



## **NOTICE AND AGENDA**

Regular Meeting

Board of Directors  
Aquatic Science Center

To Be Held  
September 1, 2011  
**10:00 a.m.-2:00 p.m.**  
(Lunch to Be Served)

San Francisco Estuary Institute  
7770 Pardee Lane  
First Floor Conference Room  
Oakland, CA. 94621  
Phone (510) 746-7334

1. **Call to Order** (5 minutes)
2. **Public Comments** (10 minutes)
3. **Consent Items** (5 minutes)
  - a. Approval of Agenda
  - b. Approval of June 2, 2011, Meeting Minutes (Attachment 1)
4. **Review of Action Items from June Workshop** (10 minutes)  
(Attachment 2)
5. **Information and Discussion Items** (30 minutes)
  - a. Director's Report (Attachment 3)
6. **Action Items**
  - a. Review Highlights and Take-home Messages from Joint ASC-SFEI Strategic Planning Committees (Attachment 4) and Approve Strategic Plan for 2012-2016 (Attachment 5) (90 minutes)

LUNCH (30 minutes)

- b. Amend Bylaws to Reflect Re-location to 4911 Central Avenue, Richmond  
(Attachment 6) (10 minutes)
  - c. Adopt Resolution to Renew Administrative Service Agreement with SFEI  
(Attachment 7) (10 minutes)
  - d. Approve Program Plan Update (Attachment 8) (10 minutes)
  - e. Adopt Resolution on Commercial Liability Insurance (Attachment 9)  
(10 minutes)
- 7. Future Meeting Agenda Items** (10 minutes)
- 8. Adjournment**

## **Attachment 1**

### **Minutes of the Aquatic Science Center Board of Directors June 2, 2011**

#### **Members Present:**

David Williams, Bay Area Clean Water Agencies  
Pamela Creedon, Central Valley Regional Water Quality Control Board  
Vicky Whitney, State Water Resources Control Board  
Bruce Wolfe, San Francisco Bay Regional Water Quality Control Board  
Kirsten Struve, Bay Area Clean Water Agencies  
Alexis Strauss, U.S. Environmental Protection Agency, Region 9  
Mike Connor, Bay Area Clean Water Agencies  
Darrin Polhemus (Alternate), State Water Resources Control Board  
Dyan Whyte (Alternate), San Francisco Bay Regional Water Quality Control Board  
Amy Chastain (Alternate), Bay Area Clean Water Agencies  
Rainer Hoenicke, San Francisco Estuary Institute

#### **Others Present:**

Kelleen Griffin, San Francisco Estuary Institute  
Stephanie Seto, San Francisco Estuary Institute  
Josh Collins, San Francisco Estuary Institute  
Marc Beyeler, Marc Beyeler Associates  
Page Nelson, Marc Beyeler Associates

#### **1. Call to Order**

Mr. Williams called the meeting to order at 9:30 a.m.

#### **2. Public Comments**

None

#### **3. Consent Items**

Ms. Creedon made a motion to approve all consent items, including the agenda and March 3, 2011 meeting minutes. The motion was seconded by Ms. Whitney and passed unanimously.

#### **4. Introduction and Desired Outcomes for the Session**

Dr. Hoenicke began by reviewing the desired outcomes for the workshop, key milestones, and priorities within the next three months and beyond. He gave a progress update on how to prioritize activities between 2012 and 2014 and what the emerging priorities and implementation of the strategic plan might look like. The Board agreed to

stay in contact with the Strategic Planning Subcommittee on a monthly basis. There was discussion to obtain an endorsement from the entire Board to support the mission, vision, and goals. There was also a consensus to revisit the objectives. Dr. Connor made a motion to support the mission, vision, and goals. The motion was seconded by Ms. Creedon and passed unanimously.

**Action Items:**

- Create working titles for each goal.
- Minor word change to Goal 3.
- Board to review goals and objectives and provide feedback to Dr. Hoenicke by June 16<sup>th</sup> (in time for July 14<sup>th</sup> joint Subcommittee meeting).
- Revise strategic metrics language for further Board review.

**5. Results to date of SWOT and Environmental Scan Data; Discussion of Pathway to Plan Completion**

Mr. Beyeler updated the Board with results of the SWOT and Environmental Scan. 14 of the 18 stakeholders have been contacted and interviewed. Of the people interviewed, issues and responses have been very consistent across all the different groups. Mr. Beyeler will conclude the interview process very soon. Dr. Hoenicke mentioned that the whole idea behind selecting the specific candidates for these interviews was because they had a broad enough constituency, wore several hats that provided input from multiple corners, and integrated that into a clear message that represented more than just one entity. The Board recommended additional Stakeholders that might be of interest for Mr. Beyeler to interview.

**Action Item:**

- Ms. Creedon to send contact names from the Ag Community, City of Stockton, City of Sacramento, and CUWA (California Urban Water Agencies) to Dr. Hoenicke.

**6. Introduction of Strategic Criteria for Prioritization Process; Timeline to Plan Implementation Phase**

Ms. Griffin gave an overview of the roadmap towards the adoption and communication of the strategic plan and what is in store in the months to come until the September Strategic Planning workshop. She discussed the continuation to investigate the emerging strategy goals, then take that and look at it through a lens of the programs themselves, the strategic alliances that are out there, and aligning the current program plan. She also mentioned that the organizational design had already begun. As part of the process and sifting through the program plan, strategy, alliances, and organizational design, the final step would be creating a budget for the Institute for 2012. Ms. Griffin

aimed to have all the components and the strategic plan itself to the Board for adoption by the September workshop. Next steps would be to communicate the plan and develop the implementation plan. Ms. Griffin reviewed the components of the strategic plan, timeline to implementation and what the Board can expect to see at the September workshop.

## **7. Review Outcomes of the Strategic Planning Subcommittee Meetings**

Mr. Williams reviewed the outcomes of the strategic planning subcommittee meetings. The subcommittee members discussed the heavy burden of maintaining two Boards and were in favor of shifting the organizational structure, thus merging both Boards under one umbrella. There was also discussion amongst the subcommittee members whether SFEI should become a JPA and ASC/SFEI become the SCCWRP of the North.

### **Action Items:**

- Confirm July 14<sup>th</sup> joint strategic planning subcommittee conference call.
- Send meeting doodle to schedule joint strategic planning subcommittee conference call for week of August 22<sup>nd</sup>.
- Include feedback loop into strategic planning process flow chart.

## **8. Options for ASC Evolution of Operations, Governance, and Identity: Board Composition, Administrative Infrastructure, Relationship between SFEI and ASC**

Dr. Hoenicke led the discussion regarding the evaluation of if and how the current governance and operational model of the Aquatic Science Center should be adjusted. There was discussion amongst the Board about legal aspects, keeping the benefits of both entities under one umbrella, and moving to a single set of goals and objectives. There was also discussion of the difference between a NPO and JPA. Dr. Hoenicke requested consensus and endorsement from the Board to pursue this further and convey the message to the SFEI Board.

### **Action Items:**

- Send current SFEI Bylaws to Board members.
- Path lined out for single Board governance; Options for Board members to choose from.
- Staff will continue to review single Board Governance options while preserving the best aspects of ASC and SFEI.

## **9. Wrap Up. Summarize Outcomes, Next Steps on Strategic Plan and Topics for September BOD Meeting**

Ms. Griffin and Dr. Hoenicke wrapped up the workshop by summarizing agreements made by the Board. The vision and mission statements are complete. The Board has requested more time to read, review, and unpack the objectives. Mr. Beyeler reminded the Board to submit any outstanding SWOT surveys. Based on the environmental scan data, it was decided to keep the door open for outreach. The ASC Board expressed their

interest in a singular governance type of approach, but would like more details regarding the underlying physical structure.

Next steps include scheduling two joint strategic planning subcommittee teleconference meetings for July and August, and the strategic plan will be approved at the regular Board meeting in September.

**Action Items:**

- Strategic planning subcommittee to come back with the strategic plan to be adopted by the Board at the September workshop.

**10. Review of Action Items from March Meeting**

All action items were reviewed and unanimously approved.

**11. Amendments to the FY2011/12 Program Plan and Approval of Resolution**

The Board reviewed the 2011/12 Program Plan and determined to make the following modifications to Sections 2, 9, 17, and 20, from:

*“TMDL support including: impairment assessments, pollutant conceptual model development, implementation alternatives evaluations, and implementation effectiveness monitoring.”*

to

*“Science support including: impairment assessments, pollutant conceptual model development, implementation alternatives evaluations, and implementation effectiveness monitoring.”*

*“Scientific Assistance to State Water Board for development of a statewide riparian and wetland system protection policy and implementation guidance.”*

to

*“Scientific Assistance for development of a statewide riparian and wetland system protection policy and implementation guidance.”*

*“Scientific Assistance to Central Valley Regional Water Quality Control Board and participants in the Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Initiative.”*

to

*“Provide scientific support and research to Central Valley Regional Water Quality Control Board and participants in the Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Initiative.”*

*“Contractual Services to the Bay Conservation Development Commission for Amendments to the Bay Plan.”*

to

*“Climate change support to the Bay Conservation Development Commission for Amendments to the Bay Plan.”*

Mr. Williams made a motion to approve the modifications. All Board members were in favor and the approval was passed unanimously.

Mr. Wolfe made a motion to approve the Resolution authorizing and designating a representative to negotiate contracts or agreements on behalf of the Aquatic Science Center. The motion was seconded by Ms. Strauss and passed unanimously.

**Action Item:**

- Incorporate Program Plan edits.
- Dr. Hoenicke to send revised Program Plan to the Board.

**12. Adjournment**

The meeting is adjourned at 2:50 p.m.

Respectfully submitted,

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Pamela Creedon, Board Secretary

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Date

## Attachment 2

Action Items	Who?	Status
1) Create working titles for each goal.	SP Subcommittee	Done
2) Minor word change to Goal 3.	SP Subcommittee	Done
3) Board to review goals and objectives and provide feedback to Dr. Hoenicke by June 16 <sup>th</sup> (in time for July 14 <sup>th</sup> joint Subcommittee meeting).	ASC Board Members	In Progress
4) Revise strategic metrics language for further Board review.	SP Subcommittee	In Progress
5) Ms. Creedon to send contact names from the Ag Community, City of Stockton, City of Sacramento, and CUWA (California Urban Water Agencies) to Dr. Hoenicke.	Ms. Creedon	Done
6) Confirm July 14 <sup>th</sup> joint strategic planning subcommittee conference call.	Ms. Seto	Done
7) Send meeting doodle to schedule joint strategic planning subcommittee conference call for week of August 22 <sup>nd</sup> .	Ms. Seto	Done
8) Include feedback loop into strategic planning process flow chart.	Mr. Beyeler	Done
9) Send current SFEI Bylaws to Board members.	Ms. Seto	Done
10) Path lined out for single Board governance; Options for Board members to choose from.	Dr. Hoenicke; Ms. Griffin; Mr. Beyeler	Done
11) Staff will continue to review single Board Governance options while preserving the best aspects of ASC and SFEI.	Staff	Done
12) Strategic planning subcommittee to come back with the strategic plan to be adopted by the Board at the September workshop.	SP Subcommittee	Done
13) Incorporate Program Plan edits.	Dr. Hoenicke	Done
14) Dr. Hoenicke to send revised Program Plan to the Board.	Dr. Hoenicke	Done

# Executive Director's Quarterly Report

2011 • Quarter 3



## ***We are Definitely Moving!***

Reality has set in. We will be in a new location by November 1. The work crews at 4911 Central Avenue are busy customizing the new building to our needs, and we have been assured that everything will be ready for us as planned. Linda Russo has been spearheading the logistics in masterful ways. Linda Wanzcyk, our Art Director, is closely guiding the outfitting of interior spaces with eco-friendly materials within our available budget, and Kelleen Griffin is keeping a close eye on the bottom line. Our small move committee on staff is making sure the two Lindas have the help and advice they need to coordinate all of the details on our end, including moving the laboratory without impacting our field crews. Many items on the wish list will need to be deferred to future years to insure we stay within our budget. This includes remote conferencing technology, installation of an elevator, and possibly a shuttle serving the El Cerrito Plaza BART station, which is a mere 1.3 miles from our new building.



**4911  
Central  
Avenue**



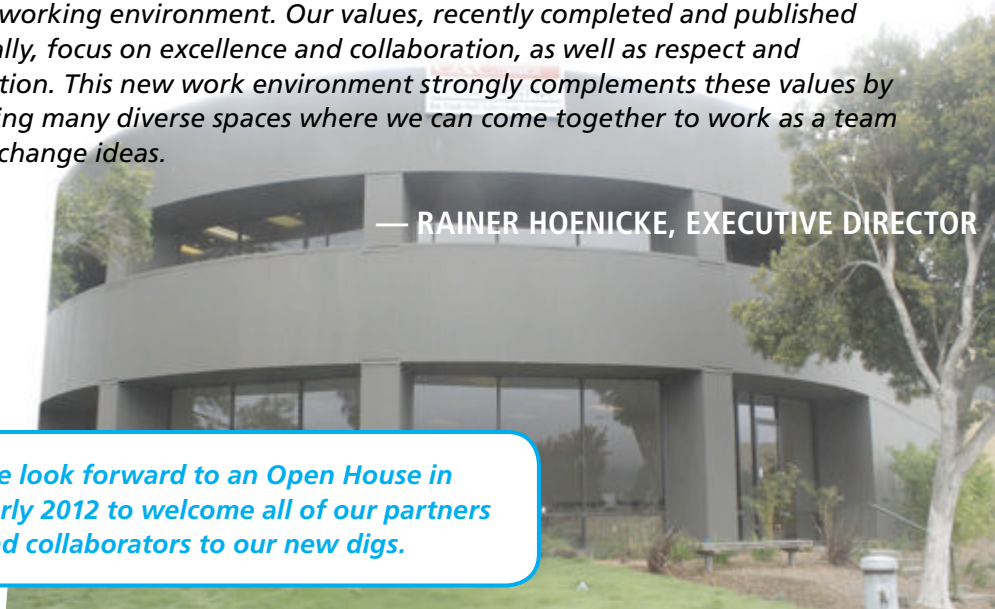
Our new location will enable us to host large groups of stakeholders for workshops, committee meetings, and conferences. It's hard to imagine that ten years ago, we used to host events in WW II barracks on the Richmond Field Station! We have built-in flexibility to sublease part of the building and accommodate staff and collaborators in an open and bright environment. One of the eagerly anticipated benefits of this move is the open space arrangement of our working environment. Our values, recently completed and published internally, focus on excellence and collaboration, as well as respect and innovation. This new work environment strongly complements these values by providing many diverse spaces where we can come together to work as a team and exchange ideas.



Top: 2<sup>nd</sup> Floor Conference Room  
Bottom: 2<sup>nd</sup> floor looking down at Main Entrance

— RAINER HOENICKE, EXECUTIVE DIRECTOR

***We look forward to an Open House in early 2012 to welcome all of our partners and collaborators to our new digs.***





MAY 26

# SWAMP/RMP/Bight Program Report on Contaminants in Fish from the California Coast

The State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP), in collaboration with the **Regional Monitoring**

**Program** and the Southern California Bight Regional Monitoring Program, has released findings from California's largest-ever statewide survey of contaminants in sport fish from coastal locations. This report presents findings from 2009 - the first year of a two-year survey - including new data for 42 locations. Monitoring in 2009 centered on areas near Los Angeles and San Francisco, including San Francisco Bay. This initial screening study is the first step in an effort to identify and quantify contaminants in California's coastal waters to provide a detailed evaluation of human and wildlife exposure and to establish priorities for cleanup actions.

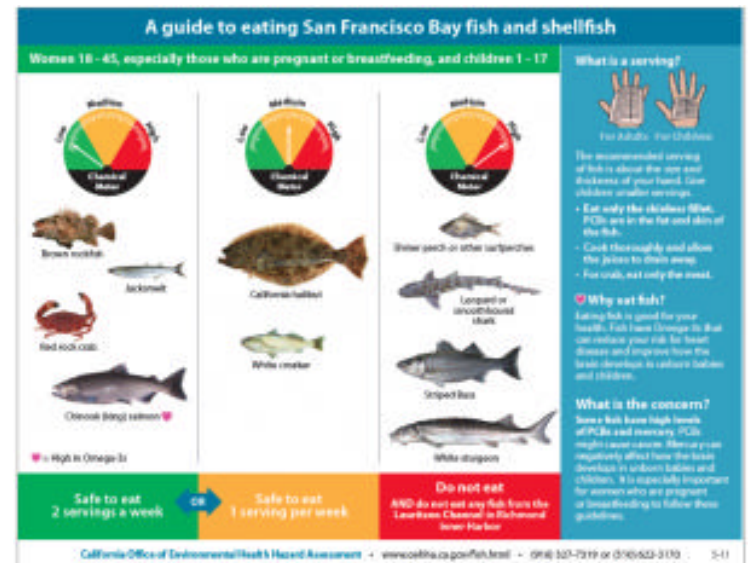
The Coast Survey was funded by the State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP) and the United States Environmental Protection Agency (USEPA). The Coast Survey is one component of a new program that is tracking sport fish contamination in all California water bodies. Results for another 27 coastal locations will be available in May 2012. Results from a statewide assessment of contaminants in sport fish from California rivers and streams will be available in May 2013.

An updated advisory for San Francisco Bay that incorporates the Coast Survey data is available from the California Office of Environmental Health Hazard Assessment (OEHHA).

The public can access results for individual fishing locations included in the Coast Survey (as well as the earlier

SWAMP Lakes Survey and other studies) through the California Water Quality Monitoring Council's "My Water Quality" web portal. Information on sport fish contamination can be accessed by clicking on "Is It Safe to Eat Fish and Shellfish from Our Waters?"

A Guide to eating San Francisco Bay fish and shellfish by California Office of Environmental Health Hazard Assessment



JUN

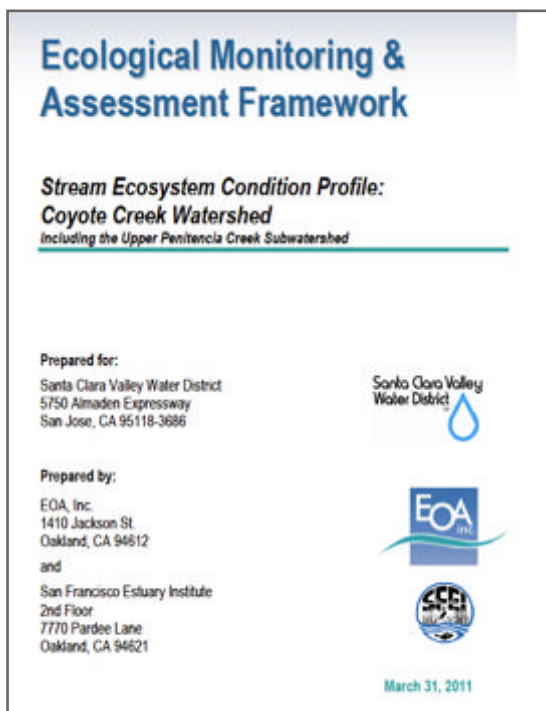
## Santa Clara Valley Water District Pilots the 1-2-3 Framework.

**SFEI** successfully transferred the 1-2-3 Framework for comprehensive assessment of aquatic resources to the SCVWD through EOA. The SCVWD used the Framework to assess its stewardship of the Coyote Creek Watershed. The SCVWD and EOA helped **SFEI** map the aquatic resources of the watershed using the **California Aquatic Resources Inventory (Level 1)**, helped assess the ambient condition of streams and riparian areas using the **California Rapid Assessment Method (Level 2)**, and helped integrate existing quantitative fisheries data (**Level 3**) into the watershed health profile. The **Level 1** and **Level 2** data were transferred to the **Regional Data Center at SFEI** and incorporated into **Wetland Tracker** (<http://www.californiawetlands.net/tracker/>).

The 1-2-3 Framework was originally developed by USEPA to help states incorporate wetlands into their

statewide reports of aquatic resource condition (305b reports). The Technical Advisory Team (TAT) for the State Water Resources Control Board's Wetland and Riparian Area Protection Policy (WRAPP) has recommended a modified 1-2-3 Framework for monitoring the extent, diversity, and condition of aquatic resources in the watershed context. SFEI chairs the TAT. The California Water Quality Monitoring Council and its Wetland Workgroup have endorsed the TAT's recommendation, and the Workgroup was briefed by SCVWD on its use of the Framework. Some of the highlights noted by the SCVWD are improved understanding and dissemination of priority data needs, improved costs/benefit ratios of data sets, first-ever synoptic evaluation of watershed health, and better understanding of the specific challenges and opportunities to improve stewardship. The WRAPP Development Team regards this pilot application to be an important case study of how the Framework can be used to align local, state and federal efforts to protect aquatic resources.

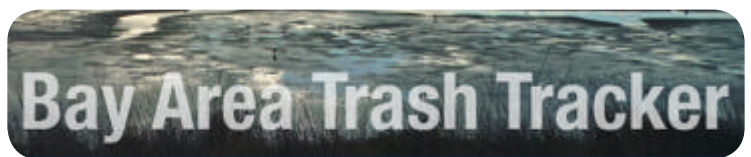
For a copy of the SCVWD report titled "Stream Ecosystem Condition Profile: Coyote Creek Watershed," go to: <http://www.valleywater.org/Search.aspx?searchtext=emaf>

**JUN 8**

## Fact Sheet on the Antimicrobial Chemical Triclosan

The RMP has developed the first in a series of fact sheets on contaminants of emerging concern (CECs). The fact sheets are intended to serve as a quick reference for media, regulators, decision-makers, and scientists to allow communication of accurate information to the public. Each fact sheet will summarize our current understanding of a select CEC, including the latest data and concerns for San Francisco Bay.

Triclosan, an antimicrobial chemical used in antibacterial hand soaps and other consumer products, was selected as the focus of the first RMP fact sheet. A more detailed profile of the antimicrobials Triclosan and Triclocarban was recently published, which supports the fact sheet with technical information on the use, fate, and effects of these contaminants in San Francisco Bay

**JUN 9**

## The Trash Tracker Website

The website is now fully functional! Its purpose is to provide a place where all municipalities, participating in the project or not, can share information about trash capture devices and their effectiveness in different types of locations. Our aim is to provide a place where you can conveniently upload -- and download -- all of your location and maintenance data, and prepare to create reports.

JUN 14



## California Marine Life Protection Act Initiative

**Rainer Hoenicke** was a member of the San Francisco Bay science work group and helped inform the Options Report for implementing the California Marine Life Protection Act (MLPA) in the fifth and final study region – San Francisco Bay. It has not yet been determined whether an MLPA planning process will take place in the region, nor has a framework been identified for such a process.

A report prepared by the MLPA Initiative provides an initial look at the San Francisco Bay study region and identifies a limited, yet achievable, range of options for how, if at all, to approach MLPA planning there. The report provides background information on the unique setting of the study region, identifies existing bay projects, and considers lessons learned from previous MLPA planning processes.

AUG 4

## Proposal Receives Ecosystem Restoration Program Grant Award

The proposal, “Management Tools for Landscape-Scale Restoration of Ecological Functions in the Delta,” received full funding (\$875,000) by the 2010-2011 Ecosystem Restoration Program PSP Selection Panel. This project seeks to develop tools for implementing and communicating restoration strategies that establish landscape-scale ecological function, significantly improving the environmental outcomes of conservation and restoration investments in the Delta. The project is to begin late this year.

AUG

## Progress Report on Watershed Goals

In 2004, the **SFEI Board of Directors** encouraged staff to continue investigating the concept of **Watershed Goals or Stream Goals** as a science-based process for local, state, and federal agencies to collaboratively develop common visions of healthy watersheds around the Bay. **SFEI (Josh Collins)** presented a watershed goals prospectus that was developed with input from staff at the SF Bay Regional Water Board and a consortium of local interests, including some SFEI Board members.

Lots of progress has been made since then. Josh took the prospectus to the watersheds and wetlands staff at USEPA Region 9, to USEPA OWOW, to the regulatory branches of all three USACE Districts operating in California, and to the 401/WDR staff of the State Board. The prospectus got traction as one possible way to meet the needs for a watershed approach to mitigation planning as called for by the revised (2008) USACE-USEPA rules governing implementation of the federal CWA Section 404 Regulatory Program. At the same time, SFEI and partners were continuing to develop tools to track 401/WDR permits and to increase the state’s capacity to inventory and assess wetlands, streams, and riparian areas at the watershed scale.

As an outgrowth of these efforts, the State Water Board contracted with **ASC** to coordinate science support for developing the **Wetland and Riparian Area Protection Policy (WRAPP)** and related regulations. Phase 1 of the **WRAPP** focuses on the promulgation of State rules for dredge and fill activity, including use of the watershed approach to 404 permitting. Phases 2 and 3 will focus on protection of all beneficial uses of wetlands and the role of riparian areas for sustaining all aquatic resources. Phase 1 policy, dredge and fill regulations, and the draft EIR are scheduled for public review beginning in November this year. Science support for Phases 2 and 3 is already happening through SFEI/ASC. These phases of the policy should be ready for review in the next few years.

In support of **WRAPP**, **SFEI** has led the technical efforts to formally recommend statewide definitions for wetlands, streams, and riparian areas, and to recommend methods

of mapping and assessing them. At the request of the State Water Board, **SFEI** is leading the effort to develop the scientific rationale for the watershed approach, which stems from the original **SFEI** prospectus. The rationale will also support **WRAPP** Phases 2 and 3 by explaining how watershed goals will integrate and make more effective the way state environmental programs address issues of water quality, flood control, water supply, mining and timber harvest, and wildlife conservation. The watershed approach will continue to be developed in collaboration with CalTrans (Highway 101 realignment), DWR (Delta Conveyance), and perhaps the High Speed Rail (a proposal from ASC is currently undergoing review).

In short, the concept of watershed goals as described in the **SFEI** prospectus from 2008 is likely to be a key component of **WRAPP** Phases 2 and 3, and related water regulations. These are just some of the projects have been lined up for the past decade along a coherent strategic pathway. Staff have linked geospatial analysis and methodology development with field observations and collection of empirical data to enable visualization of aquatic resources - past, present and possible future - characterization of their condition, and developing indicators of desired environmental outcomes. We have essentially laid the groundwork for Strategic Priority #1- shortening the distance between scientific and technical products and decision-making.

**AUG 17**

### **SFEI/ASC Establishing New Working Relationships with North Coast Regional Water Board, Newly Recognized Tribe, and Other North Bay Partners**

For almost a year, together with the Laguna de Santa Rosa Foundation, the Federated Indians of Graton Rancheria (FIGR), the National Marine Fisheries Service (NMFS), and a host of other local partners, SFEI/ASC has been scoping a large-scale historical ecology study for the Laguna de Santa Rosa watershed. Partner agencies have contributed significant time and intellectual engagement toward the development of a draft proposal, a funding strategy, and have helped identify concrete benefits that will be derived from the development of historical data for the region - including benefits to TMDL imple-

Images of the Laguna de Santa Rosa (both courtesy of the Laguna de Santa Rosa Foundation)



mentation, fisheries habitat restoration, flood control and riparian management, cultural resource protection, and wetlands mitigation and restoration. In recent months, SFEI was approached by a CalTrans Branch Chief with news that a “Graton Rancheria Heritage Management study” had been approved for funding in 2012-2015 under their Transportation Enhancement (TE) program. The goals and objectives of this study align nicely with those of the HE study, so CalTrans and FIGR have agreed to dedicate a significant portion of the TE funds toward the Laguna HE study. Now, with some significant support identified, and with CalTrans committing funds to continue scoping the project, HE staff and our partners are working toward solidifying the remaining project budget. Concurrently, CalTrans has also solicited SFEI/ASC engagement in the Kashaya Pomo TE study currently underway on the Sonoma Coast between the mouths of the Russian and Gualala Rivers. We’ve been asked to complement existing cultural resource data with historical ecology information similar to our work in other regions. The agency is currently working on contracting mechanisms and language for both of these projects.

**AUG**

## Pulse of the Delta receives Outstanding Environmental Project Award

Every two years, Friends of the Estuary calls for award nominations. Our own board member, Pamela Creedon, nominated The Pulse of the Delta for an Outstanding Environmental Project Award at the upcoming State of the Estuary Conference. We are pleased to announce that the team led by Thomas Jabusch at the Aquatic Science Center and Meghan Sullivan at the Central Valley Water Board, produced one of the six projects in the Bay-Delta to receive that prestigious honor this year.

**AUG**

## RELEASE HISTORICAL ECOLOGY REPORT FUNDED BY STATE COASTAL CONSERVANCY

The **Historical Ecology** program is poised to release their latest historical ecology report, *Historical ecology of the lower Santa Clara River, Ventura River, and Oxnard Plain: an analysis of terrestrial, riverine, and coastal habitats*. This report is the culmination of four years of research funded by the State Coastal Conservancy and conducted by a broad project team including the San Francisco Estuary Institute, the Southern California Coastal Water Research Project, CSU Northridge, Stillwater Sciences, and other researchers. It describes the rivers, wetlands, and terrestrial habitats in much of lowland Ventura County prior to substantial Euro-American modification, and includes a map detailing the former distribution of habitats and channels in the region. This letter was written by the project's manager at the State Coastal Conservancy to frame the project and report.



The State Coastal Conservancy is proud to have funded this study of historical coastal wetlands, rivers, and other habitats of Ventura County. The project was led by the San Francisco Estuary Institute, the leading authority in the analysis of California coastal historical ecology. In this study, they have teamed with a number of experts on Southern California rivers and coastal wetlands, including Stillwater Sciences, Southern California Coastal Water Research Project, California State University Northridge, and other institutions.

This study uses history – namely, the interpretation and integration of historical documents with environmental sciences – to provide a new perspective on how the Ventura County landscape has changed since the early 19<sup>th</sup> century. Synthesizing over two centuries of local documents, this report and accompanying GIS layers significantly improve our understanding of the natural forces that have shaped the local landscape. The study provides guidelines and inspiration for improvement of the environmental health of this region, which is the goal of the Coastal Conservancy and the governmental agencies and conservation organizations who are our valued partners in Ventura County.

The work of the Coastal Conservancy is to protect, restore, and make accessible the lands and waters of the California coast. SFEI's study will assist us and our partners in several ways. First, it shows us what elements of Ventura County's natural heritage have been lost, and suggests where those might be recovered. Secondly, the study helps us understand the physical and ecological processes still influencing systems today, enabling us design more effective, cost-efficient projects. In fact, the study identifies a number of opportunities to take advantage of intact natural processes to make more self-sustaining projects. Finally, and perhaps most importantly, we hope this new information will involve the Ventura community in considering the natural history of their region and its potential for the future. What underlies the built environment of this area? Through this research, we can now discover and uncover what came before European settlement of Ventura County. Though it will never be the same again, much of this until-now forgotten landscape can be restored, along with the sights and sounds of the species that have long depended on it. These lessons from history can help us make our landscape healthier and more resilient in the coming decades.

This study is dedicated to the people of Ventura County, supporters and sustainers of our work together, so that they can better love and understand the place where they live.

Peter S. Brand  
State Coastal Conservancy

AUG

## Environmental Data, Information, and Technology (EDIT) Team Highlights

### Servers and Systems

#### GIS Sleuths Improve Performance for SFEI and ASC GIS Users

GIS users and the Historical Ecology team in particular were plagued by poor GIS performance including unbearable refresh and launch times especially with map documents where many layers were involved. The GIS Admin Team identified potential culprits – network speed, server hardware, SDE geodatabases, shared network drives, data, and MXD configuration – then assessed which of these were actually contributing to the problem. The GIS Admin Team provided both physical (i.e., server) and best practice solutions to resolve these performance issues with practically zero disruption to staff.

#### GIS

The Bay Area Aquatic Resource Inventory (BAARI) has been posted to Wetland Tracker! The BAARI base map represents all aquatic habitat, including tidal and non-tidal wetlands, streams, ditches, and selected storm drain data. Since posting the data, we've received numerous requests for the data to help with a range of efforts - sample draws for the BASMAA Regional Monitoring Coalition, planning efforts in Marin, colonial wading bird habitat inventory and mitigation planning. BAARI is viewable on Wetland Tracker. Check it out for yourself!

<http://www.californiawetlands.net/tracker/ba/map>

### Regional Data Center Highlights

**5:** Number of tools developed or enhanced

- Web Query Tool updates
- Transitional Ecotone Data Management Tool release – supports data management for vegetation monitoring in restored wetlands

- Trash Tracker enhancements– tracks installation, maintenance, and performance of trash capture devices around the region (for SFEP's Bay Area-wide Trash Capture Demonstration Project) <http://www.sfestuary.org/projects/detail.php?projectID=42>
- Safe To Eat Portal – California Monitoring Council's My Water Quality Portal to help answer the question, "Is It Safe to Eat Fish and Shellfish from Our Waters?" [[http://waterboards.ca.gov/mywaterquality/safe\\_to\\_eat/data\\_and\\_trends/](http://waterboards.ca.gov/mywaterquality/safe_to_eat/data_and_trends/)]
- Wetlands Portal – added BAARI and South Coast eelgrass layers [<http://www.californiawetlands.net/tracker/ba/map>]

**1076:** Number of queries requested of the Web Query Tool

**64:** Number of standard code lists that are maintained for SFEI's RDC database

**15:** Number of daily and nightly scripts that monitor our SQL databases, refresh tables, and alert staff of questionable results and backup failures

### Data Management Highlights

**47:** Number of datasets formatted and QA reviewed, including RMP 2010 Status & Trends, 2009-2011 River Loading, 2010 Small Fish, Senador Creek, and PCBs in Caulk

**24:** Number of data requests, including internal and external requests

**5:** Number of presentations and report contributions, including Earth Day, NorCal SETAC conference, California Coast Fish Report, RMP AMR, and RMP QAPP

**5:** Number of team performance measures being tracked, including timeliness, web stats, and workflow

## New SFEI/ASC Initiative

*Initiative Goal: A regional, then statewide, watershed and cultural landscape planning and assessment framework based on the integration of Traditional Ecological Knowledge and conventional environmental science.*

The Institute and Center are exploring new partnerships and identifying funding sources we have traditionally not actively pursued. As a publicly funded non-profit organization and Joint Powers Authority – to the extent the organization operates in the public interest and with public (especially Federal) dollars – SFEI/ASC inherits a “Trust Responsibility” to Federally Recognized Indian Tribes within our focal region. Many of the laws and regulatory mechanisms under which SFEI/ASC operates acknowledge this Trust Relationship. It is anticipated that within the next 10-15 years, the San Francisco and Monterey Bay Regions may be host to 3-5 newly Federally recognized Indian tribes with mosaics of tribally owned and managed lands and waterways.

The tribes have technical-cultural frameworks and methods for natural resource management, developed over many thousands of years that are at this time largely decoupled from much more recent municipal, regional, state, and federal land use and land management concepts and doctrines. The overarching term for this body of understanding is Traditional Ecological Knowledge (TEK). There is abundant evidence that the tribes managed ecological processes at the landscape scale. It is likely that these practices and principles have application beyond existing tribal lands. Some tribes and a majority of governmental entities lack sufficient TEK to interact in a proactive, collaborative fashion around topics of great common interest, including aquatic resource interpretation, planning, regulation, and management. SFEI/ASC, given existing staffing and capacity, is uniquely qualified and positioned to begin to address this lack of TEK.

Now that the Region has its first, land-based Federally Recognized Tribe (Graton Rancheria), existing SFEI/ASC initiatives can be expanded to include engagement in the investigation and development of TEK-based management models, understanding of cumulative effects to resources at the watershed and cultural landscape level,

and development of tribal interpretations of pre-Euro-American conditions. In anticipation of the recognition of more tribes, and given the current growth of capacity and intent within these tribes, SFEI/ASC is well positioned to collaborate with these governments on the development of tribal policy with regard to: aquatic resource science; interpretation and understanding of past, present, and future landscapes; and environmental regulation and management.

One early phase of work is to meet the need for reliable and accessible information on the historical functional relationship between the Tribes and the natural resources they managed. Tribes and non-tribal agencies will need to be trained how to use this information to improve the performance of future management actions. Current and planned SFEI projects in Historical Ecology begin to meet this need, and the HE Program is well positioned to expand on these projects with reputable partner organizations and supportive funders.

## Capacity, Resources and Approach

At present time, existing SFEI/ASC staff possesses the knowledge, experience, and capacity to actively undertake this initiative. This includes knowledge and experience with Federal Indian policy; EPA Indian Programs; local tribal groups and organizations; public, private, non-profit and charitable organizations able to provide resources; a broad array of willing partner organizations and institutions; working relationships with leading anthropologists and archeologists in academia and the private sector; and a demonstrated ability to fashion relevant projects, products, relationships, and resources.

**Figure 1, p. 9**, illustrates the broader themes, relationships, and vision guiding this initiative at this time. It will evolve. **Figure 2, p.10**, illustrates, in a practical sense, where initiative projects can relate to the 1-2-3 Monitoring and Assessment Framework being developed for the State Water Board for comprehensive assessment of aquatic resources at the watershed and landscape scales.

## Sub-Initiatives and projects

### Inclusion of Tribes and Traditional Ecological Knowledge in large-scale Historical Ecology studies

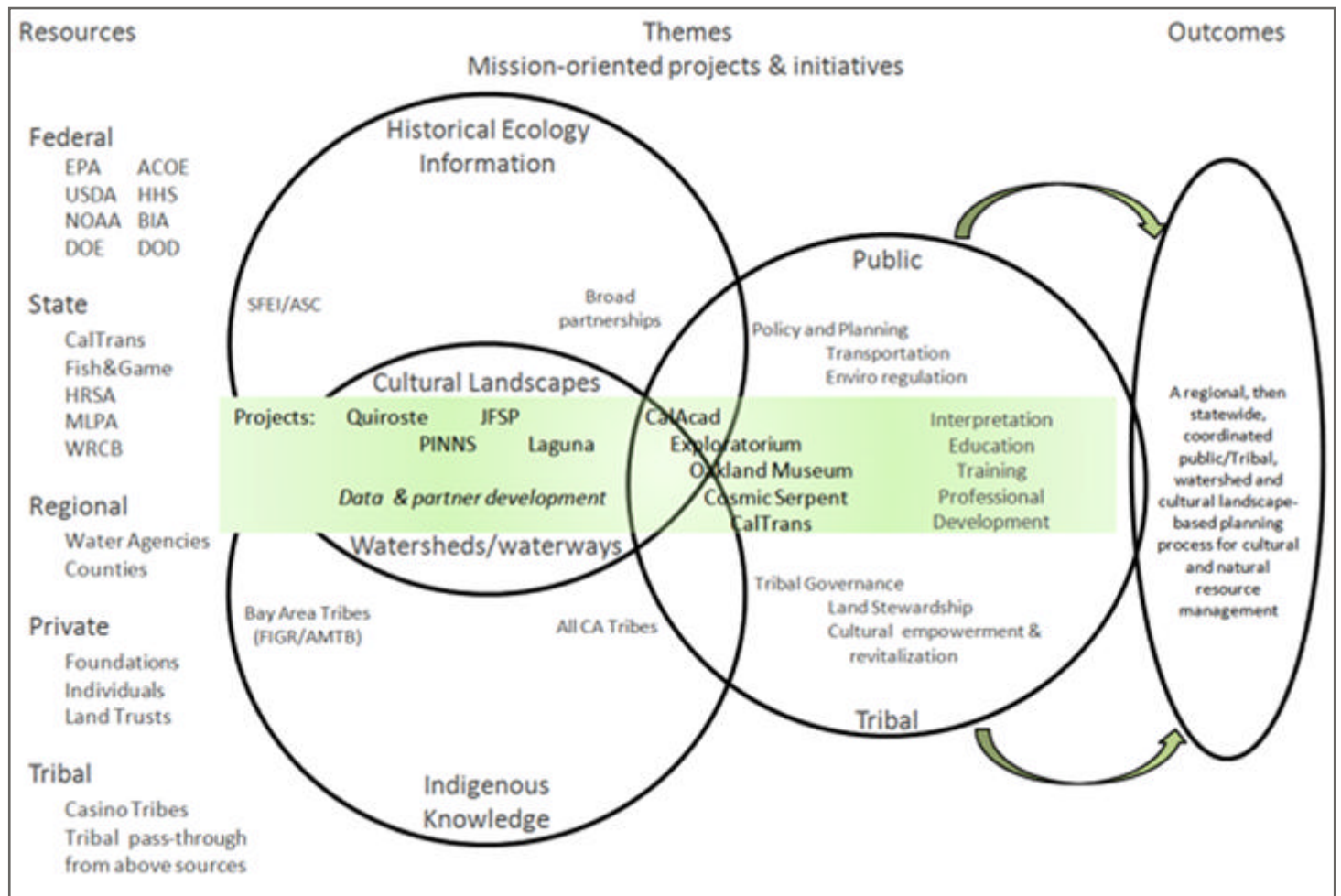
Conduct outreach to Tribes and build collaborative projects which would 1) encourage/enable Tribes to build the capacity to engage in HE-related studies, 2) enable and advise better institutional integration and collaborative research and management in project areas.

**Example projects: South Santa Clara Valley, Laguna de Santa Rosa, Lower Pajaro/Salinas R.**

### Expansion of collaborative initiatives with museums

A number of local and national institutions have expressed great interest in developing exhibits, curricula, and interpretive tools that highlight both historical ecological data, and the relationship between Tribes and the resources they managed. Funding has already been secured to engage in such projects with the California Academy of Sciences, The Exploratorium, and the Los Altos History Museum. Additional projects are currently being scoped with the Oakland Museum, and SFEI staff are advising related projects with the Imiloa Astronomy Center, University of Hawai'i, Hilo, the Indigenous

**Figure 1:** This figure illustrates the relationship between secular and tribal knowledge systems, and a mission-oriented strategy by which these disparate belief systems can focus on common goals to achieve a coordinated planning and management process. The projects and initiatives listed strive to find common ground and forge planning and research relationships between applicable groups and institutions, as supported by a diverse suite of resources and partner agencies. This Initiative is generally chronological, with some elements occurring simultaneously.

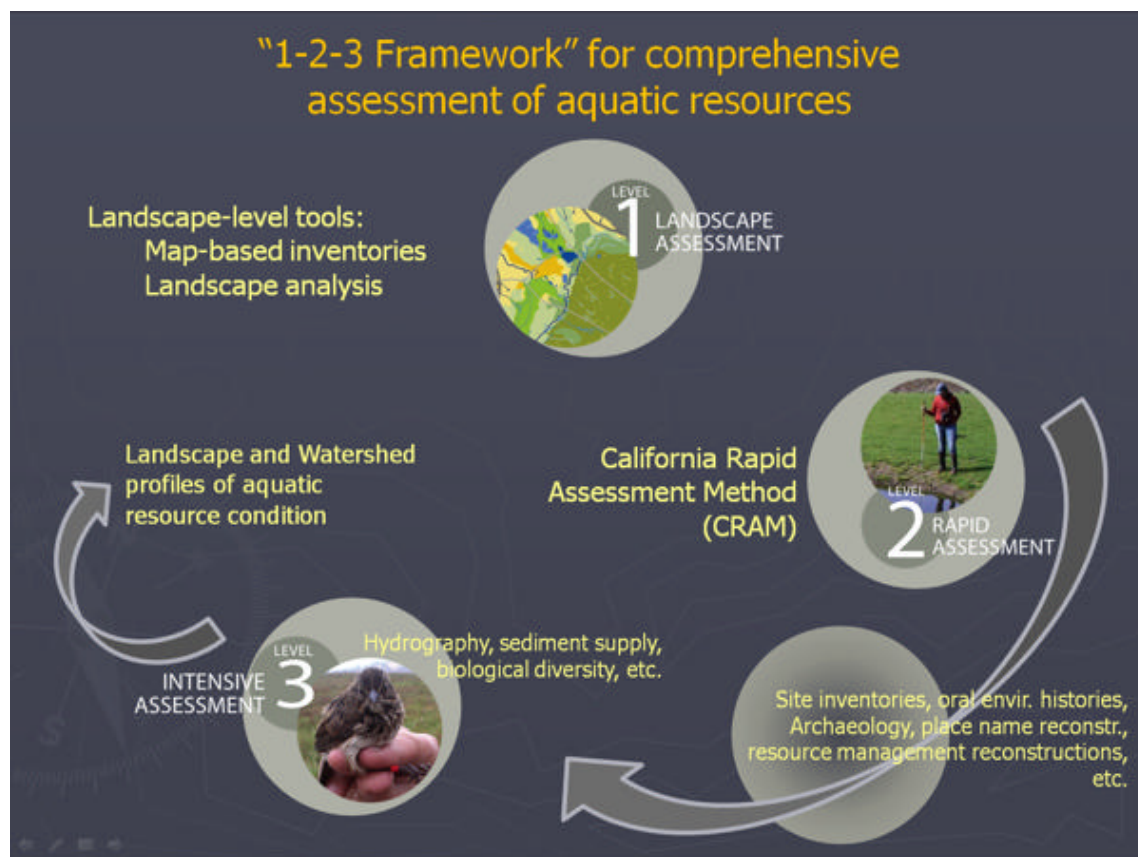


Education Institute, the Oregon Museum of Science and Industry, and the Center for Science Education at UC Berkeley.

### **Advise state level planning and Tribal engagement**

A number of state agencies, especially State Parks and Caltrans, have expressed interest in fostering better dialogue and more collaborative research initiatives with California Tribes. With the Quiroste Research Initiative (co-led by SFEI staff) having now garnered significant recognition, the National Park Service and other natural resource trustee agencies are exploring scopes of work with SFEI/ASC for similar projects.

**Figure 2:** This figure highlights the possible relationship of Initiative projects to the existing 1-2-3 Monitoring Framework. Historical ecology has emerged as an ideal nexus to facilitate the emerging imperative to draw public and tribal planning processes into a more coordinated framework.



*The following media articles are related to the SWAMP Report on Contaminants in Fish from the California Coast from page 2.*

## MAY 23

**Bay Toxic Fish Warnings Updated.**  
Mercury News, by Mike Taugher.  
News blurb and complete article.  
[http://www.mercurynews.com/breaking-news/ci\\_18123623](http://www.mercurynews.com/breaking-news/ci_18123623)

## MAY 24

**Officials Warn of High Mercury, PCB Levels in Some SF Bay Fish**  
California Watch, by Joanna Lin  
<http://californiawatch.org/dailyreport/officials-warn-high-mercury-pcb-levels-some-sf-bay-fish-10410>

**Don't Eat the Perch: Toxic Fish List Updated**  
NBC Bay Area, by Chris Roberts.  
<http://www.nbcbayarea.com/news/local/Dont-Eat-The-Perch-Toxic-SF-Bay-Fish-List-Updated-122528249.html>

**New Fish Consumption Guidelines Issued for SF Bay**  
Contra Costa Times  
[http://www.contracostatimes.com/ci\\_18128672](http://www.contracostatimes.com/ci_18128672)

## MAY 26

**Sportfish Contaminated along California's Urban Coastline**  
Los Angeles Times, by Tony Barboza.  
<http://latimesblogs.latimes.com/greenspace/2011/05/widespread-contamination-in-sport-fish-along-californias-urban-coastline-survey-finds-.html>

## MAY 27

**Study finds Mercury, PCBs in Coastal Fish**  
Orange County Register, by Pat Brennan.  
<http://www.ocregister.com/news/california-302242-mercury-southern.html>

**Details of State Agency Findings Re Methylmercury and PCB In Some Long Beach Area Sport Fish**  
Long Beach Report.  
<http://www.lbreport.com/news/may11/fishrpt.htm>

**Survey Finds Contamination in California Fish**  
United Press International  
[http://www.upi.com/Science\\_News/2011/05/27/Survey-finds-contamination-in-Calif-fish/UPI-58691306526821/](http://www.upi.com/Science_News/2011/05/27/Survey-finds-contamination-in-Calif-fish/UPI-58691306526821/)

**Piers Get New Signs Warning Against Eating 5 Kinds of Fish**  
Daily Breeze, by Melissa Pamer.  
[http://www.dailybreeze.com/news/ci\\_18157109](http://www.dailybreeze.com/news/ci_18157109)

## MAY 29

**Mercury and PCBs Widespread in Sport Fish Along California's Urban Coastline, Survey Finds.**  
Los Angeles Times, by Tony Barboza.  
This article was linked via the Huffington Post. <http://articles.latimes.com/2011/may/29/local/la-me-mercury-sportfish-20110529>

**Video Coverage and an Interview with Jay Davis**  
CBS San Francisco.  
<http://sanfrancisco.cbslocal.com/category/watch-listen/video-on-demand/?autoStart=true&topVideoCatNo=default&clipId=5899530&flvUri=&partnerrclipid=>

**State Officials Warn of Dangerous Levels of Toxins in Sport Fish**  
KTLA News, news blurb.  
<http://www.ktla.com/news/landing/ktla-ca-fish-unsafe,0,4041496.story>

**Mercury, PCBs Widespread in California's Urban Coast Fish**  
ABC Local, news blurb. <http://abclocal.go.com/kabc/story?section=news/state&id=8159043>

**Worrying Mercury And PCB Levels Found In Californian Coastal Fish**  
Medical News Today, by Christian Nordqvist. <http://www.medicalnewstoday.com/articles/226849.php>

## AUG 14

**Toxins Troubling in Fish Caught in Local Waters**  
San Diego Union Tribune, by Mike Lee. <http://www.signonsandiego.com/news/2011/aug/14/toxin-levels-troubling-in-fish-from-several/>

## AUG 15

**Toxins In California Sport Fish Measured**  
United Press International, news blurb. [http://www.upi.com/Top\\_News/US/2011/08/15/Toxins-in-Calif-sport-fish-measured/UPI-66751313428471/?spt=hs&or=tn](http://www.upi.com/Top_News/US/2011/08/15/Toxins-in-Calif-sport-fish-measured/UPI-66751313428471/?spt=hs&or=tn)

**High Level of Pollutants in Sport Fish**  
San Diego News, news blurb.  
<http://www.10news.com/news/28866733/detail.html>

**Concerning levels of Toxins Found in Sport Fish Along San Diego Coastline**  
Southwest Riverside News Network, news blurb. <http://www.swrnn.com/2011/08/15/report-concerning-levels-of-toxins-found-in-sport-fish-along-san-diego-coastline/>

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## Journal Articles

**Thompson, B.**, Weisberg, S., **Melwani, A.**, **Lowe, S.**, Ranasinghe, J. A., Cadien, D.B., Dauer, D. M., Diaz, R. J., Fields, W., Kellogg, M., Montagne, D. E., Ode, P. R., Reish, D. J. and Slattery, P.N. (In Press). Low levels of agreement among experts using best professional judgement to assess benthic condition in the San Francisco Estuary and Delta. Ecological Indicators.

## Reports

**Beller, E. E.**, **Grossinger, R. M.**, **Salomon, M. N.**, Dark, S., Stein, E., Orr, B., Downs, P., Longcore, T., Coffman, G. C., **Whipple, A. A.**, **Askevold, R.A.**, **Stanford, B.** and **Beagle, J.** 2011. Ventura County Historical Ecology Study: An analysis of landscape change to guide conservation of the Ventura River, lower Santa Clara River, Oxnard Plain, and the Ventura County Shoreline. Prepared for the State Coastal Conservancy. A Report of SFEI's Historical Ecology Program, San Francisco Estuary Institute, Oakland, CA.

**Bioaccumulation Oversight Group.** (2011). Sampling and Analysis Plan for a Screening Study of Bioaccumulation in California Rivers and Streams. Contribution #647. San Francisco Estuary Institute, Oakland, CA.

**David N.**, **Lent, M.**, **Leatherbarrow, J.**, **Yee, D.**, and **McKee, L.** (2011). Bioretention Monitoring at the Daly City Library. Final Report. Contribution No. 631. San Francisco Estuary Institute, Oakland, California.

**Gilbreath, A.**, **Pearce, S.**, **Gluchowski, D.**, **Beagle, J.**, **Hunt, J.**, **Yee, D.** and **McKee, L. J.** (2011.) Total Mercury Concentrations in Soils, Road Materials and Creek Sediments of the Senador Mine Watershed. Contribution No. 639. San Francisco Estuary Institute, Oakland, California.

## RMP Tech Reports

Gross, E.S., Chang, S., and Holleman, R. (2011). Preliminary Simulations of Sediment Dynamics in the South San Francisco Bay. Contribution No. 637. San Francisco Estuary Institute, Oakland, California.

Stacey, M., Holleman, R. and Gross, E. S. (2011). Test Application of a High Resolution 3-dimensional Hydrodynamic Model (SUN-TANS) to San Francisco Bay. Contribution No. 638. San Francisco Estuary Institute, Oakland, California.

Hintelmann, H., Dimock, B., and Zhu, J. (2011). DGT (Diffusive Gradient in Thinfil) as a tool to assess sources of bioavailable methylmercury in San Francisco Bay. Contribution No. 640. San Francisco Estuary Institute, Oakland, California.

Stevens, D. L. (2011). Recommended Methods for Outlier Detection and Calculations of Tolerance Intervals and Percentiles – Application to RMP data for Mercury-, PCBs-, and PAH-contaminated Sediments. San Francisco Estuary Institute, Oakland, California.

## Maps

**Grossinger, R. M.**, **Salomon, M.**, **Askevold, R.** and **Stanford, B.** (2011). Napa Historical Ecology Atlas GIS data. ([below](#))

Cover of Napa Historical Ecology Atlas GIS data



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Posters

See p. 17 for posters from The 10th International Conference on Mercury as a Global Pollutant (ICMGP)

Presentations

MAY 26



**Robin Grossinger** and **Erin Beller** presented in a Historical Ecology session at the H2O conference in San Diego, California. The talks highlighted findings from the Ventura County Historical Ecology study, due to be released in August 2011. “Habitats of the 19th-Century Ventura Shoreline: Regional Context and Local Diversity” was presented by **Robin Grossinger**. “Historical Eco-Geomorphologic Processes on the Lower Santa Clara River: Reconstructing Two Centuries of Change” was presented by **Erin Beller**.

JUN 1



**Susan Klosterhaus** gave an invited presentation to the Bay Area Pollution Prevention Group. The title of the presentation was “Monitoring Contaminants of Emerging Concern in San Francisco Bay”.

JUNE 15



**Jay Davis** gave a presentation to the California Water Quality Monitoring Council. The title of the presentation was, “Contaminants in Sport Fish from the California Coast”, 2009.

JULY -24-29

See p. 17 for presentations from The 10th International Conference on Mercury as a Global Pollutant (ICMGP).

JUNE 29

**Jay Davis** gave a presentation at the RMP-sponsored Workshop on Nutrient Science and Management in San Francisco Bay. The title of the presentation was: Developing a Regional Strategy and the Role of the RMP.

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JUN 21



## Conversation with Rebecca Solnit and Ruth Askevold at Exploratorium (members only)

What gives a geographic location its sense of place? How do people engage with and interpret the landscapes around them—and how can maps represent the relationships between people and a place?

Celebrated author Rebecca Solnit and Ruth Askevold, Deputy Director of the Historical Ecology Program at the San Francisco Estuary Institute, had a wide-ranging discussion about the Bay Area landscape and place. This intimate, Members-only event was introduced by Susan Schwartzenberg, curator of the Exploratorium's Observatory. Soon to be housed in a second-floor, glass-walled space at Pier 15, the exhibits and experiences of the Observatory are designed to help visitors to better observe and investigate the landscapes around them.

JUNE 29



**RMP** convened a nutrient workshop with invited speakers from the Chesapeake Bay as well as local scientists, regulators, and managers. The goal for this meeting was to develop a preliminary outline for a monitoring program for nutrients in the Bay. A summary memorandum outlining major elements of a nutrients strategy will be developed based on the outcomes of the meeting. The memorandum will be used by the RMP to support development of the Nutrient Strategy, by BACWA to ex-

plain to member agencies the need for nutrient monitoring, and by the Water Board in development of an NNE workplan.

JUN 30

## Nutrients Science Strategy Session

The goal for this meeting was to develop a preliminary outline for a monitoring program for nutrients in the Bay. A Powerpoint and summary memorandum outlining major elements of a nutrients strategy will be developed based on the outcomes of the meeting. The memorandum will be used by the RMP to support development of the Nutrient Strategy, by BACWA to explain to member agencies the need for nutrient monitoring, and by the Water Board in development of an NNE workplan.

A number of the programs reviewed at this meeting were also discussed at the Nutrients Workshop held on June 29th.

JUL 11-14

**Marcus Klatt**  
and **Gregory Tseng** attended the Esri International



User's Conference in San Diego, CA, where they focused on geo-spatial subjects relevant to our projects, system infrastructure, and data management including spatial analysis and statistics, server administration, LiDAR processing, tool development, and upcoming software upgrades. Not only did they attend presentations and workshops, they were able to get technical assistance for on-going projects. For example, SFEI's online spatial data library (release scheduled for Sept 2011) utilizes Esri software, and Gregory was able to track down the software developers and show them a bug in their software. As a result, they escalated this issue and promised to release a new patch! Marcus attended sessions on ESRI's web

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mapping technology, among others. We host about a dozen web mapping sites; the information Marcus learned will enhance our web mapping toolset, potentially streamlining workflow. In addition to the flow of information, the conference is a way to network with other government agencies and non-profit organizations, including the National Hydrography Dataset (NHD) folks from USGS.



**JULY 15**

**Josh Collins, Kelleen Griffin,** and **Rainer Hoenicke** met with Johan Klehs, representing the California State University East

Bay Foundation, Michael Leung, Dean of the College of Science, and two Cal State East Bay professors to identify development of closer links between academics and graduate students at Cal State East Bay and SFEI/ASC.



**JUL 16-19**

**Jamie Kass** attended the Society for Conservation GIS conference at Big Bear Lake, CA. He presented on the Bay

Area Aquatic Resources Inventory (BAARI) and highlighted SFEI's mission and work to members of the international GIS community, including some CA environmental contractors. The audience was enthusiastic, and he received some requests for data access and possible collaborative work involving transferring BAARI methods. Jamie attended talks on the newest Google mapping tools and platforms, the new wave of Esri cloud computing and online capabilities, decision support tools and methodologies, and numerous fledgling GIS efforts by receivers of SCGIS international scholarships. SCGIS is an excellent venue for intimate communication with employees of Esri, Google, NatureServe, Nature Conservancy, and other large environmental NGO's via their active listserve and annual conferences.

Considering the fact that there is not much representation by smaller local CA NGO's doing scientific research, it is beneficial for SFEI and ASC to maintain a presence in SCGIS.

**JUL 19**

## Conversations about Landscape with Jane Wolff and Robin Grossinger

Landscapes are alive and always changing through human action and natural processes. Robin Grossinger, Director of the Historical Ecology program, San Francisco Estuary Institute, and Jane Wolff, scholar, artist, and landscape architect, University of Toronto, Canada, presented ways to decipher landscapes through time and history, and to explore strategies for the co-evolution of people and place.

**JUL 21**



**Jamie Kass** and **Marcus Klatt**

have also been regularly attending quarterly meetings of the Bay Area Automated Mapping Association (BAAMA), which brings together local industry speakers to give talks on topics of interest in the GIS community. July's meeting focused on remote sensing and automated vegetation classification methods. As the developer of regional mapping methodologies and a contributor to Esri-ESRI state methods, this workshop was directly applicable to SFEI's work. The GIS department is currently discussing the possibilities of developing these skills in-house for use in future projects. It is vital that GIS department representatives continue attending conferences and BAAMA meetings to keep up with the rapidly advancing field of GIS, and also to interact with GIS users in the community for collaboration, idea exchange, and exposure of SFEI's and ASC's capacity.

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### JULY 26

**Josh Collins** and **Rainer Hoenicke** met with a small delegation of scientists from South Korea to discuss wetland restoration approaches of mutual interest.

### July 28



**Rainer Hoenicke** and **Kelleen Griffin** met with Steve Weisberg and his senior staff at the Southern California

Coastal Water Research Project Authority to identify additional venues for increased coordination, joint project development, and staff development opportunities for our respective organizations. The meeting also presented an opportunity to align approaches to budgeting and contract development. The SCCWRP Joint Powers Agreement is scheduled for renewal, and SFEI/ASC strategic planning lessons were on the discussion list as well.

### AUG 9



## CEDEN Team Meeting at SFEI

SFEI hosted a meeting of the statewide California Environmental Data Exchange Network on August 9. The meeting, attended by representatives of the other state Regional Data Centers and SWAMP, was the second meeting convened by Steve Steinberg of SCCWRP, CEDEN's new statewide Program Manager. Through his leadership, CEDEN aims to broaden the range of environmental data stewards whom it serves. The group is currently fo-

cused on bringing new datasets into CEDEN, particularly those that can contribute to California's 303(b)/305(d) Integrated Report. SFEI has been in touch with more than a dozen potential data providers to discover what datasets they might want to include in CEDEN and to better understand their data management support needs. Often our data and technology staff has capacity and expertise that other organizations lack. The Regional Data Center will continue to work to provide this capacity to fill needs for SF Bay Area partners.

### AUG 11

## RMP Steering Committee Meeting

The Steering Committee will review the proposed special studies for 2012 and discuss the upcoming RMP annual meeting to identify development of closer links between academics and graduate students at Cal State East Bay and SFEI/ASC.

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**JUL 24-29**

### The 10th International Conference on Mercury as a Global Pollutant (ICMGP)

The International Conference on Mercury as a Global Pollutant is a biennial gathering of the world's leading experts on this topic. This year's conference included participation of over 900 scientists from 47 countries. Given the importance of mercury as a contaminant in California, as documented most thoroughly through recent studies led by SFEI, this conference provides an excellent opportunity to share our latest findings with our scientific peers and to stay abreast of recent advances in all aspects of mercury science. The broad perspective obtained at this conference provides context that is extremely valuable in understanding how to address mercury contamination in California. The conference provided an opportunity see how researchers in other regions are dealing with similar (but also different) mercury contamination issues, including continuing developments and refinements in analytical methods



(e.g., use of stable isotopes), understanding of mercury-organic matter interactions (e.g., DOC and speciation), and regional-scale evaluation of cofactors influencing methylation and bioaccumulation, which can help us choose and refine effective management actions. Participation in this conference will help to ensure we continue to attract funding for studies, continue to attract top notch external peer-reviewers for our work groups and reports and papers, continue to build and maintain important local relationships, and in fostering opportunities for collaborative studies. Jay Davis and Don Yee also participated in a separate workshop for the Coastal and Marine Mercury Ecosystem Research Collaborative, an international collaboration of scientists and stakeholders to gather and analyze data to publish papers which will elucidate key processes related to the inputs, cycling and up-take of mercury in marine ecosystems.

## Posters

### Mercury and Sediment Transport to North San Francisco Bay

Nicole David, Lester McKee, Jon Leatherbarrow

### Mercury in California Lakes and Reservoirs: Factors Influencing Bioaccumulation

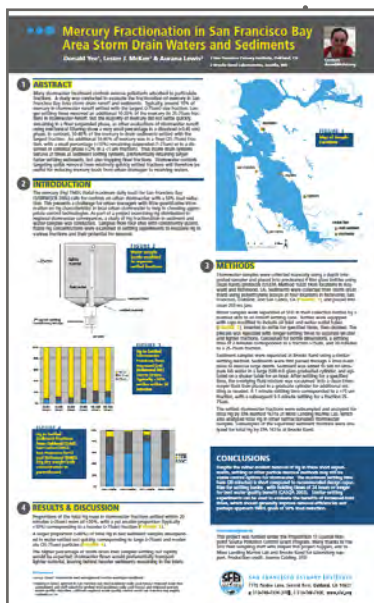
Aroon Melwani, John Negrey, Mark Stephenson, and Jay Davis

### Mercury Fractionation in San Francisco Bay Area Storm Drain Waters and Sediments

Donald Yee, Lester McKee, Aurana Lewis (left)

### Mercury in California Lakes and Reservoirs: Factors Influencing Bioaccumulation

John Negrey, Aroon Melwani, Mark Stephenson, and Jay Davis



## Oral Presentations

### Mercury Bioaccumulation in Sport Fish from the California Coast

Aroon Melwani, Ken Schiff, and Jay Davis

### Mercury Concentrations and Speciation in Mining and Urban Impacted Rivers and Drainage Systems Tributary to San Francisco Bay, CA

Lester McKee, Autumn Bonnema, Annie Carter, Nicole David, Alicia Gilbreath, Ben Greenfield, Wesley Heim, Jennifer Hunt, Mark Stephenson, Tiffany Stilwater

### Reducing Methylmercury Accumulation in the Food Webs of San Francisco Bay and Its Local Watershed

Jay Davis, Letitia Grenier, Don Yee, Lester McKee, Ben Greenfield, Richard Looker, Carrie Austin, Mark Marvin-DiPasquale, Robert Brodberg and Joel Blum

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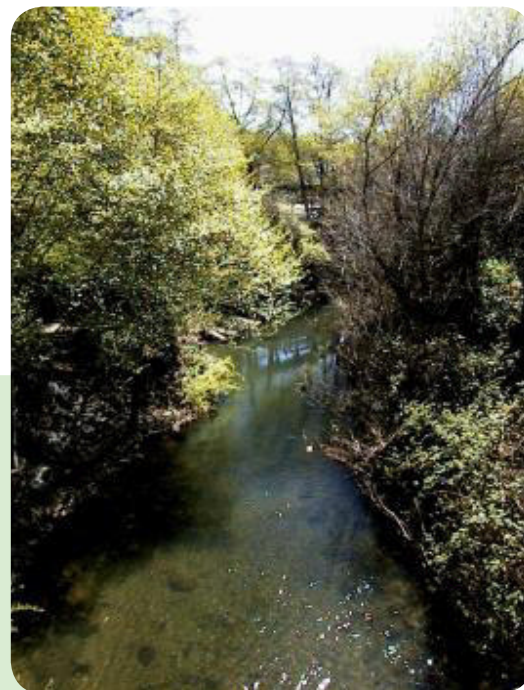
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JUN 29

## Laurel Collins

Laurel Collins discusses the effects of natural processes and historical human interactions on San Anselmo Creek.



AUG 18

## Dr. Elizabeth Whiteman

MPA Monitoring Enterprise, California Ocean Science Trust

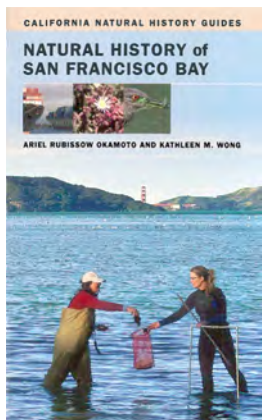
### Evolving MPA monitoring: Reframing Science to Meet Policy & Management Needs

Dr. Elizabeth Whiteman, director of the MPA Monitoring Enterprise for the Ocean Science Trust presented a Brown Bag seminar for staff. She introduced the Monitoring Enterprise's approach to developing monitoring plans for MPAs along the California Coast. The approach is designed to assess the success of MPA management by closely linking monitoring approaches to management actions at an ecosystem level. The MPA Monitoring Enterprise has led development of a monitoring framework that includes using practical and informative indicators to track trends in ecosystem condition and inform the decision making process through adaptive management. SFEI staff discussed common challenges and shared our experiences developing monitoring frameworks and the data and information tools to support adaptive management.

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SpotlightComing to  
a Bookstore  
Near You!Natural History  
of San Francisco BayAriel Rubissow Okamoto  
and Kathleen M. Wong*"This is an  
eminently  
readable account  
of the natural and  
human history of  
San Francisco Bay"*Reviewed by  
Rainer Hoenicke,  
Director, San Francisco  
Estuary Institute

SEPT 20-21

State of the Estuary  
Conference

The Biennial State of the Estuary Conference is coming up on September 20th and 21st. **Rainer Hoenicke** has served on the Planning Committee. **Robin Grossinger** helped organize a session on creating resilient urban watersheds. **Josh Collins** will be a Plenary Session speaker. **Meg Sedlak** will moderate one of the two Water Quality sessions, with **Jay Davis** presenting water quality indicators. **Alison Whipple** will speak in the ecosystem restoration session.

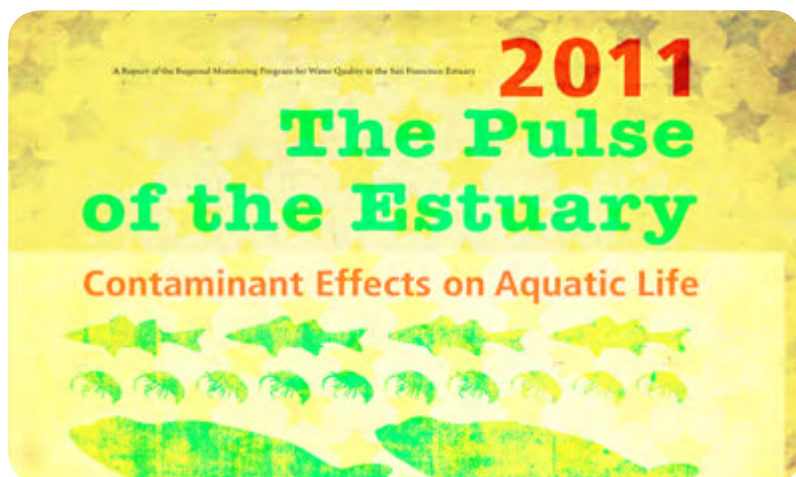
For details, see <http://www.sfestuary.org>.

OCT 4

## 2011 RMP Annual Meeting

The RMP Annual Meeting will be held on Tuesday, October 4th, 2011 at the Oakland Marriott City Center. The meeting will be focused on contaminant effects of aquatic life; the keynote presentation will be by Dr. Dan Schlenk, University of California at Riverside, on contaminants effects on fish. The meeting will also provide updates on the recently released water quality report card, monitoring and effects studies on fish, birds, and seals, and the status of the RMP nutrients strategy.

Please register for this event at our web site.



OCT

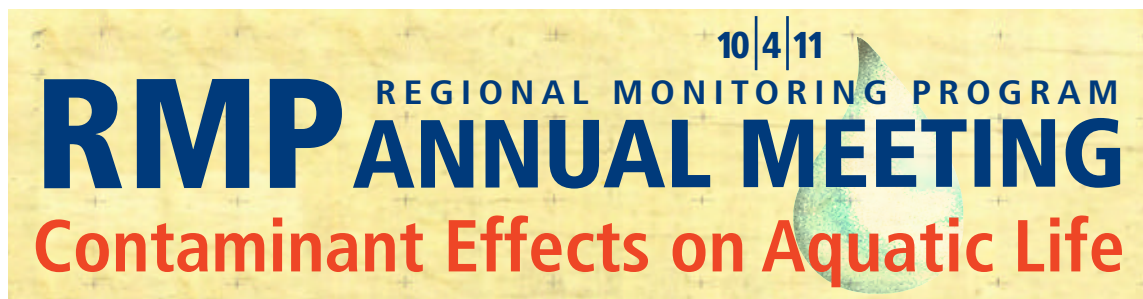
## The Pulse of the Estuary

The Pulse of the Estuary focus parallels that of the RMP Annual Meeting. The results of the water quality report card set the stage for in-depth articles on contaminant effects to fish, birds, seals, and phytoplankton. We anticipate having an electronic copy of the Pulse available at the Annual Meeting.

NOV 11-13

2011  
SETAC Meeting

Society of Environmental Toxicology and Chemistry North America's 32nd Annual meeting will be held in Boston, Massachusetts. **Susan Klosterhaus** and **Thomas Jabush** will attend.



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## Welcome Baby!

**Letitia Grenier**, head of the Conservation Biology Program, and her husband **Andrew Smith** just became parents. All of us are celebrating the arrival of **Robin Kai Grenier-Smith**.

He and his mom are doing well.

# Our Values

The People of the Estuary Institute and the Aquatic Science Center are guided by a set of values that are grounded in scientific rigor, a spirit of innovation, and the pursuit of excellence. We support environmental stewardship for the achievement of a sustainable future. We strive to create a healthy and thriving work environment that empowers our team members and collaborators alike.

## Work Content

### Environmental Stewardship

We seek to ensure our research is relevant, accessible and applied by our stakeholders so that our ecosystems and communities thrive.

### Excellence

We dedicate ourselves to deliver the highest quality information that is objective and adheres to scientific standards, so that we remain trusted, leading experts in our field.

### Innovation

We pride ourselves in the exploration of original, effective and engaging ways of designing scientific studies, synthesizing data, and presenting our findings so as to increase the value of our work to the stakeholders we serve.

## Work Process

### Staff Well-being

We believe in maintaining reasonable workloads and an enjoyable and flexible work environment that incorporates thoughtful planning and efficiencies, so we can maintain personal well-being, job satisfaction, and achieve professional results.

### Collaboration

We engage in an open exchange of ideas and the highest level of teamwork that values the unique contribution of each staff person.

### Respect

We appreciate what each person brings to an interaction and treat each other with consideration.

### Sustainability

We strive to promote institutional ecological responsibility and serve as a role model for minimizing negative impact on the environment.

**SFEI | AQUATIC SCIENCE CENTER**

SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER  
7770 Pardee Lane, 2nd floor, Oakland, CA 94621 • p: 510-746-7334 • f: 510-746-7300

## 2011 SFEI/ASC Values Poster

Values help drive organizational behaviors which form the culture of an organization and are a framework in which decisions are made. Values tend to drive how strategic priorities are implemented. Staff developed two complementary sets of values related to work content and work process that will also create synergy between staff and the Boards of Directors.

For comments or corrections, please email Design and Visual Communications, (lindaw@sfei.org and joannec@sfei.org).

**AQUATIC SCIENCE CENTER  
and the SAN FRANCISCO  
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**Attachment 4**

**Meeting Highlights from Joint Strategic Planning Committees**

**July 14, August 24, 2011**

## **Joint Meeting of the ASC and SFEI Strategic Planning Committees**

**July 14, 2011**

### **In Attendance:**

**SFEI** – Alan Ramo, John Callaway, Trish Mulvey

**ASC** – Dave Williams

**Staff and Consultants** – Rainer Hoenicke, Kelleen Griffin, Josh Collins, Linda Russio, Marc Beyeler, Page Nelson

### **Meeting Outcomes and Action Items**

*The improved ASC Vision, Mission, Goals, and Objectives section, with the modifications requested at the June 2, 2011, Board Workshop implemented, are now ready for incorporation into the draft Strategic Plan to be submitted to the full Board for approval on September 1, 2011.*

*The SFEI Strategic Planning Committee asked staff to compare the emerging SFEI Vision, Mission, Goals, and Objectives with those of the ASC and determine if the draft SFEI VMGO section is sufficiently different to require its own, or if both entities could adopt the language currently developed for ASC. This may lead to the possibility of only ONE plan for both organizations.*

**Action Item #1:** Dr. Hoenicke will provide crosswalk to SFEI Strategic Planning Committee by July 29 and Ms. Seto will schedule a conference call to discuss, if necessary. Report results at joint meeting on August 24. Done.

The interviews with the 18 ASC key informants (some of whom were also knowledgeable about SFEI) from five major stakeholder groups (dischargers/water purveyors/flood protection; irrigated lands; science; regulators; environmental interests), including those recommended by Pamela Creedon at the June 2 workshop, are now completed. “Significant” insights from key informants formed the basis of the options for the “strategic priorities” staff introduced to the committees.

Strategic priority options include:

- (1) Fully develop a sustainable data management, transformation, and exchange infrastructure (Regional Data Center) capable of aggregating many kinds of environmental data from multiple sources to efficiently and comprehensively assess environmental change at varying scales, effects of multiple stressors acting on key ecosystem attributes, cumulative outcomes of management interventions, potential effects of alternative future management actions, and ways to improve environmental restoration and protection projects, programs, and policies.

**Action Item #2:** Before any further work is done on the two strategic priority options, a Board approved workplan with timeline and budget is needed for both (unless they are already in the ASC workplan and have been approved). Assumption is that funding is from “overhead.”

**Action Item #3:** Distribute to Strategic Planning Committees the white paper detailing Strategic Priority Option #1 [EcoAtlas] Done.

**Action Item #4:** Develop fundraising plan for above.

- (2) Produce, under advisement of a Council of Science Advisors, integrated and comprehensive “State of the Estuary” reports in regular intervals that are based on careful compilations, analyses, and organization of multiple data sets across many disciplines.

**Action Item #5:** Distribute to Strategic Planning Committees the white paper detailing Strategic Priority Option #2 [Science support for State of the Estuary reports] Done.

- (3) Now, that the initial research has been completed on what is legally feasible and possible about expanding representation on the ASC Board, both committees suggested a specific plan to move forward with the concept of a “unified” board. The committees asked staff to lay out a timeline for transitioning from two separate boards for each organization to a unified board guiding each entity within six months and determine after one year whether there are any advantages to transforming two separate legal entities into one.

**Action Item #6:** Dr. Hoenicke and Ms. Griffin will develop a roadmap for options toward board unification.

**Action Item #7:** SFEI subcommittee to review ASC V,M,G&O. Ms. Seto will schedule a mid-August conference call for the SFEI subcommittee only. Done.

\*\*\*\*\*

**Joint Meeting of the ASC and SFEI Strategic Planning Committees  
August 24, 2011**

**In Attendance:**

**SFEI-** Alan Ramo, John Callaway, Trish Mulvey, Dyan Whyte

**ASC-** Darrin Polhemus, Dyan Whyte, Dave Williams, Pamela Creedon

**Staff and Consultants-** Rainer Hoenicke, Kelleen Griffin, Stephanie Seto, Marc Beyeler, Page Nelson

*The August 24 joint meeting was based on the premise that ASC and SFEI might have ONE SINGLE Strategic Plan, rather than very similar, yet separate, documents for each. The SFEI Strategic Planning Committee recommendations, discussed at a conference call on August 11, 2011, were shared with the ASC committee members. They consisted of a request to the ASC committee to consider word changes in the ASC-endorsed Vision, Mission, Goals, and Objectives to reflect greater inclusiveness of a broad stakeholder audience beyond governmental agencies. Both committees then worked together to finalize wording changes to be forwarded to both Boards with a recommendation to approve the final VMGO statements as part of a joint Strategic Plan for both organizations.*

*The Joint Committees also reviewed the revised versions of three Strategic Priorities for inclusion in the joint Strategic Plan. They endorsed all three priorities under the condition that Priority #3 – “Toward A Unified Board”- clearly state that broad stakeholder representation be recognized by both ASC and SFEI as a key principle. Staff was directed to incorporate appropriate language to that effect and recommended that all three Strategic Priorities be forwarded for approval by both Boards as part of the joint Strategic Plan for both organizations.*

**Next Step:**

Discuss in more detail how broader and “balanced” Board representation would be reflected in a unified Board.

## **Attachment 5**



SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER

# Strategic Plan

September 2011

**TAB 1**

Preamble

**TAB 2**

Summary Slides

**TAB 3**

Vision, Mission, Goals, & Objectives

**TAB 4**

Strategic Priorities #'s 1, 2 and 3

**TAB 5**

Table of Contents for Appendix

## **Preamble**

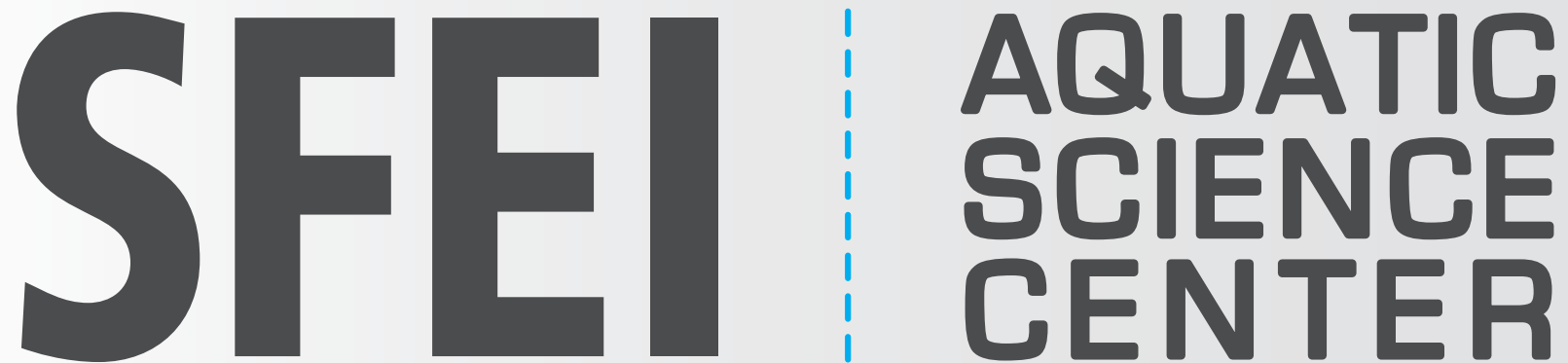
The Joint Strategic Plan of the San Francisco Estuary Institute and the Aquatic Science Center opens a new chapter in decision-support to diverse stakeholders based on rigorous science. It reflects the historic and continuing role of the Institute as an integral member of the San Francisco Estuary Partnership, as spelled out in the Comprehensive Conservation and Management Plan for the Estuary. It also reflects the role of the Aquatic Science Center as a governmental agency with strong links to decision-makers in the Bay Area, the Delta, Central Valley, and beyond.

This Strategic Plan is the result of the collaborative efforts of the Boards and Executive Staff of the Center and Institute to create a blueprint for the further development of both organizations' activities and to closely align the work of Boards and staff. It will be accompanied by an implementation document that spells out specific actions, whose outcomes are measurable and can be achieved within a three- to five-year implementation horizon, to be reviewed and adjusted at least annually. The Plan contains hierarchically arranged statements reflecting: (1) a vision of a desired state we will contribute to; (2) a mission of what we do and what our role is; (3) goals that reflect both organizations' means of pursuing our mission; (4) objectives, and (5) strategic priorities to be pursued during a specified implementation period.

The foundation of this document is the values of SFEI and ASC that represent a pledge to each other and to the people we serve as to how we strive to conduct ourselves. Our values are grounded in scientific rigor, a spirit of innovation, and the pursuit of excellence. We support environmental stewardship for the achievement of a sustainable future and strive to create a healthy and thriving work environment that empowers our team members and collaborators alike.

Our sincere thanks go to the members of both Boards, and particularly their respective Strategic Planning Committees for traveling with staff on a journey that has only started with the development of this document. We hope to continue on this path with our Boards as we craft our implementation plan, track progress, and review and adjust goals and objectives. Our gratitude also goes to our consultants, Santalynda Marrero, Maria Hernandez, Marc Beyeler, and Page Nelson, who facilitated this year-long planning process.

The Executive Team



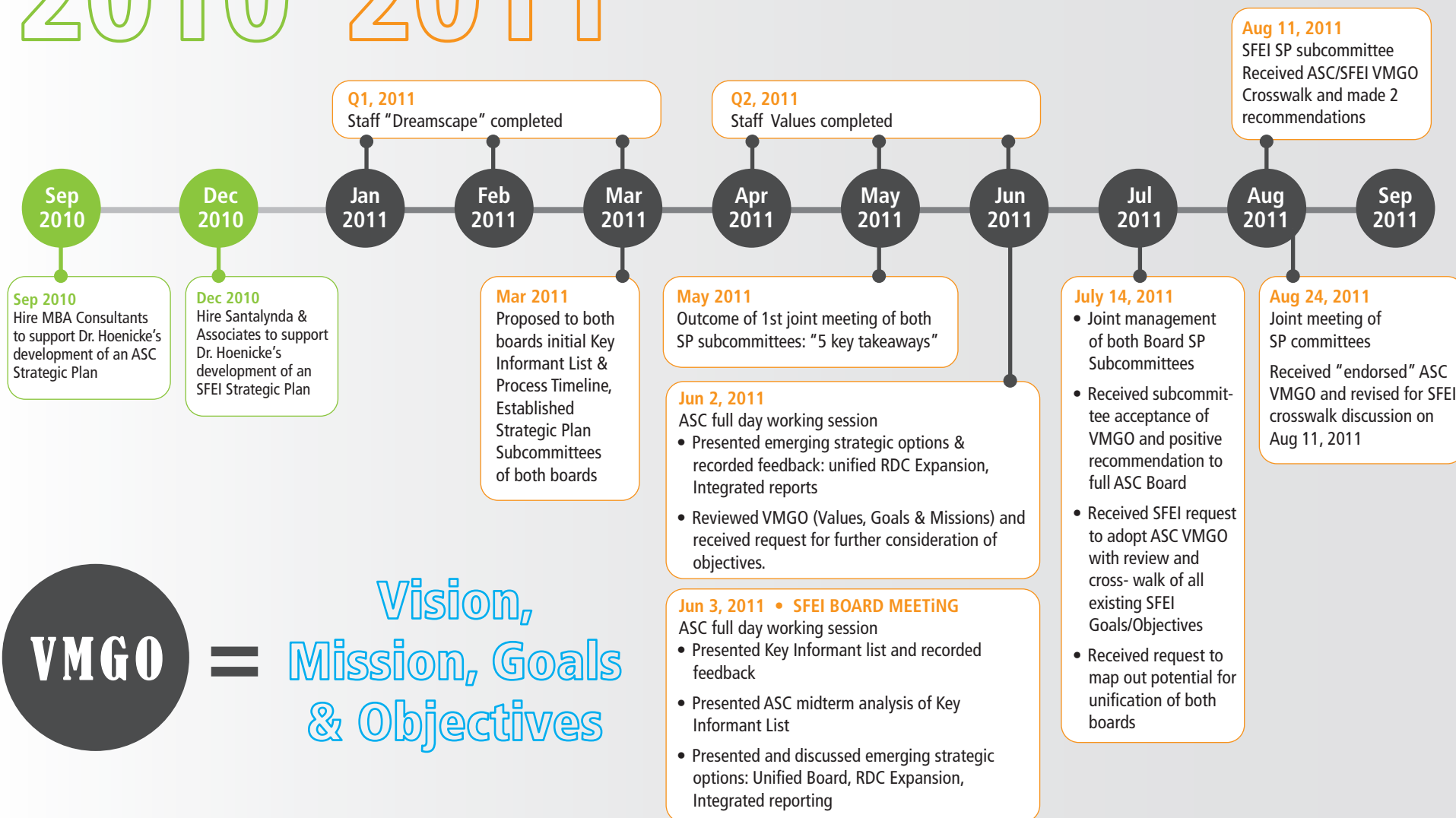
**SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER**

## **Strategic Plan**

**September 2011**

# I The Journey So Far

## 2010 2011



**VMGO** = Vision, Mission, Goals & Objectives

# **II Vision, Mission, Goals and Objectives**

**July 14, 2011**

**ASC SP subcommittee endorses VMGO for full Board approval**

**August 11, 2011**

**SFEI SP subcommittee makes suggested modifications to ASC VMGO**

**August 24, 2011**

**ASC & SFEI Joint SP subcommittee revises VMGO and endorses one VMGO and one Strategic Plan for both entities**

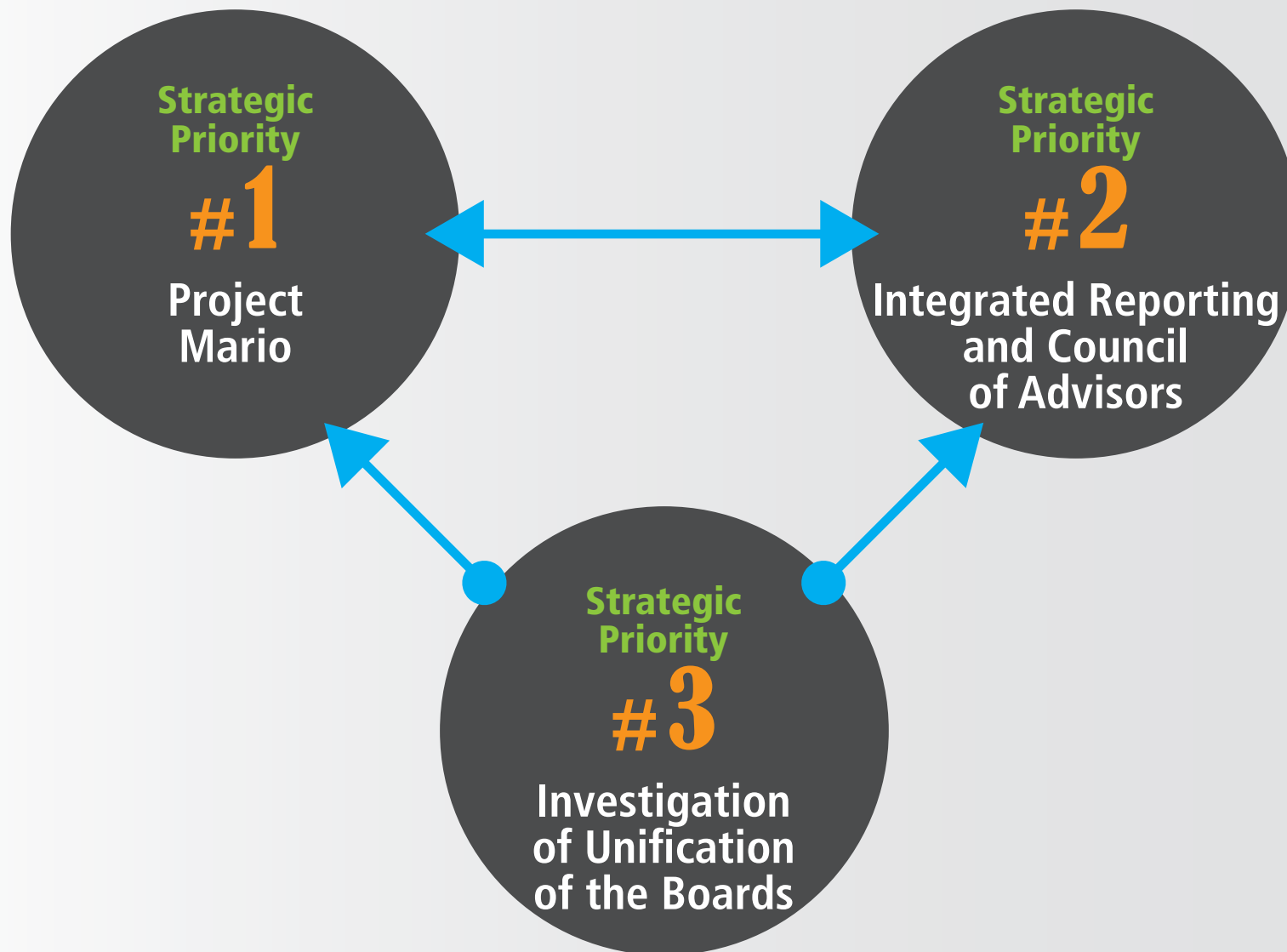
**Action: Board reviews and recommends final VMGO**

# III Strategies and Priorities

## Why have separate strategic priorities and VMGO?

- Alignment – separate distinct strategic priorities create focus and coordination
- Clarifies what contracts, proposals are a fit, which ones are not
- Creates an opportunity for disciplined management
- Identifies synergistic opportunities
- Demands the evolution to 'translational' scientific research – “shortens the distance”
- Highlights resource gaps
- “Door” to implementation

# III Strategies and Priorities cont.



# III Strategies and Priorities cont.

Strategic  
Priority

#1

Project  
Mario

Strategic  
Priority

#2

Integrated Reporting  
and Council  
of Advisors

Strategic  
Priority

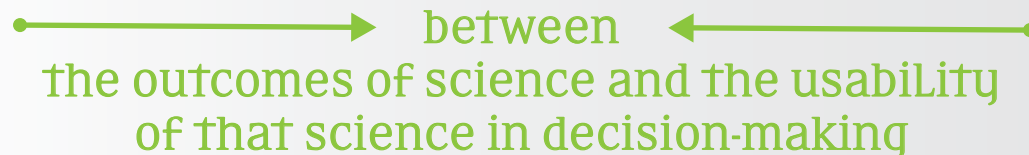
#3

Investigation  
of Unification  
of the Boards

Action: Review Each Priority and Recommend Approval

# IVa Strategic Priorities

“shorten the distance”



- Overwhelming key informant demand to create expanded web-based GIS, aggregating data from multiple sources
- Accessible, fully-developed system of data, information, and datasets facilitates Strategic Priority #2: Integrated Reporting

Goal: Comprehensive web-based GIS enhances application and assessment of data, fostering “translational research”

# IV<sub>b</sub> Strategic Priorities

“Power of science”

- Demand for vigorous demonstration of efficient use of funding calls for integration of efforts and reporting
- According to key informant interviews, successful integration of efforts and reporting strongly relies on the independence and transparency of science.
- SFEI/ASC’s independence and transparency in science is enhanced by an external Council of Advisors, with cross-disciplinary expertise and global perspective.



Goal: “best practice” scientific research  
Institute and Center

# IV<sub>c</sub> Strategic Priorities

## Unification of the Board is about:

- Applying basic unification principles
- Enabling consistent delivery of science services
- Committing to independent science that goes beyond the San Francisco Bay.

#3

Investigation  
of Unification  
of the Boards

Goal: Align Institute and Center top to bottom with strategic priorities and the plan to implement them...



# Milestones & Indicators

2011

Sep  
2011

Dec  
2011

2012

Mar  
2012

June  
2012

Strategic  
Priority

#1

Project  
Mario

Approval of  
Strategic Plan

MOVE

Complete Implementation  
Plan including:

- 3yr goal statement
- Analysis of resource gap (People Tech)
- Identification of pacing elements (Assessment of State/Regulatory needs)
- Communication Outreach Strategy

Budget

Strategic  
Priority

#2

Integrated  
Reporting  
and Council  
of Advisors

Complete Implementation  
Plan including:

- Development partnership platform
- Formalize partnership with SFEP
- Communication outreach strategy

SFEI  
program  
plan

Strategic  
Priority

#3

Investigation  
of Unification  
of the Boards

Presentation on  
Board Roles and  
Responsibilities

Employee  
benefits

NEW  
ideas

Complete Communication Plan for Strategic  
plan (to constituents & stakeholders)

-----  
Complete Phase I of Organizational Redesign

-----  
Identify Board skillset gaps  
Establish Board Governance Committee  
Set nominating committee conference  
calls dates

annual  
employee  
review

Statements of Needs  
and Identification  
of Partnerships

Begin Phase II  
of Organizational Redesign

-----  
Full Board evaluates  
Nominating committee:  
Candidates; elects unified  
Board

Interagency Agreements  
and Advisory/  
Coordination Groups

Phase II of Organizational  
Redesign (Project Manage-  
ment complete)

-----  
Unified Board convenes

# VI Example Indicators

## Milestone

Dec  
2011

Mar  
2012

June  
2012

Strategic  
Priority

#1

Project  
Mario

3yr Goal Statement

Draft Statement

Final Statement for 2012-14

Analysis of  
resource gap

Statement of existing in-house  
technical capacity

Identification of priority needs  
for capacity development

Draft job description(s) and/or  
identify partnerships to meet  
priority capacity needs

Identification of  
pacing elements

Data and information services  
needs questionnaire

Draft list of target data and People  
Outreach

Institutional agreements  
for data management

Communication  
and Outreach

Develop communication and  
outreach resource needs (including  
People, Tech and Funding)

Develop skillset and outreach  
training  
-----  
Draft inter-agency  
communication plan

Draft long-range funding  
and business plan

Strategic  
Priority

#2

Integrated  
Reporting  
and Council  
of Advisors

Develop partnership  
platform

Proposal of joint goals  
and objectives

Statement of adopted joint goals  
and objectives

Formalize SFEP and  
other partnerships, e.g.,  
DSC, IEP

Identify partnerships candidates

-----  
Statement of expected joint product  
and services

-----  
Statement of roles and responsibilities

MOU or MOA

Communication  
and Outreach

Draft criteria  
for Council of Advisors

Statement of advisory panel roles and  
responsibilities

# VII

## SFEI/ASC Program Plan (analysis)

	SFEI											ASC							
	Estuary 2100 370k	LID Stormwater 120k	Green Infrastructure 656k (Green) (N)	Infrastructure 655k (N)	Guadalupe River Mapping 165k	CIAP-Head of Tide 120k	Fitzgerald 490k	N. San Diego Lagoons HE 300k	SWAMP Bioaccumulation 150k	RMP		N. Bay Bio Sentinel Monitoring 200k	Delta Conveyance 652k	CEDEN 1.3 mm	Delta Landscape 875k	Wetland Protection Policy 159k	Delta Water Quality 200k	W/L Monitoring Toolkit	
Strategic Priority #1 Project Mario	✓		✓	✓								✓	✓	✓				✓	
Strategic Priority #2 Integrated Reporting and Council of Advisors		✓			✓			✓							✓	✓			
VMGO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	

# **VIII Strategic Plan** *Table of Contents*

## **I Preamble**

## **II Defining Strategy**

- a. Vision, Mission, Goals, & Objectives
- b. Strategies and Priorities
- c. Milestones and Indicators

## **III Appendix**

Background and Rationale

SWOT Analysis—Conducted by consultants

- a. Board SWOT
- b. ASC Key Informants
- c. SFEI Key Informants
- d. Sr. Staff Team Research

## **Unified SFEI-ASC Vision, Mission, Goals, and Objectives Statements**

### **Vision:**

Aquatic ecosystems are healthy and being protected, supported by independent science.

### **Mission:**

Provide scientific support and tools for decision-making and communication through collaborative efforts.

### **Goal 1: Science Support Services**

Provide science support services, including the development of new science, focused on connecting science to policy and decision-making.

#### **Objective 1.1**

Conduct and support development of research that anticipates and responds to information needs for management and policy adjustments in a rapidly changing environment.

#### **Objective 1.2**

Provide timely, relevant, credible, and reliable monitoring data and assessments to the public and interested parties, including aquatic resource regulators, managers, planners, decision-makers.

#### **Objective 1.3**

Provide support for new and innovative approaches to comprehensive stewardship of aquatic resources at the landscape level and in a watershed context, assisting the interested public, planners, regulators, managers, and policy-makers to better identify, evaluate, understand, and manage cumulative effects of their plans, decisions, and actions.

**Goal 2: Data and Information Access, Aggregation, and Usability**

Expand data and information synthesis by developing appropriate tools and systems.

**Objective 2.1**

Expand and strengthen the integration of regional monitoring information, and the ability to aggregate data from disparate sources.

**Objective 2.2**

Integrate scientific data and information into the process of problem formulation, policy development, and evaluation of management options, providing support for California Water Quality Monitoring Council (CAWQMC) and regional coordinated monitoring initiatives, including Surface Water Ambient Monitoring Program (SWAMP) and existing Regional Data Centers.

**Objective 2.3**

Provide a reliable environmental data and information management system so that users can efficiently store, retrieve, share and visualize data of known quality.

**Goal 3: Forum**

Provide an independent, accessible forum to improve science and policy integration and communication with a wide variety of stakeholders and decision-makers.

**Objective 3.1**

Provide inter-agency coordination services to align common goals and interests (i.e., assist with vertical and horizontal integration of science-based governmental decisions) and facilitate efforts to find solutions among a broad range of stakeholders.

**Objective 3.2**

Enhance accessibility of data and information via technical support and outreach to data generators and users alike, in collaboration with existing Regional Data Centers in order to expand services to other regions of the state.

**Objective 3.3**

Provide a platform where emerging and identified problems with the environmental health of aquatic ecosystems are discussed, goals are established, monitoring information is evaluated, and goals are adjusted as necessary.

**Goal 4: Best Practices**

Maximize the value and use of financial resources by providing efficient scientific, information-management, and administrative support for multiple stakeholders.

**Objective 4.1**

Continue to streamline contracts and grants administration practices and requirements, continuously refining project criteria and improving processes for evaluating strategic needs and opportunities.

**Objective 4.2**

Expand the use of environmental performance assessment measures to improve and enhance tracking and reporting that can serve both regulated entities and regulators.

**Objective 4.3**

Demonstrate how to combine technical expertise, scientific knowledge and research, and stakeholder values and preferences into effective decision-making.

## Strategic Priority #1: “Project Mario”

### Background

As outlined in the accompanying “Back to The Future” chronology, the need for a web-based GIS to archive, share, and visualize environmental data and information extends back to 1995. Whether in small incremental steps or bigger leaps, the forward momentum to meet the need for a go-to aggregator of data and information for the whole Estuary (Bay and Delta), plus the watersheds attending the Bay, has never wavered. For now, we are calling this strategic priority “Project Mario” after the co-recipient of the 1995 Nobel Prize for Chemistry, Mario Molina, who was instrumental in overcoming institutional inertia in dealing with the infamous ozone hole and helped inform the phase-out of chlorofluorocarbons with unanimous support in the UN General Assembly in 1987. Thank you, Mario.

Over a period of 15 years, SFEI/ASC has worked with the USEPA, USACE, SWRCB, CDFG, BCDC, Regional Water Boards, and local interests (to name just a few) setting the groundwork for the future application of technology-based scientific support services. We have partnered with and received funding and other support from the above organizations to design and implement the following:

- Wetland Tracker (for tracking restoration project information)
- Web Query Tool (for pulling data from a myriad of Regional Monitoring Program datasets)
- SWAMP databases
- My Water Quality Portals
- Online 401 (permit management tool)
- eCRAM and related databases
- Interactive Central Valley monitoring directory

These are just a few of the tools created to-date and considered by our colleagues and collaborators as *building blocks* toward a more nimble and accessible system of integrated data, datasets, information, and analysis tools designed to facilitate and accelerate decision-making.

As our constituents face ever-growing scrutiny from the media and the public, and the demand grows for “just-in-time” responses to “wicked problems<sup>1</sup>” – a true scientific term

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<sup>1</sup> Solutions to wicked problems are not [true or false](#), but instead, better or worse

akin to solving the impossible- the need and the timing are ideal for SFEI/ASC to jump to the next stage of data and information management in service to decision-makers.

### **Opportunity:**

*To aggregate data of many kinds from multiple sources to efficiently and comprehensively assess: 1. Environmental change at varying scales; 2. Effects of multiple stressors acting on key ecosystem attributes; 3. Cumulative outcomes of management interventions to-date; 4. Likely effects of alternative future management actions; and 5. Ways to improve environmental conservation projects and programs.*

### **Why Now?**

We have recently seen an upward shift in the level of interest in and commitment to these tools by decision-makers because they:

- must prioritize their actions while negotiating an increasingly complex array of environmental issues ;
- must shorten the time between defining and addressing environmental problems even when faced with a paralyzing overabundance of unclassified and uncategorized data;
- must vigorously demonstrate efficient utilization of public funds even as funding levels decrease; and
- recognize that a regional data access point with a question-driven framework will greatly assist them in meeting these challenges.

### **Why SFEI/ASC?**

SFEI/ASC staff have matured in their knowledge of rapid software development and leading-edge internet functionality. Coupled with knowledge gained through trial and error over the last 15 years of hands-on experience building existing tools, SFEI/ASC has an in-place advantage when stepping into this role as a regional information service center. Another compelling reason for a re-energized commitment now is that we already have the infrastructure to manage large datasets at an enterprise level<sup>2</sup>, keep systems running, develop data flow tools, and provide quality assurance and control expertise. SFEI/ASC knows how to help environmental decision-makers define their technical questions, how to acquire and aggregate relevant data, and how to translate the data into meaningful answers.

### **Next Steps**

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<sup>2</sup> Enterprise level data management allows multi-user data access, robust backup, and data security checks.

As a successful implementation of this initiative already underway, we would address in practical ways the separate needs of many partners and stakeholders:

- General user community – data upload and download capability, QA resources; easy-to-use web interfaces, advanced query capability, data inventories, spatial data visualization tools, downloadable reports; map-based resource exploration;
- Regulatory and management staff – permit management, aquatic resource extent and change analysis tools, management and use of grant data (inputs, outputs, outcomes) to assess project performance; integrated reporting products, individual and multi-program effectiveness assessments across common agency and policy goals;
- Scientists and educators – support of research and publication, visualization of condition and change, data and information exploration and discovery.

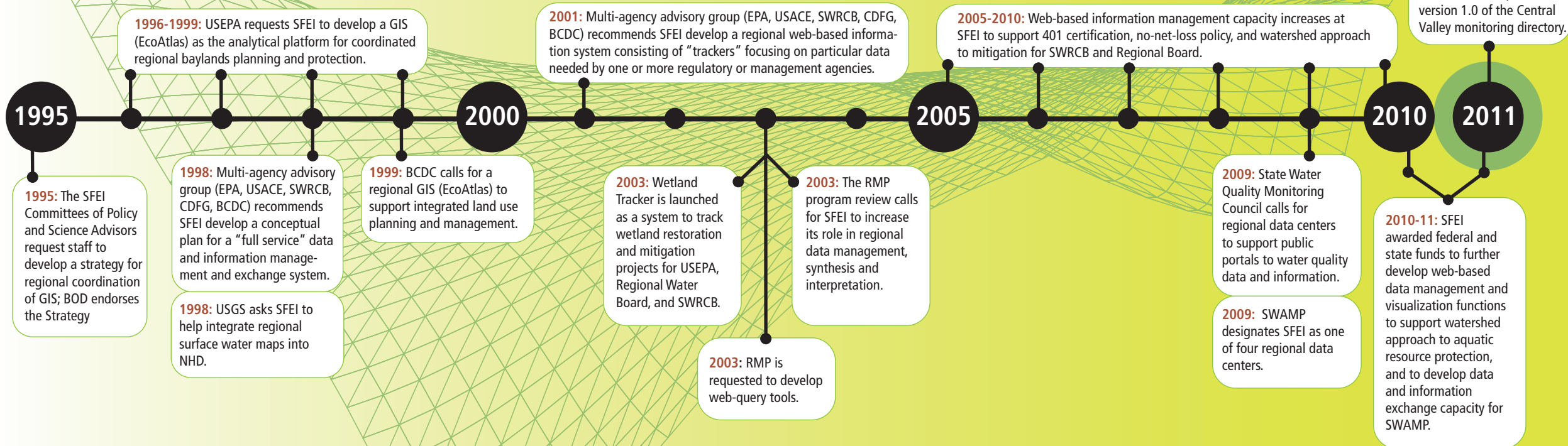
Our approach has been multidimensional in its ability to cut across data themes, scales, and levels of detail without losing information on data quality and limitations. **A fully developed system of data transformation for facilitating the evaluation of alternative management options will facilitate integrated reporting such as the State of the Estuary Report, the Pulse of the Delta Report, State of the State's Wetlands Report, integrated regional 305b and 303d Reports, and environmental profiles for watersheds and other user-defined landscapes, as called for by new policies governing impact avoidance and mitigation.** All elements contained in "Project Mario" (e.g., data center functions, GIS-based tools, such as EcoAtlas, trackers) will support and accelerate the move toward consensus-based, collaborative, comprehensive regional and watershed-based environmental planning and protection.

### **Conclusion:**

Information technology is improving at a time when environmental protection is challenged by increasing rates and uncertainty of environmental change. Management and regulatory decisions will increasingly rely on scientific guidance that is synthesized from multiple lines of evidence cutting across multiple disciplines and scales of time and space. There is a need to employ the technology now to assemble environmental data and information in ways that support collaborative approaches to defining and solving key environmental problems before they worsen and as they emerge. Together with its partners, SFEI/ASC has the knowledge, capacity, and working relationships to provide strategic leadership in developing a fully functioning Regional Data Center to meet this need, and to help establish and enhance additional regional service centers in the Delta, the watersheds draining to the Estuary, , and other regions of California.

# BACK <sup>to the</sup> FUTURE {EcoAtlas} Information System

## A Chronology of the Need to Assemble, Synthesize, Access, and Visualize: Environmental Data and Information for the San Francisco Estuary



## **Strategic Priority #2**

### **Regional Environmental Science Support for Integrative Bay-Delta Reports**

#### **Background**

The desire and need for a periodic report on the health of Estuary has never been greater than now. The Estuary Partnership has been championing this endeavor for a number of years. The Directors of the Interagency Ecological Monitoring Program and the Delta Stewardship Council have also recognized the need for much greater emphasis on assessing and communicating environmental outcomes of large investments in restoration and protection of the Estuary. The Marine Life Protection Act calls for similar reporting on the health of marine ecosystems outside the Golden Gate. All of these efforts recognize that the health of the Estuary and its neighboring marine systems is linked to the health of their attending watersheds.

These marine systems, plus the Bay, the Delta, and their watersheds are integral components of the “Golden Gate Ecosystem,” a self-evident system of great ecological and economic importance. It can be delimited by the spatial extent of the effects of drainage from these watersheds on the chemical, physical, and biological condition of aquatic resources. If there is ever to be a report on the health of the Golden Gate Ecosystem as a whole, the various efforts to report on the health of each of its major components will need to be coordinated. It’s not too early to begin this kind of long-range planning.

Over a period of 15 years, SFEI/ASC has worked with the Estuary Partnership, EPA, SWRCB, CDFG, BCDC, and the Natural Resources Agency, to name just a few, to expand from the core of water quality assessments of the San Francisco Estuary Regional Monitoring Program to more integrated assessments that include other sources of human-induced stressors on aquatic ecosystems. To date, we have received public funding to build and implement assessment and reporting frameworks that have contributed significantly to the understanding of aquatic resource condition at watershed and regional scales, as evident in previous State of the Estuary and Bay-Delta Science Conferences, as well as Estuary Conference coming up in September 2011. Key SFEI/ASC milestones leading up to the 2011 State of the Bay Report include:

- Science leadership of the Baylands Ecosystem Habitat Goals report that produced broadly vetted and quantifiable targets for desired tidal marsh type, acreage, distribution, and condition, against which progress could be measured and reported regionally and consistently;
- The commitment by the deputy directors of CalEPA and the Resources Agency in 2004 to develop a watershed assessment framework;

- A convention of high-level environmental managers and decision-makers from both CalEPA and Natural Resources Agency departments in January 2005, co-sponsored by EPA, the Estuary Partnership and SFEI, to agree on the need for and coordinated development of environmental indicators;
- Allocation of funding from 2003-2007 through CWA, Section 320, to gradually develop environmental indicators suitable to track CCMP implementation outcomes;
- The development of a regional assessment and reporting framework through the Estuary Partnership and supported by the Department of Water Resources and EPA that will guide the regional science community toward truly comprehensive and integrated reports on the health of the Bay and Delta relative to clearly articulated good health benchmarks.

In addition, the participants in the Interagency Ecological Program and the Delta Science Program have expressed their commitment to increase the focus on information synthesis and assessments of the interrelated and often synergistic impacts of ecosystem stressors. We are beginning to make major contributions to this effort in the Delta through the emerging Delta Regional Monitoring Program and by informing landscape-based ecosystem management and restoration approaches called for in the Delta Plan.

## **Opportunity**

The strategic needs expressed to us by the San Francisco Estuary Partnership, coupled with the desire by key regulatory and non-regulatory agencies (Regional Water Boards, DFG, EPA, NOAA Fisheries, USFWS, BCDC, Conservancies, Joint Ventures) to find efficiencies of scale and scope make the timing ideal for SFEI/ASC to lead and/or participate in the science support for integrative reports. In facilitating the continued development of integrated reports such as the “State of the Bay,” “State of the Delta” ASC/SFEI could simultaneously bring agencies together in ways that reduce their historically isolated and program-based efforts.

Our interest extends beyond the boundaries of the Bay and Delta. There are essential ecological linkages between them and other components of the Golden Gate Ecosystem, which also does not exist in isolation. Migratory species provide abundant examples, as do pollutants that travel with people and air. The health of the Bay and Delta is directly and profoundly affected by the conditions of neighboring systems, as affected by people and nature. Ecological differences along broad gradients of latitude and longitude can serve to illustrate the potential range of climate change effects within the Bay and Delta. Our work is directly benefitted by scientific collaborations that transcend the boundaries of the Estuary by increasing our understanding of external drivers of change on environmental conditions in our primary interest area, and by increasing our exposure to different science and technology. These collaborations can also help us disseminate our innovations to others. The benefits of our work can thereby extend beyond the Bay and Delta.

The Estuary Partnership and SFEI/ASC believe they can work together to make the reports the primary source of understanding about the condition of the Bay and Delta and a model for other regions of the State. Through SFEI/ASC and SFEP, with their broad partnerships for coordinated science and outreach, the Report could evolve into a comprehensive statement on the overall ecological health of the Estuary, perhaps as a step toward reporting on the health of the greater Golden Gate Ecosystem. It could also serve to focus the community on key issues and to identify emerging regional science needs.

Furthermore, as SFEI/ASC move forward with development of Strategic Priority #1, we will need guidance to direct and constrain the development effort. These kinds of undertakings incur a risk of collapsing under the burden of trying to meet too many needs for too many user groups too fast. We understand this risk and how to manage it. A logical and effective approach is to focus our efforts on managing the datasets and information needed to produce the State of the Estuary Report. The information content to produce reports that cut across multiple programs, such as the State of Estuary Report, can thereby systematically grow together over time. This will help assure that the Report remains founded on well-qualified data and information that can be readily revisited to explain or revise Report findings based on new understanding. And, it will help assure that the tools we develop remain focused on sets of practical and achievable objectives.

### **Next Steps**

The Estuary Partnership intends to lead the Report as an effective communication tool to highlight successes and remaining challenges in CCMP implementation. SFEI/ASC would work closely with the Estuary Partnership and the regional science community to identify the science support needs for the Report and to organize the science to meet these needs. The Report is at its heart a technical document that depends on careful compilations, analyses, and organization of multiple datasets across many disciplines. The technical work to produce a successful Report includes:

- developing an analytical framework for the report;
- choosing metrics of condition and revising the metrics over time;
- developing and implementing data QAQC procedures;
- planning and conducting the analyses and interpretation of findings;
- designing and implementing report formats and distribution methods; and
- planning for future science support to meet the long-range Report goals.

have in combination The combined wealth of experience and capacity of the Estuary Partnership and SFEI/ASC are a natural fit to refine production of integrative scientific reports. This does not eliminate the need for external advice and review, however. All of the technical work briefly outlined above will benefit greatly from the advice and review of a council of senior science and technology experts. Such a council is needed to assure that the report reflects the state of the science and the successes of similar efforts in other regions. In the absence of such a council, the scientific debate that should accompany the Report will tend to be limited to perhaps parochial perspectives that do not in aggregate

provide a full range of possible scientific approaches to condition assessment, full suite of metrics, and full range of their possible interpretations. The objectivity and independence of SFEI/ASC are paramount to its success. With regard to its support of the State of the Estuary Report, SFEI/ASC will need advice and review from experts outside the region to assure its independence and objectivity.

The council might also advise SFEP and its partners on the establishment of other advisory groups to address technical topics of regional importance, such as aquatic resource monitoring, sediment management, nutrient management, LID, and climate change preparedness. The relationship between this council and the science programs in the Delta and marine systems adjoining the Golden Gate should be defined, and the council can help frame that discussion.

## **Conclusion**

Achieving and maintaining the good health of the Bay and Delta will depend on periodic scientific reports of their condition relative to established health goals, plus reports on processes and operations that affect their condition. The report should identify changes in management practices that will improve conditions. The Estuary Partnership and ASC/SFEI are ideally suited to lead the effort to produce the reports. The State of the Bay Report is the logical start. The next step is for SFEI/ASC to establish a council of science advisors that will work with SFEP to review the past and current Reports and provide advice on any necessary changes, and to develop a five-year plan with a budget for expanding and intensifying the Report to cover the Estuary in its entirety.

## **Strategic Priority #3: Toward A Unified Board of Directors**

### **Background**

There are a lot of ways to think about the strategic priority of unifying the SFEI and ASC Boards, such as the savings in cost and the time associated with managing each of the Boards, or the potential lack of clarity and attendant risk associated with two Boards, two directions, two strategic plans, and one staff. However compelling, unifying the two Boards is not about any of these.

Unifying the Boards is a very tangible milestone marking the launch of the most significant transformational effort in the history of SFEI/ASC. Unification is about re-envisioning how our constituents and stakeholders, from our Boards to our funding partners to our audience, interact with SFEI/ASC, and how they interact with each other. Unification is also about enabling consistent delivery of science services that inform, and transform, current and future environmental dialogues. And finally, unification is about a commitment to independent science that goes beyond the San Francisco Bay.

Unifying the Boards, however, must be grounded in certain key principles, articulated clearly in the first joint meeting of both strategic planning subcommittees on May 13, 2011, and also distilled from our Key Informant interviews:

- Non-advocacy
- Broad-based stakeholder governance
- Rigorous science

A fully integrated Board of Directors would maintain the best characteristics of both existing governance bodies as a great starting point for the successful implementation of Strategic Priorities #1 and #2. Unifying the Boards would rest on the foundation of credibility and trust that SFEI has managed to foster in *all* stakeholders and partners since its formation in 1994. A unified Board would at the same time embrace the management and policy leadership of agency members capable of being key drivers of positive change that ASC has brought to the table.

### **Opportunity:**

To accomplish the unifying of the Boards, we propose to organize around four different, but interconnected goals based on the underlying principles listed above:

- *Re-imaging Board Roles & Responsibilities* – This goal is focused on understanding how to unlock the diverse skills and talents of our Board members, and to fill in any gaps. The road ahead will require new skills-sets and requirements to be brought forward by both the Board(s) and staff alike. We propose to invest time and education on Board governance beginning in September 2011.

- *Shifting Board Composition* – This goal focuses on developing the roadmap for actually shifting from two Board rosters to one over the next 12 to 18 months.
- *Aligning Organizational Talent* – This goal is focused on building an organization structure that aligns with the strategic priorities and places emphasis on people and career development.
- *Improving Communication* – This goal is focused on improving all of our communications with the Board(s) and with external constituents.

### **Why Now? Why SFEI/ASC?**

It is important to recognize that SFEI/ASC has this opportunity to go to the next level in its evolution because of the appreciable assets it brings to the table today: 1. World-class talent; 2. Passion for service; 3. An unmatched library of science content and science best-practice; 4. A reputation for scientific excellence and innovation; and 4. The dedication of both of our Boards.

As with the other Strategic Priorities, our Key Informant Interviews and our Strategic Plan Subcommittee members have confirmed the need to move beyond the ‘status quo’ and align our organizations top to bottom with a strategy that is, to quote one Board member, “ambitious and long overdue.”

### **Next Steps**

Beginning in September 2011, with the two Board meetings, Sept. 1<sup>st</sup> for ASC and Sept. 9<sup>th</sup> for SFEI, the roadmap to achieve the goals previously expressed is:

- *Re-imaging Board Roles & Responsibilities* –
  - Presentation on Board Roles and Responsibilities to SFEI Board members on Sept. 9<sup>th</sup>, 2011, as requested at June, 2011 Meeting.
  - Identify skill-set gaps and develop plan for identifying candidates to fill needs according to the principles outlined above - December, 2011 Board meeting.
- *Shifting Board Composition* –
  - The ASC Board is by construct required to maintain its two signatories, BACWA and the Water Board; however, its documents allow for additional members to be added as voting Members who can inform the daily operations and overall governance of the ASC (these additional members do not have the right to change the Joint Powers Agreement, itself)
  - Several SFEI Board members have terms that have expired (McGrath, Nichols, Callaway, and Olivieri), and who have graciously agreed to stay on for the completion of the Strategic Plan. At the conclusion of the September Board meeting we would formally like to thank these members for their service and dedication.

- In the next 6 months, we propose to pilot the unification of the Boards by asking both existing Board members to sit together for the December 2011 and March 2012 Board meetings. This is an opportunity to gauge cultural integration and to build relationships across organizations that will be essential in for a successful unification. Other than physically sitting with each other, no changes to the composition or procedures will be proposed.
  - During the December 2011 Board meeting, we will suggest a nominating committee be formed to explicitly seek out the skills and talents necessary for the future of the Institute and the Center, according to the three principles.
  - During the March 2012 Board meeting, the nominating committee and the full Board will propose and discuss candidates for the unified Board, keeping mind that the following Board members terms will expire at the June 2012 Board meeting: Fiedler, Mulvey, Salzman, and Tucker.
  - At the June 2012 Board meeting, welcome new unified Board of Directors and thank any out-going Directors for their dedication and service. Establish Board committees, such as Board Governance Committee and the Fiscal and Admin Committee for purposes of organizing/managing the affairs of the Institute and the Center in an efficient manner.
- *Aligning Organizational Talent –*
    - Upon approval of the Strategic Plan(s) in September, 2011, an organizational re-design initiative will be implemented. Work has already begun on communicating to staff that a re-alignment of roles and responsibilities is necessary to streamline the implementation of the Strategic Plan(s). This re-design will be broken down into three phases, with the first of these phases slated to take place in mid- to late September. This first phase will reassign administrative and cross-operations personnel from directly reporting to the Executive Director to reporting to the Deputy Director. The second and third phase of the organizational re-design will be implemented in Q1 and 2 of 2012.
    - Job descriptions and core competencies will be reviewed for completeness and accuracy and adjustments made as necessary.
- *Improving Communication –*
    - Upon approval of the Strategic Plan(s) in September, 2011, a review will be undertaken of all outbound communication (including the resources and talent to produce the communications) and recommendations will be made to the Executive Director. These communications include the Institute's and the Center's web presence, enhancing stakeholder

relationships where appropriate, PR, and 'marketing' collateral, with the specific purpose of attracting new funding to support the mission of each organization and to strengthen linkages between science and decision-making.

**Conclusion:**

Unifying the Boards of ASC/SFEI is a key milestone on our journey to providing premier science support services to the Bay, Delta, and beyond. This effort will not be possible without the continued support of our Board Members.

## **Appendix**

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**Attachment 6**

**BYLAWS  
OF  
AQUATIC SCIENCE CENTER  
amended  
SEPTEMBER 1, 2011**

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## **BYLAWS OF THE AQUATIC SCIENCE CENTER**

### **ARTICLE 1 – CONSTRUCTION AND DEFINITIONS**

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the California Civil Code will govern the construction of these Bylaws. Without limiting the generality of the above any capitalized term not defined in these Bylaws will have the meaning ascribed to it in the Agreement.

(a) “Agreement” shall mean the Joint Powers Agreement entered into by the Signatories.

(b) “Alternate Director” shall mean another person from the same agency or entity as the Director appointed pursuant to these Bylaws to fulfill the duties of the Director if the Director is absent for a temporary period of time.

(c) “Board of Directors” or “Board” shall mean the Board of Directors of Aquatic Science Center.

(d) “Contracting Parties” shall have the meaning given in California Government Code Section 6502.

(e) “Director” shall mean the director appointed by a Member pursuant to these Bylaws.

(f) “Members” shall mean those public entities, nonprofit, and other stakeholder entities that have agreed to be bound by the terms of these Bylaws. The term “Member” shall, unless otherwise specified, include Signatories and Non-Voting Members.

(g) “Non-Voting Member” shall mean any Member designated as a non-voting member at the time of such members admission to the Aquatic Science Center.

(h) “Public Entity” shall have the meaning given in California Government Code §6500.

(i) “Signatories” shall mean the Public Entities that are Contracting Parties to the Agreement and have agreed to be bound by the terms of these Bylaws.

### **ARTICLE 2 – NAME**

The name of this public entity is Aquatic Science Center.

## **ARTICLE 3 – OFFICES**

The principal office for the transaction of the business of the Aquatic Science Center is located at 4911 Central Avenue, Richmond, California. The Board of Directors may change the principal office from one location to another. Any change of this location will be noted by the Secretary in these Bylaws pursuant to an amendment hereof.

## **ARTICLE 4 – SIGNATORIES AND PARTICIPANTS**

### **4.1 Membership**

Membership in the Aquatic Science Center is open to both Signatories and Members.

### **4.2 Signatories**

(a) The original Signatories of the Aquatic Science Center are Bay Area Clean Water Agencies (BACWA) and the State Water Resource Control Board (SWRCB).

(b) In addition to the original Signatories, any other Public Entity that becomes a Contracting Party pursuant to the Agreement and these Bylaws, is a Signatory. Any Signatory that withdraws or is expelled pursuant to these Bylaws shall cease to be a Signatory.

### **4.3 Members**

(a) In addition to the original Signatories, BACWA and SWRCB, the U.S. Environmental Protection Agency, Region 9 shall also be a Member. The Member from U.S. Environmental Protection Agency, Region 9 is designated a Non-Voting Member.

(b) In addition to the original Members, any other Public Entity, nonprofit entity or other stakeholder organization may become a Member as provided in these Bylaws. Any Member that withdraws or is expelled pursuant to these Bylaws shall cease to be a Member.

(c) Any Member who is not a Signatory, upon its admission to the Aquatic Science Center, may be designated a Non-Voting Member. Except as to the exercise of voting power, or for the formation of a quorum, the Non-Voting Member, and the Director and Alternate Directors appointed by such Non-Voting Member shall have all duties, rights, and privileges of any Member or Director or Alternative Director appointed by a Member.

## **ARTICLE 5 – LIMITATION ON AUTHORITY**

The Aquatic Science Center's exercise of the joint powers of the Signatories under the Agreement and these Bylaws is restricted to the extent required under California Government Code Section 6509. Pursuant to Section 6509, the Aquatic Science Center will jointly exercise such powers subject to the restrictions placed on the separate exercise of such powers by BACWA. This designation may be changed by a two-thirds (2/3) vote of the Board.

## **ARTICLE 6 – DEBTS AND LIABILITIES**

The debts, liabilities and obligations of the Aquatic Science Center will not be the debts, liabilities or obligations of any or all of the Signatories. However, nothing in these Bylaws or the Agreement:

- (a) Prevents a Signatory or Signatories from agreeing, in a separate agreement, to be jointly and/or severally liable, in whole or in part, for any debt, obligation or liability of the Aquatic Science Center, including but not limited to, any bond or other debt instrument issued by the Aquatic Science Center; or
- (b) Impairs the ability of any Signatory to undertake the responsibility described in subsection (a) of this Article.

## **ARTICLE 7 – DIRECTORS**

### **7.1 Powers.**

(a) General Powers. Subject to the provisions of these Agreement and these Bylaws, the business and affairs of the Aquatic Science Center will be managed, and all powers will be exercised, under the policy direction of the Board of Directors. The Aquatic Science Center will have such powers necessary and proper to effect the purposes of the Aquatic Science Center, the Agreement, and these Bylaws.

(b) Specific Powers. Without prejudice to these general powers, the Board of Directors also has the power to:

- (i) borrow money and incur indebtedness on behalf of the Aquatic Science Center and cause to be executed and delivered for the Aquatic Science Center's purposes, in the Aquatic Science Center's name, promissory notes, bonds, deeds of trust, mortgages, pledges, hypothecations, and other evidences of debt and securities and certificates of participation
- (ii) maintain an office or offices within in the State of California;

(iii) acquire, own, maintain, and dispose of real and personal property as necessary to carry out the purposes of the Aquatic Science Center;

(iv) hire and fire employees;

(v) enter into contracts in its own name;

(vi) accept and receive donations;

(vi) sue and be sued; and

(vii) have perpetual succession.

## **7.2 Directors and Alternates.**

(a) Appointment of Directors and Alternate Directors by Member. Each Signatory shall appoint three of its members, employees, or other representatives as a Directors and, for each directorship, shall appoint up to two Alternate Directors, any or all of whom may be elected officials. Members who are not Signatories shall appoint one of its members, employees, or other representatives as a Director and shall appoint up to two Alternate Directors, any or all of whom may be elected officials. If two Alternate Directors are appointed by any Member, the Alternate Directors shall be designated as a first and second alternate. The designation of Directors and Alternate Directors shall be made in writing to the Executive Director.

(b) Expansion of Number of Directors to be Appointed. Upon a two-thirds (2/3) vote of the Board, the number of Directors on the Board may be expanded, but each Signatory shall have the same number of Directors ~~and no any Member who is not a~~ Signatory shall have fewer no more than one Director for each three Directors appointed by each Signatory. Such Directors shall be appointed in accordance with these Bylaws.

(c) Non-Voting Directors. The Director appointed by any Non-Voting Member shall not exercise a vote on any member, nor shall such Director's presence at a meeting be counted toward the requirement for any majority or supermajority vote required under these Bylaws.

## **7.3 Voting.**

(a) Voting Power of Director and Alternate Director. Each Director shall be entitled to cast one vote for any matter than requires approval of the Board. Alternate Directors may not vote in the capacity as Director except in the absence of the Director to whom such Alternate Director is designated the alternate and any second Alternate Director may not vote in the capacity as Director except in the absence of both the Director and the first Alternate Director to whom such Alternate Director is designated the alternate.

(b) Actions Requiring Approval of Directors. Except as set forth in paragraph 7.3(c), below, the approval of any action taken in furtherance of the Agreement or these Bylaws, or the implementation of any policy or program of the Aquatic Science Center, shall require a majority (or, where applicable, such necessary supermajority) of the Board.

(c) Actions Requiring Approval of Directors Appointed by Signatories. Notwithstanding paragraph 7.3(a) or 7.3(b), above, without the approval of a majority (or, where applicable, such necessary supermajority) of Directors appointed by the Signatories, no action of the Board of Directors or any committee may be taken regarding the exercise, or any issue regarding the exercise, of powers or functions of the Aquatic Science Center set forth in Article 5, Articles 7.1(b), 7.4(d), 7.9, 7.10, Article 11 (regarding the admission, withdrawal, suspension, or expulsion of Members who are Signatories), Article 12, Article 13, Article 14, Article 15, Article 16, or Article 17, the amendment or waiver of the exercise of such powers, or as otherwise required by law.

#### **7.4 Vacancies.**

(a) Vacancies. Any vacancy in any Director's position will be filled as provided in this Article 7.

(b) Events Causing Vacancy.

(1) A vacancy on the Board exists on the occurrence of the following: (i) the death of any Director; (ii) the removal or dismissal of such Director, or resignation of a Director from the position such Director held with the Member at the time such Director became a Director; (iii) the declaration by resolution of the Board of a vacancy of the office of a Director who has been declared of unsound mind by an order of court or convicted of a felony; or (iv) written notice to the Secretary from the entity that appointed such Director stating that the designation of the Director or Alternate Director has been revoked, said revocation to be effective upon receipt, unless the notice specifies a later time.

(2) Notwithstanding paragraph (b)(1), above, to the extent any person serves as a Director *ex officio* pursuant to the Agreement, a change in the person serving as Director by virtue of such capacity with the Member shall not constitute a vacancy within the meaning of these Bylaws.

(c) Resignations. No Director appointed by a Signatory may resign if the Aquatic Science Center would then be without at least one Director (or Alternate Director acting as Director pursuant to these Bylaws) from each of at least two Signatories in charge of its affairs, unless the Aquatic Science Center is being dissolved pursuant to Article 16 of these Bylaws.

(d) Reduction or Increase in Number of Directors. The authorized number of Directors may be reduced or increased to accommodate the deletion or addition of a Member.

(e) Temporary Authority of Director. Until such time as a new Director is designated by the respective Member, the respective Alternate Director shall act as the Director for such Member.

#### **7.5 Call of Meetings.**

The Chair or Vice-Chair of the Board may call a meeting of the Board and shall call a meeting of the Board if requested, in writing, by a majority of the Board.

#### **7.6 Quorum.**

(a) Except as provided in Article 7.6(b), attendance at any meeting of a majority of the Directors entitled to cast a vote is a quorum for the transaction of business. Except for acts requiring a supermajority under these Bylaws or the Agreement, every act or decision done or made by a majority of the Directors present at a meeting duly held at which a quorum is present is an act of the Board. A meeting at which a quorum is initially present may continue to transact business, notwithstanding the withdrawal of Directors, if any action taken is approved by at least a majority of the quorum for that meeting, or if a supermajority is required, by the supermajority of the quorum for that meeting.

(b) Notwithstanding paragraph 7.6(a) above, a quorum for the exercise of any power reserved to the Signatories and the Directors appointed by such Signatories pursuant to Section 7.3(c), shall only be present if a majority, or such designated supermajority, of such Directors is present for the exercise of such power.

(c) The presence or absence of any Director appointed by a Non-Voting Member shall not be counted in any assessment of whether a quorum for the transaction of business is present.

#### **7.7 Rules of Order.**

The Board may adopt rules of order to govern the conduct and procedure of Board meetings.

#### **7.8 Minutes.**

The Board will keep or cause to be kept a written summary of minutes of its proceedings, except executive sessions.

#### **7.9 Fees and Compensation of Directors.**

Directors and members of committees may receive such reimbursement of expenses as may be determined by resolution of the Board to be just and reasonable.

### **7.10 Delegation of Powers.**

Except as otherwise proscribed in these Bylaws and the Agreement, the Board may delegate any of its powers, subject to the constraints of California law.

## **ARTICLE 8 – BOARD COMMITTEES**

### **8.1 Ad Hoc Committees.**

(a) Upon written notice to all Members, the Chair may designate one (1) or more ad hoc advisory committees or a subcommittee of any such committee, each consisting of two (2) or more Directors or their respective Alternate Directors, to be ratified by and serve at the pleasure of the Board, and to exercise such powers as may be delegated to it, except that no ad hoc committee may:

(1) take any action on the exercise of such powers designated under paragraph 7.3(b);

(2) take any final action on matters which, under the Agreement or these Bylaws, requires approval a majority or supermajority vote of Board;

(3) amend or repeal Bylaws or adopt new Bylaws;

(4) amend or repeal any resolution of the Board which by its express terms is not so amendable or repealable;

(5) fill any vacancy in a committee, create any other committee of the Board or appoint members to such committees; or

(6) approve any transaction (i) to which the Aquatic Science Center is a party and one or more Directors have a material financial interest as defined in the California Government Code; or (ii) between the Aquatic Science Center and one or more of its Directors or between the Aquatic Science Center or any person in which one or more of its Directors have a material financial interest.

(b) Any ad hoc committee which either (i) has a membership which is sufficient to constitute a quorum of the Board or (ii) becomes a standing committee, shall comply with the requirements of the Ralph M. Brown Act, California Government Code Section 54950, et seq., as if such committee meeting were a meeting of a legislative body as such term is defined in Government Code Section 54952.

### **8.2 Meetings and Action of Committees.**

Meetings and action of Board committees will be governed by, and held and taken in accordance with, the provisions of Article 7 of these Bylaws concerning meetings of Directors, with such changes in the context of those Bylaws as are necessary to substitute the committee and its members for the Board and its members, except that the meetings

of committees may be called by the Board. A summary of minutes will be kept of each meeting of any committee and will be filed with the Secretary of the Aquatic Science Center.

## **ARTICLE 9 – OFFICERS**

### **9.1 Officers.**

The officers of the Aquatic Science Center are the Chair, Vice-Chair, Executive Director, Secretary and Treasurer. The Chair and Vice-Chair will be elected by the Board or may be designated by the Board in writing. All Directors are eligible to serve as an elected officer. Any number of offices may be held by the same person, except that neither the Secretary nor the Treasurer may serve concurrently as the Executive Director.

### **9.2 Election of Officers.**

At the first meeting of the Board, and as necessary thereafter, nominations for the offices of Chair and Vice-Chair, will be made and seconded by a Director. If more than two (2) names are nominated for any one office, balloting occurs until a nominee receives a majority of the votes cast; provided that after the first ballot the nominee receiving the fewest votes will be dropped from the balloting. Each elected officer serves a term ending on December 31<sup>st</sup> of the year following the year of such appointment for a term not to exceed two years. An elected officer may succeed himself/herself and may serve any number of consecutive or non-consecutive terms.

### **9.3 Removal of Officers.**

An elected officer may be removed, with or without cause, by a two-thirds (2/3) vote of the Board at a regular or special meeting. The removal of an individual from any office shall not by itself affect the status of such individual as a Director or Alternate Director.

### **9.4 Vacancies.**

Any vacancy in any office because of death, resignation, removal, disqualification, or any other cause will be filled for the balance of the vacated term in the manner prescribed in these Bylaws for regular appointments to that office; provided, however, that such vacancies may be filled at any regular or special meeting of the Board.

### **9.5 Resignation of Officers.**

In the absence of a contrary written agreement, any officer may resign at any time by giving written notice to the Executive Director or Secretary. Any resignation takes effect at the date of the receipt of that notice or at any later time specified in that notice.

Unless otherwise specified in that notice, the acceptance of the resignation is not necessary to make it effective.

## **9.6 Responsibilities of Officers.**

(a) Chair of the Board. The Chair of the Board presides at meetings of the Board and exercises and performs such other powers and duties as may be from time to time assigned to the Chair by the Board or prescribed by the Bylaws.

(b) Vice-Chair of the Board. The Vice-Chair of the Board fulfills all the duties of the Chair in the absence of the Chair.

(c) Executive Director. Subject to such supervisory powers as may be given by the Board of Directors to the Chair of the Board, the Executive Director generally supervises, directs, and controls the business and the employees of the Aquatic Science Center. The Executive Director has such other powers and duties as may be prescribed by the Board or the Bylaws. The Executive Director may, but need not, be a Director.

(d) Secretary. The Secretary will (i) keep or cause to be kept, at the principal executive office or such other place as the Board may direct, a book of summary minutes of all meetings and actions of Directors and committees of the Aquatic Science Center, with the time and place of holding, whether regular or special, and, if special, how authorized, the notice given, the names of those present at such meetings and the proceedings of such meetings; and (ii) give, or cause to be given, notice of all meetings of the Board and Committees of the Aquatic Science Center required by the Bylaws to be given. The Secretary has such other powers and may perform such other duties as may be prescribed by the Board.

(e) Treasurer. The Treasurer will (i) keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Aquatic Science Center, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings, and other matters customarily included in financial statements, which books of account will be open to inspection by any Director at all reasonable times; (ii) deposit all money and other valuables in the name and to the credit of the Aquatic Science Center with such depositories as may be designated by the Board, disburse the funds of the Aquatic Science Center as may be ordered by the Board, and render to the Directors, whenever they request it, an account of all of such transactions and of the financial condition of the Aquatic Science Center; (iii) other powers and perform such other duties as may be prescribed by the Board or the Bylaws; and (iv) if required by the Board, give the Aquatic Science Center a bond in the amount and with the surety or sureties specified by the Board for faithful performance of the duties of his/her office and for restoration to the Aquatic Science Center of all its books, papers, vouchers, money, and other property of every kind in the possession or control of the Treasurer upon death, resignation, retirement, or removal from office.

## **9.7 Fees and Compensation of Officers.**

The officers may receive such reimbursement of expenses as may be determined by resolution of the Board to be just and reasonable.

## **ARTICLE 10 – MEMBER INDEMNITY**

The Aquatic Science Center shall carry during the entire term of this Agreement, liability insurance coverage, naming the Members as additional insured parties, in such kind and amounts as the Board may from time to time determine to be appropriate. Such cost shall be incurred by the Aquatic Science Center.

The Aquatic Science Center shall indemnify and hold harmless each Member, its officers, agents, employees, and each Director and Alternate Director from and against all claims, demands or liabilities, including legal costs, arising out of or encountered in connection with the JPA or these Bylaws and the activities conducted hereunder and shall defend them and each of them against any claim, cause of action, liability or damage resulting therefrom.

## **ARTICLE 11 – ADMISSION, WITHDRAWAL, SUSPENSION, AND EXPULSION**

### **11.1 Conditions for Admission of a New Member.**

No new Member shall be added to the Aquatic Science Center unless such prospective new Member:

(a) adopts a resolution approving entry into the Aquatic Science Center, designating the requisite number of Directors, acknowledging and agreeing to be bound by these Bylaws and, in the case of a new Signatory, authorizing the execution of the Agreement; and

(b) is approved for admission to the Aquatic Science Center by a vote of at least two-thirds (2/3) of the authorized Directors of the Board.

### **11.2 Conditions to Permitting Withdrawal of a Member.**

A Member may withdraw provided that the following conditions are satisfied:

(a) such Member is not in default of any of its obligations owed to Aquatic Science Center;

(b) such withdrawal will not cause the Aquatic Science Center to be in default or breach of any agreement to which it is a party, or of any bond or other evidence of indebtedness issued by the Aquatic Science Center;

(c) not later than thirty (30) days immediately preceding the effective date of such withdrawal, such Member has provided written notice to the Aquatic Science Center of its intent to withdraw;

(d) such withdrawal is effective on thirty (30) days notice;

(e) with respect to the withdrawal of a Signatory, the Aquatic Science Center will have at least two (2) Signatories after such withdrawal. In the event that such withdrawal would leave the Agreement with only one Signatory, said Signatory may not withdraw until all principal of and interest on any and all bonds and other evidences of indebtedness issued by the Aquatic Science Center have been paid in full;

(f) in connection with the termination of the Aquatic Science Center pursuant to Article 16, compliance with the requirements of such Article 16 shall be deemed sufficient for all Members to withdrawal from Membership in the Aquatic Science Center;

(g) a notice of withdrawal may be revoked within thirty (30) days.

### **11.3 Conditions to Permitting Suspension of a Member.**

The Aquatic Science Center may suspend a Member from the Aquatic Science Center subject to the following conditions:

(a) the Member is in default under the terms of the Agreement, these Bylaws, any contract executed by the Member in connection with any the Aquatic Science Center program, any bond or other evidence of indebtedness for which the Member has agreed to assume responsibility, in whole or in part;

(b) the Aquatic Science Center has given written notice of the default described in subsection 11.3(a) to the defaulting Member; and

(c) not earlier than thirty (30) days after transmittal of the notice and not later than the sixty (60) days immediately preceding the effective date of such suspension, two-thirds (2/3) of the authorized Directors votes to suspend said Member.

### **11.4 Conditions to Permitting Expulsion of a Member.**

The Aquatic Science Center may expel a Member from the Aquatic Science Center provided that:

(a) the Member is in default under the terms of the Agreement, these Bylaws, any contract executed by the Member in connection with any the Aquatic Science Center program, any bond or other evidence of indebtedness for which the Member has agreed to assume responsibility, in whole or in part;

(b) the Aquatic Science Center has given written notice of the default described in subsection 11.4(a) to the defaulting Member; and

(c) not earlier than thirty (30) days after transmittal of the notice and not later than the sixty (60) days immediately preceding the effective date of such expulsion, two-thirds (2/3) of the authorized Directors votes to expel said Member.

## **ARTICLE 12 – FEES**

No fees may be assessed to join or continue membership in the Aquatic Science Center.

## **ARTICLE 13 – ADMINISTRATIVE AGENCY**

The San Francisco Estuary Institute (SFEI) is designated in the Agreement as the administrative agency for the Aquatic Science Center. As such, pursuant to an administrative service agreement, SFEI will provide necessary services to administer and execute the purposes of the JPA for the Aquatic Science Center.

## **ARTICLE 14 – PURCHASE OF INSURANCE**

In conformance with the procedures and criteria developed by it, the Board may cause the Aquatic Science Center to purchase commercial insurance or reinsurance or terminate commercial insurance or reinsurance upon a majority vote.

## **ARTICLE 15 – EVENTS OF DEFAULT AND REMEDIES**

### **15.1 Events of Default Defined.**

The following are "events of default" under the Agreement and these Bylaws, and the terms "events of default" and "default" means, whenever they are used in the Agreement and these Bylaws, with respect to a Member, any one or more of the following events:

(a) failure by such Member to observe and perform any covenant, condition or agreement on its part to be observed or performed under the Agreement, to comply with these Bylaws or to comply with any Aquatic Science Center program requirement (including but not limited to any contract executed by the Member in connection with any program, any bond or other evidence of indebtedness for which the Member has agreed to assume responsibility, in whole or in part) for a period of thirty (30) days after written notice specifying such failure and requesting that it be remedied has been given to such Member by the Aquatic Science Center or the Secretary; provided, however, if the failure stated in the notice cannot be corrected within the applicable period, the Aquatic Science Center, or the Secretary, as the case may be, will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by the Member within the applicable period and diligently pursued until the default is corrected. After such an

extension, failure to diligently pursue or to achieve corrective action is a separate "event of default" under this clause requiring notice but not requiring that the Aquatic Science Center consent to any extension;

(b) the filing by such Member of a case in bankruptcy, or the subjection of any right or interest of such Member under the Agreement or these Bylaws to any execution, garnishment or attachment, or adjudication of such Member as bankrupt, or assignment by such Member for the benefit of creditors, or the entry by such Member into an agreement of composition with creditors, or the approval by a court of competent jurisdiction of a petition applicable to the Member in any proceedings instituted under the provisions of the Federal Bankruptcy Code, as amended, or under any similar act which may hereafter be enacted;

(c) action taken by the Member to withdrawal from or repudiate membership in the Aquatic Science Center in violation of, or inconsistent with, the Agreement or these Bylaws; or

(d) the failure of the Director or Alternative Director of such Member to attend at least fifty percent of the board meetings in a given twelve-month period;

## **15.2 Remedies on Default.**

(a) Whenever any event of default referred to in paragraph 15.1(a) of this Article has occurred and is continuing, it will be lawful for the Aquatic Science Center to exercise any and all remedies available pursuant to law or granted pursuant to the Agreement and these Bylaws.

(b) In the event that the Aquatic Science Center elects to expel any defaulting Member, subject to the conditions described and in the manner provided in Section 11.4 of these Bylaws, the Member nevertheless agrees to pay the Aquatic Science Center all costs, losses or damages arising or occurring as a result of such default and termination, and administrative and legal costs incurred in noticing the default and effecting the expulsion. No such expulsion becomes effective, by operation of law or otherwise, unless and until the Aquatic Science Center has given written notice of such expulsion to the Member; no such expulsion will be effected either by operation of law or acts of the parties hereto, except only in the manner herein expressly provided; and no such expulsion terminates the obligation of the expelled Member to pay any fees assessed prior to such expulsion.

## **15.3 No Remedy Exclusive.**

No remedy conferred herein upon or reserved to the Aquatic Science Center is intended to be exclusive and every such remedy is cumulative and is in addition to every other remedy given under the Agreement or these Bylaws, now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default impairs any such right or power or will be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be

deemed expedient. In order to entitle the Aquatic Science Center to exercise any remedy reserved to it in these Bylaws, it is not necessary to give any notice, other than such notice as may be required in these Bylaws or by law.

#### **15.4 Agreement to Pay Attorneys' Fees and Expenses.**

In the event either the Aquatic Science Center or any Member, should be in default under any of the provisions of these Bylaws and the nondefaulting party should employ attorneys or incur other expenses for the collection of moneys or the enforcement of performance or observance of any obligation or agreement on the part of the defaulting party, the defaulting party agrees that it will on demand therefor pay to the nondefaulting party the reasonable fees of such attorneys and such other expenses so incurred by the nondefaulting party.

#### **15.5 No Additional Waiver Implied by One Waiver.**

In the event any agreement contained in the Agreement and these Bylaws should be breached by either party and thereafter waived by the other party, such waiver will be limited to the particular breach so waived and will not be deemed to waive any other breach hereunder.

### **ARTICLE 16 – TERMINATION**

#### **16.1 Time of Termination.**

The Aquatic Science Center may be terminated upon the written consent of all of the Members if the effective termination date and such written consents are delivered to the Aquatic Science Center and the Secretary at least sixty (60) days prior to the effective termination date provided that all principal of and interest on any and all bonds and other evidences of indebtedness issued by the Aquatic Science Center are paid in full.

#### **16.2 Continuing Obligations.**

After the termination date, the Aquatic Science Center will continue to be obligated to pay, or cause to be paid any amounts due for winding up its affairs, including but not limited to any litigation costs and/or extraordinary costs associated with a financing transaction.

#### **16.3 Distribution of Assets.**

In the event any assets remain after winding up the affairs of the Aquatic Science Center, the Board shall either return any assets to the Member or other entity which provided such asset to Aquatic Science Center, or shall sell the assets, in accordance with California law, and distribute the funds according to Section 16.4.

#### **16.4 Distribution of Funds.**

In the event any surplus money remains on hand after winding up the affairs of the Aquatic Science Center, such sums will be returned to the Members in proportion to the contributions made.

### **ARTICLE 17 – AMENDMENTS**

#### **17.1 Amendment by Directors.**

Subject to the limitations set forth below, the Board may adopt, amend or repeal Bylaws. Such power is subject to the following limitations:

(a) The Board may not amend any provision of these Bylaws which requires the vote of a larger proportion of Directors than a simple majority, except by vote of such larger number of Directors.

(b) The Board may not delete or amend Bylaw provisions requiring compliance with the Agreement.

(d) The Board may not delete or amend Bylaw provisions contained in Article 4, paragraph 7.1(b), 7.3, 7.4(d), 7.9, 7.10, Article 11, Article 12, Article 13, Article 14, Article 15, Article 16, and Article 17.

### **ARTICLE 18 – RECORDS AND REPORTS**

#### **18.1 Maintenance of the Aquatic Science Center Records.**

The Aquatic Science Center will keep at the Aquatic Science Center's principal office:

- (a) a copy of the Agreement and these Bylaws;
- (b) adequate and correct books and records of account; and
- (c) minutes in written form of the proceedings of its Board and committees of the Board.

#### **18.2 Inspection Rights.**

(a) Any Member may inspect the Agreement, Bylaws, accounting books and records and minutes of the proceedings of the Board and committees of the Board, at any reasonable time, for a purpose reasonably related to such person's interest in the business of the Aquatic Science Center.

(b) Any inspection and copying under this section may be made in person or by an agent or attorney or the entity entitled thereto and the right of inspection includes

the right to copy and make extracts. The Aquatic Science Center may charge reasonable fees associated with the provision of such copies or extracts.

### **18.3 Inspection by Directors.**

Every Director has the absolute right at any reasonable time to inspect all non-confidential books, records, and documents of every kind and the physical properties of the Aquatic Science Center. This inspection by a Director may be made in person or by an agent or attorney, and the right of inspection includes the right to copy and make extracts of documents. The Aquatic Science Center may charge reasonable fees associated with the provision of such copies or extracts.

### **18.4 Financial Report.**

(a) As soon as possible after the close of the Aquatic Science Center's fiscal year, the Board will cause an annual report prepared by BACWA's auditor and sent to the governing body of each Member.

(b) The report required by this section will be accompanied by any report thereon of independent accountants, or, if there is no such report, by the certificate of an authorized officer of the Aquatic Science Center that such statements were prepared without audit from the books and records of the Aquatic Science Center.

### **18.5 Fiscal Year.**

The Aquatic Science Center's fiscal year is July 1 to June 30.



**Attachment 7**

**RESOLUTION NO. 02-11**

BOARD OF DIRECTORS  
AQUATIC SCIENCE CENTER

A RESOLUTION AUTHORIZING THE RENEWAL OF AND CONCURRENT AMENDMENTS TO THE ADMINISTRATIVE SERVICES AGREEMENT WITH THE SAN FRANCISCO ESTUARY INSTITUTE.

This renewal of and amendments to the Administrative Services Agreement, by and between Aquatic Science Center and San Francisco Institute, a California not-for-profit corporation ("SFEI"), is made to be effective as of November 2, 2011.

WHEREAS, this Agreement shall be extended for a two (2) year term effective as of the date first stated above unless terminated by the Parties and amended to reflect the new business location of the Aquatic Science Center and SFEI.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of Aquatic Science Center hereby authorizes the renewal of the Administrative Services Agreement for a two (2) year term.

APPROVED AND ADOPTED this 1<sup>st</sup> day of September, 2011.

The undersigned, Board Chair, does hereby certify that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at the meeting of the Aquatic Science Center on September 1, 2011.

AYE:

NAY:

ABSENT:

ABSTAIN:

---

David Williams, Board Chair

**RENEWED and AMENDED**  
**ADMINISTRATIVE SERVICES AGREEMENT**

**between**

**AQUATIC SCIENCE CENTER,**  
**a California Joint Powers Agency**

**and**

**SAN FRANCISCO ESTUARY INSTITUTE**  
**a California Not-for-Profit Corporation**

This renewal and concurrent amendment to the Administrative Services Agreement (“Agreement”) by and between Aquatic Science Center, a California joint powers agency, with its principal office in Richmond, California, and San Francisco Estuary Institute, a California not-for-profit corporation (“SFEI”), with its principal office in Richmond, California, is made to be effective on the first day of November, 2011.

WHEREAS, Aquatic Science Center was formed in June 2007 pursuant to a joint powers agreement between Bay Area Clean Water Agencies (“BACWA”) and the State Water Resource Control Board (“SWRCB”) (such joint powers agreement referred to herein as the “JPA”); and

WHEREAS, the Aquatic Science Center, and certain federal and state environmental agencies, and the municipalities they regulate have a consistent and continuing need for integrated and comprehensive information on water quality; and

WHEREAS, Aquatic Science Center has the goal of increasing scientific understanding of the San Francisco Estuary and using that knowledge to better manage the Estuary; and

WHEREAS, Aquatic Science Center, pursuant to California Government Code §6500 et seq., may appoint an agency or corporation, including a nonprofit corporation, to administer its operations; and

WHEREAS, SFEI is a non-profit corporation governed by a board of directors composed of Bay Area scientists, environmentalists, regulators, and representatives of local government and industry and is uniquely qualified to administer the operations of Aquatic Science Center in a timely and efficient manner; and

WHEREAS, Aquatic Science Center recognizes SFEI's unique expertise in providing scientific and technical information regarding the aquatic environment of the San Francisco Bay; and

WHEREAS, Aquatic Science Center wishes to continue to engage SFEI to provide certain administrative services to further the goals of Aquatic Science Center and SFEI desires to provide such services under the terms set forth in this Agreement;

NOW, THEREFORE, in consideration of the mutual covenants and premises set forth herein, Aquatic Science Center and SFEI agree as follows:

1. Engagement of SFEI as Administrator of Aquatic Science Center

1.1 Engagement. Aquatic Science Center hereby engages SFEI to serve as the Administrator of Aquatic Science Center, providing such services as are set out in Section 2. SFEI personnel shall devote sufficient time to carry out the duties hereunder.

1.2. Policies and Applicable Law. SFEI agrees to provide all services hereunder in substantial compliance with: (a) Aquatic Science Center's JPA and Aquatic Science Center's Bylaws (the "Bylaws") and (b) federal, state, and local laws, rules and regulations applicable to such services that are in effect during the term hereof.

1.3. Retention of Control by Aquatic Science Center. The parties expressly agree that the provision of the Services by SFEI to Aquatic Science Center is not a delegation of control by Aquatic Science Center.

2. Services

2.1. Administration of Aquatic Science Center and Provision of Support Services.

As the Administrator of Aquatic Science Center and in accordance with the requirements of law and the terms of the JPA and the Bylaws and consistent with Section 2.5 of this Agreement, SFEI shall, at the control and direction of the Aquatic Science Center and on the behalf of Aquatic Science Center:

(a) receive, administer, and disburse funds received by the Aquatic Science Center to carry out the administrative requirements of the Aquatic Science Center;

(b) conduct general business operations;

(c) provide accounting and auditing services, including any such financial and auditing services described in Section 6500, et seq., of the California Government Code;

(c) provide general scientific, monitoring, and information management support services;

(d) administer any grants awarded, or contracts entered into, by Aquatic Science Center with any other party;

(e) negotiate contracts;

(f) negotiate and reimburse sub-contracts;

(g) administer all invoices, payments, and collections; and

(h) carry out such other business and financial activities consistent with the authority now or hereafter delegated to SFEI its agents or employees by Aquatic Science Center.

#### 2.5. Accounting, Auditing, and Reporting Requirements.

(a) The Parties hereby acknowledge that Aquatic Science Center shall appoint a Treasurer, but that Aquatic Science Center may nevertheless delegate certain duties of the Treasurer to SFEI, its agents or employees to effectuate the purposes of this Agreement, subject to the limits of California law.

(b) The Parties hereby acknowledge that Aquatic Science Center shall appoint an Auditor, but that Aquatic Science Center may nevertheless delegate certain duties of the Auditor to SFEI, its agents or employees to effectuate the purposes of this Agreement subject to the limits of California law.

(c) Notwithstanding the foregoing, in connection with the execution of any duties delegated to SFEI, its agents or employees, SFEI will coordinate with the designated Treasurer and Auditor to provide general accounting and fiscal services, including the preparation of any reports necessary to allow Aquatic Science Center to comply with the requirements of the JPA, the Bylaws, or the requirements of California law.

3. Compensation and Reimbursement

SFEI shall bill Aquatic Science Center for reasonable overhead for administrative services based on its hourly multiplier negotiated with the California Water Board.

4. Term and Termination

4.1. This Agreement shall be effective as of the date first stated above and shall be for an initial term of three (3) years commencing upon the execution of this agreement by the Parties. The Agreement shall be extended for two (2) year terms unless terminated by the Parties.

4.2. This Agreement shall terminate upon one year's written notice of either Party, or for such time as is necessary to dispose of all claims, distribute assets and perform other functions necessary to conclude the obligation arising under this Agreement, whichever comes sooner.

5. Miscellaneous

5.1. Entire Agreement. This Agreement, including any exhibits attached hereto and incorporated by reference, constitutes the entire agreement between the parties with regard to the subject matter hereof. Neither party has relied upon any statements, representations or other communications that are not contained in this Agreement. This Agreement cannot be changed, modified, assigned or amended in any respect except by a written amendment signed by the parties.

5.2. Governing Law. This Agreement shall be governed by the laws of the State of California.

5.3. Notices. Notices under this Agreement shall be made in writing to:

If to San Francisco Estuary Institute:

San Francisco Estuary Institute  
4911 Central Avenue  
Richmond, CA 94804  
Attn: Rainer Hoenicke, Executive Director

If to Aquatic Science Center:

Bay Area Clean Water Agencies  
P.O. Box 24055, MS-702  
Oakland, CA 94623  
Attn: Amy Chastain, Executive Director

and

State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814  
Attn: Victoria Whitney, Deputy Director

IN WITNESS THEREOF, the parties have executed this Agreement on the dates  
hereafter set forth.

AQUATIC SCIENCE CENTER

\_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_

SAN FRANCISCO ESTUARY INSTITUTE

\_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_

## **Attachment 8**

### **September 2011 Program Plan Update for the Aquatic Science Center**

The Aquatic Science Center (Center) was established for the efficient delivery of scientific and information management support to public agencies and nongovernmental organizations. The Center anticipates the following subject areas where contractual support or fiduciary services may be requested from a variety of state, federal, and local agencies:

**1) The San Francisco Estuary Regional Monitoring Program for Water Quality.**

Several members would prefer to contribute to the program via a public agency, as their contribution fulfills Water Board NPDES and waste discharge requirements. \$200,000-800,000.

**2) Science support including: impairment assessments, pollutant conceptual model development, implementation alternatives evaluations, and implementation effectiveness monitoring.**

Depending on schedule, the JPA would provide an effective mechanism to conduct necessary technical studies and synthesis. \$100,000-500,000.

**3) Collaboration with DFG and other Interagency Ecological Program Partners to study pelagic organism decline and in the Delta and evaluate various habitat restoration options.**

The JPA would allow for technical syntheses to occur in a timely fashion. \$300,000-\$500,000.

**4) Wetland monitoring as part of adaptive management of restoration implementation steps.**

The JPA would assist DFG, the SCC, and other implementers to evaluate alternative restoration pathways based on monitoring information. \$150,000-\$300,000

**5) Collaborative efforts with Water Boards, EPA, and other IEP participants to develop and implement a coordinated water quality monitoring program in the Central Valley.**

\$100,000-\$250,000

**6) Collaborative effort with State Water Board to provide technical support to Surface Water Ambient Monitoring Program.**

\$100,000-250,000.

**7) Development of technical and scientific recommendations to the California Water Quality Monitoring Council.**

\$50,000-200,000.

**8) Development of Delta Regional Monitoring Program and Special Studies.**

\$250,000-500,000

**9) Scientific Assistance for development of a statewide riparian and wetland system protection policy and implementation guidance.**

\$250,000-\$450,000

**10) Developing California capacity to assess the performance of wetland protection policies, programs, and projects in a watershed context.**

\$300,000-\$450,000

**11) Development, technical transfer, and implementation of a standardized set of assessment and tracking tools for California wetlands and riparian areas. \$1.5- 2M**

**12) Historical Ecology studies in support of evaluating restoration and protection options in the Bay-Delta region and the Central Valley. \$500,000-\$1M**

**13) Data Portal Development and Management for SWAMP Regional Data Centers. \$1M-\$1.2M**

**14) Development of San Francisco Estuary/North Coast Regional Data Center. \$500,000-\$750,000**

**15) Development of a Clean-up Strategy for San Leandro Bay. \$1M**

**16) Development of Web-Based Tools to Coordinate Monitoring Activities in the Central Valley. \$50,000-\$250,000**

**17) Scientific and research support to Central Valley Regional Water Quality Control Board and participants in the Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Initiative. \$5M**

**18) San Francisco Bay Exposure Reduction Program for Contaminated Fish. \$500,000**

**19) Science Support for Aquatic Resource Protection for the California High Speed Rail Authority Permitting Consortium \$1M-\$2M**

**20) Climate change adaptation support to the Bay Conservation Development Commission for Amendments to the Bay Plan. \$50,000-\$100,000**

**21) Documenting Historical Conditions and Change in Santa Clara County. \$10,000-\$20,000**

**22) Historical Ecology studies in support of tribal management of natural and cultural resources, Caltrans Transportation Enhancement Planning, and development of Watershed Profiles for TMDL implementation. \$500,000-\$1M**

The Executive Director is authorized to enter into contracts that are consistent with the program plan described above and in accordance with the following desirable attributes:

- The project is consistent with, or supplemental to, activities that are in the SFEI Program Plan.
- The project is of interest to multiple member agencies, including those from both regulated and regulatory agencies. Interest increases when the project is likely to facilitate development of a scientific framework for management issues.
- The project leads to collaboration with technical leaders in the field and establishes scientific precedent.

- The project demonstrates scientific equipment, expertise or capacity currently lacking in the commercial or consulting sector.
- The project is designed to develop scientific tools for evaluating policy and program alternatives and make complex scientific information accessible and understandable to non-technical audiences.
- The project makes scientific understanding of the coastal and estuarine waters and their watersheds more widely available in publicly accessible media (e.g. beyond technical reports and publications).

Two weeks prior to entering into any contracts, the Executive Director will notify the Board of Directors in writing of the intent to enter into a contract on behalf of the Aquatic Science Center. If any Board member objects, a special session of the Board will be called for deliberation and approval of project. In addition, the Executive Director will seek advice from an ad-hoc advisory group comprised of the Board Chair and Vice Chair for any contract over \$50,000 with regard to calling a special session of the Board for deliberation and approval of significant project requests on a case-by-case basis. Each Board Meeting Agenda will contain a standing item for the Executive Director to report on signed contracts and a report on the status of individual contracts and grant agreements.

## **Attachment 9**

### **Staff Report**

The ASC By-Laws provide for two types of insurance coverage: 1. An indemnification of the Board of Directors; and 2. commercial general liability insurance. SFEI and our insurance broker Dan Law at Leavitt Pacific have added ASC as an additional named insured under the SFEI D&O policy dated 11/20/10, expiring 11/20/11. Pending the outcome of the Board's review of the Strategic Plan, we propose to go forward with renewing our existing policy for D&O insurance for SFEI. Prior year's expense was \$3,000, and we anticipate that this will rise to \$4,500, if a separate policy for ASC is not purchased. See below.

Pursuant to Article 14 on the By-Laws, ASC may purchase commercial liability insurance. However, there was never a requirement that it should. We seek a Board Resolution (see below) to purchase commercial liability insurance for ASC as a separate entity. The new policy will be in effect from 9/29/11 for one year with an estimated premium of \$4,500. Reason: Several new and pending contracts have been held up over the issue of insurance when we provide it as a rider to the SFEI policy. As the size and number of contracts increase, funding sources are seeking distinct insurance for their contracts. We anticipate that this issue will continue to grow as the number and size of ASC contracts and grants continues to increase.

**RESOLUTION NO. 03-11**

**BOARD OF DIRECTORS  
AQUATIC SCIENCE CENTER**

**A RESOLUTION AUTHORIZING THE PURCHASE OF GENERAL COMMERCIAL LIABILITY  
INSURANCE**

WHEREAS, the Aquatic Science Center, a Joint Powers Authority, according to Article 14 of its Bylaws, may purchase commercial insurance or reinsurance upon a majority vote.

WHEREAS, the Aquatic Science Center is currently insured via a rider to the policy held by the San Francisco Estuary Institute under its existing Administrative Service Agreement with the Aquatic Science Center.

WHEREAS, the increasing diversity of funding entities requesting science support services from the Aquatic Science Center is causing the need for distinct insurance, separate from the SFEI rider.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of Aquatic Science Center hereby authorizes the purchase of general commercial liability insurance for the Aquatic Science Center.

APPROVED AND ADOPTED this 1<sup>st</sup> day of September, 2011.

The undersigned, Board Chair, does hereby certify that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at the meeting of the Aquatic Science Center on September 1, 2011.

AYE:

NAY:

ABSENT:

ABSTAIN:

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David Williams, Board Chair