SFEI | AQUATIC SCIENCE CENTER

SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER

Strategic Plan

September 2011

version 2 - 4 tabs

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

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, reliable monitoring data and assessments to the public and interested parties, including aquatic resources 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 manager 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: Communication

Provide an independent, accessible discussion forum to communicate advances in scientific knowledge to a wide variety of stakeholders and decision-makers, and to effectively integrate science and policy.

Objective 3.1

Facilitate integration of science and policy by: (1) providing environmental information in support of stewardship and sustainable management of our aquatic resources, including synthesizing data, analyzing results and transforming findings into high quality products; and (2) utilizing effective design and multiple channels of communication to deliver these products to a wide range of audiences.

Objective 3.2

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 3.3

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 3.4

Provide platforms where emerging and identified problems with the environmental health of aquatic ecosystems are discussed, goals are established, data needs are defined, data are evaluated, and goals are adjusted as necessary.

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[1]" – a true scientific term

[1] 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[2], 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.

[2] Enterprise level data management allows multi-user data access, robust backup, and data security checks.

Next Steps

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:

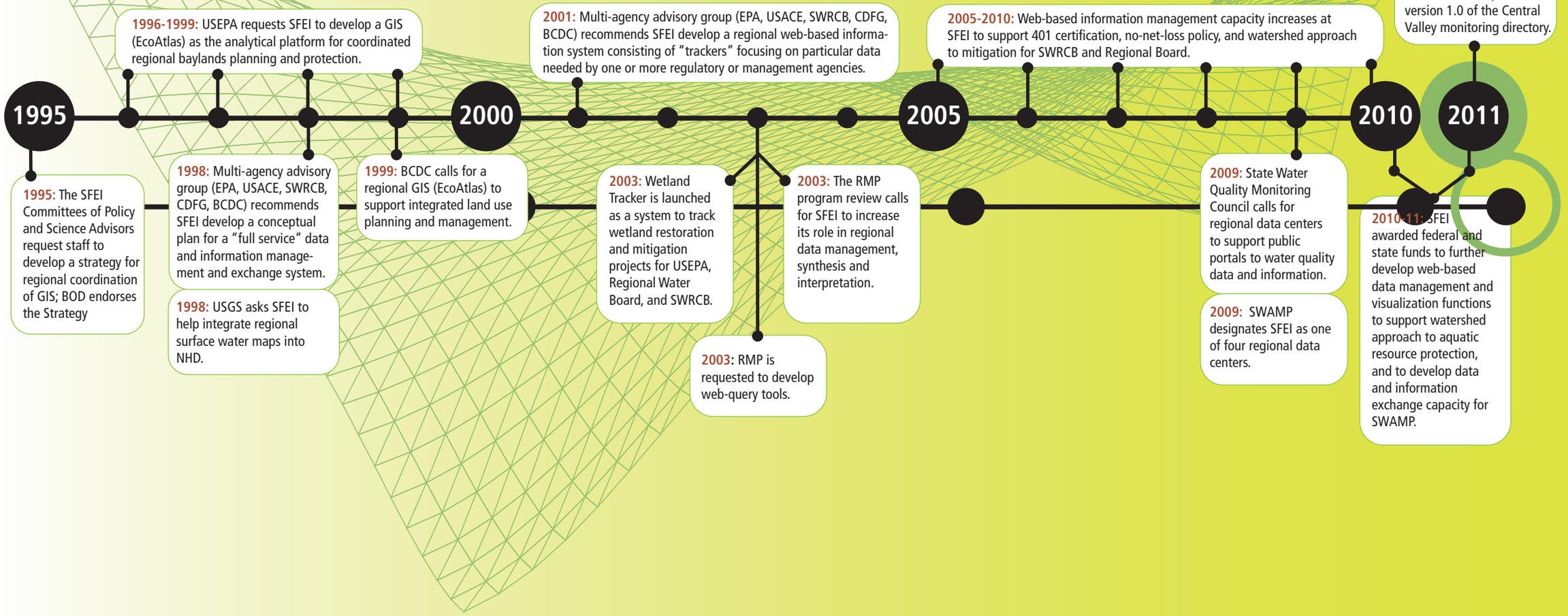
Information technology is improving at a time when environmental protection is challenged by increasing rates and uncertainty of environmental change. Management and regulatory decisions will increasingly rely on scientific guidance that is synthesized from multiple lines of evidence cutting across multiple 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 to the FUTURE

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

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

Atlas Information System



1995: The SFEI Committees of Policy and Science Advisors request staff to develop a strategy for regional coordination of GIS; BOD endorses the Strategy

1996-1999: USEPA requests SFEI to develop a GIS (EcoAtlas) as the analytical platform for coordinated regional baylands planning and protection.

1998: Multi-agency advisory group (EPA, USACE, SWRCB, CDFG, BCDC) recommends SFEI develop a conceptual plan for a "full service" data and information management and exchange system.

1998: USGS asks SFEI to help integrate regional surface water maps into NHD.

1999: BCDC calls for a regional GIS (EcoAtlas) to support integrated land use planning and management.

2001: Multi-agency advisory group (EPA, USACE, SWRCB, CDFG, BCDC) recommends SFEI develop a regional web-based information system consisting of "trackers" focusing on particular data needed by one or more regulatory or management agencies.

2003: Wetland Tracker is launched as a system to track wetland restoration and mitigation projects for USEPA, Regional Water Board, and SWRCB.

2003: The RMP program review calls for SFEI to increase its role in regional data management, synthesis and interpretation.

2003: RMP is requested to develop web-query tools.

2005-2010: Web-based information management capacity increases at SFEI to support 401 certification, no-net-loss policy, and watershed approach to mitigation for SWRCB and Regional Board.

2009: State Water Quality Monitoring Council calls for regional data centers to support public portals to water quality data and information.

2009: SWAMP designates SFEI as one of four regional data centers.

2010-11: SFEI awarded federal and state funds to further develop web-based data management and visualization functions to support watershed approach to aquatic resource protection, and to develop data and information exchange capacity for SWAMP.

2011: Planning by SFEI and SFEP for future State of the Estuary Reports calls for regional management of data to support estuary health assessment.

2011: ASC completes version 1.0 of the Central Valley monitoring directory.

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. 1st for ASC and Sept. 9th 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. 9th, 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.

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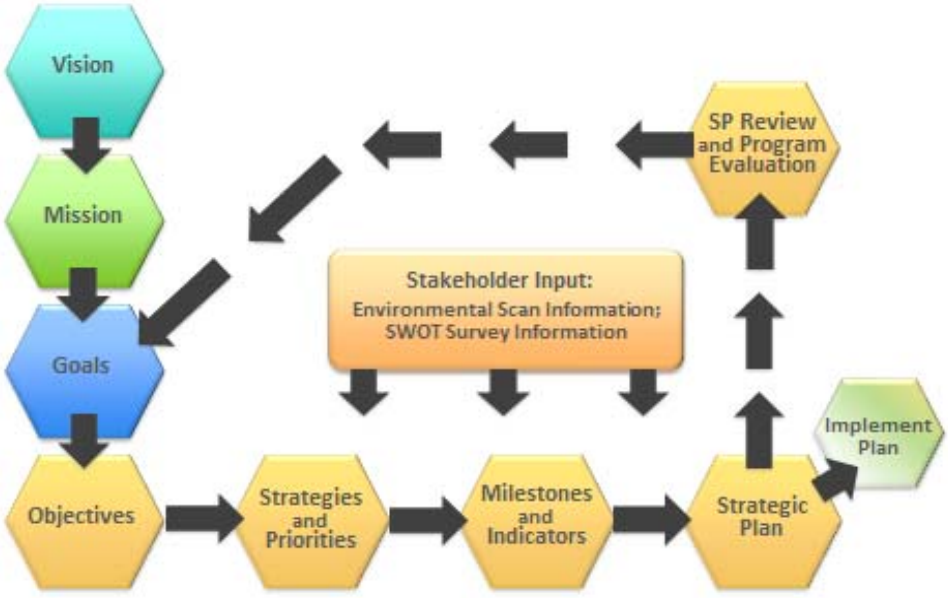
Background and Rationale

In September 2010, the respective Boards of Directors of the Aquatic Science Center (ASC) and the San Francisco Estuary Institute (SFEI) decided to undertake review and planning processes that would culminate in a strategic plan for each organization. Both Boards recognized that funding and environmental challenges posed some risks to each organization that new strategic directions might be able to avert or alleviate. Also, new opportunities have arisen, unique and common to each organization that could advance protection and restoration decisions.

Each planning effort initially occurred on its own track, but they were merged in 2011 when it became apparent that the values, vision, mission, goals, objectives and underlying strategic priorities of both organizations were very similar. The process used to develop and regularly review and update the Strategic Plan is summarized in *Figure 1.* It should be noted that specific and measurable indicators of success will be used to track achievement of both strategic milestones and actions that will be described in the Implementation Plan. Milestones and associated actions and resources dedicated toward their achievement are directly linked to Strategic Priorities and Objectives spelled out in the Strategic Plan.

Figure 1. Strategic Planning Process



The Strategic Planning Committees of SFEI and ASC decided to recommend to their respective Boards to endorse one single strategic plan covering both organizations, while

recognizing that, for the foreseeable future, the status of two unique legal entities may have advantages and should be maintained.

The Aquatic Science Center was established in 2007 as a Joint Powers Agency (JPA) between the State Water Resources Control Board (SWRCB) and the Bay Area Clean Water Agencies (BACWA) to provide an effective mechanism for science support focused on aquatic resources in central and northern California. The Aquatic Science Center is administered by SFEI, the San Francisco Estuary Institute, a 501(c)(3) California non-profit organization. The purpose statements for both organizations are very similar, and the JPA was founded with the specific intent of enhancing the services SFEI had been providing since 1994 and of expanding its benefits through a public agency.

The JPA Board of Directors decided in 2007 to keep the governance simple and to operate initially with a small board of six voting members (three from each signatory agency) and one non-voting member (USEPA, Region 9), while recognizing that after an initial start-up phase, modifications to the organizational and governance structure would likely be advantageous and necessary. Any modifications would best be informed by having articulated and clear strategic directions.

The strategic plan for SFEI had not been updated for more than ten years and no longer fully reflected existing and emerging priorities by the range of stakeholders SFEI was founded to serve. Also, the San Francisco Estuary Partnership had just completed its strategic plan update, and as its designated scientific arm, SFEI decided to re-affirm and strengthen its role within the Partnership and to align its own activities more closely with strategic priorities of the Partnership. Much like the Estuary Partnership, the Institute has embraced broad representation, transparency, and service to all stakeholders, which is reflected in ASC/SFEI's new Strategic Plan.

Key Informant Feedback

Both Boards and senior staff of the Center and Institute provided their perspectives of strengths, weaknesses, opportunities, and threats (SWOT), which are summarized in Tables 1a and 1b. Responses to the SWOT matrix were augmented in select follow-up interviews including interviews with a broad range of external informants. The latter were comprised of stakeholders of SFEI and ASC with multiple connections to additional constituents. MBA Consultants worked with staff and both boards to construct a matrix of organizations and groups, as well as key individuals within these organizations and groups, to interview.

Table 1a. Aquatic Science Center SWOT Results (Board and Staff)

Summary Aquatic Science Center SWOT Results

Strengths	Opportunities	Weaknesses	Threats
Influential and Engaged Board	Develop Broader Geographic Scope	Not a Strong Independent Recognized Entity	Lack of Real/Perceived Independence, Visibility and Partner Understanding of Role
Technically Strong/Dedicated Staff	Develop Broader Board Representation	Not Broad-based Enough	Threats to Administrative and Financial Flexibility
Unique and Effective Mechanism	Leverage SFEI Science Excellence	Lack of Adequate Internal Coordination and Communication	Lack of Adequate Internal Coordination and Communication
Ability to Leverage SFEI Science Excellence	Develop New Models of Org and Decision-making	Fragility of Collaborative Partnerships	External and Internal Threats to SFEI

Table 1b. San Francisco Estuary Institute SWOT Results (Board and Staff)

Summary SFEI SWOT Results

Strengths	Opportunities	Weaknesses	Threats
Strong Science Staff and Reputation	Strengthening Strategic Initiatives	Organizational Structure and Coordination	Staff/Retention/Succession
Work Environment/Culture	Communication for Increased Visibility and Impact	Project Planning and Workload	Economics/Funding
Quality of Scientific Work	Increased Collaboration with other Organizations and Stakeholders	Internal Communication	External Culture/Environmental Change Impacts
Strong Admin and Exec Staff and Engaged Board		Personnel Challenges	

From a list of over six dozen groups, twelve major science and ecosystem planning initiatives, and over 100 individuals, a list of three dozen key informant interview targets were selected. From each ASC and SFEI key informant candidate list, 18 Key Respondents (for a total of 36) were interviewed. Interview questions for ASC differed slightly from SFEI's list, in part due to the much lower level of familiarity of stakeholders with ASC. Numerous informants were able to answer questions about both organizations. It should be noted, however, that due to its relatively recent establishment, the Aquatic Science Center is much less well known than SFEI. Stakeholders and potential information users therefore had much fewer specific answers and opinions about ASC than SFEI. One key informant called ASC "the best kept secret around." This likely explains the different levels of detail in the ASC and SFEI responses.

Aquatic Science Center – Key Informant Interview Results

Questions
Summary Conclusions
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<u>Key Informant Interview Questions</u>

<u>1. Understanding of and Experience with the Aquatic Science Center</u>

A. Are you aware of the activities and products of the Aquatic Science Center?
B. Have you ever used Aquatic Science Center information or a product?
C. What (if any) is your understanding of why the Aquatic Science Center was established?

<u>2. Need for More Science Based Data Information Outreach and Education</u>

A. What needs do you see for more targeted science engagement to inform environmental management and policy questions,
B. help frame informed discussion among stakeholders,
C. build tools that can be used in various public deliberation processes to evaluate various alternatives?
D. Do you see an increasing role or roles for external, independent science organizations to assist government agencies to fill capacity gaps?

- If so, what would these roles be?
- Under what circumstances would these roles be particularly helpful?

<u>3. Aquatic Science Center Success to Date and Current Assessment</u>

A. What do you see as the unique strengths and attributes of the Center?
B. What do you feel are the Center's important successes to date?
C. What works well now?
D. What are the issues that you're most concerned with i.e. those that most need to be understood and resolved to ensure future program success? (What could work better?)

4. Going Forward

A. Are there activities the Center should be doing that it is not currently?
B. Would you be interested in using Aquatic Science Center products and/or participating in its activities in the future
C. What, if any, changes need to be made re: program structure/organization in order to guide the Center towards achieving its goals? (including changes in your and others' roles and responsibilities)

5. Collecting the best information from the most important stakeholders

A. Are there other key people we should be talking with?
B. What other key questions should we be asking?

Summary Conclusions

Several important conclusions can be stated as a result of the interviews. In addition to summarizing the responses, for each question we have included more detailed responses in the section following in order to provide more information for greater understanding and interpretation of the respondent input.

1. ASC is not well known-"Best Kept Secret"

   A large proportion of the key respondents did not know about, or did not know much about who made up the ASC, what are its operations, or what are its products and services.

2. ASC products and services are not well known and cannot be identified by key stakeholders

   Many key respondents could not say whether they had ever used any ASC products and/or services.

3. Many respondents were confused between SFEI and ASC

   Many of the respondents were confused about whether the products and services were SFEI's or ASC's.

4. Most respondents did not know the reasons why ASC was established

   Even those who responded yes to knowing about ASC did not all feel that they knew the specific reasons why ASC was created or very much about ASC's operations and activities.

5. As described to key respondents, ASC provides critically needed science and decision- making support services

   Many of the respondents identified several science and decision-support services that ASC could provide that would fill critical gaps

6. Several respondents thought ASC needed to expand geography

   Several respondents urged consideration of expanding the geographic scope of ASC activities

7. Several respondents thought ASC needed to broaden its representation

   Several respondents urged ASC to consider broadening its Board representation, and a couple of the respondents made specific suggestions for adding Board Members.

8. Several respondents thought ASC needed to develop stronger partnerships and presence and identity in the Delta, Central Valley

   Given the little identity and visibility that ASC currently has, several respondents indicated that a major activity of the ASC needs to be to increase its communication and outreach efforts to involve a much broader range of stakeholders.

Tabulated Results For Each Question

Below we have provided tabulations of the respondent answers to each interview question in order to provide more information for greater understanding and interpretation of the respondent input. Not every respondent provided an answer to each question, so the numbers reported in the different columns in many cases do not add up to the total number of respondents interviewed. While many individual comments have been included, none of the individuals have been identified in order to keep the specific individual responses confidential.

1. Understanding of and Experience with the Aquatic Science Center

A. i. Are you aware of the activities and products of the Aquatic Science Center?

No	Yes
8	10

Aware of Activities and Products of ASC
Many important key stakeholder informants did not know much or anything about the ASC "Not well versed in what they do" "Embarrassed to say I don't know what they do" "I get ASC mixed up with other organizations doing research work in the Delta" "When I think of ASC, I think SFEI"

A. ii. Can you say how much?

Not at All	A Little	Somewhat	A lot
8	3	6	1

Extent and Depth of Knowledge About ASC
Those that indicated they knew about the ASC, did not know very much about ASC "Yes, aware, but not very knowledgeable beyond agendas and meeting materials"

B. i. Have you ever used Aquatic Science Center information or a product?

Don't Know	No	Yes
8	5	5

Have Used Products and Services of ASC
"I may have but not have known it. Best kept secret." "Not able to distinguish between ASC and SFEI products. There is an ASC/SFEI product 'blur.' Hard to tell what the difference is." "Distinction between SFEI and ASC is not very clear"

B. ii. Can you say how much?

Not At All	A Little	Somewhat	A lot
5	2	1	0

B. iii. Can you tell us which product or type of information?

Product or Type of Information
1. Delta RMP 2. California Wetland Portal

C. What (if any) is your understanding of why the Aquatic Science Center was established?

Why Established
Key respondents did not have much (if any) understanding of why ASC was established. Those that said they knew, expressed varying levels of familiarity and confidence in their understanding "Relatively crude understanding: help move money around" "Don't know…been told that structure is similar to SCCWRP"

2. Need for More Science Based Data Information Outreach and Education

A. What needs do you see for more targeted science engagement to inform environmental management and policy questions?

Not at All	A Little	Somewhat	A lot
			18

B. to help frame informed discussion among stakeholders?

Not at All	A Little	Somewhat	A lot
			18

C. to build tools that can be used in various public deliberation processes to evaluate various alternatives?

Not at All	A Little	Somewhat	A lot
			18

Need for More Targeted Science Engagement
The respondents were unanimous in identifying unmet needs in all three areas. Many repeated the need to have an independent science organization separate from the agencies and regulators. Many cited the same areas of need, including Making Data Accessible in 'Real Time,' Data Management, Regional Monitoring, and Regional Integrated Watershed Planning. Several cited the need to assemble, package and disseminate information useful to manager and decision-makers. Much interest in moving from data generation to data integration. "There are things that ASC can do that state agencies can't do" "Critically important that science be integrated and accessed in a way that's useful" "ASC can help in bringing regulators and regulated together with other stakeholders"

D. Do you see an increasing role or roles for external, independent science organizations to

Assist government agencies to fill capacity gaps?

No	Yes
	18

Not at All	A Little	Somewhat	A lot
			18

Need for External, Independent Science Organizations
The respondents were unanimous in identifying the need for external, independent science organizations. The role of facilitation and communication were both cited by several respondents. If so, what would these roles be? Independent science and science and decision-making support products and services "Goal of an independent outside science agency is to keep an eye on the independence and robustness of the science" "As data and data products become available, need to be accessible by decision-makers, stakeholders, and the public" Under what circumstances would these roles be particularly helpful? In dispute areas Working on methods and tools to help multiple-benefit projects succeed Focusing on whole ecosystem approaches in which independent and credible science can underpin more effective decision-making "Need truly independent group that can do analysis in areas that are highly controversial"

3. Aquatic Science Center Success to Date and Current Assessment

A. What do you see as the unique strengths and attributes of the Center?

Strengths
Number who could answer: 2; all the rest said that did not know enough. One cited JPA model as important example for using in other regions

B. What do you feel are the Center's important successes to date?

Successes
Most respondents did not "know enough" to offer any information regarding successes

"Because of lack of familiarity with boundaries between ASC and SFEI, I have trouble teasing out ASC successes vs. SFEI successes"

Those that could comment, cited ASC's role in supporting Regional Monitoring

(Pulse of the Delta) and its organizational success in creating a new institution

"Creating viable JPA and getting it off the ground with ties to SWRCB puts ASC into rarified air and is a major success"

C. What works well now?

Works Well
Building capacities for improved and expanded science integration and very enhanced levels and types of coordination

D. What are the issues that you're most concerned with i.e. those that most need to be understood and resolved to ensure future program success?

Issues Most Concerned About
Communication and Outreach Serving diverse areas outside of the SF Bay Area, and not just east of bay in delta/cv, north coast as well Keep Independent Science Role and Not Moving into Advocacy

<u>4. Going Forward</u>

A. Are there activities the Center should be doing that it is not currently?

Yes	No	Don't Know/Depends
4		14

Activities Center should be doing
If ASC is to be effective, it must increase it's identify among key participants, develop a strong 'brand' and substantially increase its communication and outreach efforts. "Communicate on issues in ways that are understandable, objective, and actionable" Others cited the need to tackle "thorny" issues with increased science support "Increase outreach to Delta and Central Valley stakeholders"

B. Would you be interested in using Aquatic Science Center products and/or participating in its activities in the future?

Yes	No	Don't Know/Depends
8	0	10

Name/Type of Activity
Addressing Stakeholders, Decision-Makers, and the Public Understandable and Useable Information that can lead to action

C. What, if any, changes need to be made re: program structure/organization in order to guide the Center towards achieving its goals? (including changes in your and others' roles and responsibilities)

Suggested Changes	Don't Know/Don't Know Enough
4	14

Suggested Changes
Any suggested changes need to be vetted in a transparent process that clearly identifies the pros and cons of the options. Recent examples of changes to look at include Bay Institute merger with Pier 39 Aquarium and in the private sector, ESA with PWA (Phil Williams Associates). Certain Key Players should be questioned, such as Bruce Wolfe. Goal should be to maintain strengths of the respective organizational components while increasing effectiveness overall and leveraging greater investments by a larger coalition of interested funders and participants. A stronger unified Board between ASC and SFEI could make a lot of sense given the blurring of the line between ASC and SFEI.

5. Collecting the best information from the most important stakeholders

A. Are there other key people we should be talking with?

Other People
A number of the Key Respondents offered several suggestions for additional interview targets. A number of these suggestions included individuals already targeted for interview or on the larger list of potential interviewees. Several of the Key Respondents named the same individuals for inclusion on the list of those to be interviewed.

B. What other key questions should we be asking?

Other Questions
No other major questions or question topics were suggested by any of the Key Respondents

Aquatic Science Center Respondents – "Significant" Insights

1. Which affirm priorities in both strategic plans

Protect SFEI identity and brand; known and respected entity;
Promote sound science;
Strengthen independent science and science support role;
Support efforts to create tools and information systems providing better data synthesis, management, and access;
Provide integrated, relevant and accessible data;
Strengthen your science support, decision-support, and communications expertise;
Support improved public communication, stakeholder discussion, and improved decision making;
Invest in further developing RMS/RMP and provide leadership in developing Environmental Indicators;
Support development of Regional Data Centers;
Use JPA powers to increase efficient and cost effective administration;
Provide efficient, timely, readily available, cost-effective administrative and fiscal services;
Modernize, integrate, and create long-term cost efficiencies;
Recognize lack of experience and history in non-SFB landscapes, join with collaborators and partners;
Communicate "results" information coupled with "indicators" measures to better show relative progress towards goals, objectives and implementation milestones;
Consider more integrated and efficient organizational forms through proper analysis and appropriate vetting of options

2. Balance any inconsistent preferences on the Boards of how to move forward and implement the strategic plans

Most board members need more information about strategic options and priorities, so giving them more than one opportunity to discuss and speak about plans for moving forward and implementing the strategic plans is part of the 'balancing;'
Organize "Implementation Options Analysis" in close collaboration with Board members and subcommittees;
Use Subcommittees and meetings to vet options and proposals;
Evaluate a range of options;
Provide for multiple steps to evaluate options;
Clearly identify various moving parts that can be combined into customized win-win arrangements;

Moving forward is directly tied to the transparent engagement of the affected board members;
Continue "IOA" in context of strategic planning efforts;
Complete and adopt Strategic Plans as platform for evaluating and agreeing on organizational and operational changes.

3. Use expressed stakeholder suggestions and articulation of their "needs" in consideration of strategic directions and implementation plans

Need JPA contracting avenue to fulfill mission and responsibilities;
Strong and effective administrative and fiscal services;
Independent Science and Science-Support Source;
New and expanded environmental monitoring programs;
Providing integrated, relevant and accessible data;
Promoting public discussion and decision-making;
Serve broad geographic needs throughout northern California and California;
Create more representative board and group of advisors and collaborators and partners;

San Francisco Estuary Institute – Key Informant interview results

Questions
Summary Conclusions
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Key Informant Interview Questions

1. Understanding of and Experience with SFEI

A. How well do you feel you are you aware of the activities and products of SFEI?
B. Have you ever used SFEI information or a product?
Types:

Genera Interest	RMP Reports	Special Interest	Other

How do you access SFEI Information and Products?

Print	Web	Web and Print	Other

C. What (if any) is your understanding of why SFEI was established and what SFEI does?

2. Need for More Science Based Data Information Outreach and Education

A. What needs do you see for more targeted science engagement to:
- Help inform environmental management and policy questions,

- Help frame informed discussion among stakeholders,
- Help build tools that can be used in various public deliberation processes to evaluate various alternatives?

Types:

Decision-Support	Monitoring	Regulatory	Other

B. Do you see an increasing role or roles for external, independent science organizations to assist government agencies to fill capacity gaps?

- If so, what would these roles be?

3. SFEI Success to Date and Current Assessment

A. What do you see as the unique strengths and attributes of SFEI?
B. What do you feel are SFEI's important successes to date?
C. What works well now?
D. What are the issues that you're most concerned with i.e. those that most need to be understood and resolved to ensure future program success? (What could work better?)

4. Going Forward

A. Are there activities SFEI should be doing that it is not currently?

Yes	No

Types:

Basic	Applied	Regulatory-Support	Ed/Outreach

B. Would you be interested in using SFEI products and/or participating in its activities in the future?

Yes	No

C. Types of Activities:

Research	Monitoring	Ed/Outreach	Other

D. What, if any, changes need to be made re: program structure/organization in order to guide SFEI towards achieving its goals?

5. Collecting the best information from the most important stakeholders

A. Are there other key people we should be talking with?
B. What other important questions should we be asking?

6. Questions regarding SFEI/ASC Re-Org and Integration

The Aquatic Science Center is a relatively new Joint Powers Authority (JPA), between the Bay Area Clean Water Agencies (BACWA) and the State Water Resources Control Board (SWRCB). It was formed to provide scientific support and tools for public decision-making and communication through collaborative efforts. SFEI provides administrative and executive staff support to the ASC.

Given the unique characteristics of Joint Powers Authorities and 501(c)(3) organizations, the relationship between SFEI and the Aquatic Science Center was purposefully established to take advantage of both entities to facilitate efficient delivery of science in service of governmental decision-making processes and access to information by ALL stakeholders that desire to participate in environmental decision-making.

1) What kinds of opportunities and risks do you see in streamlining the governance of these two legally separate entities with very similar missions, goals, and objectives?
2) What concerns should we be aware of from your perspective as we are investigating new models of operating more efficiently, explore a "blended" board of directors, and maintain the strengths of both legal entities?
3) What would your constituency's needs be for SFEI-ASC as we move forward in implementing our emerging goals?

Summary Conclusions

Several important conclusions can be stated as a result of the interviews. (In addition to summarizing the responses in this section, for each question we have included more detailed responses in the section following in order to provide more information for greater understanding and interpretation of the respondent input.)

1. SFEI is well regarded by a range of partners, clients and stakeholders.

   A large proportion of the key informants have very strong positive opinions of SFEI, its professional and scientific staff, as well as its products and information. Most respondents knew generally what SFEI did and why SFEI was established, and several knew quite a lot about SFEI, or knew its professional staff, or interacted with staff on multiple and different occasions. A few of the Key Informants reported having a formal contact or board relationship with SFEI.

2. SFEI products and services are generally well known and valued by partners and stakeholders.

Many key respondents indicated they had used SFEI products and/or services, including the State of the Estuary reports, results from the Historical Ecology program, and/or results from the RMP. All held SFEI products in high regard, citing the quality, independence and integrity of SFEI's science products.

3. SFEI provides critically needed science and decision-making support services.

   Many of the respondents identified several science and decision-support services where SFEI provides critical information, but indicated that SFEI could also play a role in areas where it was not now fully active (see below).

4. Several respondents thought SFEI needed to broaden its science activities to address a range of unmet needs.

   Several respondents urged consideration of expanding the scope of activities to include a focus on new and emerging topics, such as nutrient management, science communication, storm water, and habitat restoration.

5. Several respondents thought SFEI needed to broaden its activities with key partners.

   Several respondents urged SFEI to broaden its partnership activities and coordinate better with a range of stakeholders and clients, beyond its continuing partnerships with agencies. Priorities science activities and increasing data integration efforts were identified as major priorities.

6. Several respondents thought SFEI needed to develop stronger partnerships, presence and identity in non-Bay Area locations in the state, including the Delta and Central Valley.

   According to several of the KIs, the Bay-Delta connection has been neglected and interrelationships and synergies not fully developed. Given the little identity and visibility that SFEI has outside of the San Francisco Bay Area, (including importantly in Sacramento), several respondents indicated that a major activity of SFEI needs to be to increase its communication and outreach efforts to communicate with a much broader range of stakeholders.

7. Several informants emphasized that SFEI needs to broaden its staff competencies in communication and financial and organizational planning and management.

   As SFEI is now a maturing non-profit organization, facing many organizational and financial challenges, several informants emphasized that the Board and the Executive Staff need to give increased attention to broadening its staff capabilities in communication and in financial and organizational planning and management.

Tabulated Results For Each Question

The SFEI Informant responses are provided in tabular form of answers to each interview question in order to provide more information for greater understanding and interpretation of the respondent input. Not every respondent provided an answer to each question, so the numbers reported in the different columns in many cases do not add up to the total number of respondents interviewed. While many individual comments have been included, none of the individuals have been identified in order to keep the specific individual responses confidential.

1. Understanding of and Experience with SFEI

A. i. Are you aware of the activities and products of SFEI?

No	Yes
3	15

Aware of Activities and Products of SFEI
Almost all of the key stakeholder informants knew of SFEI and had histories working with SFEI, however many said they had only partial knowledge of activities and products (see below).

A. ii. Can you say how much?

Not at All	A Little	Somewhat	A lot
3	3	7	5

Extent and Depth of Knowledge About SFEI
Its partners generally know SFEI, and they have a very positive impression of SFEI, its staff, its work, its approach to science, and its legacy. Several of the KIs expressed that they were not completely familiar with the work of SFEI, having partial knowledge of one or more aspects of the activities and products of SFEI.

B. i. Have you ever used SFEI information or a product?

Don't Know	No	Yes
5		13

Have Used Products and Services of SFEI
Approximately two-thirds of the KI use one or more products from SFEI, the majority citing the results of the RMP, wetlands and watershed-related work, and the Historical Ecology reports.

B. ii. Can you say how much?

Not At All	A Little	Somewhat	A lot
3	1	5	7

B. iii. Can you tell us which product or type of information?

Product or Type of Information
1. RMP 2. Historical Ecology Reports 3. Wetland Tracker/Wetland Portal

C. What (if any) is your understanding of why SFEI was established?

Why Established
Limited to only general understanding by most informants, and more detailed knowledge by longer-term partners, but even for long-term partners, many expressed only partial knowledge and many expressed embarrassment that they were not more familiar with the range of SFEI's activities

2. Need for More Science Based Data Information Outreach and Education

A. What needs do you see for more targeted science engagement to inform environmental management and policy questions?

Not at All	A Little	Somewhat	A lot
			18

B. To help frame informed discussion among stakeholders?

Not at All	A Little	Somewhat	A lot
			18

C. To build tools that can be used in various public deliberation processes to evaluate various alternatives?

Not at All	A Little	Somewhat	A lot
			18

Need for More Targeted Science Engagement
The informant's responses were unanimous in identifying unmet needs in all three areas above. Many informants repeated the need to have independent science organizations separate from the agencies and regulators.

Many cited the same areas of need, including Making Data Accessible in 'Real Time,' Data Management, Regional Monitoring, and Regional Integrated Landscape Level and Watershed Planning.

Several cited the need to assemble, package and disseminate information useful to manager and decision-makers.

Many KIs expressed strong interest in seeing SFEI move from data generation to data integration, and to work to link science more closely to decision-making. Several cautioned that this did not mean that they wanted SFEI to become advocates of any particular policy or outcome. According to many of the KIs, there is an abundance of science being undertaken by a large range of institutions and individual scientists, but current science efforts are not being adequately coordinated or integrated and, in some cases, not adequately addressing new and emerging concerns i.e. current efforts are not being prioritized towards major questions. One KI labeled the current situation as one of "Science Adhocracy" with disparate parts… not paddling together. Different agencies have different missions. More research always needed.

"(What is) more needed is coordination and focusing of myriad, disparate research going on in Bay and Delta."

D. Do you see an increasing role or roles for external, independent science organizations to:

Assist government agencies to fill capacity gaps?

No	Yes
	18

Not at All	A Little	Somewhat	A lot
			18

Need for External, Independent Science Organizations
The respondents were unanimous in identifying the need for external, independent science organizations. The importance of the role of facilitation and communication were both cited by several respondents. If so, what would these roles be? Independent science and science and decision-making support products and services As data and data products become available, need to be accessible by public:

transparency, objectivity and independence….thoroughly vetted, peer reviewed thoughtfully and carefully.

3. SFEI Success to Date and Current Assessment

A. What do you see as the unique strengths and attributes of SFEI?

Strengths
Number who could answer: 12; 6 others said that did not know enough to comment. "Independent Experts" "Have Strong Science Focus" "Unbiased source of information" "Unbiased source of scientific information about estuary; As opposed to advocacy nonprofits, JV and SFEP" "Unbiased approach to complex problems" "They do really good work of very high quality" "Strength is in their staff" "Huge talent. People who are very motivated to provide a range of expertise… to a wide range of stakeholders."

B. What do you feel are SFEI's important successes to date?

Successes
Many informants suggested several different successes they could credit to SFEI including the RMP, its Historical Ecology work, and its work on wetlands and habitat planning. "Baylands Goals Report has been a huge success over the past ten years" "Looking at Historical Ecology has proven to be a very important foundational work." "Overall really positive view of SFEI and enjoy working with them; the work we have done with them in the recent past has been very successful."

C. What works well now?

Works Well
Building capacities for improved and expanded science integration and enhanced levels and types of coordination

"SFEI is different than a consulting firm, they are not doing this to earn fee, rather there is a shared interest in the work we do together."

D. What are the issues that you're most concerned with i.e. those that most need to be understood and resolved to ensure future program success?

Issues Most Concerned About
"Clearly articulate to themselves and to others issues they are going to be working on." Putting science tools to use in a larger market, linking to private technology industry and developing closer collaborations with universities around the bay; this might be SFEI key niche in the next decade. With the wetlands work, there may be more opportunities for greater collaboration, if we could get more out of the program. There is now an emphasis on monitoring vs. management and policy questions and issues. Sometimes there is the sense that their focus is more theoretical than we need, i.e., State of the state wetlands report: highest priority assigned to better monitoring of wetlands that is only one part of the picture. An equally important priority would be generating funds for the restoration and enhancement of wetlands focusing on on-the-ground work and analyzing the restoration effectiveness and outcomes of on-the-ground work. They should participate in SFEP and JV more than they do now Sea Level Rise and Sediment Issues, if there is a way to play bigger role with USGS collaboratively Can they provide independent science on birds in the bay? Management should spend time examining current management structure and competencies and need for enhanced and expanded management skills, and re-organization and expansion to address current and future needs. Need to train folks in management skills, offer mentoring and give them expanded tools. Biggest challenge: organization has grown and now SFEI needs to have management personnel and resources to meet this growth. Current leadership includes accomplished scientific experts, but they are not trained as communicators or as financing and funding experts. Need to broaden and deepen management and executive skills. Financial Sustainability Management issue, don't want to put all your eggs in one basket; don't want a situation where dollars from one group are driving where the organization is going overall, where SFEI loses some of its representativeness among collaborators and partners. Need to develop plans and staff resources to go out to look for independent funds from a range of private sources; seek funds to set up endowment, focused on setting up dollars for the future. Now is the time to seek out other funding sources; there is a large opportunity, there are a lot of resources in the Bay Area going untapped. (See related comments below)

4. Going Forward

A. Are there activities SFEI should be doing that it is not currently?

Yes	No	Don't Know/Depends
14		4

Activities SFEI should be doing
If SFEI is to be effective, it must continue to increase its identity among key participants, leverage its strong 'brand,' and substantially increase its communication and outreach efforts. "SFEI could have a much more active role in shaping the agenda if it took a more pro-active role in undertaking its own agenda rather than simply responding to contract opportunities." "Most important contribution will come when SFEI defines its own priorities to address really critical issues"

B. Would you be interested in using SFEI products and/or participating in its activities in the future?

Yes	No	Don't Know/Depends
18	0	0

Name/Type of Activity
Addresses the needs of a broad range of stakeholders, decision-makers, and the general public "Impact" Science - Creating understandable and useable information that can lead to more effective decision-making

C. What, if any, changes need to be made re: program structure/organization in order to guide SFEI towards achieving its goals? (including changes in your and others' roles and responsibilities)

Suggested Changes	Don't Know/Don't Know Enough
10	8

Suggested Changes
Goal should be to maintain strengths of the respective organizational components while

increasing effectiveness overall and leveraging greater investments by a larger coalition of interested funders and participants.

Any proposed organizational changes and options need to be vetted in a transparent process that clearly identifies the pros and cons of the options.

Key interested and/or affected parties should be questioned and involved.

5. Collecting the best information from the most important stakeholders

A. Are there other key people we should be talking with?

Other People
Several of the key informants offered suggestions for additional interview targets. A number of these suggestions included individuals already targeted for interview or on the larger list of potential interviewees.

B. What other key questions should we be asking?

Other Questions
No other major questions or question topics were suggested by any of the Key Informants

6. SFEI-ASC Integration

SFEI-ASC Integration
Staff and Board need to develop clear vision of what the combined SFEI-ASC would do, and how it is, or would be, different from existing activities of the two agencies. I would like to have staff bring a range of options in order to make an informed decision. Think this through from the beginning rather than sort these things after the fact… internal heart to heart. Do not lose impartially and remain independent. Whatever solutions are proposed should be responsive to needs and not make more problems. The administration of both could likely be done much more efficiently.

Whatever they come up with, keep the best of 501 (c)(3) and the JPA. What works well now is that they are a nonprofit so we can give them a grant and that they have JPA and we can enter into Interagency Agreement without going through competitive bid.

As much as they can make it easy on themselves, that would be a win-win.

From my perspective it has been easy to work with either structure on an as-needed basis, so don't fix what isn't broken.

ASC was envisioned as a way to use Baca's fiscal and administrative attributes to funnel money quicker from the state, but it has morphed into something much greater and potentially much more important. It could be much larger than simply a conduit for contracting convenience.

Suggested that SFEI lead in the development of California Environmental Report Card.

San Francisco Estuary Institute Respondents – "Significant" Insights

1. Which affirm priorities in the strategic plan

SFEI Brand

- Leverage SFEI identity and brand
- Build on reputation and track record
- Adopt more SFEI-driven priorities, assist more in defining path to the future and not just react to contract opportunities e.g. "take results of historical ecology work and (determine) how to use that information as part of everything else."

Strengthen Independent Science Role

- Promote credible, reliable and independent science
- Strengthen independent science and science support role
- Support development of Regional Data Centers

Strengthen Science Communication

- Support improved public communication, stakeholder discussion, and improved decision making
- Increase communication competencies of Executive and Program Staff

Broaden Partnerships and Outreach

- Recognize lack of experience and history in non-SFB landscapes,
- Join with collaborators and partners to explore interrelationships and synergies

Strengthen and Build New Science-support, Decision-support and Communications Tools

- Support efforts to create tools and information systems providing better data synthesis, management, and access
- Provide integrated, relevant and accessible data
- Couple "results" information with "indicators" measures to better show relative progress towards goals, objectives and implementation milestones
- Invest in further developing RMS/RMP
- Provide leadership in developing Environmental Indicators

Strengthen Financial and Organizational Sustainability

- Develop Organizational and Financial Sustainability Plans
- Increase Executive Team financial and organizational planning competencies

2. Balance any inconsistent preferences on the Boards of how to move forward and implement the strategic plan

Most KIs, including SFEI Board members, required more information about strategic options and priorities in order to meaningfully contribute suggestions and guidance. Many suggested offering several opportunities within any planning process to deliberate and consider any plans for moving forward and implementing the strategic plan.

Many suggested organizing any implementation options and priorities analysis in close collaboration with Board members and interested stakeholders, including: Using Subcommittee meetings and regular Board meetings to vet options and proposals; Evaluating a range of options; and providing for multiple steps to evaluate options.

The most important message was to consider organizational changes within the context of strategic planning and in the context of setting goals for what SFEI wants to accomplish in the next five and ten years.

3. Use expressed stakeholder suggestions and articulation of their "needs" in consideration of strategic directions and implementation plans

Need a place to turn to for independent, credible, and timely science information and decision-support tools to address contemporary and forecast problems, providing integrated, relevant and accessible data
Need a place to turn to for new and expanded environmental monitoring programs and for environmental indicators development
Need a place to turn to for decision-support tools, promoting stakeholder and public discussion and more effective decision-making
SFEI needs to broaden the reach of its existing tools and serve broad needs within California for technology transfer and tool application
Utilize larger group of advisors and collaborators and partners
Build capacity, including exploring opportunities to leverage funding through partnerships
Need to build presence in and input from Delta and Central Valley
Build identity and brand, increasing and deepening staff competencies

Staff and Consultant Research

Both Boards requested more information in two key subject areas before strategic priorities could be fully endorsed: (1) Representational details for Joint Powers Authorities and statutory flexibility on governance; and (2) Financial implications, resource requirements, and heretofore untapped funding sources for implementation of Strategic Priorities. The results of efforts by staff and consultants can be summarized as follows:

Legal Framework for Joint Powers Authorities

Interviews with three attorneys with expertise in Special District law and research on existing and comparable organizations operating under two or more unique governance structures (agencies chartered by legislative action, JPAs, and 501(c)3s) revealed that no legal barriers exist to include non-signatory members on the board of a Joint Powers Authority (hence the nickname "unicorn of the government world"). Table 2 (appended at the end of this document) shows the extensive array of organizational arrangements that were reviewed for this purpose.

While only the signatory agencies to a Joint Powers Agreement may vote on modifications to the Agreement itself, the day-to-day affairs of the Authority may be governed by both signatory *and* non-signatory members (e.g., approve updates to the Strategic Plan, Implementation Plan, and annual work plans; re-align priorities; contribute to implementation activities; provide direction following review of success indicators and milestone accomplishments).

The Chabot Space and Science Center (CSSC), a JPA and 501(c)(3) "blend," is an organization with a governance structure most similar to the envisioned unified SFEI-ASC Board. It is governed by a 16-member Board, six of whom are appointed by the Signatories (City of Oakland, East Bay Regional Parks District, and Oakland Unified School District). The other ten members include members from a wide variety of backgrounds – emeritus professor, CPA, attorney, human resources specialist, etc. SFEI staff had extensive conversations with CSSC's Director of Operations and SFO, Jill Knowland to obtain her advice and observations on the workings of such a Board. Other organizations, such as flood control districts or redevelopment agencies often have "unified" boards as well, where a County Board of Supervisors also serves as the governing body of a redevelopment agency and merely switches hats following adjournment of one entity's business before convening for the business of the other.

Financial Implications and Resource Requirements for Implementation of Strategic Priorities

As part of the development of Strategic Priorities, staff compared the amount of funding already available for specific projects that are lined up along each strategic path. Almost all of our projects, both ongoing and those starting in the near future with signed contracts in place or in negotiation, fit into Strategic

Priorities 1 and 2. We will require Board involvement in putting these priorities on a sustainable, long-term track that extends beyond a one-to three-year timeline. Our forthcoming Implementation Plan will provide details on how we propose to achieve sustainable funding in addition to what the Regional Monitoring Program for Water Quality currently provides.

In addition to the traditional funding sources SFEI-ASC has so far relied on, we have begun to explore vehicles such as private-public partnerships and foundation funding. Two recent examples are illustrated in *Philanthropy and Development Alert.* The first mentioned a two-year, $1.8 million grant from the Gordon and Betty Moore Foundation to develop a decision support software application for land management (Strategic Priority #1). The other example is a recent Walton Family Foundation grant allocation totaling nearly $23 million through the foundation's Freshwater Conservation initiative, which aims to ensure healthy and resilient communities of people and wildlife in the Colorado River and Mississippi River basins. The initiative is organized around four key objectives: ensuring river flows that are suitable in quantity and timing for wildlife while providing adequate flow for sustainable human usage; supporting water quality that is healthy enough for human and wildlife use; protecting riverside habitats that support wildlife communities while also allowing recreational access for people; and supporting built infrastructure such as dams and levees that minimizes impacts to rivers and wildlife (Strategic Priority #2).

Research on financial resources required to implement Strategic Priority #3 ("Toward a Unified Board) revealed that legal advice and review related to any revisions to bylaws or the way both boards currently conduct business may amount to about $10,000, which we can easily accommodate in the 2012 budget.

Staff research leads to the conclusion that:

- there are no legal barriers to move forward with the unified board concept and meet the milestones already identified in Strategic Option #3
- financial and human resources for implementation of large aspects of Strategic Priorities 1 and 2 are already in place to move forward.

Matrix of Collaborative Organizational Models

Organization or Agency Name	Type of Organization	Partners	Relationships and Linkage	Yr Established	Subject/Area Focus	Organization and Management (Decision-Making and Agendas)	Geographic Scope	BOD				Science Advisors	Non-profit 990/Financials	Strategic Plan	Conections with ASC/SFEI	Notes; Comments; Contact Info
								Total	Govt	Public; NGO	Private					
SCCWRP	JPA	Member Agencies	State Board; US EPA R9	1969	Southern California Coastal Water Quality	Commision with input from CTAG	So Cal	14-Commission	14	0	0	CTAG-Technial Advisors CA OST-S. McAfee; US EPA R9-T. Fleming	NA	Key Informant/SWOT Survey 2010	Partner on Projects, Share Contract Tasks, Share Scientific and Technical Experts, Share Board Members: SWRCB and USEPA R9, V. Whitney, D. Polhemus, A. Strauss	Southern California Coastal Water Reseach Project (SCCWRP) Provides both regional and statewide contract services
SMBRC, SMBRA and SMBRF	State-Chartered Local Agency; non-profit 501 c3; and JPA	Los Angeles County	Share Board Members; Fdn-11 BOD receives grants, donations and other funds on behalf of SMBRC	1991	National Estuary Program Implmentation-Santa Monica Bay	Bay Watershed Council-70; Executive Committee (7) to Governing Board (20 voting)	SMB	35-Governing Board; 2-JPA	18	9 from Watershed Council Serve on Governing Board	6	TAC	Reported Income: $1,621,441 (2009)	BRP Update 2008	Share Experts; Share Board Members: USEPA R9 and SWRCB	Santa Monica Bay Restoration Commission (SMBRC)/Foundation /Authority
MRCA and SMMC	JPA; State Chartered Conservancy	SMMC, Conejo Recreation and Park District, Rancho Simi Recreation and Park District	Meet as separate organizations; meet on separate schedule	1985	conservation, habitat and lands stewardship, and managed public use	Separate Boards of Directors; 26 member Advisory Committee to SMMC	SMMtns+	MRCA 4-; SMMC-13	SMMC-10	SMMC-3	0	NA	NA		None	Mountians Recreation and Conservation Authority (MRCA) and the Santa Monica Mountains Conservancy (SMMC)
CSSC and Foundation	JPA and non-profit 501 c3	City of Oakland, Oakland Unified School District, and East Bay Regional Park District	Share Board Members; Fdn receives grants, donations or other funds on behalf of CSSC	2000	Science Education		Local and Regional	23				NA	Reported Income: $4,223,819 (2008)	2008 New SP, New Brand, New Program Initiatives; New Exhibits	None	Chabot Space and Science Center (CSSC)
Elkhorn Slough Foundation/ES NERR	non-profit 501 c3 and federal agency		ElkhornSlough.org-Share Website Communciations and Messaging	1994	Estuarine Management and Restotration		Elkhorn Slough, Monterey Bay	12			12	ESNERR	Reported Income: $2,331,105 (2009)		Share?	
State Parks Foundation and CA Department of Parks and Recreation	non-profit 501 (c)(3) and CA State Department		Advocate, Support, Fundraise and Manage on Behalf of DPR	1969	California State Parks		California					NA	Reported Inome: $12,761,886 (2009)		None	There is also a Sierra State Parks Foundation
Ocean Science Trust and Ocean Protection Council	non-profit 501 (c)(3) and State Policy Body		OST serves as Ocean Science Advisor to the California Ocean Protection Council (OPC)	2005	Coordinated, multi-agency efforts to translate ocean science into management and policy	ED OST is Science Advisor to OPC; Exec Cmte is Leadership Body of OPC-SAT	Ca Coast	11	3	8 2-Public; 4-SCU/UC	0	OPC- SAT 24 Members; Exec Cmte- 4	Reported Income: $2,115,491(2008)	Revise/Update SP 2011	Share Scientific and Technical Experts;ASC Key Informant	Created by Californiia Ocean Resources Stewardship Act of 2000
OMCA	non-profit 501 c3		OMCA Foundation raises funds on behalf of the OMCA									NA	Reported Income: $9,846,997 (2008)		None	Oakland Museum of California (OMCA) and the City of Oakland
Los Cerritos Welands JPA	Two State Conservancies and Local Govt		Staff provided by LASGRMC and SCC and all share Board Members	2000	Wetland Restoration		Los Cerritos Wetlands, Long Beach San Gabriel River					?-SCWRP SAP	NA		Share technical and science experts on SCWRP SAP	Involves the Los Angeles and San Gabriel Rivers and Mountatins Conservancy (LASGRMC) and the Coastal Conservancy
Watereuse Association/Research Foundation	non-profit 501 c6 and 501 c3		Share Board of Directors -?	200?	Water Reuse and		CA								None	
California Current Joint Venture	non-profit 501c3	PRBO		2005?	Calfiornia Current LME		2006								ASC Strategic Plan Key Informant	Staff provided by PRBO and initiative for JV is Ellie Cohen
SFB Joint Venture	MOU			1995	SF Bay		SF Bay Area	26-Mgm Bd	6-Fed; 7-Sate and Regional	10	1				Share Board Members-?	Est. under The Migratory Bird Treaty Act; one of 18 in US; implement North American Waterfowl Mgm Plan and North American Bird Conservation Initiative
Southern California Wetlands Recovery Project (SCWRP)	MOU			1990?	Southern California Bight Wetlands and Watersheds		So Cal	17- Board of Governors	State and Federal	Public Advisory Body + 5 Couty Task Forces	0	Science Advisory Panel		Regional Restoration Strategy 2001; Periodic Work Plan Update	Share Scientific and Technical Experts; Share Board Members: US EPA R9	Not A Joint Venture under the Treaty Act; but serves equivalent functions with a focus on wetlands and watersheds

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