brief local elected officials on importance of adequate flows • With partners, complete new report: <i>The Case for the Bay</i> summarizing the need for freshwater in the bay. 	Quarters 1-4	<i>\$320 funding and work in partnership with The Bay Institute and Friends of the Estuary</i>

GOAL 3: IMPROVE WATER QUALITY

<p>Objectives:</p> <ul style="list-style-type: none"> • Implement the Clean Water Act by supporting TMDL development and implementation across the region. • Expand existing SFEP programs and projects to focus on water quality improvements. • Develop and implement well-designed and effective LID (green infrastructure) projects to reduce stormwater pollution throughout the region. <p>Measures of Success:</p> <ul style="list-style-type: none"> • Increase in regional TMDL implementation projects • Increase in use of LID facilities throughout the region <p>Key successes of the previous year:</p> <ul style="list-style-type: none"> • Initiation of Green Plan Bay Area to help local agencies site/ plan for LID within a watershed context. • Planning near completion on San Pablo Spine projects and City of Campbell Hacienda Green Streets • Completion of monitoring efforts on Fremont Tree Well Filters and San Francisco Newcomb Avenue Projects (final reports pending). • Completion of the Fish Friendly Farming Project with the California Land Stewardship Institute, certifying 138 sites, totaling 14,533 acres of land where BMP's were put in place to reduce sediment discharge into the Napa River Watershed, representing 16% of the total vineyard acreage. • Removal of approximately 800 cy of over-steepened mercury mine waste from the Hicks Flat creek slope in the Mid-Peninsula Regional Open Space District's Sierra Azul Open Space Preserve. • Completion of the restoration of a 300 ft tributary to Warner Creek located in Boyle Park to implement the Richardson Bay Pathogen TMDL, a project in partnership with Marin County.

3.A. TMDL /Pollution Prevention Implementation

3. A.1 Manage and Implement Current SFEP-led Projects			
Actions/projects	Activities	Timeline	Resources/Partners
a) Implement and Track Bay Area Urban Creeks Toxicity/ Pesticides TMDL Project: Greener Pesticides for Cleaner Waterways campaign (GPCW)	For GPCW: Reduce household pesticide use through regional outreach campaign building on Our Water Our World program and Got Ants? materials.	Quarters 1-4	San Francisco Bay Water Quality Improvement Funds
			§320 funding BASMAA
b) Coordinate Supplemental Environmental Projects (Water quality implementation projects funded through RWQCB fines)	<ul style="list-style-type: none"> • Provide project oversight • Coordinate with Water Board staff • Maintain lists of potential and completed projects • Provide project selection assistance to dischargers 	Quarters 1-4	SF Bay Regional Water Board Administrative Civil Liability actions
c) Implement boater education program under the Clean Vessel Act: Increase pump-out usage and awareness among boating community	<ul style="list-style-type: none"> • Edit, reprint and distribute pump-out maps and other outreach materials • Survey and report on condition and use of current pump-outs in the Bay-Delta region. • Work with marinas, boaters and stakeholders to develop a BMP and best technologies toolkit that can be used by other marinas throughout the bay and delta • Host Honey Pot Day events in the bay and delta to educate boaters on sewage related issues • Develop phone tree for boaters to report inoperable pumpouts 	Quarters 1-4	State Dept. of Parks and Recreation, Boating and Waterways CVA Grant

3.A.2 Manage and Assist Current Partner-led TMDL Implementation Efforts

Actions/projects	Activities	Timeline	Resources/Partners
<ul style="list-style-type: none"> Richardson Bay Pathogen TMDL Implementation Implement Sediment TMDLs in Marin, Napa, and Sonoma Counties Implement Pathogen TMDLs in Napa County North Richmond Stormwater Diversion Project Senador Mine Mercury Waste Remediation (Guadalupe R. watershed mercury TMDL) Calcine Paved Roads remediation 	<ul style="list-style-type: none"> Complete monthly/quarterly/semi-annual progress reports Manage subcontracts/sub-recipients Perform site visits Review and manage specific project actions Process invoices and billings Provide contracting support Produce final project reports 	Quarters 1-4	<p>San Francisco Bay Water Quality Improvement Funds</p> <p>County of Marin</p> <p>Northbay Watershed Association</p> <p>Marin Municipal Water District</p> <p>Napa RCD</p> <p>Contra Costa County Flood Control & Water Conservation District</p> <p>Santa Clara County Dept. of Parks & Recreation</p> <p>Santa Clara County Dept. of Parks & Recreation</p>

3. A.3 Potential New Initiatives

Actions/projects	Activities	Timeline	Resources
a) Expand Focus of Clean Boating Program.	<ul style="list-style-type: none"> Research and work with partners Research funding sources. Determine which areas are not being addressed adequately and where SFEP can contribute. <p>Examples: Anti-fouling paints, chemical use in boating, invasive species, oil and fuel disposal,</p>	Dependent on staff availability and new funding/partnerships	DBW or DPH/EPA or others Partnership with SFEI or educational institutions
b) Coordinate Guadalupe Hg TMDL implementation - Los Alamos Creek Reach.	<ul style="list-style-type: none"> Attend pre-planning meetings with EPA and others Identify how SFEP can contribute; assist with grant applications and other communications. 	Dependent on new funding	New funding
c) Facilitate regional purchasing of full trash capture devices	<ul style="list-style-type: none"> Issue Request for Proposals Identify appropriate devices and make available to ABAG member municipalities Pursue opportunities to apply for additional funding for device installation and trash monitoring 	Quarters 1-4	<i>§320 funding</i> Municipal funding

3.B. Green Infrastructure/Low Impact Development (LID)

3.B.1. Manage and Implement Current SFEP-led Implementation Efforts			
Actions/projects	Activities	Timeline	Resources/Partners
a) Design and implement the San Pablo Avenue Green Stormwater Spine	Continue to work with 7 cities and contractors on the design and construction of spine sites, and conduct outreach.	Quarters 1-4	DWR IRWMP Prop 84 Implementation grant SF Bay Water Quality Improvement Fund (EPA) Caltrans CA Natural Resources Agency-UGC Cities
b) Continue to staff LID Leadership Group	Continue to work with and implement the ideas of [as funding allows] the SFEP/ABAG LID Leadership Group.	Quarters 1-4	DWR IRWMP Prop 84 Implementation grant
c) IRWMP planning to facilitate green infrastructure (and multi-benefit project) implementation	Work with the newly created IRWMP sub-regions and continue to identify ways to increase green infrastructure implementation	Quarters 1-4	DWR IRWMP Prop 84 Implementation grant
d) Green infrastructure outreach	<ul style="list-style-type: none"> • Organize/host green infrastructure tracks at conferences • Collaborate with the California Stormwater Quality Association on updates to LID handbook • Review, compile, organize specs/BMPs to make green infrastructure projects easier to bring on line • Participate in newly organized BASMAA Green Streets Workgroup 	Quarters 1-4	§320 funding DWR IRWMP Prop 84 Implementation grant SWRCB Prop 84
e) GreenPlan Bay Area: LID siting and planning with local governments	In concert with SFEI, assist local governments in siting LID features; and developing GreenPlans that institutionalize the placement of such features	Quarters 1-4	§320 funding SWRCB Prop 84
f) Green infrastructure capacity-building.	Assist local governments with strategizing how to partner and fund green infrastructure projects.	Quarters 1-4	§320 funding DWR IRWMP implementation grant SWRCB Prop 84

g) Update green infrastructure web tools	Add green infrastructure materials to SFEP website; include recent monitoring and evaluation results from current projects.	Quarters 1-4	<i>§320 funding</i>
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3.B.2. Manage and Assist Current Partner-led Implementation Efforts

Actions/projects/partners	Activities (vary by project)	Timeline	Resources
<ul style="list-style-type: none"> • City of San Francisco Newcomb Ave. Greening • City of Fremont Tree Well Filter Monitoring • City of Campbell Hacienda Green Street • San Jose Green Streets and Alleys Demonstration project 	<ul style="list-style-type: none"> • Quarterly reports • Site visits • Support and oversee San Francisco Estuary Institute monitoring efforts • Manage sub-recipients' project implementation contracts • Publicize projects • Hold tours and forums • Prepare final report 	Quarters 1-4	SF Bay Water Quality Improvement Fund (EPA) DWR IRWMP Phase 1 implementation grant DWR IRWMP Phase 2 implementation grant

3.B.3 Potential New Initiatives

Actions/projects	Activities (vary by project)	Timeline	Resources
a) Develop homeowners' or municipal building rain garden program	Develop contest and pilot program for homeowners (4 in 2 counties) to implement rain gardens	Dependent on staffing availability	<i>§320 funding</i>
b) Develop cost/benefit analysis for green infrastructure projects in Bay Area.	Find and secure funding to hire environmental economist to conduct cost/benefit analysis of regional green infrastructure projects.	Dependent on availability of staffing, funding	<i>§320 funding</i> New funding

GOAL 4: CHAMPION THE ESTUARY

Outreach and education are foundational to SFEP’s mission and goals, and nearly all of our projects. In FFY 2014 SFEP will continue our efforts to encourage public involvement in our initiatives, and create and implement additional efforts related to **Strategic Plan Goal 4**.

Note that previous sections of this Work Plan highlight our project-specific outreach efforts.

Objectives:

- Promote public involvement in estuary protection through redesigned interactive website
- Educate the community through the biennial State of the Estuary Conference
- Create and publish the 2015 State of the Estuary Report

Measures of Success:

- Increased support for and distribution of SFEP *Estuary News* publication
- Increased attendees at forums, on tours, and at conferences
- Increase in web hits over prior year

Key successes of the previous year:

- Publication of 20th Anniversary CCMP Review in Estuary News magazine (October 2013)
- 11th Biennial State of the Estuary Conference (October 2013) with over 800 attendees first joint effort with the SFEI Regional Monitoring Program deemed a great success.
- Web traffic greatly increased during 2013; from an average of 113 viewers per day from October 2012- March 2013 to 429 viewers per day for the period of April- October 2013
- *Estuary News Magazine* is now largely funded by SFEP partner agencies after a very successful outreach effort to secure broader funding support for the publication.

4.A Manage and Implement Current SFEP Efforts

Actions	Activities	Timeline	Resources
a) Increase public outreach through redesigned website and <i>Estuary News</i> publication	<ul style="list-style-type: none"> • Continue to update and upgrade SFEP website • Leverage information from SOE, Estuary News, etc. for increased outreach and awareness 	Quarters 1-4	\$320 funding
b) Support SFEP projects with enhanced GIS capability	Develop GIS mapping for key Partnership projects and efforts	Quarters 1-4	\$320 funding Grant funds when appropriate
c) Produce print media promoting the Partnership’s projects and programs, building public support for a healthy estuary	<ul style="list-style-type: none"> • <i>Estuary News Magazine</i> Columns in Service Matters (ABAG newsletter) 	Quarters 1-4	\$320 funding Appropriate grant funds and subscriptions
d) Produce project-specific podcasts and public service announcements	Topics to be chosen as projects are completed	Quarters 1-4	\$320 funding Appropriate grant funds
e) Use/enhance online/social media	Continue to support: <ul style="list-style-type: none"> • SFEP Website • Estuary Report video podcasts • SFEP Facebook page 	Quarters 1-4	\$320 funding Appropriate grant funds/ [summer 2014 intern shared with Friends of the Estuary]

f) Commemorate significant dates by highlighting Partnership work	National Estuaries Day event	Quarters 3 & 4	§320 funding Appropriate grant funds
g) Sponsor, plan, and conduct forums, workshops, tours, presentations and conferences	<ul style="list-style-type: none"> • Conduct subregional conferences for local government officials and staff to disseminate the results of green stormwater demonstration projects • Conduct media event/tour of completed projects to highlight project environmental effectiveness. • Coordinate the Bay Delta Science Conference scheduled for October 28-30, 2014. • Plan the State of the Estuary Conference for the Fall of 2015. 	Quarters 1-4	§320 funding Appropriate grant funds
h) Increase outreach efforts through ABAG.	Continue green infrastructure leadership group; sponsor workshops.	Quarters 1-4	§320 funding Appropriate grant funds
i) Implement boater education program under the Clean Vessel Act (Increase pump-out usage and awareness among boating community).	Produce and distribute pump-out maps and other outreach materials	Quarters 1-4	State Dept. of Boating and Waterways CVA Grant
j) Greener Pesticides for Cleaner Waterways campaign	Reduce household pesticide use through regional outreach campaign building on Our Water Our World program and Got Ants? materials.	Quarters 1-4	SF Bay Water Quality Improvement Fund (EPA)

GOAL 5: CONTINUE TO IMPROVE MANAGEMENT OF THE PARTNERSHIP; DIVERSIFY FUNDING SOURCES

In FFY 2014 the administrative team will continue to improve the effectiveness of the Partnership's management activities and implement the objectives of **Strategic Plan Goal 5**.

Objectives:

- Continue to improve overall SFEP program management
- Expand and improve SFEP committee structure and support
- Expand funding sources for Partnership implementation efforts
- Keep current the actions of the CCMP and our reporting on the health of San Francisco Estuary

Measures of Success:

- Continued quality grants administration; good audit compliance and grant reviews
- Diversified funding sources
- Continue to update fundamental documents and reports

Key successes of the previous year:

- SFEP has been awarded a total of \$21.6 million during the period from October 1, 2013 to April 30, 2014 [1/2 way through this FFY] and has an additional 5 applications pending [4 to US EPA and one to the SWRCB for SRF funding]. We continue to expand our list of working partners and diversify funding
- SFEP continues to pass all audit reviews with no corrective actions required.
- Based on interest by the many regional IRWMP partners, SFEP is considering being the applicant for the next two rounds of IRWMP funding expected to be released over the next 1 to 12 months. Our award management expertise will be supported by an approximate 5% of the IRWMP total, further deepening the SFEP funding portfolio.

5.A. Ongoing and Completed Administrative Activities

Action	Activities	Timeline	Resources
a) Provide overall SFEP program management; contracting, budgets, personnel, scheduling, tracking, reporting, and support to sub-recipients and subcontractors, etc.	Actively manage SFEP's 40+ grants and contracts	Quarters 1-4	<i>§320 funding</i> Appropriate grants and contracts
b) Provide meeting support for the Steering Committee, Implementation Committee and Executive Council	Schedule meetings of Steering Committee as needed	Quarters 1-4	SFEI/ consultant support, <i>§320 funding</i>
c) Report to EPA on habitat restoration and fund leveraging	Prepare annual NEPORT reports	Quarter 4	<i>§320 funding</i>
d) Update the Comprehensive Conservation and Management Plan	In a major new effort, SFEP and IC partners are starting the work of updating the CCMP	Quarters 1-4	<i>§320 funding with augmentation for climate change adaptation actions from EPA HQ Climate Ready Estuaries</i>
e) Update the <i>2011 State of the Estuary Report</i>	SFEP and science partners are starting the work of updating the <i>2011 State of the Estuary Report</i>		

SAN FRANCISCO ESTUARY PARTNERSHIP OVERVIEW

PROGRAM ORGANIZATION:

Partnership employees are all staff of the [Association of Bay Area Governments \(ABAG\)](#). The [San Francisco Bay Regional Water Quality Control Board](#) is the lead agency for implementing the CCMP and provides office space, equipment, and office overhead costs as state match to the Partnership. ABAG provides management, administrative, and fiscal support. Staff responsibilities are detailed in Attachment 2.

The Partnership's [Executive Council](#) meets as necessary to provide overall program guidance. Council members include the Executive Director of ABAG; the current U.S. EPA Regional Administrator for Region 9; the Regional Director of the U.S. Fish and Wildlife Service California Nevada Region; the Secretary of California EPA, and the Secretary of the California Resources Agency.

The [Implementation Committee](#) (IC) serves as the oversight committee for the Partnership, and advises implementation efforts, helps set priorities, and supports work plans and budgets. Members represent local/state/federal agencies, business/industry, and environmental organizations.

As called for in the [Strategic Plan](#), the Director is engaged with the San Francisco Estuary Institute to develop strategies for increased integration of science into the SFEP program.

KEY IMPLEMENTATION PARTNERS:

[Friends of the San Francisco Estuary](#) was created in 1991 as a 501(c)(3) organization with an independent Board of Directors. This group is tasked with enhancing public involvement in the regional decision-making processes that affect the natural resources of the Estuary. The Partnership provides limited staff support for Friends' efforts.

[San Francisco Estuary Institute \(SFEI\)](#). A key recommendation of the CCMP in 1991 was to create a regional monitoring and research entity. This was accomplished with the formation of SFEI, a non-profit organization with an independent Board of Directors, which carries out the research and monitoring programs for the Partnership and for many other agencies and projects. SFEI's work informs the primary issues facing the ecosystem, including water quality monitoring of industrial and municipal discharges, legacy pollutants, non-point source pollution, non-native biological invasions, and watershed and wetlands restoration.

[The Delta Science Program](#), a program of the [Delta Stewardship Council](#) and our longtime collaborator, continues to rely on SFEP to administratively support their technical reviews, workshops and advisory panels, peer reviews, and information synthesis products such as the Biennial Delta Science Conference. While the Delta Science Program's focus is the upper Estuary (the Sacramento-San Joaquin Delta), they have frequently partnered with SFEP, as many of the concerns and challenges of the upper Estuary impact the entire Bay-Delta system.

PROGRAM TRACKING AND REPORTING:

SFEP manages or supports approximately 40+ projects and programs throughout the Estuary region.

[Biannual Progress Reports](#) to the EPA Regional Project Officer detail budget information and program progress towards CCMP milestones, targets, and goals.

[The State of the Estuary Conference](#). This biennial, two-day conference examines the ecological status of the estuary and provides opportunities for scientists, decision makers, interest groups, and the public to link SFEP and CCMP implementation activities to other ecosystem management programs and activities. The conference also provides a forum to discuss new research and monitoring data, political and scientific impacts on environmental policy, and priority ecosystem management issues. SFEP produces a summary document on each conference highlighting important findings and issues. The [2013 conference](#) was held October 29-30 2013. During this FFY SFEP will do the planning for and hold the Fall 2015 Conference.

CCMP Tracking. In recognition of the 20th anniversary of the approval of the CCMP, SFEP released a summary of accomplishments and status of CCMP implementation in the *Estuary News Magazine*

<http://www.sfestuary.org/wp-content/uploads/2013/10/EstOct2013-final-Web.pdf>

This special publication reflects both internal and external evaluations on the extent of CCMP implementation over the past 20 years.

Tracking Fund Leveraging. Each year, the Partnership is required to report on two tracking measures for EPA: annual increase in wetland habitats, and the amount of funding leveraged by our EPA Section 320 funding.

ECOSYSTEM TRACKING: STATUS AND TRENDS:

State of San Francisco Bay Report 2015 SFEP and its scientific partners are working to update the 2011 State of the Bay Report and after assessing the current report, update as needed and create new ecological and social indicators to characterize the health of the Estuary. The target is to release the 2015 State of the Estuary report at the Fall 2015 State of the Estuary conference.

Tracking Habitat Changes SFEP relies on its partners, the Joint Venture, ABAG, the San Francisco Bay Water Board, and SFEI to develop and improve ongoing and improved habitat tracking using a GIS format. The Partnership provides funds to support SFEI's web-based habitat tracking system. This project tracks habitat enhancement and the acquisition, restoration, and enhancement of wetlands and riparian habitat. The information is recorded in the annual Government Performance Requirement Act report prepared by EPA.

Monitoring and Reporting on the Bay's Health: The Regional Monitoring Program (RMP) monitors contamination in the Estuary and provides regulators with information necessary for effective water quality management. It is conducted by our partner, SFEI, and funded by Bay Area regulated dischargers (about \$3 million annually). Results are presented at an annual conference and in the Institute's Annual Monitoring Report. SFEI also publishes the annual Pulse of The Estuary; [http://www.sfei.org/sites/default/files/Pulse%202013%20CECs\(1\).pdf](http://www.sfei.org/sites/default/files/Pulse%202013%20CECs(1).pdf)

a quarterly newsletter; technical reports that document specific studies and synthesize information from diverse sources; and journal publications that disseminate RMP results to the world's scientific community. The SFEI web site provides access to RMP products and links to other sources of information about water quality in San Francisco Bay. A 2012 Pulse of the Delta is also available

http://www.waterboards.ca.gov/rwqcb5/water_issues/delta_water_quality/comprehensive_monitoring_program/2012_pulse_of_the_delta.pdf

Wetlands Monitoring Review SFEP works with the San Francisco Bay Wetland Regional Monitoring Work Group, which reviews wetland restoration design and monitoring plans for both regulatory and non-regulatory projects and with the San Francisco Joint Venture, which monitors wetland projects around the region. SFEP is a member of the Joint Venture Board and provides funds to support an intern who assists in wetlands tracking.

TECHNICAL ASSISTANCE TO SFEP PARTNER AGENCIES

Permit Assistance: Joint Aquatic Resource Permit Application (JARPA) Permit Center. SFEP and ABAG have worked with Bay Area regulatory agencies to develop a single permit application form and instructions that consolidate federal, state, and local permits for individual and municipal applicants proposing construction, fill placement, public access impingement, and development activities in or near aquatic environments and wetlands. SFEP maintains a website and provides limited assistance to applicants.

Technical Support for Water Quality Certification and Waste Discharge Requirement Applications (WDRs). Supporting the Water Board, several SFEP, working under contract, provides technical support for reviewing and commenting on 401 permit applications and Waste Discharge Requirements. Typical projects include dredge and fill projects, wetland and flood protection projects, and transportation projects. This work is funded by and supports the efforts of the San Francisco Public Utilities Commission, the Santa Clara Valley Water District, Marin and Sonoma counties and the Alameda County Clean Water Program,.

Support for the National and Regional Invasive Species Task Forces and Management Programs. SFEP assists in implementation of the National Invasive Species Act of 1996 and the *California Aquatic Invasive Species Management Plan*. SFEP partners and staff serve on the Aquatic Nuisance Species National Task Force, the Western Regional Panel on Aquatic Nuisance Species, the California Invasive Species Advisory Committee, and California Marine Invasive Species Program’s Technical Advisory Group. We assist the California State Lands Commission, the San Francisco Bay Water Board, the U.S. Fish and Wildlife Service, California Department of Fish and Game, and others in developing management plans, prioritizing activities, and providing education and outreach to the public and stakeholders about invasive species issues.

SFEP Work Plan: Attachment 1 :FY 2014-2015 ESTIMATED FUNDING

Federal fiscal year October 1, 2014-September 30, 2015

Note: Budget amounts are estimated allocations of total grant awards projected for receipt during the above fiscal year

GRANT #	PROJECT #	PROJECT	TERM	Funder	All Funds FFY 14-15		Total
					Federal	State/Local	
1	Section 320-NEP	SFEP Base Funding Support CCMP Update Funding	10/01/14-09/30/15	US EPA	\$ 538,000		\$ 538,000
2	Regional Board	102015 ACL-SEP Management	07/01/99-----	Regiona Bd Fines	\$ 30,000	\$ 79,836	\$ 79,836
3	00-107-744	102032 DBW-OUTREACH	01/01/14-12/31/15	CA Dept Boating	\$ 184,000		\$ 184,000
4	A3613S	102036 SCVWD	10/01/12-9/30/2015	Santa Clara Valley Water District		\$ 181,500	\$ 181,500
5	Conference	102065 SOE Conference	07/01/07-----	Fund Raising		\$ 79,115	\$ 79,115
6	Conference	102101 CAFW IEP	07/01/01-ONGOING	Conference fees		\$ 33,000	\$ 33,000
7	WS-96932601-0	102130 WCEI_Green Infill	10/01/08-09/30/2015	US EPA	\$ 119,845		\$ 119,845
8	X7-00T04701-0	102134 Estuary 2100	03/01/09-02/29/2016	US EPA	\$ 387,587		\$ 387,587
9	EM-00T34101-0	102180 Estuary 2100-Phase 2	03/10/10-12/31/16	US EPA	\$ 675,816		\$ 675,816
10	11-149-120	102201 Regional Bd TMDL Support	03/27/12-03/27/2015	Regional Board		\$ 14,635	\$ 14,635
11	EBMUD	102202 EBMUD Permit Writer	06/01/12-06/01/2014	East Bay MUD		\$ 189,448	\$ 189,448
12	11-300-809	102203 DBW- Reg Sed Mgnt	05/07/12-6/30/2014	CA Dept. Boating & Waterways			
13	4600009715	102204 IRWM Green Infrastructure	08/16/11-09/30/2016	CA DWR-Prop 84		\$ 792,894	\$ 792,894
14	4600009715	102205 IRWM- DAC Cts	08/16/11-09/30/2016	CA DWR-Prop 84		\$ 510,431	\$ 510,431
15	00T92401-0	102206 EPA-Flood 2.0 Resilient Habitats	07/01/12-12/01/2015	US EPA	\$ 498,269		\$ 498,269
16	00T97901-0	102207 EPA-Greener Pesticides	09/01/12-10/31/2014	US EPA	\$ 73,477		\$ 73,477
17	U59232-0	102208 SGC_Urban Greening-EC3	08/01/12-12/30/2015	Ca Natural Resources Agency	\$ 437,463		\$ 437,463
18	ASC 1034	102210 ASC 1034-WAPP Support	07/01/12-11/15/2013	Aquatic Science Center	\$ 24,466		\$ 24,466
19	Marin Co	102214 Marin/Smart Permit Writer	11/06/12-07/01/2014	County of Marin/SMART		\$ 182,284	\$ 182,284
20	Caltrans	102215 Caltrans Match for Spine		Caltrans		\$ 1,763,361	\$ 1,763,361
21	Sonoma Co	102220 SCWA-Permit Writer	03/15/13-06/30/2015	Sonoma Co Water Agency		\$ 193,308	\$ 193,308
22	DSC 2081	102222 Delta Science Support	07/01/13-06/30/14	Delta Stewardship Council		\$ 177,018	\$ 177,018
23	12-415-550	102223 SWRCB_GreenPlan-Prop 84	0/01/13-11/30/15	State Water Board		\$ 287,994	\$ 287,994
24	PO 5705	102227 Alameda County Permitting	09/24/13-08/09/18	Alameda Flood Control District		\$ 182,190	\$ 182,190
25	W9-99T03401-0	102230 Calcine Paved Roads	01/13/14-12/31/15	US EPA	\$ 454,344		\$ 454,344
26	Various	DWR-IRWMP 2 Implementation	02/04/14-02/04/18	CA DWR-Prop 84		\$ 5,000,000	\$ 5,000,000

Federal Non-NEP	\$ 2,855,267	TOTAL	\$ 3,423,267	\$ 9,667,014	\$ 13,090,281
State/Local	\$ 9,667,014				
Total Non-NEP	\$ 12,522,281				
State/Local % Total	74%				
Federal % Total	26%				
NEP % Total	4%				
NEP % of Federal	16%				

Judy Kelly, Director

Judy manages the overall implementation of the CCMP and the various projects being accomplished by SFEP staff. She has spent most of her career working in the area of water and resource management. For the state of Washington, she helped establish instream flow requirements for Eastside streams and worked on developing marine land policies. In Washington DC, she managed federal coastal programs for NOAA working directly with a number of coastal states and US Territories. At EPA Region 9, she worked on the team that crafted the Bay Delta water quality standards and with the San Francisco Estuary Project during its early development. For the Regional Water Quality Control Board, she worked on regional monitoring issues. In 1996, she went to the CALFED Bay Delta program in Sacramento where she was promoted to Deputy Director. Over the years, she also spent time at a private water company, a non-profit organization, and at a major financial services company.

Judy was appointed as a Commissioner to the Bay Conservation and Development Commission and served from 1995 to 1999. She is from San Francisco, is a graduate of University of California, Berkeley and received an M.S. from Oregon State University in water resources and geography.

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Adrien Baudrimont, Environmental Planner, assists on many SFEP projects. Before joining the Partnership, Adrien worked for several cities in Europe as a consultant in urban planning and sustainable development. After his arrival in California two years ago, he volunteered at the San Francisco Bay Conservation and Development Commission where he learned coastal policies and regulatory process along the Bay. Adrien has a Master in Geography and a Master in Urban Planning from the University of Paris Sorbonne. Adrien.Baudrimont@waterboards.ca.gov (510) 622-2337

Josh Bradt-Watershed Specialist & Project Manager, oversees the San Pablo Avenue Green Stormwater Spine projects and provides support to the Partnership's Watershed Program and regional green infrastructure efforts. Before joining the Partnership, Josh spearheaded the creation of a citywide Watershed Management Plan for the City of Berkeley. He has served as both Executive Director and Restoration Director of the non-profit Urban Creeks Council. He also worked as a Watershed Specialist for the Contra Costa Countywide Clean Water Program. Josh has a B.A. in Political Science from the University of North Carolina.

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Athena Honore serves as project manager for SFEP. Recent projects include pollution prevention work on pcbs and pesticides. Prior to joining SFEP in 2008, Athena managed pollution prevention campaigns at Save the Bay. She brought grassroots support to technical and regulatory environmental issues, leading advocacy efforts to reduce trash pollution in San Francisco Bay and develop infrastructure for Bay-safe disposal of unwanted medications. Before that, Athena consulted for a political campaign firm, supported a grassroots shoreline group in North Richmond, and managed and edited manuscripts at McGraw-Hill/Osborne. A San Francisco Bay Area native, Athena co-holds a patent in Germanosiloxane polymer synthesis from her undergraduate work in chemistry and a B.A. in English from Reed College.

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Jennifer Krebs is a Senior Environmental Planner who is involved with developing and/or managing a wide variety of regional initiatives including Green Infill – Clean Stormwater, Estuary 2100 and Estuary 2100-Phase 2, and the IRWM Green Infrastructure implementation projects. Jennifer also works on a number of projects at ABAG including the Hazardous Waste Planning Program and Projections/Research. She helped design and implement the Joint Aquatic Resources Permit Application, the Bay Area Dioxins Project and the Bay Area Green Business Program. Jennifer has also worked as a local government haz mat specialist and taught physical geography to community college students. She has a Masters Degree in Geography and a Bachelors Degree in International Affairs. Jennifer.Krebs@waterboards.ca.gov 510-622-2135

Karen McDowell received a B.A. degree in biology from UC Santa Cruz, and a Ph.D. in marine ecology from the Florida Institute of Technology. She then worked as Project Coordinator for California Sea Grant's West Coast Ballast Outreach Program (WCBOP) for five years coordinating ballast water issues along the west coast of the US, and with federal and international programs. She began work as an Environmental Planner with the San Francisco Estuary Project (SFEP) in January 2004. She is the lead staff for aquatic invasive species issues; she manages the Clean Vessel Act Education Program (limiting the impacts of sewage discharge from recreational boats); she staffs the San Francisco Bay Restoration Authority, and she is the conference coordinator for the Biennial State of the San Francisco Estuary Conference and Bay-Delta Science Conference. She serves as Chair of the Western Regional Panel on Aquatic Nuisance Species, represents SFEP as an ex-officio member on the federal Aquatic Nuisance Species Task Force, serves on California's Invasive Species Advisory Committee, and serves on technical advisory groups for California's Marine Invasive Species Act. Karen.Mcdowell@waterboards.ca.gov 510-622-2398

Jesse Mills, Environmental Specialist provides support on a variety of SFEP projects. Jesse has a B.S. in Natural Resource Management and Conservation from San Francisco State University. Jesse.Mills@waterboards.ca.gov (510) 622-2465

James Muller-Environmental Planner, leads a dynamic clean boater and outreach program funded by a Clean Vessel Act grant from the California Department of Boating and Waterways. James has a Bachelor's of Science in Biology from Radford University and a Master's of Science in Environmental Management from the University of San Francisco. James.Muller@waterboards.ca.gov, (510) 622-2406

Caitlin Sweeney-Senior Environmental Planner, manages several SFEP projects including the Flood 2.0 grant project as well as the CCMP Update. Prior to joining the Estuary Partnership in 2011, she spent twelve years at the San Francisco Bay Conservation and Development Commission, first as a planner and later as Chief Deputy Director. Caitlin has a B.A. in Biological and Environmental Studies from Mills College, and a Master's in Marine Affairs from the University of Washington. Caitlin.Sweeney@waterboards.ca.gov 510-622-2362

Paula Trigueros-Contract Manager, has over 20 years experience working on Clean Water Act grant projects. She provides overall financial management for the Estuary Partnership, including developing project budgets, monitoring grant and project expenses at the macro and subcontract level, completing project and grant progress reporting; as well as providing contract initiation, negotiation and management functions. Her research and writing experience ranges from drafting environmental impact statements, work plans, and contract work scopes to grant

writing. Her experience has largely focused on engineering and science project implementation. Her twelve years with the San Francisco Estuary Partnership have covered implementation of a wide range of environmental projects. She has a BA and MA in English.

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PROJECT-SPECIFIC STAFF

Derek Beauduy, Environmental Specialist at the SF Regional Water Quality Control Board works under a contract funded by Caltrans. He reviews 401 Certification applications and wetland and creek impact permits for Caltrans projects. Prior to joining SFEP he worked for the Minnesota Department of Transportation where he performed water resources engineering design and environmental permitting for road construction projects. Derek has a BS in Biosystems and Agricultural Engineering from the University of Minnesota.

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Margarete (Maggie) Beth, Environmental Specialist in the Watershed Division at the Regional Water Quality Control Board, works under a contract funded by the Santa Clara Valley Water District (SCVWD). Maggie reviews and comments on CEQA, permit applications, and documents related to stream and wetland impacts including preparing permit conditions and mitigation and monitoring requirements for SCVWD projects. Maggie graduated with honors from San Francisco State University (SFSU) in May 2008 with a B.S. in Environmental Studies - Natural Resource Management and Conservation. While attending SFSU, Maggie worked as an intern at the S.F. Water Board where she reviewed water quality applications under the Clean Water Act Section 401, wrote Water Quality Certifications for wetland and stream impact projects, reviewed and commented on CEQA documents, mitigation and monitoring plans, waste discharge requirements (WDRs) for wetland and stream impacts, and confined animal facilities (CAF's). Margarete.Beth@waterboards.ca.gov 510-622-2338

Susan Glendening, Environmental Specialist at the S.F. Regional Water Quality Control Board, works under a contract funded by the East Bay Municipal Utility District. She is developing a new NPDES permit for potable water discharges applicable to water purveyors throughout the region. Prior to joining the SFEP, Susan worked for the San Francisco Public Utilities Commission for eight years, primarily as an environmental regulatory planner for the city's combined sewer system operations. She also worked with environmental consulting firms on investigations of lower productivity in San Francisco Bay and groundwater and soil remediation projects. Susan holds a B.S. in Biological Sciences from University of California at Davis, and a M.S. in Environmental Management from the University of San Francisco.

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Melissa Gunter, Environmental Planner, works with the S.F. Regional Water Quality Control Board developing a Stream and Wetland Systems Protection Policy and administers permitting and restoration efforts related to the San Francisco Public Utilities Commission Water System Improvement Program. Melissa also provides support for the development of the State Water Resources Control Board's Wetland Area Protection Policy. She previously worked with the State of Florida Department of Environmental Protection's Watershed and Resource Management section on TMDL and NPDES programs as well as provided groundwater resource management, drinking water protection and GIS support for a consulting firm. Melissa has a B.S. in Civil Engineering with an emphasis on Environmental Engineering from the University of South

Florida and a Master's degree in Environmental Engineering Sciences with a focus on Ecological Engineering and Systems Ecology from the University of Florida.

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Ben Livsey ,Environmental Specialist, in the Watershed Division at the Regional Water Quality Control Board, works under a contract funded by the Sonoma County Water Agency (SCWA). Ben reviews and comments on CEQA, permit applications, and documents related to stream and wetland impacts including preparing permit conditions and mitigation and monitoring requirements for SCWA projects permitting reviewing environmental documents and preparing 401 Water Quality Certifications, National Pollutant Discharge Elimination System Permits, and Waste Discharge Requirements and verifying stormwater bmp compliance. Prior to joining SFEP in 2005, he worked with an environmental consulting firm providing water quality and GIS support and assisted in the assessment and prioritization of fish passage barriers in Southern California streams. He has also worked with the various local, state, and federal resource agencies on monitoring and assessment of populations and aquatic habitat conditions of endangered species in California. Ben received a Bachelor of Arts in environmental studies and geography and a Master of Environmental Science and Management in water resources management, all from the University of California, Santa Barbara.

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Paul Modrell, Environmental Specialist assists the Water Board and reviews construction projects for surface water impacts and issues 401 Water Quality Certifications for Marin County Department of Public Works and Sonoma-Marin Area Rail Transit. Prior to joining SFEP, he worked at Alameda County Public Works Agency as an environmental scientist in watershed management, environmental compliance and landscape design. He has a B.A. in Environmental Studies from CSU East Bay, an M.S. in Environmental Management from the University of San Francisco, holds a certificate in landscape architecture from UC Berkeley Extension and is a licensed landscape architect. Paul.Modrell@waterboards.ca.gov (510) 622-5686

Leslie Perry ,Environmental Specialist, in the Watershed Division at the Regional Water Quality Control Board, works under a contract funded by an Alameda County Flood Control and Water Conservation District grant managed by the San Francisco Estuary Partenership. She reviews and issues permits for Clean Water Act Section 401 Water Quality Certification on Alameda County's projects. Leslie previously served as Data Manager for the Surface Water Ambient Monitoring Program. She has an M.S. in Environmental Law from Vermont Law School and received a B.S. in Environmental Studies with a minor in Geography from the University of Oregon.

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Attachment #3					
2013-14 Documentation of Travel Funds Expended Under Section 320 Grant					
Personnel	Position	Dates of Travel	Purpose	Location	Cost
Jennifer Krebs	Principal Environmental Planner	8/8/2013	Travel to CEQA Training	Sacramento, California	\$ 95.93
Jennifer Krebs	Principal Environmental Planner	9/9/2013	Travel to CASQA Conference	Squaw Valley, California	\$ 251.64
Jennifer Krebs	Principal Environmental Planner	9/18/2013	Travel to IRWMP meeting	Vallejo, California	\$ 36.64
Jennifer Krebs	Principal Environmental Planner	10/7/2013	Travel to IRWMP meeting	Sacramento, California	\$ 104.01
Judy Kelly	Director	11/12-11/15/2013	Attend Fall 2013 NEP tech transfer meeting	Mobile, Alabama	\$ 1,464.04
James Muller	Environmental Specialist	11/12-11/15/2013	Attend Fall 2013 NEP tech transfer meeting	Mobile, Alabama	\$ 767.59
Jennifer Krebs	Principal Environmental Planner	1/14/2014	Travel to LID meeting	San Mateo, California	\$ 38.04
Jennifer Krebs	Principal Environmental Planner	1/14/2014	Travel to IRWMP meeting	San Rafael, California	\$ 27.40
Total					\$ 2,785.29

Attachment 4: Completed Projects

Bay Area Trash Capture Demonstration Project..... 1
 Hick’s Flat Mercury Remediation..... 2
 Fish Friendly Farming (SFEP Estuary 2100 – Phase 1) 3
 Bahia Marsh Restoration (SFEP Estuary 2100 – Phase 1) 4
 SFEI – (SFEP Estuary 2100 – Phase 1) 5
 Newcomb Avenue Stormwater Improvements – (SFEP Estuary 2100 – Phase 1) 6
 Integrated Regional Wetland Monitoring Directed Study 7
 Got Ants..... 8

Bay Area Trash Capture Demonstration Project

Jesse Mills, Janet Cox

SFEP’s trash capture demonstration project installed 4,003 trash capture devices, including 42 high-capacity devices, in more than 60 Bay Area municipalities, including cities, towns, and unincorporated county areas. Federal stimulus funds (American Recovery and Reinvestment Act of 2009) and state bond funds provided \$4,245,000 in construction funds, all of which we expended. The project concluded according to the grant agreement, in November 2013.

Funded with \$5 million in federal stimulus funds (the American Recovery and Reinvestment Act of 2009) and California state bond funds (from Propositions 13, 50, and 40), the project was designed to give Bay Areas municipalities experience with different types of trash capture devices, which they will need to install in local storm drainage infrastructure in order to comply with the San Francisco Bay Regional Water Quality Control Board’s Municipal Regional Stormwater Permit, adopted in 2009.

Responsible Partners and Their Roles: SFEP-grant application and management, contract management, technical support, assistance to municipal staff in ordering and installing trash capture devices, developing and maintaining a project website and database, Implementers- 62 bay area municipalities; Funding and oversight – ARRA and bond funded, CA State Water Resources Control Board provided project oversight

Outputs/Products: (1) Quarterly and final progress reports (2) completed QAPP; (3) number of local governments participating in the program; (4) number of program actions implemented; (4) ten case studies illustrating effective BMPs; (5) number of people reached by public outreach campaign.

Milestones: Start 10/01/09; Quarterly Reports; Project Installation Completion 3/1/13.

Budget: ARRA: \$627,145.97 Bond Funds: \$4,265,061.25 Bond PROP 40: \$107,792.78
Total Budget: \$5,000,000.00

Outcomes: 1. Municipalities participating and accepting devices 2. Allocated funds expended by construction deadline 3. Vendors executing contracts and providing devices 4. Installation of Trash Capture Devices 4. Data and feedback on device performance and maintenance across the Bay Area 5. Reduce trash impacts to Bay Area waters including creeks, beaches, San Francisco Bay, and the Pacific Ocean; familiarize local jurisdictions with variety of trash capture devices and vendors; train municipal staff in selection and maintenance of devices

CCMP/Work Plan Goals:

CCMP Goal 13: Promote mechanisms to prevent pollution at its source.

CCMP Goal 14: Where pollution prevention is not possible, control and reduce pollutants entering the Estuary.

CCMP Goal 15: Clean up toxic pollution throughout the Estuary.

Attachment 4: Completed Projects

Work Plan Goal: *Water Quality/Water Use:* Implement the Clean Water Act by supporting TMDL development and implementation across the region. Expand existing SFEP programs and projects to focus on water quality improvements and education and information development for new audiences. Strengthen partnerships, coordinate with other agencies and their programs. Capitalize on ABAG's resources, and collaborate with ABAG staff in delivering water quality improvement information for local governments.

CWA Core Program: controlling nonpoint source pollution on a watershed basis

Hick's Flat Mercury Remediation

Paula Trigueros

The project objective was to remediate mercury mining waste rock at Hicks Flat located in the Rancho de Guadalupe area of the Midpeninsula Regional Open Space District's Sierra Azul Open Space Preserve. The District acquired the Rancho de Guadalupe property in 1995. This particular property lies within the New Almaden Mercury Mining District and was historically used as a waste rock disposal area for the Guadalupe Mines. The Site falls within the Guadalupe River Watershed.

The Hicks Flat Remediation construction project was successfully completed in September of 2013, per the project plans and reports prepared in advance of project implementation. Construction focused on removing approximately 800 cubic yards of perched, unstable mercury mine waste adjacent to Hicks Creek. This unstable mine waste was actively failing into the adjacent Hicks Creek. The slope was stabilized through the removal of approximately 800 cubic yards of over-steepened mine waste. Geotechnical investigations completed prior to construction concluded that a 2.5:1 slope would be stable. Waste material removed from the creek-side slope to achieve the 2.5:1 slope, was placed at a stable flat location onsite, where it was stabilized through grading and erosion control measures

Funding was provided by the Clean Water Act Section 319(h) fund.

Responsible Partners and Their Roles:

SFEP - grant application and management, contract management, subcontract initiation, reporting and invoicing and project financial tracking.

Midpeninsula Regional Open Space District – implementation, construction

San Francisco Bay Regional Water Quality Control Board – project oversight

Outputs/Products: (1) Quarterly and final progress reports (2) completed QAPP; (3) Monitoring Plan (4) Field Implementation Report (5) Project completion information to stakeholders

Milestones: Start 02/01/10; Quarterly Reports; Remediation design; Permits completed; PAEP; Project Completion 12/31/13

Budget: 319(h) Non Point Source Pollution Grant: \$315,000.00 Total Grant Spent: \$ 189,573 Project Match: \$63,221 Total Project Cost: \$252,794

Outcomes: 1. Remedial solutions design 2. Complete permitting of remedial actions 3. Implementation of mercury remediation actions 4. Quantitative evaluation and project assessment

CCMP/Work Plan Goals:

CCMP Goal 2: Restore healthy estuarine habitat to the Bay-Delta, taking into consideration all beneficial uses of Bay-Delta resources.

Attachment 4: Completed Projects

CCMP Goal 5: Stem and reverse the decline of estuarine plants and animals and the habitats on which they depend.

CCMP Goal 13: Promote mechanisms to prevent pollution at its source.

CCMP Goal 17: Promote restoration and enhancement of stream and wetland functions to enhance resiliency and reduce pollution in the Estuary and its watersheds.

Work Plan Goal: *Water Quality/Water Use:* Implement the Clean Water Act by supporting TMDL development and implementation across the region. Expand existing SFEP programs and projects to focus on water quality improvements and education and information development for new audiences. Strengthen partnerships, coordinate with other agencies and their programs. Capitalize on ABAG's resources, and collaborate with ABAG staff in delivering water quality improvement information for local governments.

CWA Core Program: implementing TMDL; controlling nonpoint source pollution on a watershed basis.

Fish Friendly Farming (SFEP Estuary 2100 – Phase 1)

Jennifer Krebs, James Muller

The Fish Friendly Farming (FFF) Environmental Certification Program's goal is to improve water quality in the Napa River watershed by reducing fine sediment and polluted run-off and by restoring riparian habitat. Under the FFF Program, agricultural participants implement BMPs for sediment source reduction and riparian restoration improvements. Certification under the FFF program recognizes the agricultural owner's implementation of the TMDL for fine sediment in the Napa River and San Pablo Bay.

The FFF program uses a scientific approach to land management measures. The technical basis of the FFF program includes a broad range of source information and methodologies. The Beneficial Management Practices (BMPs) used in the FFF Program encompass a comprehensive set of actions to rapidly reduce sources of fine sediment and limit delivery to waterways. The BMPs for the FFF Program address all agricultural activities, facilities and a broad variety of natural resources. The FFF Program implements the TMDL for fine sediment and achieves quantifiable load reductions. The most recent scientific research was incorporated with established theories regarding erosion and hillslope processes, soil science, stream channel fluvial geomorphology, riparian ecology and freshwater aquatic biology to create the BMPs. Funding was provided by the U.S. EPA Region 9 San Francisco Bay Program Grant.

Responsible Partners and Their Roles:

SFEP - grant application and management, contract management, reporting and invoicing and project financial tracking.

California Land Stewardship Institute –project coordination and communication

U.S. EPA Region 9 – project oversight

Outputs/Products: (1) Semi-annual and final progress reports (2) completed QAPP; (3) FFF BMP Workshops (4) List of Landowners attending the workshops (5) BMP implementation (6) Certification of farm plans (6) Site visits and conference

Milestones: Start 03/10/10; Semi-annual Reports; Completion 1/1/14

Budget: EPA San Francisco Bay Water Quality Improvement Fund Program Grant:
\$119,000.00 Total Budget: \$119,000.00

Attachment 4: Completed Projects

Outcomes: 1. BMP Implementation 2. Workshops completed 3 Farm Plan FFF Certifications 4. FFF program enrollment 5. Demonstration of FFF and conference

CCMP/Work Plan Goals:

CCMP Goal 1: Stem and reverse the decline in the health and abundance of estuarine biota (indigenous and desirable non-indigenous), restoring healthy natural reproduction.

CCMP Goal 2: Restore healthy estuarine habitat to the Bay-Delta, taking into consideration all beneficial uses of Bay-Delta resources.

CCMP Goal 3: Ensure the survival and recovery of listed (and candidate) threatened and endangered species, as well as other species in decline.

CCMP Goal 4: Manage the fish and wildlife resources of the Estuary to achieve the goals stated above.

Work Plan Goal: *Water Quality/Water Use:* Implement the Clean Water Act by supporting TMDL development and implementation across the region. Expand existing SFEP programs and projects to focus on water quality improvements and education and information development for new audiences. Strengthen partnerships, coordinate with other agencies and their programs. Capitalize on ABAG's resources, and collaborate with ABAG staff in delivering water quality improvement information for local governments.

CWA Core Program: implementing TMDL; controlling nonpoint source pollution on a watershed basis.

Bahia Marsh Restoration (SFEP Estuary 2100 – Phase 1)

Jennifer Krebs, James Muller

Many agencies and numerous volunteers, led by Marin Audubon, have been working to restore the Bahia marsh, in Novato (Marin County) adjacent to the Petaluma River and Black John Slough, since the mid-2000s. Marin Audubon Society purchased 632 acres adjacent to a residential development in 2003; by 2009, 377 acres of tidal marsh habitat were restored after levees were breached and lowered, and fill was removed. Volunteers have grown and planted over 40,000 native plants to establish transition zones to oak woodland uplands – providing habitat and refuge for endangered California clapper rails and salt marsh harvest mice, the rails' meal of choice. SFEP, using grant funding from the U.S. Environmental Protection agency, has provided funding for the restoration effort and also for a monitoring program to document plant survival over time.

Funding was provided by the U.S. EPA Region 9 San Francisco Bay Program Grant

Responsible Partners and Their Roles:

SFEP - grant application and management, contract management, reporting and invoicing and project financial tracking.

Marin Audubon Society – implementation, reporting, accounting services and personnel oversight
U.S. EPA Region 9 – project oversight

Outputs/Products: (1) Quarterly and final progress reports (2) completed QAPP; (3) Plant propagation (4) Vegetation monitoring (5) Evaluation of plant establishment

Milestones: Start 03/01/09; Quarterly Reports; Completion 12/31/14

Budget: EPA San Francisco Bay Water Quality Improvement Fund Program Grant:
\$56,000.00 Total Budget: \$56,000.00

Attachment 4: Completed Projects

Outcomes: 1. Increased acreage of wetland in transitional/upland zone 2. Improved wetland condition

CCMP/Work Plan Goals:

CCMP Goal 2: Restore healthy estuarine habitat to the Bay-Delta, taking into consideration all beneficial uses of Bay-Delta resources.

CCMP Goal 5: Stem and reverse the decline of estuarine plants and animals and the habitats on which they depend.

CCMP Goal 8: Protect and manage existing wetlands.

CCMP Goal 9: Restore and enhance the ecological productivity and habitat values of wetlands.

Work Plan Goal: *Creek and Wetland Conservation and Restoration:* Integrate projects within key watersheds, from headwaters to tidal waters. Increase the health and resilience of watersheds and increase active partnerships in the region to improve water quality and habitat health. Promote healthy wetlands, streams & watersheds by fostering collaborations of agency and NGO partners working within key watersheds.

CWA Core Program: Wetlands; controlling nonpoint source pollution

SFEI – (SFEP Estuary 2100 – Phase 1)

Jennifer Krebs, James Muller

The San Francisco Estuary Institute's (SFEI's) primary role in Estuary 2100 was as a technical and monitoring resource to all other project partners. SFEI provided technical support for all projects through project design review, monitoring protocol development, Quality Assurance Project Plan (QAPP) preparation, data management, and technical report preparation

Funding was provided by the U.S. EPA Region 9 San Francisco Bay Program Grant

Responsible Partners and Their Roles:

SFEP - grant application and management, contract management, reporting and invoicing and project financial tracking.

SFEI – develop QAPPs, project design review, provide technical and scientific support for monitoring, manage data, prepare and coordinate quarterly invoices, oversee personnel, provide accounting services, prepare technical reports, and prepare quarterly and final reports

U.S. EPA Region 9 – project oversight

Outputs/Products: (1) Quarterly and final progress reports (2) Report describing project-specific design review process (3) Project QAPPs acceptable to the EPA (4) Office based and or field based training workshops; (5) SWAMP comparable database to manage the monitoring data; and (6) Final technical reports, and fact sheets and briefing papers for outreach and capacity-building.

Milestones: Start 03/01/09; Quarterly Reports; Completion 07/31/14

Budget: EPA San Francisco Bay Water Quality Improvement Fund Program Grant: \$268,750.00 Expended (04/30/14): \$247,607.00

Outcomes: (1) Process for reviewing project designs (where appropriate); (2) Well designed projects that will achieve their intended outputs and outcomes; (3) Consistent, expert use of standard and custom monitoring methods; (4) Online visualization and access to monitoring data; and (5) Scientifically defensible annual reports on the status and trends of the projects, relative to their intended outputs and outcomes. In addition, the experience gained by helping projects

Attachment 4: Completed Projects

overcome monitoring problems will be reflected in the statewide and regional monitoring programs.

CCMP/Work Plan Goals:

CCMP Goal 2: Restore healthy estuarine habitat to the Bay-Delta, taking into consideration all beneficial uses of Bay-Delta resources.

CCMP Goal 5: Stem and reverse the decline of estuarine plants and animals and the habitats on which they depend.

CCMP Goal 28: Improve the scientific basis for managing natural resources within the Estuary through an effective monitoring and research program.

Work Plan Goal: *Creek and Wetland Conservation and Restoration:* Integrate projects within key watersheds, from headwaters to tidal waters. Increase the health and resilience of watersheds and increase active partnerships in the region to improve water quality and habitat health. Promote healthy wetlands, streams & watersheds by fostering collaborations of agency and NGO partners working within key watersheds.

CWA Core Program: strengthening water quality standards; improving water quality monitoring

Newcomb Avenue Stormwater Improvements – (SFEP Estuary 2100 – Phase 1)

Jennifer Krebs, James Muller

Architecture for Humanity, a non-profit network of design professionals, designed a traffic-calming, community building, street-greening project for the 1700 block of Newcomb Avenue in San Francisco's low-income Bayview district. This project also implements San Francisco's citywide green streets plan.

Community members and City staff implemented the design for a green streetscape by planting trees and other drought tolerant plants, installing specially designed stormwater-filtering planters to infiltrate stormwater runoff, installing traffic calming chicanes, and creating community gathering places. Since the construction has been completed, SFEP has worked with the City and County of San Francisco to monitor the area to quantify reductions in stormwater runoff due to these improvements. Due to needed construction alterations, a third year of monitoring is expected to quantify the incremental stormwater improvements resulting from improved "Low Impact Design" (LID) construction components. The City and County will also document maintenance costs and compare pre- and post-project traffic speeds, and the pre- and post-project value of adjacent properties.

This project will further public acceptance and understanding of LID concepts, demonstrate the effectiveness of multi-purpose green infrastructure projects; and reduce stormwater flows and pollutants going into the Estuary.

Funding was provided by the U.S. EPA Region 9 San Francisco Water Quality Improvement Fund Bay Program Grant

Responsible Partners and Their Roles:

SFEP - grant application and management, contract management, reporting and invoicing and project financial tracking.

City and County of San Francisco – implement project; prepare and submit invoices and financial statements, oversee personnel, provide accounting services, prepare and submit quarterly and

Attachment 4: Completed Projects

final reports, develop monitoring protocols, conduct monitoring, provide construction support and prepare project evaluation
U.S. EPA Region 9 – project oversight

Outputs/Products: (1) Quarterly and final progress reports (2) Monthly maintenance visits (3) Provide maintenance toolkit for residents (4) Repair southwest drain at Phelps St. (5) Project website with information and resources (6) Design and install signage at project site (7) Construction of a green street that demonstrates the feasibility of green streets (8) report(s) that document the following metrics (a) Comparison of treated and untreated storm water flows and volume; (b) maintenance costs of a green street; (c) changes in traffic speed; and (d) value of adjacent properties.

Milestones: Start 03/01/09; Quarterly Reports; Completion 9/30/14

Budget: EPA San Francisco Bay Water Quality Improvement Fund Program Grant: \$492,500.00 Total Budget: \$492,500.00

Outcomes: (1) Broad Acceptance of LID concepts; (2) demonstration of the effectiveness of multi-purpose green infrastructure projects; and (3) reduction in stormwater flows and volume.

CCMP/Work Plan Goals:

CCMP Goal 13: Promote mechanisms to prevent pollution at its source.

CCMP Goal 25: Adopt and use land use policies, including transportation patterns, that provide incentives for more active participation by the public and the private sector in cooperative efforts that protect and improve the Estuary and its watersheds.

Work Plan Goal: *Green Infrastructure/Low Impact Development.* Develop and implement well-designed and effective green infrastructure projects to reduce stormwater pollution throughout the region.

CWA Core Programs: improving water quality monitoring; controlling nonpoint source pollution

Integrated Regional Wetland Monitoring Directed Study

Paula Trigueros

The purpose of this project was to analyze, interpret and report on fish, invertebrate, primary productivity, and nutrient data and to complete the integrated analysis linking all of the pieces of the Integrated Regional Wetland Monitoring (IRWM) project together. From the analyses of the fish and food web data reports and journal manuscripts were developed, as well as conference presentations, specifically to support Ecosystem Restoration Program management efforts for the Delta. The overall goal of this project was to address the question of how tidal marsh restoration efforts through the bay and delta affect ecosystem processes at different scales with an emphasis on the aquatic habitat and benefits of wetlands to fishes.

Funding was provided through the Ecosystem Restoration Program (ERP) of the California Department of Fish & Wildlife.

Responsible Partners and Their Roles:

SFEP - grant application and management, contract management, reporting and invoicing and project financial tracking.

Department of Fish and Wildlife (Water Branch Sacramento) – ERP Technical Grant Management

Wetlands and Water Resources – Technical Project Lead

Attachment 4: Completed Projects

USGS-Fisheries; USF/GSUF-Nutrients and productivity

Outputs/Products: (1) Quarterly and final progress reports (2) Study Sites Descriptions Reports (3) Journal manuscripts and/or USGS scientific investigation report (4) Conference posters and/or presentations (5) Final Project Report

Milestones: Start 10/01/10; Quarterly Reports; Completion 6/30/14

Budget: Ecosystem Restoration Program – CA Dept of Fish & Wildlife Grant: \$420,000.00
Total Budget: \$420,000.00

Outcomes: (1) A determination of which life stages of each fish species utilize each of the wetlands studied. A determination of how tidal wetlands are being used by fishes for spawning, rearing, feeding or escaping from predation or unfavorably environmental conditions. (2) A determination of the specific types of resources produced within tidal marshes are being utilized by fishes either directly as food or indirectly, such as supporting production of food resources used by fishes. (3) A report that includes information on the implications about the value of tidal wetlands to various fish populations across the range of wetlands studied using the ecological information and connections drawn in the previous objectives/questions.

CCMP/Work Plan Goals:

CCMP Goal 8: Protect and manage existing wetlands.

CCMP Goal 9: Restore and enhance the ecological productivity and habitat value of wetlands.

CCMP Goal 28: Improve the scientific basis for managing natural resources within the Estuary through an effective monitoring and research program.

Work Plan Goal: *Creek and Wetland Conservation and Restoration:* Integrate projects within key watersheds, from headwaters to tidal waters. Increase the health and resilience of watersheds and increase active partnerships in the region to improve water quality and habitat health. Promote healthy wetlands, streams & watersheds by fostering collaborations of agency and NGO partners working within key watersheds.

CWA Core Programs: wetlands

Got Ants

Athena Honore

The project implemented an outreach campaign that included social marketing elements, thereby (1) increasing public awareness of the advantages and availability of IPM for managing ants, (2) decreasing the public's use of pyrethroid sprays for ants and decreasing professional use of pyrethroid and fipronil perimeter sprays by pest management professionals or PMPs (also known as pest control operators, or PCOs), and (3) promoting use of IPM practices to protect surface water quality through social media that municipalities and other entities can adopt after project completion.

This project used a social marketing approach to change pest management practices of the public, both those who manage pests on their own at home and those who hire PMPs. Social marketing is defined as "striving to change the behavior of communities to reduce their impact on the environment. Realizing that simply providing information is usually not sufficient to initiate behavior change, community-based social marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers."¹ Social marketing campaigns identify barriers (why it may be difficult for a given person

¹ Wikipedia, Social Marketing: en.wikipedia.org/wiki/Social_marketing

Attachment 4: Completed Projects

to adopt the desired new behavior); develop a strategy that uses tools that change behavior; pilot the strategy; and evaluate the strategy once it has been implemented across a community. Behavioral change tools include commitments, prompts, norms, communication, incentives, and removing barriers.

This project was made possible by the existing body of work on ant behavior and biology, pesticide impacts, and IPM practices. This project expanded the reach of the Our Water, Our World program's less-toxic pesticide list, ant fact sheets, and pocket guides; UC IPM's ant videos and printed materials; and EcoWise Certified and GreenPro's lists of certified IPM providers. The project built a new interface that made this body of work instantly accessible, more understandable, and applicable during the times when people have an ant emergency. A social marketing campaign will reach new people in new ways through an internet portal with simplified messages such as Clean It, Caulk It, Bait It, and Wait, Facebook, and mobile phone advertising-ready bites. Also included were low-cost methods such as electronic blasts through numerous partners, earned (free) media, and radio public service announcements.

Funding was provided through the CA Department of Pesticide Regulation Grant Program

Responsible Partners and Their Roles:

SFEP - grant application and project management, contract management, reporting and invoicing and project financial tracking.

Bay Area Stormwater Management Agencies Association (BASMAA) – implement outreach campaign through social marketing and expansion of the Our Water, Our World less-toxic pesticide program

Bio-Integral Resource Center (BIRC) – technical expertise and review related to the development of outreach materials

Outputs/Products: (1) Quarterly, semi-annual and final progress reports (2) Campaign target audience profile (3) Campaign materials created by consultant (4) Launch calendar, Launch activities report including earned media report and new activities (5) Evaluation Plan (6) Reports and records of management and development team meetings (7) Final project report

Milestones: Start 12/01/11; Quarterly Reports, Semi-Annual Reports; Completion 5/30/14

Budget: Department of Pesticide Regulation Grant: \$200,000.00 Total Budget: \$200,000.00

Outcomes: (1) Increased public awareness of the advantages and availability of IPM for managing ants, (2) Decreased public use of pyrethroid sprays for ants and decreasing professional use of pyrethroid and fipronil perimeter sprays by pest management professionals or PMPs (also known as pest control operators, or PCOs), and (3) Promoted use of IPM practices to protect surface water quality through social media that municipalities and other entities can adopt after project completion.

CCMP/Work Plan Goals:

CCMP Goal 13: Promote mechanisms to prevent pollution at its source.

Work Plan Goal 4: *Champion the Estuary* Through conferences, workshops, print media, and our website, provide local decision makers and the public with reliable information needed to make policy and personal decisions in favor of Estuary health

CWA Core Program: controlling nonpoint source pollution on a watershed basis