

## SAN FRANCISCO ESTUARY PARTNERSHIP

### Implementation Committee Meeting

Wednesday, August 24, 2016, 9:30 a.m. – 12:30 p.m.

1515 Clay Street, 2<sup>nd</sup> Floor, Room 10, Oakland, CA

### AGENDA

- |       |  |   |
|-------|--|---|
| 9:30  | <b>1. Welcome and Introductions</b>  | Amy Hutzel, Chair                               |
| 9:35  | <b>2. Public Comments</b><br>Any member of the public may address the IC on any matter regarding implementation of the Comprehensive Conservation and Management Plan. Speaker will be limited to three minutes. |   |
| 9:40  | <b>3. Action: Approve 5/18/16 Meeting Summary (Attachment 1)</b>   | Chair   |
| 9:45  | <b>4. Director's Report (Attachment 2)</b>   | Caitlin Sweeney                                 |
| 10:00 | <b>5. Reports on SFEP Activities</b> <ul style="list-style-type: none"><li>• CCMP Approval Updates</li><li>• CCMP Funding Analysis (Attachment 3)</li><li>• CCMP Launch and Public Outreach Plan</li></ul>       | Caitlin Sweeney<br>Darcie Luce<br>Heidi Nutters |
| 11:00 | <b>Break and CCMP Activity – Room 15</b><br><b>Photo Shoot and Responses to Questions (Attachment 4)</b>   |   |
| 11:40 | <ul style="list-style-type: none"><li>• Estuary News (Attachment 5)</li><li>• Restoration Authority/Measure AA</li></ul>   | Ariel Okamoto<br>Karen McDowell                 |
| 12:20 | <b>6. Concluding Business</b><br><br>Review Road Map; Add Agenda Items for Future Meetings (Attachment 6)<br><br>Announcements   | Chair, Caitlin Sweeney                          |
| 12:30 | <b>7. Adjourn, Additional Photos as Needed</b>   |   |

San Francisco Estuary Partnership  
Implementation Committee Meeting  
Wednesday, May 18, 2016  
Elihu M. Harris Building  
Oakland California

**MEETING SUMMARY**

**1. Welcome & Introductions**

Amy Hutzell, Chair, called the meeting to order.

**2. Public Comments/Meeting Summary Approval**

There were no public comments.

**3. Action: Approve 3/2/16 Meeting Summary**

March 2, 2016 IC Meeting Minutes were approved. Motion to Approve by Carol Mahoney and seconded by Arthur Feinstein. No oppositions to approval.

**4. Director's Report**

Caitlin provided brief comments on several items from the Director's Report attachment, including:

**Staff Transitions**

Jennifer Krebs will retire in June after 12 years with SFEP and 8 with ABAG.

**IC Chair/Vice Chair**

Amy (Chair) and Tom (Vice Chair) are stating their new 5year terms.

**National Estuary Program Reauthorization**

US Congress passed EPA reauthorization, which will likely result in a slight increase over past years appropriations.

**Bay-Delta Science Conference**

Deadline to submit abstracts is June 3, 2016.

**SFEP Project Announcement**

San Pablo Avenue Green Stormwater Spine Project has released construction bid advertisements. Bids due on June 2, 2016.

**5. Reports on SFEP Activities**

○ **SFEP FFY 2016-17 Work Plan Final**

Caitlin provided an overview of the revisions made to the draft Work Plan based on comments received at last IC meeting, including: budget refinements, re-organization

(SFEP projects in lead), consolidation of IRWM projects, and more detail in the new initiative section for activities SFEP would like to pursue. Brief discussion ensued.

- **Action: Approve Work Plan** Motion to Approve Final Work Plan by Arthur Feinstein. Werner Chabot seconded motion. No opposition to approval.

- **Consideration of CCMP**

Caitlin provided a review of the CCMP revision process from start to present. Heidi presented an overview of the draft document and its components. Heidi reviewed the next steps in the CCMP process, some of which are already underway, including: funding analyses, creation of tracking database, finalization of website design, and outreach planning. The document will need final approval by the Executive Council and the EPA.

Each IC member provided comment and discussion ensued. Minor additional revisions to the document were requested by various IC members. Revisions were primarily focused on clarifying language and copy edits. No tasks were added or substantially revised. Amy concluded the discussion by praising Caitlin and staff for steering the CCMP process, reducing the plan from over 200 actions to 32, reaching out to agencies to establish action ownership and collaborations, and adding good graphics.

- **Action: Approve CCMP** Motion by Arthur Feinstein to approve CCMP with additional edits as agreed upon by the IC. Beth Huning seconded motion. The motion carried unanimously.

## 6. Concluding Business

- Review Road Map
  - Amy suggested IC Members send suggested IC agenda items for future meetings to Caitlin
- Announcements: none

## 7. Adjourn: 12:35

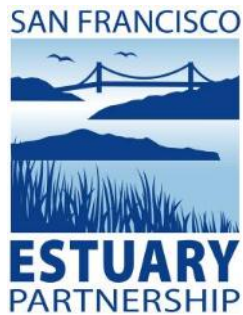
### **Attendees:**

Amy Hutzal, State Coastal Conservancy  
 Tom Mumley, SF Bay Regional Water Quality Control Board  
 Arthur Feinstein, Citizens Committee to Complete the Refuge  
 Kate Poole, NRDC  
 Carol Mahoney, Zone 7 Water Agency  
 Luisa Valiela, US EPA Region 9  
 Michael Vasey, SFB NERR  
 Warner Chabot, SFEI  
 Jane Levelle, SFPUC  
 Jessica Davenport, Delta Council

John Andrew, DWR  
Matt Fabry, San Mateo Countywide Water Pollution Prevention Program  
Jessica Martini-Lamb, Sonoma County Water Agency  
Thomas Kendall, US Army Corps of Engineers  
Beth Huning, SF Bay Joint Venture

**Staff**

Caitlin Sweeney  
Jennifer Krebs  
Josh Bradt  
Heidi Nutters  
Darcie Luce  
James Muller  
Adrian Baudrimount  
Karen McDowell



## DIRECTOR'S REPORT

August 24, 2016

### SFEP Program Management

#### New Staff



Please welcome Rebecca Darr as the Partnership's newest staff person. Rebecca's primary role will be to manage the Integrated Regional Water Management (IRWM) program. Rebecca has a Master's degree in Landscape Architecture from the University of Pennsylvania, and Water Conflict Mediation and Conservation Certificate from Oregon State University. Prior to joining the Partnership, Rebecca spent 20 years working in public/private design and construction projects in New York City that have included significant waterfront components along with environmental remediation and mitigation factors.

#### IC Changes

The 2009 Delta Protection Act recognized the unique Delta values (agriculture, recreation, heritage) and created the Delta Protection Commission to protect, maintain, and enhance the quality of the Delta environment and economy. Over time, however, the focus of the Delta Protection Commission has shifted and they have ceded the habitat and restoration emphases to their sister agencies. With that shift in focus and the need to prioritize the efforts of limited staff, the Delta Protection Commission has resigned from the Implementation Committee. We thank Blake Roberts for his participation and his contributions to the IC.

#### ABAG/MTC Consolidation Status

The ABAG Executive Board and MTC both voted to consolidate ABAG and MTC staff and pursue new governance options over time. An Implementation Action Plan (IAP) has been approved and is being implemented ([http://abag.ca.gov/media/2015\\_merger/ABAG\\_MTC\\_Merger\\_Implementation\\_Plan.pdf](http://abag.ca.gov/media/2015_merger/ABAG_MTC_Merger_Implementation_Plan.pdf)). Currently consultants are undertaking due diligence analyses as the two agencies begin to negotiate a Contract for Services.

## Program Highlights

### New Funding

SFEP has been selected as an EPA FY 2016 San Francisco Bay Water Quality Improvement Fund grant recipient. The \$3,335,366 project (\$1,667,683 in grant funds) is focused on multi-benefit urban greening and tidal wetlands restoration in the South Bay, in partnership with the San Francisco Estuary Institute, South Bay Salt Ponds Restoration Project, Santa Clara Valley Water District, City of Sunnyvale, City of East Palo Alto, Google, SF Bay Regional Water Quality Control Board, San Francisco Bay Conservation and Development Commission, San Francisco Bay Joint Venture, Bay Area Ecosystems Climate Change Consortium, Bay Planning Coalition, Bay Area Flood Protection Agencies Association, Acterra, Canopy, and Peninsula Open Space Trust. SFEP staff are currently working with SFEI to finalize the grant application and will provide more information on the project at the November IC meeting.

### Measure AA

On June 7<sup>th</sup>, over 70% of voters approved a \$12 parcel tax to fund bay enhancement and wetlands restoration in San Francisco Bay, exceeding the two-thirds majority required for approval. This is the first parcel tax to be levied across the nine county Bay Area region. The measure will generate \$25 million per year for the next 20 years.



The San Francisco Bay Restoration Authority (SFBRA) will distribute the money through grants. Projects will be prioritized based on their positive impact on the San Francisco Bay as a whole, with provisions to ensure that projects would be funded in each of the nine counties. The first request for proposals will most likely be released in the summer of 2017, with the first set of projects being awarded in early 2018.

The SFBRA, the Association of Bay Area Governments (ABAG), and the State Coastal Conservancy (SCC) are currently working on developing a joint powers agreement that would provide for the SCC, ABAG, and SFEP to provide staff services to the SFBRA.

See [www.sfbayrestore.org](http://www.sfbayrestore.org) for additional information.

### Bay-Delta Science Conference



The Biennial Bay-Delta Science Conference is a forum for presenting technical analyses and results relevant to the Delta Science Program's mission to provide the best possible, unbiased, science-based information for water and environmental decision-making in the Bay-Delta system. The goal of the

conference is to provide new information and syntheses to the broad community of scientists, engineers, resource managers, and stakeholders working on Bay-Delta issues. The conference program will feature oral and poster presentations that provide scientific information and ideas relevant to the topic sessions. Registration for the conference will open in mid-September. For additional information, see <http://scienceconf2016.deltacouncil.ca.gov/>.

## San Pablo Avenue Green Stormwater Spine

The San Pablo Avenue Green Stormwater Spine project's pre-construction meeting was held on August 12 with the bid winning construction firm (Ghilotti Bros, Inc), our construction management firm (Harris & Assoc), design team (led by Wilsey-Ham, Inc), and city partner representatives. The winning bid was \$2.5M to construct green infrastructure street & sidewalk retrofits at locations selected by our city partners -- Oakland, Emeryville, Berkeley, Albany, El Cerrito, Richmond and San Pablo (see map).

Fully implemented, the project will treat over 8 acres of impervious area along this Priority Development Corridor. We anticipate an 8-month construction schedule, but may face delays due to Caltrans permit issues and the impacts of a 10-alarm, July 4th fire at our Emeryville site. Construction funding comes from Caltrans, the Department of Water Resources, and the Natural Resources Agency's Sustainable Growth Council.



*Planned Interpretive Signage for each location*

## North Richmond Pump Station

This innovative project was recently completed by Contra Costa County, in partnership with the West Coast Wastewater District, SFEP, and the EPA. In an effort to meet Regional Water Board MRP requirements, the County installed a diversion pump to pipe collected stormwater from first flush and dry weather flows to the nearby pump station for delivery to the local sewage treatment plant. This



pilot project was intended to test the feasibility of the complex permitting process as well as the ability for the sewage treatment plant to accept and treat the stormwater without exceeding their permitted effluent standards. The project found that the diversion was feasible and was even given the 2016 Environment Project of the Year Award from the American Public Works Association.

### **Greener Pesticides for Cleaner Waterways**

The Greener Pesticides for Cleaner Waterways project addresses San Francisco Bay Area water bodies impaired for pesticide toxicity through outreach and education to residential home and garden pesticide users. In early 2017, the project work plan was revised, with an updated plan for final phases of the project. The focus of the last year of the project will be on linking behavior change communication and evaluation. An RFQ was released in July 2016 for the amount of \$90,500 to bring on a consultant to complete this work. SFEP staff have been in close coordination with our funding partners at EPA during this update process.

### **Clean Vessel Act Program**



A Request for Qualifications was posted on July 22 for designing and building a Clean Vessel Mobile application. This app, targeted towards the boating community, will cover the outreach components of our program by displaying useful information about the Bay and Delta pumpout network, how to use a pumpout station, where to find them, etc. It will also streamline the Clean Vessel program's monitoring work by allowing data entry directly through mobile devices. Nine proposals were received at the end of the solicitation period, and a consultant will be selected during the next quarter.

### **Regional Planning Committee Infrastructure Subcommittee**

The RPC Infrastructure Subcommittee, convened by ABAG and chaired by Contra Costa County Supervisor Karen Mitchoff, recently kicked off the first in a series of four meetings to be held this fall on the topic of water supply reliability, distribution, and planning on a regional scale. The purpose of the subcommittee is to plan and execute collaborative steps toward improving and sustaining reliable water supply and distribution in the Bay Area, particularly in the event of supply interruption as the result of natural disaster such as drought or earthquakes.

The subcommittee will identify vulnerabilities in the region's water infrastructure and will engage in discussion of how the urban development process can tie into water supply planning and water resilience



efforts at the regional level. The series will culminate in a larger meeting, “*Bay Area Confluence: A call to action for regional water resilience*,” to be held at the Oakland Museum on November 10.

## Flood Control 2.0

The San Francisco Estuary Institute finalized the San Francisquito Creek Baylands Landscape Change Metrics Analysis, presenting a high level overview of the physical and ecological changes to lower San Francisquito Creek and the surrounding tidal marshes and mudflats since historical times. This Flood Control 2.0 deliverable will be posted on the soon-to-be-released dedicated project webpage, along with all the other project products. The report is currently available at <http://www.sfei.org/documents/san-francisquito-creek-baylands-landscape-change-metrics-analysis>.

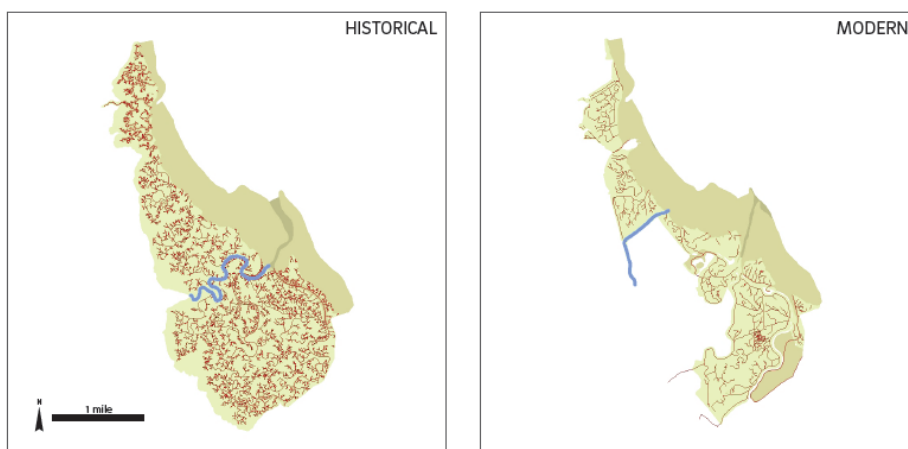


Figure 3. Historical and contemporary channel length for lower San Francisquito Creek mainstem and tributaries. The San Francisquito Creek mainstem has decreased in length by approximately 50% due to channel rerouting and the total length of tributary channels in the surrounding baylands has decreased by approximately 67%. See fig. 2 for habitat type legend. (NAIP 2012)

## IRWM Project Updates

### Los Carneros Water District and Milliken-Sarco-Tulocay Recycled Water Pipelines

On July 21, the Los Carneros Water District in Napa County celebrated completion of its recycled water pipeline, funded in part by a \$2 million IRWM grant to the Napa Sanitation District. SFEP managed this grant as part of the IRWM Round 3 funding contract. The project broke ground in Spring 2015 and installed nine miles of recycled water pipeline at a total cost of \$16 million. The pipeline will supply recycled water to 4,127 acres and 107 parcels in the Carneros District.



*Jim Lincoln, vineyard manager and Carneros District landowner, speaks at the ceremony*

As Jim Lincoln, landowner and vineyard manager for Beckstoffer Vineyards, said at the ceremony, with the pipeline “it’s like living on city water—you just open a tap and it goes. It’s that water reliability thing that I’ve never had before. Now I can think about viticulture, not just water. It stabilizes more than just the vineyard, it stabilizes the industry.”



*L-R: Darcie Luce (SFEP), Rebecca Darr (SFEP), John Stewart (President, Los Carneros Water District), Rita Steiner (NRCS), Dave Steiner (Napa RCD, ret.) at the Los Carneros District recycled water pipeline ribbon-cutting ceremony.*

## Milliken-Sarco-Tulocay Recycled Water Project

Purple, in all shades, is the new black when it comes to water. The Milliken-Sarco-Tulocay (MST) area was included by the Local Project Sponsor, Napa Sanitation District, in its efforts to extend distribution capacity for 4,000 Acre Feet/Year (AFY) of recycled water. In addition to the 1,250 AFY now on line in Napa's Los Carneros Water District, MST currently has connections to private residences, vineyards and the Napa Valley Country Golf Club for 700 AFY with capacity to add an additional 1,300 AFY.



*Kyle Broughton, PE, associate engineer for Napa Sanitation District inside pump house, oversaw completion of the MST distribution grant work.*



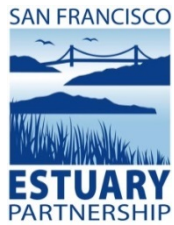
*MST recycled water distribution line at new pump house.*

## Outreach

### June Estuary News

The June issue of *ESTUARY News* magazine covers the latest on climate change adaptation with the watershed — from managing forests to increase snowpack above the San Joaquin Valley to reimagining a derelict urban shipyard and prioritizing shoreline investments based on new decision making tools. Other stories touch on topics like offshore responses to global warming and innovations in pipe replacement for utilities struggling with aging infrastructure. The June issue also includes a special feature story by well-known writer John Hart that delves into the history of the CCMP and regional planning for the Estuary.





Date: August 17, 2016

To: Implementation Committee

From: SFEP Staff

**RE: Consideration of CCMP Funding Analysis (Agenda Item 5)**

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The Funding Analysis is a required component of the CCMP. It is a living document that will be refined as needed over the next five years and will be made available to the public on SFEP's CCMP webpage. The Funding Analysis provides an estimated range of costs associated with implementing each task under every action, and identifies secured and potential funding sources wherever possible. Information was collected by SFEP staff and CCMP task owners using a variety of data sources, including existing grant documents, work plans, budgets and grant applications. This information will be an essential part of both internal tracking and progress reports to the public; as such, SFEP staff is seeking IC input on how to best tell the funding story presented by the Funding Analysis and ways to best provide the information to the public.

**Please find attached the proposed public component of the draft Funding Analysis table. Printed copies will be available at the meeting.**



| CCMP Funding Analysis |  |      |  |  |                  | ATTACHMENT 3       |                 |
|-----------------------|--|------|--|--|------------------|--------------------|-----------------|
| Action                | Action Name  | Task | Task Action  | Milestone  | Low End Total    | High End Total     | Already Funded? |
| 1                     | Develop and implement a comprehensive, watershed-scale approach to aquatic resource protection | 1.1  | Develop a written framework that explains the need for watershed-based aquatic resource protection; frames an approach to meet this need; and identifies and incorporates supporting technical tools and policies. The framework should also address relevant regulatory and governance issues.  | Complete framework.  | \$125,000.00     | \$125,000.00       | Partially       |
|                       |  | 1.2  | Develop criteria to evaluate watersheds that could be used to pilot the Task 1-1 framework. Select a pilot watershed that drains into San Francisco Bay based on these criteria.   | Complete criteria and select pilot Bay watershed   | \$30,000.00      | \$30,000.00        | No              |
|                       |  | 1.3  | Plan and initiate the pilot project with a steering committee of local, regional, and federal agencies involved in aquatic resources management in the selected watershed. The project should build on related efforts to date, and use scientific understanding of historical (pre-settlement) and present-day conditions within the pilot watershed to identify ways to increase the protection of aquatic resources. Recommendations for more comprehensive, watershed-scale management of aquatic resources (with reference to their distribution, abundance, diversity, and condition) should be consistent with governing policies. The pilot project will also identify the best available regulatory mechanisms for achieving ideal future conditions. | Complete Bay watershed pilot project.  | \$1,100,000.00   | \$1,100,000.00     | Partially       |
| 2                     | Establish a regional wetland and stream monitoring program                                     | 2.1  | Develop and implement a Bay Area and Delta regional wetland monitoring plan that establishes separate, yet closely coordinated, steering committees for the upper and lower Estuary. The plan will identify regulatory and management monitoring priorities, as well as existing wetland, stream, or riparian monitoring efforts, to determine where there may be opportunities for partnerships and where there are gaps.   | Hold initial meeting of the steering committees.   | \$75,000.00      | \$100,000.00       | Partially       |
|                       |  | 2.2  | Determine how much funding is needed to support program management and administration, technology purchase and upgrades, hardware and software operations and maintenance, practitioner training and helpdesk support, and annual data synthesis and report; develop a business model to meet these funding needs.   | Complete the business model.   | \$30,000.00      | \$50,000.00        | Partially       |
|                       |  | 2.3  | Complete the California Aquatic Resource Inventory (CARI) for the Delta; complete riparian inventories for the Delta and the Bay Area; upload the inventories into the California EcoAtlas information system.   | Complete the Delta CARI and the Delta and Bay Area riparian inventories.   | \$750,000.00     | \$850,000.00       | Partially       |
|                       |  | 2.4  | Establish a regional network of sentinel tidal marsh monitoring stations within the Delta and the Bay to support ecological functioning and planning, incorporating and building on the San Francisco Bay National Estuarine Research Reserve program.   | Establish sentinel marsh monitoring network.   | \$250,000.00     | \$350,000.00       | Partially       |
|                       |  | 2.5  | Establish a network of streamflow gauges and fish population surveys within select tributary streams to assess aquatic habitat conditions for existing or potentially reintroduced steelhead and salmon  | Establish the stream gauge network.  | \$450,000.00     | \$550,000.00       | Partially       |
| 3                     | Protect, restore and enhance tidal marsh and tidal flat habitat                                | 3.1a | Restore tidal habitat in the Estuary.  | Restore 15,000 acres of tidal habitat in SF Bay.   | \$25,320,000.00  | \$1,273,080,000.00 | Partially       |
|                       |  | 3.1b | Same as above  | Restore 8,000 acres of tidal habitat in the Delta.   | \$300,000,000.00 | \$300,000,000.00   | Yes             |
|                       |  | 3.2  | Protect land to support preservation and enhancement of tidal habitats.  | Acquire and protect 500 acres through various mechanisms including transfer of fee title, donation, or easement. | \$2,500,000.00   | \$3,500,000.00     | Partially       |

| CCMP Funding Analysis |   |      |  |  |                 | ATTACHMENT 3    |                 |
|-----------------------|---|------|--|--|-----------------|-----------------|-----------------|
| Action                | Action Name   | Task | Task Action  | Milestone  | Low End Total   | High End Total  | Already Funded? |
| 4                     | Identify, protect, and create transition zones around the Estuary | 4.1  | Develop a regional steering committee and technical advisory committee to guide a bay-wide, science-based, inventory of existing and projected future transition zones. Base the inventory on current baylands restoration projects, land use, ownership, topography, elevation, and other criteria consistent with climate change adaptation science and regional, state, and federal agency initiatives.   | Establish transition zone inventory steering and technical advisory committees.  | \$60,000.00     | \$60,000.00     | Partially       |
|                       |   | 4.2  | Complete a regional inventory of transition zones based on the methodology developed by the technical advisory committee.  | Complete Bay transition zone inventory.  | \$1,000,000.00  | \$1,500,000.00  | Partially       |
|                       |   | 4.3  | Protect transition zones and land for migration space, based on identified needs and opportunities, through acquisition of fee title, partnerships to develop conservation easements, or other management agreements.  | Protect, or plan to protect, 10 of the identified sites.   | \$250,000.00    | \$350,000.00    | Partially       |
|                       |   | 4.4  | Include enhancement, restoration, or creation of transition zones in tidal restoration projects and multi-benefit climate adaptation projects where feasible.  | Include transition zones in five tidal restoration projects.   | \$225,000.00    | \$2,400,000.00  | Partially       |
| 5                     | Protect, restore, and enhance intertidal and subtidal habitats    | 5.1  | Increase populations of native eelgrass ( <i>Zostera marina</i> ) by expanding the extent of existing beds or establishing new beds on the bay floor.  | Increase eelgrass coverage in the Bay by 25 acres.   | \$4,375,000.00  | \$16,000,000.00 | Partially       |
|                       |   | 5.2  | Increase populations of native oysters ( <i>Ostrea lurida</i> ) by expanding the extent of existing beds or establishing new beds on the bay floor.  | Increase native oyster bed coverage in the Bay by 25 acres.  | \$20,000,000.00 | \$20,000,000.00 | Partially       |
|                       |   | 5.3  | Restore intertidal and subtidal habitats other than eelgrass and oyster beds, such as rocky intertidal, sandy beach, and macroalgal beds. Identify appropriate and feasible sites, secure funds, and implement projects to create or improve these types of habitats as well as projects that integrate multiple habitats.   | Implement five projects in the Bay that focus on rocky intertidal, sandy beach, macroalgal bed, living shorelines, or other integrated habitats. | \$8,000,000.00  | \$10,000,000.00 | Partially       |
| 6                     | Maximize habitat benefits of managed wetlands and ponds           | 6.1  | Analyze the response of birds to management of wetlands and ponds to provide increased nesting, foraging, roosting, and high tide refuge habitat. Investigate the effectiveness of specific habitat enhancement measures such as management of water levels in and adjacent to ponds, varied pond topography, levee improvements, and the creation of islands. Conduct monthly bird surveys in the Bay to assess species response to these measures. | Produce a yearly report on bird response to specific management measures, and share progress within five years.                                  | \$100,000.00    | \$250,000.00    | No              |
|                       |   | 6.2  | Study the ability of managed ponds to sustain waterbird numbers in the Bay. Analyze regional waterbird monitoring data with regard to managed pond use and bird density over time, as compared to other habitats.  | Produce report comparing bird use of various habitat types in the Bay and share results.   | \$100,000.00    | \$250,000.00    | No              |
|                       |   | 6.3  | Study the ability of managed wetlands to sustain diverse species of vertebrates, invertebrates, and endemic and endangered plants over time. Analyze species use, density and diversity as compared to non-managed wetlands.   | Produce report comparing species use and diversity in various managed wetlands in the Bay, and share results.                                    | \$100,000.00    | \$250,000.00    | No              |
|                       |   | 6.4  | Develop a methodology for assessing the long-term costs and benefits of managed wetlands and ponds. Methodology should take into account habitat benefits for multiple species and changes in maintenance requirements resulting from sea level rise and climate change  | Develop and implement a methodology.   | \$100,000.00    | \$100,000.00    | No              |

| CCMP Funding Analysis |  |      |   |  |                 | ATTACHMENT 3    |                 |
|-----------------------|--|------|---|--|-----------------|-----------------|-----------------|
| Action                | Action Name  | Task | Task Action   | Milestone  | Low End Total   | High End Total  | Already Funded? |
| 7                     | Conserve and enhance riparian and in-stream habitats throughout the Estuary's watersheds | 7.1  | Merge the San Francisco Bay Joint Venture's project tracking database with California's EcoAtlas. Identify potential additional functions to facilitate riparian and stream projects.   | Complete merge of project tracking database with EcoAtlas.   | \$400,000.00    | \$600,000.00    | Yes             |
|                       |  | 7.2  | Provide technical and policy guidance to the watershed restoration community and decision-makers. Guide the development of needed stream and watershed data sets, the use of appropriate assessment methodologies, and conservation policy. Critical information includes characterization of key habitat areas, fish monitoring and limiting factors analyses, instream flow needs, and process-based assessment of channel and riparian condition for reaches that support salmonids and other native fish assemblages. Policy guidance will likely address issues such as development setback recommendations, conservation easements, and land acquisition. | Make new policy and technical guidance documents available online.   | \$169,000.00    | \$195,000.00    | No              |
|                       |  | 7.3  | Develop projects and programs to conserve and enhance regional priority stream habitats that support the life history requirements of salmonids and other native fish populations. Emphasize protecting and enhancing the sources of flow and structure elements that maintain dry season aquatic habitats, particularly coldwater refugia, and rehabilitating critical channel and riparian reaches. Guidance will be based on information compiled in Tasks 7-1 and 7-2.  | Establish specific flow enhancement goals, riparian zone improvements, and channel rehabilitation projects for prioritized streams and stream reaches. | \$162,000.00    | \$350,000.00    | No              |
|                       |  | 7.4  | Implement riparian corridor and in-stream habitat restoration and conservation projects throughout the region (primarily informed by Tasks 7-1, 7-2, 7-3), including at least one pilot effort to protect and enhance the sources of flows that maintain aquatic habitats, particularly coldwater refugia and migratory habitat critical to salmonids.  | Conserve 10,000 acres of riparian corridor and restore five miles of creek channel and in-stream habitat.  | \$21,000,000.00 | \$52,000,000.00 | No              |
| 8                     | Protect, restore, and enhance seasonal wetlands  | 8.1  | Re-establish the Interagency Vernal Pool Stewardship Initiative among state and federal agencies. Build relationships through the Initiative with land trusts and conservancies, landowners, Resource Conservation Districts, and municipalities to coordinate planning efforts.  | Re-establish the Vernal Pool Stewardship Initiative.   | \$30,000.00     | \$30,000.00     | No              |
|                       |  | 8.2a | Through the Initiative, leverage funding and investments to protect targeted vernal pools.  | Protect 25% of the targeted acres through easements and other agreements   | \$0.00          | \$0.00          | No              |
|                       |  | 8.2b | Same as above   | Protect at least 300 acres of vernal pool landscapes in the San Francisco Bay region and an additional 500 acres in the Delta region.                  | \$0.00          | \$0.00          | No              |
|                       |  | 8.3  | Develop a white paper on best practices for grazing management to protect seasonal wetlands and enhance habitat quality.  | Complete white paper.  | \$5,000.00      | \$12,000.00     | No              |



| CCMP Funding Analysis |   |      |   |  |                 | ATTACHMENT 3    |                 |
|-----------------------|---|------|---|--|-----------------|-----------------|-----------------|
| Action                | Action Name                             | Task | Task Action   | Milestone  | Low End Total   | High End Total  | Already Funded? |
| 9                     | Minimize the impact of invasive species | 9.1  | Expand and improve invasive species prevention programs. Actions may include developing new or expanding existing policies and programs, conducting outreach, and working with existing bodies to identify priority activities.   | Develop new or expand existing policies and programs to prevent non-native species invasions. Coordinate and streamline programs throughout the western region and identify priority activities. Ongoing until 2021. | \$47,750.00     | \$111,000.00    | Partially       |
|                       |   | 9.2  | Increase early detection, monitoring, and rapid response programs. Rapid response should be adaptive and include activities such as 1) assessing and mapping Estuary-wide distribution of key invasive species; 2) improving the Calflora website and expanding it to include wetland species and to increase citizen reporting of species; 3) working with professional divers associations and training them to detect new invasive species while cleaning boat bottoms; 4) increasing scientific monitoring to measure the number of new species coming into the region; and 5) increasing citizen science monitoring. | Identify 3-4 funding sources for early detection, monitoring, and rapid response, by 2021.   | \$23,875.00     | \$55,500.00     | Partially       |
|                       |   | 9.3  | Implement eradication and control programs with priority given to species detected early, species that have a chance of being eradicated, and species that have extensive impacts on habitats important to the health of the estuarine ecosystem. Research and test pilot control measures for key invasive species.  | Reduce acreage of key invasive species. Ongoing until 2021.  | \$23,875.00     | \$55,500.00     | Partially       |
|                       |   | 9.4  | Provide adequate specificity in permit language requirements for restoration projects to include non-native plant monitoring requirements where appropriate; add language about non-native plant monitoring requirements were lacking. Confirm that Best Management Practices are shared for invasive species where they exist (for example: Invasive Spartina Project Best Management Practices 2016). Confirm that “percent cover” requirements in permits are appropriate to individual invasive species.  | Increase the number of permits with improved invasive spartina requirements  | \$15,000,000.00 | \$15,000,000.00 | No              |

| CCMP Funding Analysis |   |       |   |  |                  | ATTACHMENT 3     |                 |
|-----------------------|---|-------|---|--|------------------|------------------|-----------------|
| Action                | Action Name   | Task  | Task Action   | Milestone  | Low End Total    | High End Total   | Already Funded? |
| 10                    | Increase the efficacy of predator management  | 10.1a | Develop a map showing priority areas in the San Francisco Estuary where actions can be taken to reduce feral cat predation on sensitive species, particularly Ridgway's Rail. This cat predator threat assessment and opportunities map will include: 1) locations of known or suspected feral cat colonies and feeding stations; 2) identification of entity(s) maintaining each cat colony (individual, group-sanctioned, or city and county authorized activity); 3) jurisdictions of landowners with the authority and willingness to enforce the law (map to include all landowners of marshes and adjacent areas); 4) information on city and county cat-feeding station laws; 5) presence of critical Ridgway's Rail populations; and 6) extent of housing and urban development, including landfills and transfer stations. | Produce feral cat threat assessment and opportunities map  | \$32,000.00      | \$32,000.00      | No              |
|                       |   | 10.1b | Same as above   | Engage managers on feral cat management and report on findings.  | \$32,000.00      | \$32,000.00      | No              |
|                       |   | 10.2a | Guide predator management on publicly-owned conservation lands that support threatened and endangered species by: 1) assessing the impacts of management strategies (including the direct removal of predators and landscape alterations to reduce predator access to sensitive habitats) on populations of listed threatened and endangered species (in particular Ridgway's rail, Western snowy plover, and California least tern); 2) developing data and protocols for predator management activities (including predator surveys); 3) engaging managers of conservation lands in needs assessments.  | Complete and disseminate predator management assessment report and recommendations.  | \$75,000.00      | \$150,000.00     | No              |
|                       |   | 10.2b | Same as above   | Implement predator management recommendations at Don Edwards National Wildlife Refuge.   | \$250,000.00     | \$325,000.00     | Partially       |
| 11                    | Increase carbon sequestration through wetland restoration, creation, and management | 11.1  | Work with agencies and willing private landowners to identify appropriate sites and funding sources, and to plan and implement projects that create managed and tidal wetlands on former agricultural lands in the Suisun and Delta region.   | Convert 3,000 acres to wetlands in the Suisun and Delta region.  | \$125,000,000.00 | \$125,000,000.00 | Partially       |
|                       |   | 11.2  | Continue to conduct applied research to better understand atmospheric carbon sequestration and storage fluxes in wetlands in the Bay and Delta. Work within reference systems and utilize scenario testing to inform management and restoration approaches. Quantify greenhouse gas emissions (CO2, CH4, NOx) from different types of wetlands and different management regimes.  | Complete and publish several (1-3) applied research studies on carbon sequestration, as a product of specific restoration and management approaches. | \$100,000.00     | \$300,000.00     |                 |
|                       |   | 11.3  | Support the carbon market by completing relevant offset protocols for wetlands and by developing reference sites and standard carbon monitoring and accounting practices that reduce reporting costs for participants.  | Completion of relevant offset protocols.   | \$598,000.00     | \$698,000.00     | No              |

| CCMP Funding Analysis |   |       |  |   |                 | ATTACHMENT 3    |                 |
|-----------------------|---|-------|--|---|-----------------|-----------------|-----------------|
| Action                | Action Name   | Task  | Task Action  | Milestone   | Low End Total   | High End Total  | Already Funded? |
| 12                    | Restore watershed connections to the Estuary to improve habitat, flood protection and water quality | 12.1  | Develop and disseminate data, information, and tools to assist with site selection and design of multi-benefit projects.   | Disseminate data and tools through a website.   | \$70,000.00     | \$70,000.00     | Yes             |
|                       |   | 12.2  | Advance a multi-benefit project in the Yolo Bypass by establishing a common vision for improvements supported by local, state, and federal agencies.   | Initiate construction of multiple fish passage improvement projects within the Yolo Bypass.                           | \$25,000,000.00 | \$25,000,000.00 | Yes             |
|                       |   | 12.3  | Use the tools developed in Task 12-1, as well as findings from other research and projects (including the Yolo Bypass project) to identify and select sites for multi-benefit projects. In partnership with property owners and public entities, assess existing conditions in the context of historic and projected conditions (including sea level rise) to develop appropriate project scopes and conceptual restoration designs for selected sites.                                    | Develop project scopes and conceptual restoration designs for four sites.   | \$800,000.00    | \$1,200,000.00  | No              |
|                       |   | 12.4  | Secure funding in conjunction with partners to complete designs and construction documents. Obtain necessary permits and approvals for selected sites.   | Initiate implementation phase of two projects.  | \$1,000,000.00  | \$2,500,000.00  | No              |
| 13                    | Manage sediment on a regional scale and advance beneficial reuse                                    | 13.1  | Strengthen Long Term Management Strategy (LTMS) policies on the beneficial reuse of dredged material by expanding programs such as "SediMatch." Resolve logistical issues in matching sediment supply from dredging projects and upland construction sites with habitat restoration and shoreline adaptation projects.   | Expand and improve SediMatch.   | \$82,000.00     | \$100,000.00    | Partially       |
|                       |   | 13.2  | Identify funding to pay for the additional costs of dredged materials disposal beyond "least-cost" options, including costs for offloaders to pump sediment for beneficial reuse projects on Estuary shorelines.   | Identify and secure funding.  | \$13,000.00     | \$16,000.00     | No              |
|                       |   | 13.3  | Identify funds and conduct research and monitoring to quantify all potential sediment sources to the Estuary. Determine sediment needs for maintaining current habitats under various sea level rise projections.  | Complete study and share results.   | \$1,675,000.00  | \$3,550,000.00  | Partially       |
|                       |   | 13.4a | Advance understanding of how the creation of sandy beaches and their replenishment provides multiple benefits in terms of ecosystem health, shoreline erosion control, and sea level rise adaptation. Create (or enhance an existing) monitoring tool to identify potential sites for sandy beach creation or replenishment projects, choose pilot project sites, and track progress. Provide information about the benefits of sandy beaches to regulators and the restoration community. | Release the monitoring and tracking tool.   | \$200,000.00    | \$400,000.00    | No              |
|                       |   | 13.4b | Same as above  | Identify pilot project location, coarse grain sediment source(s), funds for implementation, and begin implementation. | \$1,800,000.00  | \$5,200,000.00  | No              |

| CCMP Funding Analysis |  |       |  |  |                | ATTACHMENT 3   |                 |
|-----------------------|--|-------|--|--|----------------|----------------|-----------------|
| Action                | Action Name  | Task  | Task Action  | Milestone  | Low End Total  | High End Total | Already Funded? |
| 14                    | Demonstrate how natural habitats and nature-based shoreline infrastructure can provide increased resiliency to changes in the Estuary environment. | 14.1  | Develop a primer on how bayshore projects can be designed and optimized to achieve multiple rather than single benefits. Challenge designers and planners to look beyond a primary objective and find opportunities to incorporate not only flood protection but also habitat enhancement and recreational access, among other objectives, in proposed projects.   | Develop primer and implement outreach strategy for primer.   | \$100,000.00   | \$180,000.00   | Partially       |
|                       |  | 14.2  | Develop a system for describing the variety of shorelines around the Estuary based on shoreline features, ecosystem processes, land use, and other relevant factors.   | Develop shoreline typologies.  | \$300,000.00   | \$675,000.00   | Partially       |
|                       |  | 14.3  | Based on the primer developed in Task 14-1 and the system developed in Task 14-2, develop best practices guidelines for natural and nature-based shoreline features that increase the resiliency of the Estuary and provide multiple ecosystem benefits to the region.   | Develop best practices guidelines and recommendations.   | \$200,000.00   | \$300,000.00   | No              |
|                       |  | 14.4a | Construct pilot projects to test and refine natural and nature-based approaches to resilience by applying the guidelines developed in Task 14-3. These pilot projects will build on design and adaptation steps established by projects such as the Oro Loma Horizontal Levee project, the San Rafael Oyster/Eelgrass Living Shoreline Project, and the Aramburu Island Beach Restoration Project. Like these projects, the Task 14-4 pilots will address a specific hypothesis, evaluate the performance of multi-benefit restoration design elements, and budget for monitoring, evaluation, and subsequent design refinement. Results from the pilot projects will be incorporated into a revised version of the guidelines developed in Task 14-3. | Identify, design, permit, and implement three additional pilot projects in the Bay.  | \$3,000,000.00 | \$6,000,000.00 | No              |
|                       |  | 14.4b | Same as above  | Update best practices guidelines.  | \$50,000.00    | \$100,000.00   | No              |
| 15                    | Advance natural resource protection while increasing resiliency of shoreline communities in the Bay Area   | 15.1  | Coordinate programs to provide technical assistance on best practices in climate change planning and adaptation for cities, counties and other stakeholders.   | Form a multi-stakeholder Bay Area Climate Technical Assistance Task Force and complete a work plan for coordinated assistance. | \$89,700.00    | \$89,700.00    | Yes             |
|                       |  | 15.2  | Integrate resiliency and natural resource protection into <i>Plan Bay Area</i> . Lay the groundwork for a more comprehensive regional resiliency effort.   | Complete resiliency section in the 2017 update of Plan Bay Area.   | \$27,600.00    | \$27,600.00    | Yes             |
|                       |  | 15.3  | Support local government efforts to develop shoreline vulnerability assessments that include assessment of natural resources as an asset category.   | Complete vulnerability assessments for all nine Bay Area counties.   | \$6,200,000.00 | \$9,200,000.00 | Partially       |
| 16                    | Integrate natural resource protection into state and local government hazard mitigation, response, and recovery planning                           | 16.1  | Establish and implement innovative approaches for integrating natural resources into hazard mitigation, response and recovery planning in the Delta.   | Complete the Delta Levee Investment Strategy.  | \$1,500,000.00 | \$1,500,000.00 | Yes             |
|                       |  | 16.2  | Provide technical assistance to Bay Area cities and counties including guidance, case studies, and suggested approaches for integrating natural resource protection into hazard mitigation planning. Facilitate completion of hazard mitigation plans (emphasizing the co-benefits of integration with climate adaptation plans) that include specific actions to protect natural resources. Plans should take into account the contribution of natural resources to reduce hazard impacts and increased resiliency.   | Complete 30 Bay Area city or county hazard mitigation plans that include natural resources as an asset category.               | \$96,600.00    | \$126,600.00   | Partially       |
|                       |  | 16.3  | Provide information and technical assistance to Bay Area cities and counties on how to include natural resource considerations in disaster recovery planning. Facilitate completion of Disaster Recovery Plans that include "Recovery Support Functions" (RSFs) for natural resources as described in the Federal Emergency Management Association's National Disaster Recovery Framework (FEMA's NDRF).   | Complete ten local (city or county) Disaster Recovery Plans that include FEMA's NDRF RSFs for natural resources.               | \$130,000.00   | \$130,000.00   | No              |

| CCMP Funding Analysis |   |       |  |   |               | ATTACHMENT 3   |                 |
|-----------------------|---|-------|--|---|---------------|----------------|-----------------|
| Action                | Action Name   | Task  | Task Action  | Milestone   | Low End Total | High End Total | Already Funded? |
| 17                    | Improve regulatory review, permitting, and monitoring processes for multi-benefit climate adaptation projects | 17.1  | Identify opportunities and recommendations for improved regulatory processes for multi-benefit flood control and habitat restoration projects through the existing Flood Control 2.0 project.  | Regulatory guidance and recommendations, reports, workshops, and podcasts.                                      | \$165,000.00  | \$165,000.00   | Yes             |
|                       |   | 17.2a | Analyze current San Francisco Bay Conservation and Development Commission (BCDC) policies governing fill in the Bay in light of sea level rise and the need for adaptation strategies, and revise as necessary.  | At least three workshops to discuss policy issues relating to the Commission's work on rising sea level issues. | \$72,500.00   | \$72,500.00    | Yes             |
|                       |   | 17.2b | Same as above  | Revised BCDC policies.  | \$350,000.00  | \$400,000.00   | Partially       |
|                       |   | 17.3a | Analyze current San Francisco Bay Regional Water Quality Control Board regulations and policies governing the permitting of multi-benefit projects designed to address sea level rise. Develop findings, alternatives, and recommendations to support the Board's evaluation of baylands climate adaptation projects. Address concerns about balancing long-term wetlands protection, restoration, and enhancement against short terms losses in ecosystem function.   | Complete report with recommendations.   | \$130,992.00  | \$130,992.00   | Yes             |
|                       |   | 17.3b | Same as above  | Revised policies as neccessary.   | \$392,976.00  | \$785,592.00   | No              |
|                       |   | 17.4  | Bring major permitting and regulatory agencies together with project implementers and other key stakeholders in workshops to facilitate the creation of a more transparent and predictable system for the review and approval of multi-species and multi-benefit projects over the long-term. Design a model process and overall system that reduces time and conflicts while also outlining a roadmap for those entering into this process for the first time. By providing examples and case studies of successful multi-benefit projects, these workshops can share lessons learned and best practices. | Institute a once or twice yearly workshop.  | \$60,000.00   | \$144,000.00   | Partially       |
| 18                    | Improve the timing, amount, and duration of freshwater flows critical to Estuary health                       | 18.1  | Fund and complete an expert legal evaluation to determine the potential for application of the state's waste and unreasonable use doctrine in the Estuary, within the context of public trust law and the State Board's existing authority, as a means of protecting freshwater flows.   | Complete evaluation.  | \$20,000.00   | \$20,000.00    | Yes             |
|                       |   | 18.2  | Work with partners to disseminate a report highlighting the contribution of freshwater flows to the health of the lower Estuary, San Francisco Bay.  | Disseminate report.   | \$6,200.00    | \$9,200.00     | Partially       |
|                       |   | 18.3  | Assist the State Water Resources Control Board in updating the <i>San Francisco Bay/Sacramento-San Joaquin River Delta Water Quality Control Plan</i> (Bay Delta WQCP) by providing concise, scientifically sound data to the State Board during its deliberations and by keeping the public and local officials informed.   | Complete update of the Bay-Delta WQCP with updated flow objectives.   | \$59,400.00   | \$118,800.00   | Partially       |
|                       |   | 18.4  | Work with relevant partners and agencies to more broadly incorporate freshwater flows messages and information in public outreach materials or relevant programs.  | Add messages to the materials of at least 3 partners.   | \$1,380.00    | \$11,500.00    | No              |
| 19                    | Develop long-term drought plans   | 19.1  | Fund an assessment that analyzes which retail and wholesale water supply agencies around the Estuary have long-term water supply plans for five to 10 year drought.  | Complete assessment.  | \$2,600.00    | \$6,900.00     | No              |
|                       |   | 19.2  | Working through the multi-agency Bay Area Regional Reliability (BARR) partnership, or through individual water agencies, refine or adaptively manage long-term water supply plans for 5-10 year drought.   | Engage at least three water agencies in the region in long-term drought planning.                               | \$69,000.00   | \$115,000.00   | No              |
|                       |   | 19.3  | Highlight the best of the region's efforts by compiling Best Management Practices for Bay Area and Delta agencies. Gather input from agencies throughout the Estuary region.   | Compile and distribute BMPs.  | \$20,000.00   | \$50,000.00    | No              |

| CCMP Funding Analysis |  |      |  |   |               |                | ATTACHMENT 3    |
|-----------------------|--|------|--|---|---------------|----------------|-----------------|
| Action                | Action Name  | Task | Task Action  | Milestone   | Low End Total | High End Total | Already Funded? |
| 20                    | Increase regional agricultural water use efficiency                                | 20.1 | Fund and complete a report assessing one Bay and one Delta area in the Estuary region, evaluating current practices against the range of applicable water use efficiency methods and management practices. Outline the mechanisms by which conserved water could produce great instream flow and groundwater recharge.   | Complete report.  | \$20,000.00   | \$250,000.00   | No              |
|                       |  | 20.2 | Facilitate a forum to explore the challenges and opportunities associated with the development of shall offstream storage and modification of small instream impoundments. Forum should include regulatory agencies, resource conservation districts, stakeholder groups, farmers, and other partners. Forum should also identify funding needs, landowner and agency constraints, and barriers to implementation.   | Complete three new or modified storage projects.                | \$750,000.00  | \$1,500,000.00 | No              |
| 21                    | Reduce water use for landscaping around the Estuary                                | 21.1 | Work with water supply agencies, municipalities, the California Department of Water Resources (DWR), the California State Water Resources Control Board, and others to develop a standardized approach to quantifying and reporting on water use for all new and existing landscaped areas. Use the latest available technology, as well as the methodology developed by DWR for the update 2015 Model Water Efficiency Landscape Ordinance (MWELO), and other methods as appropriate. | Ensure standardized reporting in place.                         | \$10,000.00   | \$59,800.00    | No              |
|                       |  | 21.2 | Working with the partners identified in Task 21-1, develop permanent (i.e., non-drought) performance standards against which progress in reducing landscape water use region-wide will be measured.  | Ensure performance standards in place.                          | \$10,000.00   | \$59,800.00    | No              |
|                       |  | 21.3 | Support expansion of local or regional water efficient landscape maintenance training programs that use the watershed approach. Support use of models such as the California Friendly Landscape Training Program and Bay-Friendly Landscape (Rescape California) Program.  | Launch training programs in three new regions around the state. | \$304,000.00  | \$912,000.00   | Partially       |
|                       |  | 21.4 | Collaborate with municipalities, land use agencies, and others to create pilot programs that expand application of efficiency stands to all new and existing landscape projects.   | Establish pilot programs in three municipalities.               | \$315,900.00  | \$500,000.00   | No              |
| 22                    | Expand the use of recycled water   | 22.1 | Promote existing outreach activities educating the public about recycled water. Encourage the sharing of informational materials, resources, and program models among municipalities, wastewater agencies, and drinking water agencies.  | Develop platform for sharing resources                          | \$10,000.00   | \$12,300.00    | Partially       |
|                       |  | 22.2 | Collaborate with the Bay Area Clean Water Agencies' Recycled Water Committee and others to: expand incorporation of recycled water in local and regional water resources planning processes; identify opportunities for the broader use of recycled water; overcome funding and planning gaps; and address regulatory and permitting constraints.  | Hold three meetings.  | \$5,070.00    | \$8,175.00     | No              |
| 23                    | Integrate water into the updated Plan Bay Area and other regional planning efforts | 23.1 | Organize a regional water summit to help incorporate related water issues in regional planning efforts and <i>Plan Bay Area</i> , in support of Task 23-2. Coordinate staff of the San Francisco Estuary Partnership and the Association of Bay Area Governments to complete this task.  | Hold water summit.  | \$50,000.00   | \$80,000.00    | Yes             |
|                       |  | 23.2 | Incorporate water and San Francisco Bay related issues into the <i>Plan Bay Area 2017</i> update. Consider ways to reduce per capita water use and optimize water recycling in the update, as well as issues such as landscape water use, water quality, stormwater management (low impact development and green infrastructure), and drought preparedness.  | Complete an update of Plan Bay Area.                            | \$27,000.00   | \$27,000.00    | Yes             |
|                       |  | 23.3 | Evaluate opportunities to take similar action through state mandated <i>Sustainable Communities Strategies</i> in the Delta region, using the <i>Plan Bay Area update</i> process as a model.  | Complete evaluation.  | \$20,000.00   | \$50,000.00    | No              |

| CCMP Funding Analysis |  |      |   |   |               | ATTACHMENT 3   |                 |
|-----------------------|--|------|---|---|---------------|----------------|-----------------|
| Action                | Action Name  | Task | Task Action   | Milestone   | Low End Total | High End Total | Already Funded? |
| 24                    | Manage stormwater with low impact development and green infrastructure | 24.1 | Develop outreach materials on lessons learned and the current state of LID benefits knowledge.  | Develop materials.  | \$15,000.00   | \$15,000.00    | Yes             |
|                       |  | 24.2 | Improve the San Francisco Estuary Institute's LID tracking tool "GreenPlan-IT." Enhance all components of the LID planning tool, "GreenPlan-IT."  | Complete refined GreenPlan-IT.                              | \$200,000.00  | \$200,000.00   | Yes             |
|                       |  | 24.3 | Partner with local jurisdictions to analyze LID and GI potential in select areas using Green Plan-IT and other applicable planning tools, and integrate findings into relevant agency planning mechanisms and policies for adoption and implementation.   | Complete identification and analysis.                       | \$400,000.00  | \$400,000.00   | Yes             |
|                       |  | 24.4 | Develop and promote a comprehensive regional road map that identifies key policies, documents, legislation, agencies, and specific actions needed for integrating GI with future climate change, transportation, and other infrastructure investments within the region, including looking for opportunities to implement large regional projects.  | Complete work plan.   | \$120,000.00  | \$120,000.00   | Yes             |
|                       |  | 24.5 | Create and make available to municipalities and other interested parties design tools for LID retrofits, such as: cost-effective, low maintenance standard design details for LID retrofits of typical road configurations; unit cost estimates for both LID retrofit practices and non-LID standard street details; and "lessons learned" reports on previous grant- or local agency-funded LID retrofit projects. | Complete design tools and make available.                   | \$150,000.00  | \$150,000.00   | Yes             |
|                       |  | 24.6 | Create a GIS-based database to track completed LID and GI projects in the public and private realms; coordinate the database with Total Maximum Daily Load (TMDL) accounting systems developed by other local partners to identify and quantify the load reduction benefits of LID and GI.  | Launch database.  | \$140,000.00  | \$140,000.00   | Yes             |
| 25                    | Address emerging contaminants  | 25.1 | Review and update San Francisco Bay CECs management strategy, action plans, and monitoring strategy every two years.  | Complete reviews and updates in 2016, 2018, and 2020        | \$300,000.00  | \$300,000.00   | Yes             |
|                       |  | 25.2 | Support the continuation and evaluate the effectiveness of the regional education program aimed at reducing or eliminating the use of triclosan and triclocarban. Evaluate tools, such as non-purchase agreements, ordinances, or inclusion as a priority product by the California Department of Toxic Substances Control, to reduce personal care products containing triclosan or triclocarban.                  | Complete evaluations.                                       | \$2,300.00    | \$4,600.00     | No              |
|                       |  | 25.3 | Support pharmaceutical CECs reduction efforts, like the Alameda County Safe Drug Disposal program and similar ordinances. Expand to other counties around the Bay and Delta. Work with counties to develop unified regional messaging to promote these ordinances.  | Pass three additional ordinances in Bay and Delta counties. | \$181,400.00  | \$362,800.00   | No              |



| CCMP Funding Analysis |   |       |   |  |                   |                   | ATTACHMENT 3    |
|-----------------------|---|-------|---|--|-------------------|-------------------|-----------------|
| Action                | Action Name   | Task  | Task Action   | Milestone                                      | Low End Total     | High End Total    | Already Funded? |
| 26                    | Decrease raw sewage discharges into the Estuary   | 26.1  | Review sewer lateral repair ordinances currently in operation around the region, and target 30 percent of the uncovered jurisdictions for assistance in developing and passing sewer ordinance modeled on existing ordinances such as those of the Berkeley municipal private sewer lateral (PSL) ordinance and the East Bay Municipal Utility District Regional PSL Ordinance. | Complete review and identify jurisdictions.    | \$5,750           | \$11,500.00       | No              |
|                       |   | 26.2  | Produce and promote a white paper that describes existing and potential funding mechanisms for residents to help pay for private sewer line repair and replacement, such as grant programs and financing strategies   | Complete white paper.                          | \$20,000.00       | \$150,000.00      | No              |
|                       |   | 26.3  | Publish an industry-supported, technically vetted sewage management manual for marinas.   | Complete sewage management manual for marinas. | \$30,000.00       | \$30,000.00       | Yes             |
|                       |   | 26.4a | Develop a mobile app for boaters to report broken pumpouts, and for marinas to report pumpout use and operational status; pilot a mobile pumpout program for marinas and recreational boaters in the Oakland Estuary. Install 10 new dockside pumpout systems in marinas to increase the size and availability of the pumpout network.  | Launch application and pilot program.          | \$50,000.00       | \$50,000.00       | Yes             |
|                       |   | 26.4b | Same as above   | Install 10 new pumpouts.                       | included in 26-4a | included in 26-4a | Yes             |
|                       |   | 26.5  | Work with the Bay Area Pollution Prevention Group (BAPPG ) to identify new audiences for outreach messages about reducing non-flushable items to sanitary sewers to reduce sanitary sewer overflows   | Identify new audiences.                        | \$10,000.00       | \$18,500.00       | Yes             |
| 27                    | Implement Total Maximum Daily Load projects in the Estuary, including projects to reduce mercury, methylmercury, pesticides and areas of low dissolved oxygen | 27.1  | Develop and implement a multi-media outreach campaign aimed at reducing household indoor and outdoor pesticide use.   | Complete final report on outreach campaign.    | \$113,372.00      | \$113,372.00      | Yes             |
|                       |   | 27.2  | Evaluate Best Management Practices (BMPs) in Suisun Marsh to improve marsh water quality and address dissolved oxygen and methylmercury impairment. Characterize managed wetland responses to BMPs through water quality modeling.  | Develop water quality model.                   | \$843,982.00      | \$843,982.00      | Yes             |
|                       |   | 27.3a | Address the Guadalupe River mercury TMDL by implementing RMP monitoring of mercury loads during flood conditions, and by undertaking remediation projects within the Almaden Quicksilver County Park.   | Complete monitoring.                           | \$50,000.00       | \$50,000.00       | No              |
|                       |   | 27.3b | Same as above   | Complete remediation projects.                 | \$4,465,000.00    | \$5,000,000.00    | Partially       |

| CCMP Funding Analysis |  |      |  |   |               | ATTACHMENT 3   |                 |
|-----------------------|--|------|--|---|---------------|----------------|-----------------|
| Action                | Action Name  | Task | Task Action  | Milestone   | Low End Total | High End Total | Already Funded? |
| 28                    | Advance nutrient management in the Estuary   | 28.1 | Secure additional funding to ensure continuation of long-term monitoring of nutrient-related parameters in the Bay through the San Francisco Bay Regional Water Quality Control Board's Nutrient Management Strategy.  | Secure funding and continue monitoring.   | \$95,680.00   | \$100,000.00   | No              |
|                       |  | 28.2 | Undertake and fund water quality research to attain an improved quantitative understanding of San Francisco Bay's "dose response" to nutrients.  | Secure funding and continue research.   | \$95,680.00   | \$100,000.00   | No              |
|                       |  | 28.3 | Update the Nutrient Management Strategy for San Francisco Bay based on monitoring and modeling and load reduction study results from Tasks 28-1 and 28-2.  | Update Nutrient Management Strategy.  | \$100,000.00  | \$100,000.00   | No              |
|                       |  | 28.4 | Develop a Nutrient Research Plan for the freshwater Sacramento-San Joaquin Delta through the Central Valley Regional Water Quality Control Board. Use the plan to determine whether nutrient objectives are needed to protect beneficial uses in upper Estuary.  | Complete Delta Nutrient Research Plan.  | \$706,000.00  | \$706,000.00   | Yes             |
|                       |  | 28.5 | Synthesize existing data and models in the Delta to update and expand the Department of Water Resources' report entitled, <i>Characterizing and quantifying nutrient sources, sinks and transformations in the Delta: synthesis, modeling, and recommendations for monitoring</i> . Use this synthesis to inform the design of the Delta Regional Monitoring Program and develop assessment questions. | Update report.  | \$120,000.00  | \$120,000.00   | Yes             |
|                       |  | 28.6 | Undertake studies in the Estuary related to developing and evaluating alternatives for nutrient management actions, including initial considerations of costs and environmental effects.   | Complete initial studies.   | \$300,000.00  | \$300,000.00   | Partially       |
| 29                    | Engage the scientific community in efforts to improve baseline monitoring of ocean acidification and hypoxia effects in the Estuary. | 29.1 | Convene scientists from around the San Francisco Estuary, including from leading marine laboratories and universities, to identify potential impacts of ocean acidification and hypoxia on beneficial uses of the state's waters. Build a conceptual model that can inform design and implementation of monitoring approach.   | Convene workshop and complete a meeting summary with recommended actions.       | \$10,000.00   | \$25,000.00    | Yes             |
|                       |  | 29.2 | Expand monitoring efforts by deploying equipment such as high precision ocean acidification sensors at the Romberg Tiburon Center for Environmental Studies at San Francisco State University as well as by adding complementary sensors across the Estuary. Link monitoring efforts to the outer coast and Bay. Build on existing monitoring efforts.   | Deploy and maintain monitoring equipment.                                       | \$52,780.00   | \$52,780.00    | Yes             |
| 30                    | Reduce trash input into the Estuary  | 30.1 | Partner with municipalities, counties, pollution prevention organizations, and other stakeholders to research and implement effective extended producer responsibility (EPR) strategies for food and beverage packaging in the Estuary. Highlight successful strategies and develop recommendations for regional and well as local approaches.   | Implement four new EPR ordinances or other strategies based on recommendations. | \$181,400.00  | \$362,800.00   | No              |
|                       |  | 30.2 | Review trash reduction tracking metrics, currently being developed by the Bay Area stormwater permittees, for use in the next <i>State of the Estuary Report</i> .   | Develop a metric for inclusion in the next report.                              | \$10,000.00   | \$1,090,000.00 | No              |

| CCMP Funding Analysis |  |      |   |  |                  | ATTACHMENT 3       |                 |
|-----------------------|--|------|---|--|------------------|--------------------|-----------------|
| Action                | Action Name  | Task | Task Action   | Milestone  | Low End Total    | High End Total     | Already Funded? |
| 31                    | Foster support for resource protection and restoration by providing Estuary-oriented public access and recreational opportunities compatible with wildlife | 31.1 | Develop and distribute educational materials and maps to boaters and various partners that identify areas where shorebirds, waterfowl, and harbor seals forage, rest, and roost; these materials will help eliminate or minimize intrusion.                             | Work with stakeholders to develop region-specific maps, signs, and other educational materials; identify two appropriate mechanisms for distributing materials to boaters two to three times per year. | \$61,000.00      | \$120,000.00       | Partially       |
|                       |  | 31.2 | Add to the San Francisco Bay Trail, closing critical gaps in the main alignment (the “spine”) that links the shoreline of all nine Bay Area counties, while avoiding adverse effects on sensitive resources and wildlife.   | Add 40 miles of new trail segments to the Bay Trail spine.   | \$145,217,000.00 | \$1,614,000,000.00 | Partially       |
|                       |  | 31.3 | Add to the San Francisco Bay Area Water Trail, creating or enhancing high quality public water access every three miles, and paddle-in camping opportunities every eight miles. Access should be designed to avoid adverse impacts to sensitive resources and wildlife. | Complete six new or enhanced San Francisco Bay Area Water Trail sites, including two new or enhanced kayak-in campgrounds.   | \$1,362,000.00   | \$5,720,000.00     | No              |

| CCMP Funding Analysis |                                 |       |  |  | ATTACHMENT 3   |                |                 |
|-----------------------|---------------------------------|-------|--|--|----------------|----------------|-----------------|
| Action                | Action Name                     | Task  | Task Action  | Milestone  | Low End Total  | High End Total | Already Funded? |
| 32                    | Champion and implement the CCMP | 32.1  | Educate and engage targeted audiences in Estuary protection and restoration. Expand communication avenues for the San Francisco Estuary Partnership, including social media presence. Provide educational materials to boaters and boating facilities. Leverage existing programs to support public outreach efforts on the CCMP.                            | Provide communication materials to public audiences one to three times annually.   | \$5,000.00     | \$100,000.00   | Partially       |
|                       |                                 | 32.2a | Educate the regional community by hosting the biennial State of the Estuary conference, supporting the biennial Bay-Delta Science Conference, and supporting ESTUARY NEWS magazine.  | Estuary NEWS (ongoing to 2021)   | \$350,000.00   | \$500,000.00   | Partially       |
|                       |                                 | 32.2b | Same as above  | State of the Estuary Conferences in 2017, 2019, and 2021   | \$930,000.00   | \$1,200,000.00 | Partially       |
|                       |                                 | 32.2c | Same as above  | Delta Science Conferences in 2016, 2018, and 2020  | \$1,140,000.00 | \$1,410,000.00 | Partially       |
|                       |                                 | 32.3a | On a five-year cycle, provide current information about the health status of the Estuary through an updated State of the Estuary Report. Continue to gather data for current indicators, and develop new indicators that provide needed information regarding Estuary health and align with actions in the CCMP.   | Develop a strategy for updating the 2015 State of the Estuary Report, including advancing new indicators.  | \$5,000.00     | \$10,000.00    | Partially       |
|                       |                                 | 32.3b | Same as above  | Update State of the Estuary Report.  | \$275,000.00   | \$340,000.00   | Partially       |
|                       |                                 | 32.4a | Create and implement an online CCMP reporting process to track progress being made on each of the CCMP actions and provide compiled reporting information twice per year. Update the CCMP on a five-year cycle based on assessed progress and updated scientific information in the <i>State of the Estuary Report</i> , and in response to emerging issues. | Report on CCMP progress twice per year (ongoing from 2017-2021)  | \$23,000.00    | \$46,000.00    | Partially       |
|                       |                                 | 32.4b | Same as above  | Initiate CCMP update.  | \$30,000.00    | \$60,000.00    | Partially       |
|                       |                                 | 32.5  | Engage local community organizations in implementing the CCMP. Share information with, and coordinate, professionals and community members working to protect local watersheds through the Bay Area Watershed Network (BAWN). Secure funds to promote community-based watershed stewardship efforts through a small grants program.                          | Maintain the BAWN webpage and email newsgroup, and host or co-host a BAWN annual meeting. Design and implement a small grants program on a biennial schedule. (ongoing until 2021) | \$250,000.00   | \$330,000.00   | Partially       |
|                       |                                 | 32.6  | Identify and expand funds available to partners at all levels to implement the CCMP. This includes tracking, commenting, and sharing information on existing and emerging grant programs, legislation, and other funding mechanisms.   | Maintain and distribute matrix of available funding programs. (ongoing until 2021)   | \$11,500.00    | \$23,000.00    | Partially       |
|                       |                                 |       |  |  |                |                |                 |



Date: August 17, 2016

To: Implementation Committee

From: SFEP Staff

**RE: Implementation Committee Interview and Videos at our upcoming meeting**

SFEP Staff are collecting photos, video and interview responses from our champions of the CCMP – and that includes the Implementation Committee! SFEP staff will feature this content on the soon-to-be developed *CCMP Champions Newsletter*, specifically targeted at the implementers of the CCMP. In addition, it will be used for social media content, the updated CCMP website and for partner organizations to communicate about the CCMP.

As prep for the upcoming meeting, please review and consider your responses to the questions listed below. Come prepared to get your photo taken, wearing your favorite Estuary-themed tie, scarf or other item if you choose!

**SFEP Implementation Committee Interview Questions**

- Why did you decide to participate on the SFEP Implementation Committee?
- What have you learned about the CCMP in the process?
- What 3 words would you use to describe the CCMP?
- What 3 words would you use to describe to the general public what you do in your work?
- In a few short sentences, describe how you see the role of the CCMP in regional planning for the San Francisco Estuary.

**LETTER FROM THE EDITOR**  
**TO THE CCMP Implementation Committee**

8/17/16

ESTUARY News magazine has been around for more than 25 years. Now that the San Francisco Estuary Partnership and its partners are embarking on a new era focused on implementing the 2016 CCMP, what should the role of the magazine be, and are there new priorities for public outreach and education it needs to address?

The following pages provide:

- 1) One page summary of current situation and recommendations
- 2) Background information on editorial board and reader survey responses to questions, as well as budget, readership, and web analytics.
- 3) Optional reading: Appendices detailing editorial board survey responses and some new ideas for public outreach expansion.

Reading or even scanning the attached background material will help us discuss new priorities at the August meeting without getting too much into the weeds, so I hope you will be able to review.

***Suggested Questions for Discussion***

- 1) How can ESTUARY better serve CCMP Partners?
- 2) How can ESTUARY help implement CCMP actions?
- 3) How can ESTUARY's editorial team help provide other public outreach tools and information, in particular the idea for a regionwide tracker and explainer of progress on multiple plans and programs--tracking the trackers?
- 4) Can any partners who are not currently subscribers or contributors in the \$1000-\$20,000 range commit to funding for the next two years?
- 7) Can the CCMP partners suggest any additional funding avenues or specific grants we could apply for?

Thank you for your continued support of this magazine, and our work to communicate your stories, over the years.

If you cannot be at the meeting, I welcome any written or phone feedback and ideas.

***Ariel Rubissow Okamoto***

415-989-2441

[ariel@bayariel.com](mailto:ariel@bayariel.com)

**ESTUARY NEWS MAGAZINE: 2017 AND BEYOND 8/15//16****ONE-PAGE SUMMARY, Status & Recommendations**

- Magazine has a singular dedicated audience, clear regional scope, and is still highly valued after 25 years of publication.
- Majority of readers surveyed and editorial board think we should deepen what we have rather than try to go national or change focus. “If it isn’t broken, don’t fix it.”
- Audience still seems to value and enjoy printed product, as well as longer articles.
- Recent magazine upgrades include: 1) shorter but substantial print articles; 2) more of a magazine look; 3) online clickable table of contents and extended, searchable “featured” articles on their own web pages. 4) Online archive of past issues.  
<http://www.sfestuary.org/estuary-news/>
- Funders (beyond original SFEP federal funding) still value exposure through ESTUARY, and most have agreed to continue funding.
- In 2014, additional funding for administration, outreach, readership expansion, and online “intensification” was sought but not found. So while product consistency has been excellent and improving, outreach and growth of product distribution has not. The magazine has no dedicated support staff.
- **Product:** 12-page quarterly print magazine, plus extended online stories.
- **Distribution** ~ 3,000 (PDF to 900; print mail direct to 1800; bulk to major agencies for internal distribution of 350 copies; online extended stories getting an average of 300 page views).
- **Recent annual cost** -- \$55,973 in 2015 and ~ \$69,467 in 2014 or ~ \$15K/issue (Editorial = 76-80%; printing & mailing 20-24%; admin and overhead 5-10%)
- **Funding:** SFEP ~ 40-50% and 5-6 partners ~ 50-60%)

**Recommended Improvements 2017-2019**

*Add \$30,000 to the annual budget*

- Increase readership and product delivery to a larger audience.
- Increase packaging and delivery options of content for different partners, more national and state web sites, and different devices.
- Stronger networking and social media promotion of content and stories.
- Stronger follow up and reporting on past stories.
- Bring editorial and writing budget up to date to retain quality freelancers.

*Add another \$45,000-\$90,000 and supplement with foundation funding*

- Development of a new series of multi-media, place-based online stories for a more general audience around waterways draining into the Estuary. Target four per year between print issues, but pilot two in 2017.

*Add another \$16,000 or fund from public outreach budgets for various plans*

- Development of online news summary tracking progress and developments on a set of specific plans identified as in need of tracking, all in a single well-organized location with curated summary news and quarterly reports--TBD.



## BACKGROUND

### WISH LIST OF PRIORITIZED NEXT STEPS

*Things we must do to solidify your investment in good content*

- Expand coverage of Delta stories and find more editorial board members from Delta agencies and organizations.
- Targeted promotion of each issue's stories through social media.
- Extra steps to repackage stories as single page PDFs, or to provide a phone-friendly or e-book option.
- Targeted work to expand email and print distribution list, including following up on all the ideas generated by our recent surveys (see Appendices A & B).
- ??

*Things we really should do to strengthen impact*

- Targeted queries to local press in terms of follow up on published stories.
- Targeted coordination with stakeholders and special interests mentioned in stories to link to web sites, including repackaging of stories and material to reflect special interests or POV.
- Targeted blurbs to decisionmakers or legislators about how specific stories might interest or affect them.
- Linking published stories to more points of nexus and contact with partners, other sources of info, etc.
- Allowing online comment/discussion on stories, and curating the commentary.
- More fundraising outside of partner group to support expanded coverage.
- Implement some of the intensification recommendations from SFEI's Tony Hale.
- ??

*Things we'd like to do...*

- Developing two additional types of products between issues: in-depth, online, place-based multi-media stories adding video, audio and interactive elements; user-friendly readable tracking and curating of progress on implementing various regional plans and initiatives. The first idea would challenge us to reach a general audience, and be promoted accordingly. The second idea would challenge us to better serve the engaged audience.
- More reporting on projects and lessons learned in other areas that are relevant to San Francisco Estuary.
- Stepped up reporting on climate change and sea level rise adaptation activities and resilience on the West Coast.
- Raise outside funds to do all or some of the above.
- ???

## Additional Information on Proposed New Products

1) ESTUARY's team has been brainstorming a new product that would enable us to modernize the magazine with a more interactive online presence and link to more CCMP related priorities and programs, while retaining our essential print magazine base.

- **Place-Based Online Multi-Media Stories for a More General Audience** – use a specific canal, creek, lake, slough, watershed to explore how real people and communities relate to water, and how environmental stresses and restoration and resilience opportunities overlap (silo-breaking stories). Target audience more general than current ESTUARY. Product would be extended online stories between print issues, with modest multi-media bells and whistles. Similar Example: <http://projects.sfchronicle.com/2016/sea-level-rise/>

Properly developed, each story would provide a core entry point for linking to more multi-partner political, technical, policy or community engagement information, and reinforcing the kind of “integration,” through overlapping stories on various issues, we are trying to build under the CCMP. In addition, ESTUARY just submitted a proposal for \$5K in seed money to build on this idea with added visualization, film, and community engagement tools, in collaboration with Baykeeper, SFEI, and SFEP (see proposal Appendix C).

2) ESTUARY's editorial board suggested a new product dedicated both to follow up on past stories and to tracking of progress on the myriad larger-scale, regional plans now in various stages of development or implementation. The editorial team wants to explore with the IC and the editorial board what this might mean, where there are gaps in tracking or reporting on tracking, and what plans need to be tracked?

- **ESTUARY-BRIDGE Regional Tracker - News Feed** twice a year (May & September?), brieftyped reports tracking progress on implementation of a number of regional initiatives and plans, and tax dollar spending. Track the trackers and write short (1 para) lively stories linked to other web sites and sources.

*Plans we should track?*

CCMP

Bay-Delta Plan

Plan Bay Area

Restoration Authority Funds Distribution – what projects get the money and why?

????

## Additional Stats & Analytics

### Current distribution ~ 3,000

- PDF to 900
- Print mail direct to 1800 @ 45c per piece mail?
- Bulk to major agencies for internal distribution of 350 copies

| Media | Federal agencies and NEPs | State, regional, and local government agencies and associations | Academics, libraries, and museums/learning centers | Elected officials (state, federal, and local) | NGOs         | Private citizens and unknown | Businesses and consulting firms |
|-------|---------------------------|---|--|---|--------------|------------------------------|---------------------------------|
| 51    | 309 (bulk 55)             | 813 (bulk 165)  | 193 (bulk 25)                                      | 748   | 408 (50bulk) | 110                          | 228 (50 bulk)                   |

### Web Analytics: Between March 2014 – March 2016, (two years since tracking began)

- 20, 240 total views of magazine web site (all pages)
- Online extended stories getting an average of 280-450 page views.
- Archive/old issues visits – more than 1089 visits
- Referrals ~
  - 3338 direct
  - 5200 Google
  - 280 Maven
  - 162 SFEP/SFEI

### MAIN MAGAZINE NAV PAGE VIEWS

| Year | Views |
|------|-------|
| 2014 | 2850  |
| 2015 | 2071  |

### ISSUES MARCH, JUNE, SEPT, DECEMBER

|      | Jan | Feb | Mar | Apr | May | Jun        | Jul | Aug | Sep        | Oct | Nov | Dec |
|------|-----|-----|-----|-----|-----|------------|-----|-----|------------|-----|-----|-----|
| 2014 | N/A | N/A | 175 | 148 | 135 | <b>494</b> | 225 | 105 | <b>363</b> | 105 | 125 | 257 |
| 2015 | 102 | 291 | 211 | 157 | 111 | 342        | 90  | 87  | 309        | 120 | 118 | 298 |
| 2016 | 135 | 96  | 236 | 90  | 93  | 427        | 208 |     |            |     |     |     |

Monthly page views. Cells in green are above 200 views. Top three are bolded

### Types of Stories # Visits

*General Philosophical- LONG*

Mainstreaming Resilience – 298

*Controversial*

No ScapeFish (smelt)– 426

Buckler (illegal wetlands)– 457

*Delta V Bay V Creek*

Defter Delta – 226

Alameda Creek – 406

Island That Came in From Cold (Bay) – 237

*Perspective -Opinion*

Pivot or Pirouette (anonymous opinions- 293

## **Votes on Future Options to Date** (full comments available in appendices)

**Funders** --Three major funders surveyed supported continued publication, and committed to support for an additional 1-3 years.

**ESTUARY's editorial board** (see next page) was asked to vote and comment on 4 options for the future.

- 1) Status Quo
- 2) Status Quo Plus readership expansion and more online and social media follow up to promote stories.
- 3) Close up Shop
- 4) Shift to New Direction and/or seek foundation funding.

Given these choices, respondents voted for 1) Status Quo or 2) Status Quo Plus  
Details: email survey of 23 members & funders & 5-6 active outsiders, 15 responses

### *Board Suggestions Summarized*

- 1) Formalize and expand the editorial board.
- 2) Set up an Executive Board to provide more formal guidance and advice on funding, expansion and direction.  
*Who should be on it? Major funders could be but need to retain editorial independence ESTUARY known for?*
- 3) Analyze readership, readership expansion, and new targets
- 4) Report in targeted fashion on outcomes related to stories from 2-3 years earlier. Someone had a vision, got things started, anticipated outputs and outcomes, but did they materialize?
- 5) Report-track on progress on a variety of regional plans and legislative initiatives, and what taxpayer dollars are being spent on.
- 6) Seek foundation funding for special projects. (SLR may be a good nexus).
- 7) Consider holding an annual fundraising event.
- 8) Develop a business plan.

## **Readers**

An informal survey was also sent to 2000 general readers. More than 30 responses were received. The response was overwhelmingly favorable.

Survey Questions were:

- 1) What do you like most about ESTUARY News Magazine?
- 2) What do you like least?
- 3) Do you read all of Estuary, or just a few stories of interest to you?
- 4) If you were going to add new readers to the mailing list, who do you think would be most interested?
- 5) You currently receive ESTUARY in PDF or print form. Would you prefer to read or receive it in another media or at a different frequency (phone friendly, online text, enhanced online content, email, etc.)?
- 6) Should we provide the opportunity to comment on Estuary stories through social media?

### Current Editorial Board Members – Who Should We Add?

The role of the current board is to provide story and management ideas but it has no formal decision-making authority. This could change, but we don't want to add bureaucracy where none is needed.

1. Chuck Batts, wastewater engineer, BACWA
2. Peter Baye, Botanist, formerly with USFWS
3. Marc Beyeler, Planner, former senior executive Coastal Conservancy
4. Marcia Brockbank, former director SFEP
5. Jay Davis, Scientist, SFEI
6. Jules Evens, Avocet Research Associates
7. Bruce Herbold, Fish Biologist, retired USEPA,
8. Rainer Hoenicke, Delta Science Program
9. Marc Holmes, The Bay Institute
10. Beth Huning, Coordinator SF Bay Joint Venture
11. Amy Hutzel, Director Bay Conservancy
12. John Klochak, Coastal Program Manager
13. Larry Kolb, retired staff regional water board
14. Lisa Lucas, scientist, USGS
15. Steve Moore, State Water Resources Control Board,
16. Richard Morat, Board member Friends of the Estuary
17. Tom Mumley, Assistant Executive Officer, SFBWQCB
18. Tim Ramirez, Natural Resources Director, SFPUC
19. Ann Riley, Watershed Restoration Advisor, SFBRWQCB,
20. Tina Swanson, Science Center Director, NRDC,
21. Caitlin Sweeney, Director, SFEP
22. Doug Wallace, Environmental Affairs Officer, EBMUD
23. Leo Winternitz, Consultant, retired TNC

Need new reps from Save the Bay, RCD, Coastal Commission, BCDC, BayKeeper, local gov, CVRWQCB?????

**ESTUARY BUDGET****CURRENT****Basic Budget Overview**

Per Issue \$15,300 X 4 = \$61,200

Editorial & Freelance \$8,000

Design & Production \$2400

Photos & Maps \$500

Printing \$2100

Mailing-Postage \$ 1300

Wiggle \$1000

\$15,300 minimum

**PREFERRED FUTURE****Basic Budget Overview\***

PER ISSUE \$22,400 X 4 = \$89,600

Editorial & Freelance \$10,000

Design & Production \$2400

Photos & Maps for Print Mag \$600

Printing \$2800

Mailing-Postage \$ 1600

Admin-Outreach Support \$1500

Repackaging & Internet Promotion \$1500

Wiggle \$2000

\$22,400

*\*assuming we may print more, mail more, and do more outreach, administrative work, and marketing.*

**SFEP Overhead Annual ~ \$10,000/year**

Web Layout Support SFEP (32-40 hrs JM)

Mailing List (KM)

SFEP Director Oversight (CS)

Contracting & Billing (20-25 hours)

SFEI Technical Support –Web site & Wufoo (??)

**ADDITIONAL estimated costs****Readership and Outreach Ramp Up and Upgrades**

Year 1- \$8,000-\$10,000 Year 2 - \$5,000 Year 3-0

**ESTUARY BUDGET CONTINUED**  
**PROPOSED PROJECTS OUTSIDE PRINT MAGAZINE BASE OPERATIONS**

**Place-Based Online Multi-Media Series – Base Guesstimate Per Story**

Writing \$4000

Editorial Management \$2000

Video, podcast, interactive science, \$5-10K

Photography \$1000

Layout & posting \$4-7K

Hosting/intensification/technical support/overhead \$2000

Curation of materials and orientation links to other policy, planning, and science information and tools (more than just hyper links) \$2000

Promotion Through Social Media \$2000

\$22,000 - \$30,000 per story

**ESTUARY BRIDGE -- Regional Tracker --**

A more detailed budget could be developed depending on the interest level in, and scope of, this project. Obviously much of the information for this could be collected as part of the ESTUARY team's regular story research activities, but several part-time assistant editors should probably be assigned to specific beats for consistency.

**Guesstimated basic budget:**

Set Up \$10,000

Editorial \$5,000 (one time)

Web/Feed/Email formatting & design (one time) \$5000

Ongoing Annual – Two Reports Per Year \$16,000

Assistant Editors - \$12,000 assistant editor(s) to research and vet content

Posting/web layout 2 times year - \$2000/per (or JM SFEP internal?)

| Estuary Total Budget Overview Round Numbers |                  |                  |                  |
|---|------------------|------------------|------------------|
| Task  | 2017             | 2018             | 2019             |
| Print Magazine                              | \$90,000         | \$90,000         | \$90,000         |
| Distribution Expansion                      | \$10,000         | \$5,000          | \$1000           |
| Place-Based Series                          | \$45,000         | \$90,000         | \$90,000         |
| (2 in 2017, 4 thereafter)                   |                  |                  |                  |
| Update Place Based Series                   |                  |                  | \$5000           |
| Bridge-Tracker                              | \$16,000         | \$16,000         | \$16,000         |
| <b>Totals</b>                               | <b>\$161,000</b> | <b>\$201,000</b> | <b>\$202,000</b> |



## **FUNDING**

### **2016**

\$42,200 raised from outside SFEP contributors

### **2017-2019 Promised Annual Funding To Date ~ \$47,000**

\$20K Delta Science Program

\$12K RMP

\$16-\$20K SFEP (plus overhead)

### **2017-2019 Probable Continued Funding ~ \$10,000 per year**

\$1500 Sonoma County Water Agency

\$2000 Coastal Conservancy

\$1500 BCDC

\$5000 SFEI

### **Past funders**

\$500 BPC?

\$5000 SFPUC?

### **Individual donations**

\$500-\$1000 total per year.

## **Appendix A: Editorial Board Comments**

**Peter Baye** -- I would recommend evaluating the feasibility of seeking foundation funding. We all know there are a few established foundations who have invested heavily in SF Estuary restoration. Maintaining or expanding/adapting Estuary News seems like one of the best ways to ensure public understanding in that investment – and the ecosystem in which those foundation investments fit. Time may be ripe for more foundations approached to support Estuary News... including those threatened by sea level rise in Silicon Valley (not always as “resilient” in planning as it could be; Estuary News would make it smarter!). SFEI is well down the road in engaging Silicon Valley landowners already for resilience planning. Maybe there could be reciprocal benefits (Estuary Google app?).

**Riley, SFBRWQCB** -- I also vote for 1 or 2. Perhaps we should have an in person meeting so we can come up with a plan

**Larry Kolb** -- I vote for #1. Losing Estuary would be tragic, since there is so much human capital in place: writers who understand the complex issues and are good at making them clear, a nose for news from wide-ranging sources, and knowing that Estuary is informing and influencing readers who are opinion leaders. Note that we have *less* coverage of water issues than we did a generation ago. The Pulitzer winner formerly with the Sac Bee got hired away by Met, and some have retired and not been replaced (Jane Kay). We need Estuary more than ever.

**Lisa Lucas**, USGS - Estuary news performs a valuable function, and "it" (you all) does it well. I thus also support 1 or 2, with additional exploration of possible foundation funding, as suggested by Peter.

**Leo Winternitz** -- 1. Why not ask your readers for their opinion via an informal poll in the next issue of Estuary? You could provide the background information and let them express their opinion as to what it is of most interest to them regarding estuary news. Of course you should advise them that you are seeking their opinion only; poll results are not binding but will contribute to the direction of Estuary.

2. Estuary's strength are in-depth stories explained in language that non-expert, ordinary people can understand. Often however, there is no follow-up on the story; was the action a success? A failure? What did we learn? Is the program still running? A lot of money is being spent on Delta/estuarine programs. How are these programs faring? One unique way Estuary might report the news is documenting CCMP implementation, CA Water Fix, Delta Stewardship Council, Delta Conservancy and even Eco Restore actions. You pick the action(s). Estuary would be the eyes and ears for taxpayers and people who have an interest in Bay Delta estuary issues and report back in some depth and in understandable terms. In addition to issue reporting, this

could be an important added new role for Estuary.

**Rainer Hoenicke**, Delta Science Program: I like Leo's suggestions. I think that prior to selecting "the preferred alternative" (my hunch is that it is #2), it would be helpful to update the basic statistics (equivalent to web analytics) if that's not too much of an effort. Has your audience expanded? If so, how? Are new opinion-shapers and decision-makers accessing Estuary either via paper-subscription or web? Has anyone connected Estuary with new folks that participated in the Delta Dialogues, that sits on the Stockton and Sacramento newspaper editorial boards, the environmental studies and resource economics graduate programs at UCD, UoP, Sac State, etc.? Since my own agency is now steeped in "performance measures," I am completely aligned with Leo's suggestion to report in targeted fashion on what the outcomes are that relate to stories from 2-3 years earlier. Someone had a vision, got things started, anticipated outputs and outcomes, but did they materialize?

**John Klochak**, USFWS -- Peter, Leo, and Rainier make good points.

**Marcia Brockbank** - Having believed in its mission combined with your talent & wisdom over these many years I can only support options 1 & 2. I would be willing to brainstorm ideas (assist with phone calls & writing proposals) to seek those funds needed to carry out option 2 with others on the board.

**Marc Beyeler**- I vote for continued publication + Plus, and to incorporate new topics as you pivot to address new and emerging issues of growing concern. In short, Estuary is a vital communication link for me, and I would argue others as well, and will only become more important, not less. There are several points you make that are worthy of future consideration, including importantly sponsored special topics and joint publication. I might offer a couple of ideas to facilitate future planning.

1. Development of a multi-year business or strategic plan, with an annual review by CCMP committee and SFEP executives. Annual reviews are well and good, but planning for the future would benefit from a longer time horizon and we could develop some simple and effective planning metrics and milestones. (I would be willing to help you and team develop a targeted plan that wasn't too elaborate or time-consuming.)
2. Although you probably already rely on a kitchen cabinet and informal advisors, perhaps a small more formal executive committee that rotates membership biannually could also help with ownership and support and share fundraising.
3. An annual hosted event that served as a mixer and put a face to Estuary. Something that attracted a good turnout, but wasn't a lot of work. While events take effort and planning, I believe something could be organized that offered positive benefits without diverting staff time. (Again, since I suggested you consider this

activity, I am happy to help coordinate or coordinate)

I hope Estuary continues to publish and provide an important outlet for up to date and essential information on a range of science and policy topics. If there are tasks that you think are appropriate got me to help with, please don't hesitate to ask.

**Jim Cloern, USGS** -- I vote for #2, expand coverage and readership of Estuary News. I read every page of every issue -- it's a great way to keep up with new events and discoveries, and I told you before how much I appreciated the thoughtful and informative piece by John Hart. \$70K is an absolute bargain and terrific investment. Double that investment would be easily justifiable.

**Phil Trowbridge, SFEI, RMP:** If it's not broken, and you still have stable or growing readership, don't change it. In publishing, most print magazines have lost readership in the last decade.

**Mumley Tom & Jay Davis:** Satisfied with the way ESTUARY supports and works with the RMP. Regular articles working for RMP. Prefer to be able to get these specific articles as stand alones for wider distribution and tweets...

**Jeremy Lowe, SFEI:** I would go for Scenario #2. The passing of Measure AA shows that there is a lot of interest in the Bay from a wider audience. There is also a need for the Restoration Authority to keep the voters informed on how their parcel tax is being spent. Maybe ESTUARY could have a regular section on progress - like a mini State of the Estuary report. List of upcoming projects, why they are important, how they are progressing, how are they contributing to the Goals. Perhaps you could team with the Restoration Authority on this - I'm not sure how they are set up for outreach.

**Chuck Batts** - Option one, with a website presence.... Extended stories and updates could be referenced to the website. Is there a chance that any non-profits could support your publication?

**APPENDIX B: 30 Reader Responses** (available in a separate file on demand).

Note respondents included a wide range of people, among them: Fred Rinne; Fred Nichols; Kerstin Watson, Elkhorn Slough NERR; Dan Ray, Delta Stewardship Council; Ted Frink, DWR; Jeremy Sarrow, County of Napa; Susan Moffat; Janet Cox; Karen Kayfetz; Frances Spivy-Weber, SFBRWQCB; Rachel Mixon, USGS; Peggy Olofsan, Olofsan Environmental; Steve Andrews, Engineer, Resource Management Associates; Carrie Austin, SFBRWQCB; Katrina Sukola; Susan Schwartz, Friends of Five Creeks; Dave Melilli, Rio Vista Public Works; Deb Kramer, Keep Coyote Creek Beautiful; Jerry Meral, Natural Heritage Institute; Ernst Schneidereit, teacher, Independent Learning Center, Woodland School District; Kathleen Van Velsor, CA Dept Conservation; Anita Thompson Kelly; Ted Smith; Ford Greene, HUB Law Offices, Rep San Anselmo

## **APPENDIX C: OTHER PUBLIC OUTREACH IDEAS THAT SUPPORT THE CCMP**

### ***Two Proposals Recently Submitted for Outside Seed Funding***

Designed to improve the scope of ESTUARY's proposed place-based story series and leverage resources to pay for it. Both of these projects would also help support the CCMP IC in engaging in public outreach around its priorities and 32 Actions, and provide a platform to link to myriad partner initiatives and projects.

#### **HATCHLAB PROPOSAL 1 –with Baykeeper and SFEI**

##### **Wade In or Hold Your Breath?**

*When the Storm Surge Comes, When the Bay Reaches Your Doorstep, Where Will You Be? Where do you Want to Be?*

##### **Project Description**

Development of four, place-based, interactive, multi-media stories of life along a creek mouth, slough, river or estuary flowing into San Francisco Bay, and how climate-induced flooding could change lives, landscapes, and the ecology and economy of our waterfronts. Each story would explore risks and consequences in a personalized, community- and place-based context.

The series would invite the audience to read an extended text story online; hear the voices of and see film commentary from locals, residents, activists, scientists (through embedded short audio, podcast, or film clips); travel along the waterway on and offshore (through words, pictures, film from kayaks, and Baykeeper's Shoreview imagery – based on Google supported Streetview imagery); explore scenarios for what could happen to things you see along that specific shoreline (ranging from a flooded bike trail to a swamped industrial site with associated toxic releases, a houseboat crash, evacuation of the elderly or drowning of a bird refuge; discover (through words, interactive maps, graphics, models) what both scientists and city and county planners think may happen in your backyard including which areas are most at risk of flooding and where managed retreat may be called for (with nested links and side introductions to modeling and decision-making tools, and relevant regional and local policy); be invited to influence and expand on the story of your creek mouth or estuary at the end through an iterative process.

One of the next frontiers in Bay Area climate change planning is how to connect with and engage the communities at risk along our shores. The *Wade In or Hold Your Breath?* series will use a story as a springboard for exploring ways to close that gap in specific places. It will invite communities to choose what's most important to save and why, to provide history and context, to offer ideas and concerns, and to understand public processes for gathering community input. The stories will also invite readers and communities to become citizen monitors, citizen emergency

response teams, explorers of possible transition zones, tracers of habitat connectivity corridors, among many possible avenues for action and participation.

**Possible Profiles:**

- 1) Lower San Francisquito Creek in East Palo Alto
- 2) Lower Wildcat Creek in North Richmond.
- 3) San Rafael Canal.
- 4) Oakland Estuary-Damon Slough–Alameda retired Naval Base or Sausal Creek Watershed
- 5) Other waterway profiles under development with other partners?  
(Delta sloughs or islands or creeks that would make good profiles? Cache-Lindsay Slough? Stockton Deepwater Channel? ???)

The *Wade In or Hold Your Breath?* series builds on a foundation of several existing programs with other public and private funders, all of whom want their initiatives, research and efforts to be part of good stories. These include:

- 1) **ESTUARY News Magazine** and its proposed online, place-based, multi-media story series. Work on these, and *Wade In* series, would overlap.
- 2) **Baykeeper's Shoreview Project** is primarily funded through the Google Impact Challenge Grant, and is part of a larger Baykeeper endeavor to foster deeper public engagement in regional sea level rise policies that discourage development in vulnerable areas and encourage plans for sustainable management of critical infrastructure and areas needing shoreline protection.
- 3) **San Francisco Estuary Partnership's** 2016 *Comprehensive Conservation and Management Plan*, which includes a commitment to developing natural infrastructure and resilient communities and shorelines from more than 70 federal, state and local organizations, and associated public education activities. In one example, the Partnership is working with Contra Costa County's watershed program regarding urban greening, climate change adaptation/resiliency, transition zone mapping, and community visioning in North Richmond. *Wade In's* Richmond story may be submitted as part of this collaboration.
- 4) **San Francisco Estuary Institute's Resilient Landscapes program** develops science-based ecosystem restoration and management strategies. This expertise will be leveraged to provide a science-based understanding of risks and strategies for the *Wade In* series.

**Total Rough Budget–Per Profile-Story**

Total ~ \$30,000 - \$52,000 per story

## **Hatchlab Proposal 2: Ariel Okamoto with Kathleen Wong, Kontent Films, and a science advisory board.**

### **SEA Spots: A Multi-Media Glossary of Adaptation** (Science Extraction for Adaptation)

Scientists around the world have deep knowledge about climate change. Here in the Bay Area, fast-accelerating sea level rise is a serious worry. For those who have a vision for how to adapt to these strange new conditions, the trick now is to communicate the science and vulnerabilities to the public. A picture is worth a thousand words. But a picture, or even several pictures, isn't enough to communicate something as complicated how sea level rise will upend life in the San Francisco Bay Area. First problem: the landscape-scale picture doesn't fit on a screen. Second problem: a map showing a smear of pink water creeping inland over years and years doesn't convey urgency. Future climate change portrayed in graphics by scientists, modelers, and public institutions usually falls short for a public used to Pixar-quality animation. Existing depictions of gradual climate change, such as shorelines punctuated by increasingly frequent extreme storm events, isn't cutting the mustard. These portrayals fail to connect our comfy lifestyles to flooding catastrophes, and don't demonstrate that the ocean is coming to our doorsteps at a rate that is slow now, but will accelerate frighteningly soon. We need to do more to communicate these complicated concepts, which are full of evolving science and change we aren't planning for.

We propose developing a series of arresting multimedia “explainer” pieces that combine the use of metrics, video animation, and engaging interviews to explain important adaptation concepts. If they can do it for the Olympics, why can't we do it to explain current thinking about climate change adaptation?

#### **SEA Spot Explainer Candidate Topics**

- Transition and migration zones
- Managed retreat
- Mid-century Sea Level Rise Acceleration
- Extreme Event
- Natural Infrastructure
- Connectivity
- Ecosystem Services and Processes
- Blue and green carbon
- Delta topics? the salt field, two layer flow, nutrient inputs...

#### **Why This Project? Why Now?**

Unfamiliarity with today's “living engineering” solutions is often a roadblock to the passage of comprehensive and unified policy. Generations of planners and engineers comfortable with traditional structures such as concrete flood channels and steep-



walled levees may not even be aware of newly designed, more resilient and environmentally friendly infrastructure upgrades and shoreline buffers. In addition, innovations are often stalled by regulatory complexities that can only be addressed with public support. SEA Spots would provide a timely and relevant communication tool for the plethora of resilience, sustainability, adaptation and mitigation programs springing up throughout the state as a result of California's climate mitigation legislation, as well as for the new Restoration Authority. If developed in time, SEA Spots would also provide an invaluable orientation tool for designers and activists participating in the forthcoming Resilient By Design competition for the Bay Area. In addition, messaging at the end of each SEA Spot could be modified to target specific audiences or planning and agency priorities.

### **Science Advisory Board—Preliminary List**

Stuart Siegel, *Coastal Resilience Specialist*, San Francisco Bay National Estuarine Research Reserve

Jeremy Lowe, *Geomorphologist*, San Francisco Estuary Institute

Letitia Grenier, *Resilient Landscapes Program Director*, San Francisco Estuary Institute ,

Kathy Boyer, *Biologist*, Romberg Tiburon Center for Environmental Studies

San Francisco State University

Marilyn Latta, *Living Shorelines Project*, State Coastal Conservancy

Christina Toms, *Senior Environmental Scientist*, San Francisco Bay Regional Water Quality Control Board

Daniel Cayan, *Climate Scientist*, US Geological Survey (to be confirmed)

**Rough Budget** \$45,000 - \$59,000 X 6 Spots = \$270,000 - \$354,000

### **Possible Funding**

Public and private partners

Environmental and Infrastructure Engineering & Consulting Firms?

Wastewater & Stormwater Districts?

Silicon Valley Leadership Group and other Bay Area businesses in the path of flooding?

fellowships for film and the arts, and for science communication

**Road Map for Upcoming IC Meetings  
August 24, 2016**

**Wednesday, November 2, 2016 – NEW DATE**

*Confirmed*

- Set calendar for 2017 meeting dates
- CCMP/IC Workshop

*Potential*

- Update on *Wetter or Not* water conservation recommendations

**February or March, 2017**

- Work plan draft
- Bay-Delta Science Conference recap

*Potential*

- Resilient Shoreline Planning through Bay Area Regional Collaborative
- San Pablo Avenue Stormwater Spine project overview
- SFEP's Clean Vessel Act Program (boating outreach)