CALIFORNIA ESTUARY MONITORING WORKGROUP
USING WEB PORTALS TO IMPROVE SCIENTIFIC UNDERSTANDING

KELSEY COWIN, STEPHANIE FONG, BILL TEMPLIN, ALISON WEBER-STOVER

HTTP://WWW.WATERBOARDS.CA.GOV/MYWATERQUALITY/MONITORING_COUNCIL/ESTUARY_WORKGROUP

HTTP://CAESTUARIES.OPENNRM.ORG

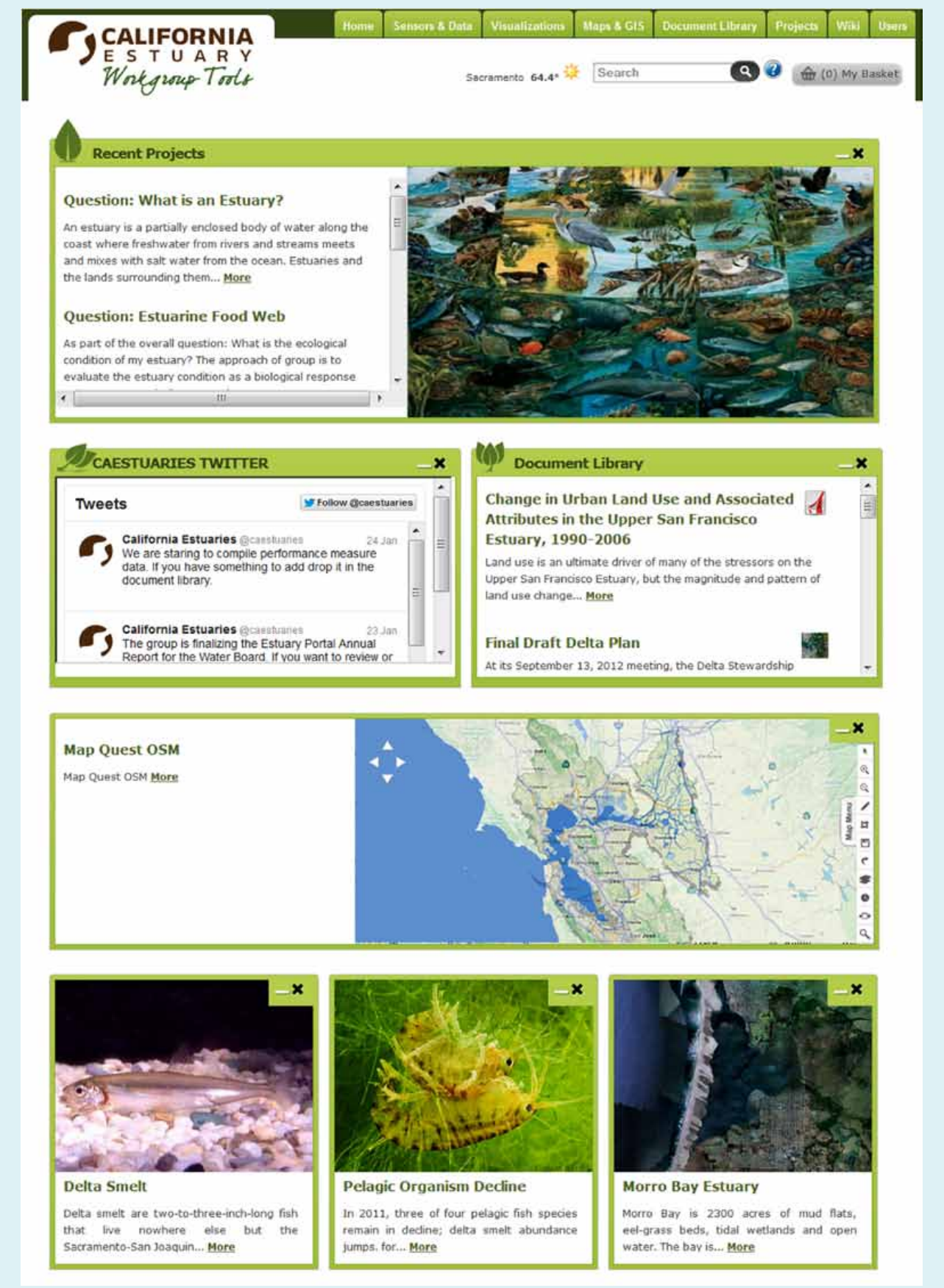
CALIFORNIA ESTUARY MONITORING WORKGROUP

CEMW IS WORKING TOWARDS THESE GOALS:

- **Evaluating and enhancing existing estuarine monitoring**
- **Improving assessment of multiple data sources through web-based tools**
- **Reporting that improves the delivery of ecosystem health information via the internet**
- **Collaboratively identifying questions and answers to be addressed on the Estuaries Portal**
- **Developing performance measures to inform resource management decisions**

COLLABORATIVE WEB-BASED TOOLS

The workgroup web-based tools help natural resource managers, scientists, policy makers, and conservationists, visualize, manage, and understand the Estuary.


CALIFORNIA ESTUARY Workgroup Tools
Home
Sensors & Data
Visualizations
Maps & GIS
Document Library
Projects
Wiki
Users
Recent Projects
CAESTUARIES TWITTER
Document Library
Map Quest OSM

Question: What is an Estuary?

An estuary is a partially enclosed body of water along the coast where freshwater from rivers and streams meets and mixes with salt water from the ocean. Estuaries and the lands surrounding them... More

Question: Estuarine Food Web

As part of the overall question: What is the ecological condition of my estuary? The approach of group is to evaluate the estuary condition as a biological response

California Estuaries @caestuaries 24 Jan
We are staring to compile performance measure data. If you have something to add drop it in the document library.

California Estuaries @caestuaries 23 Jan
The group is finalizing the Estuary Portal Annual Report for the Water Board. If you want to review or

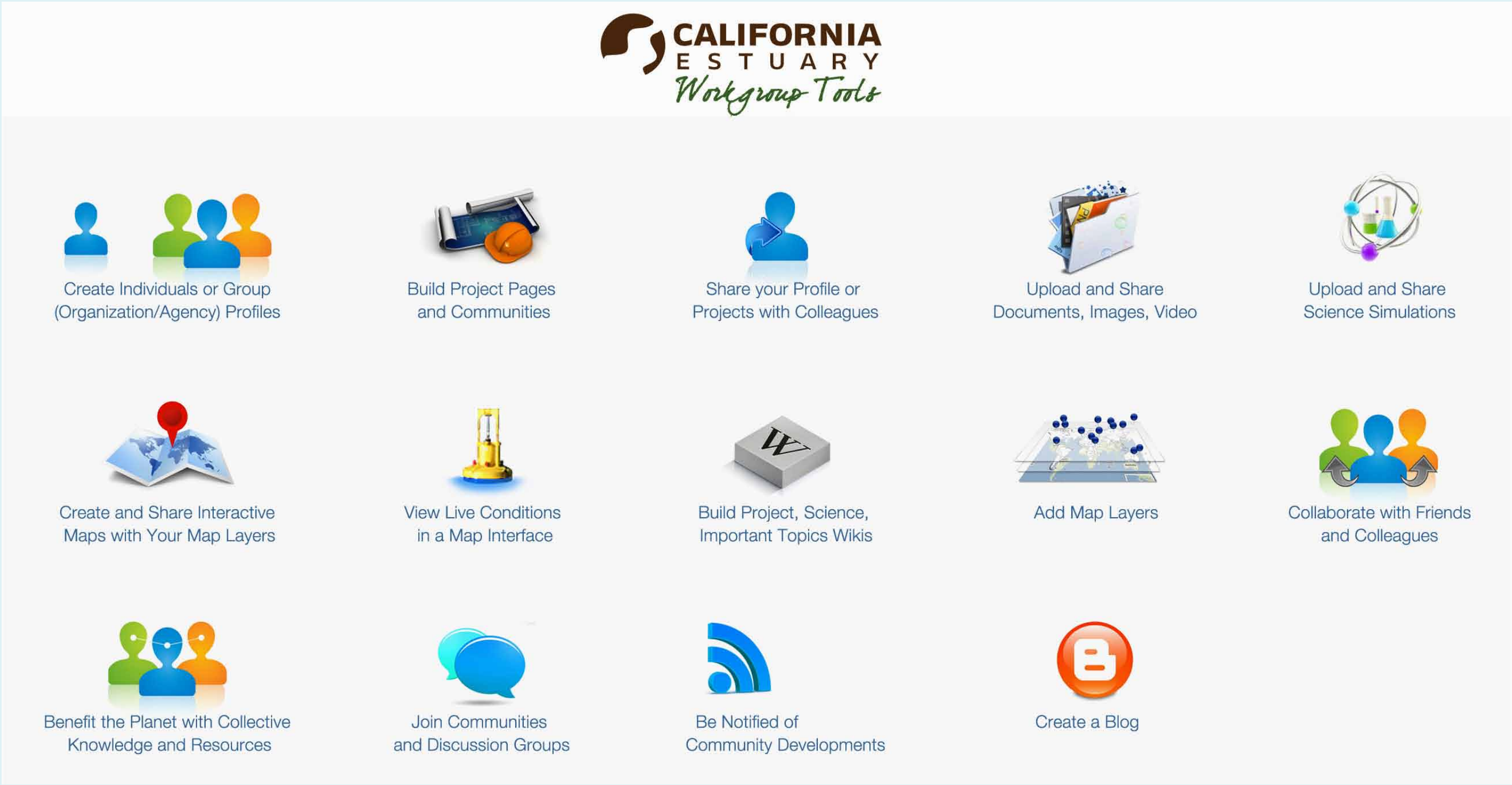
Change in Urban Land Use and Associated Attributes in the Upper San Francisco Estuary, 1990-2006

Land use is an ultimate driver of many of the stressors on the Upper San Francisco Estuary, but the magnitude and pattern of land use change... More

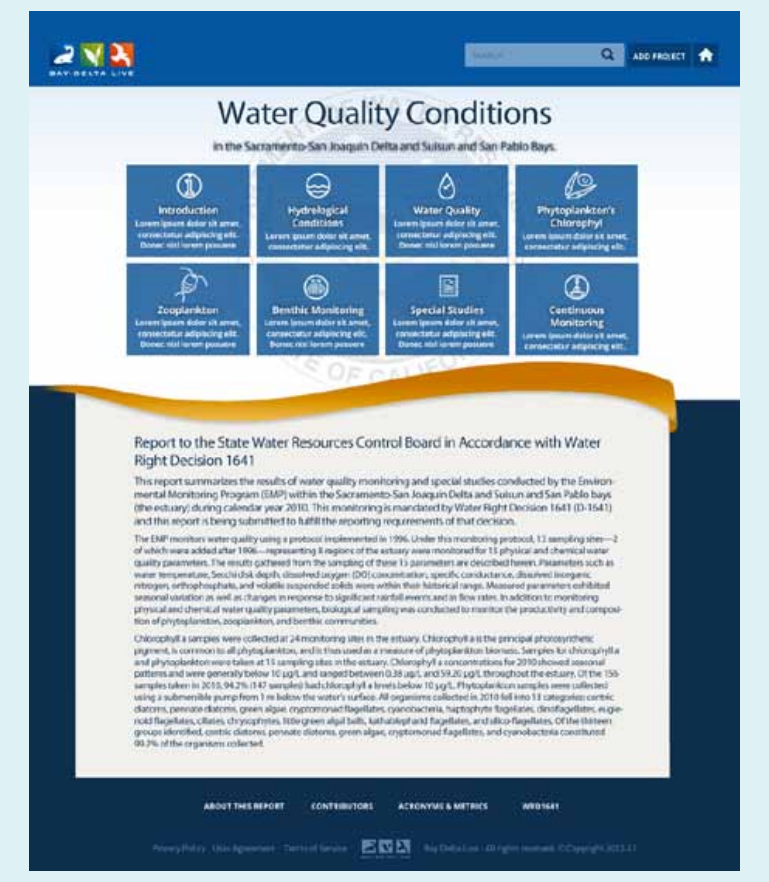
Final Draft Delta Plan

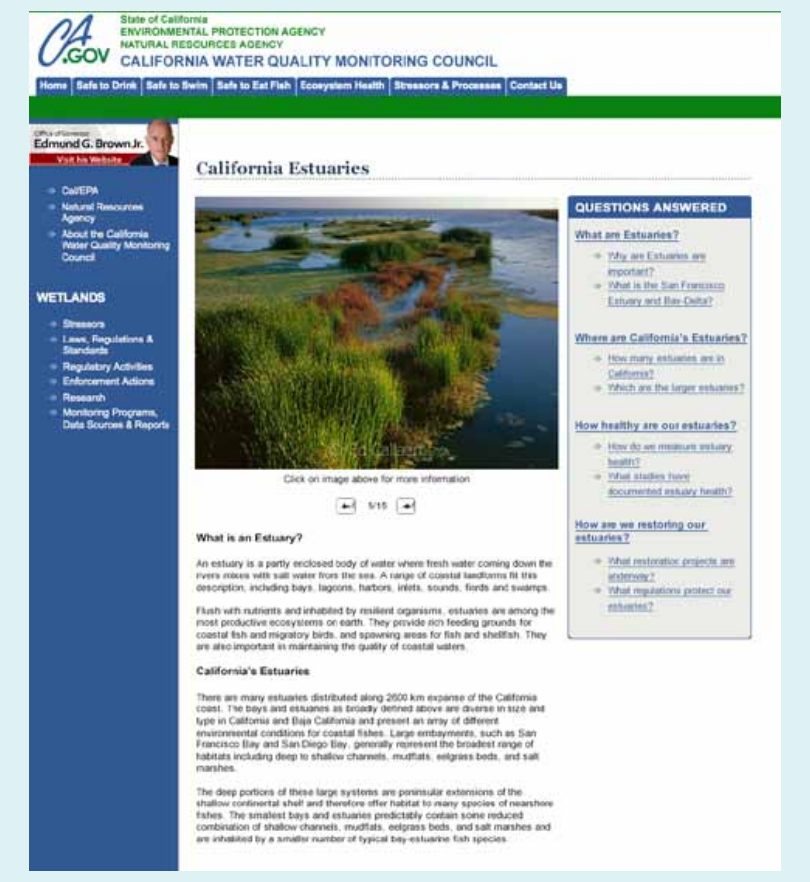
At its September 13, 2012 meeting, the Delta Stewardship

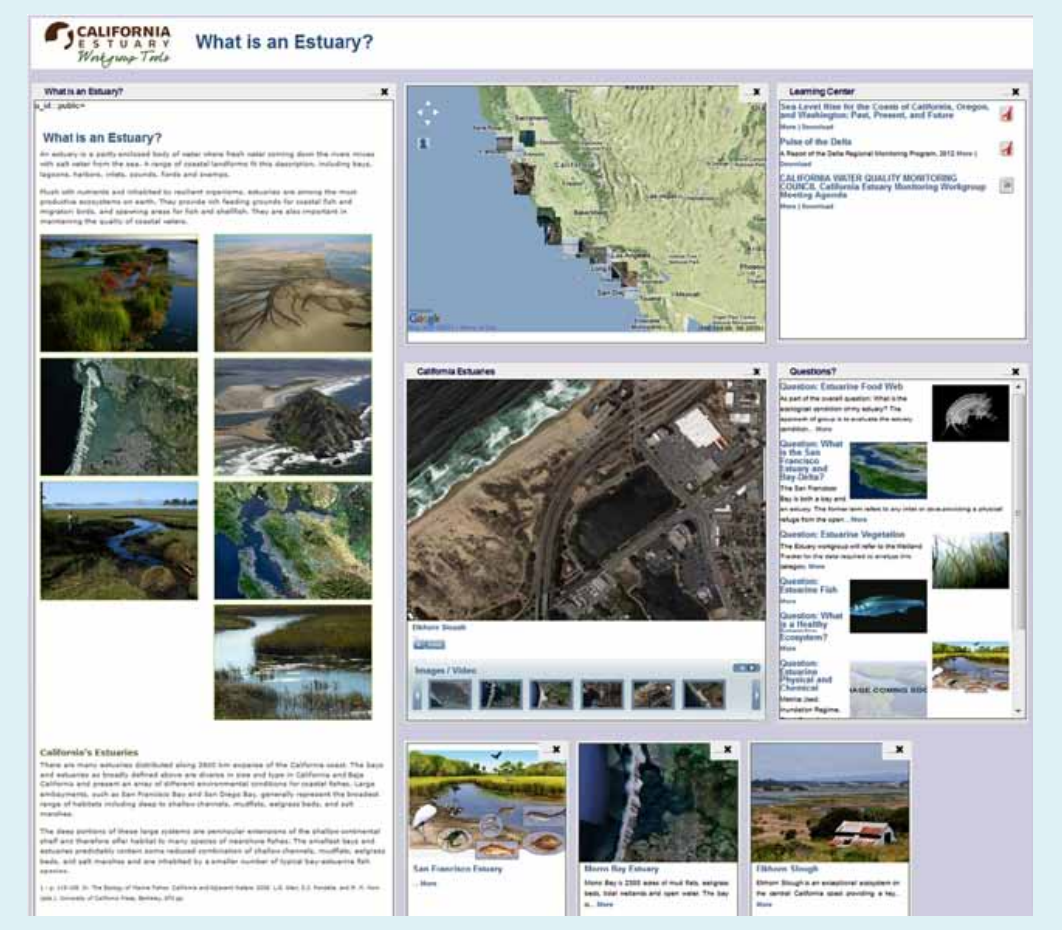
CEMW WEB-BASED TOOLS


CALIFORNIA ESTUARY Workgroup Tools

- Create Individuals or Group (Organization/Agency) Profiles
- Build Project Pages and Communities
- Share your Profile or Projects with Colleagues
- Upload and Share Documents, Images, Video
- Upload and Share Science Simulations
- Create and Share Interactive Maps with Your Map Layers
- View Live Conditions in a Map Interface
- Build Project, Science, Important Topics Wikis
- Add Map Layers
- Collaborate with Friends and Colleagues
- Benefit the Planet with Collective Knowledge and Resources
- Join Communities and Discussion Groups
- Be Notified of Community Developments
- Create a Blog


Water Quality Conditions


CALIFORNIA WATER QUALITY MONITORING COUNCIL
California Estuaries



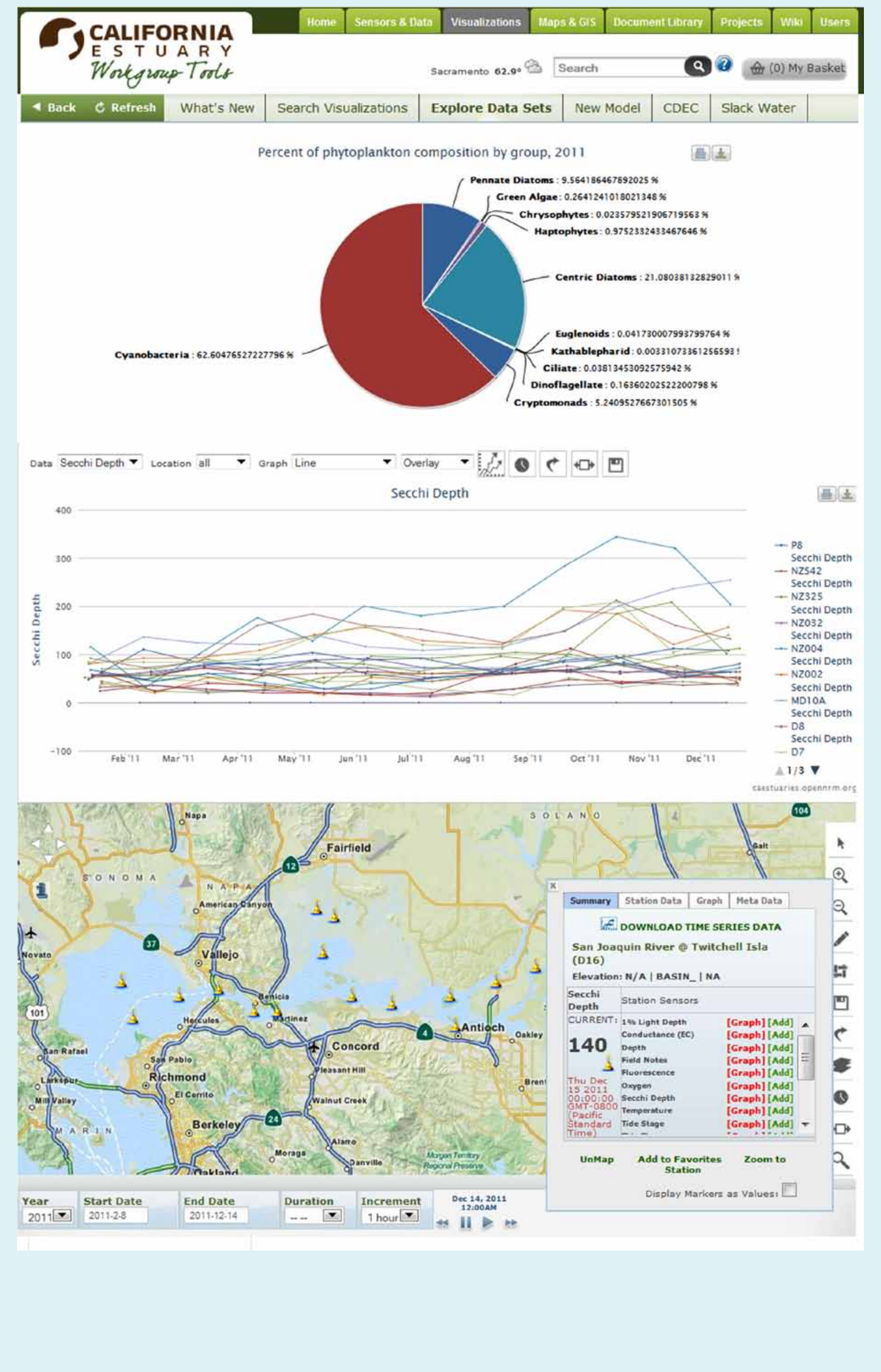
California Estuary Workgroup Answers Questions for Public

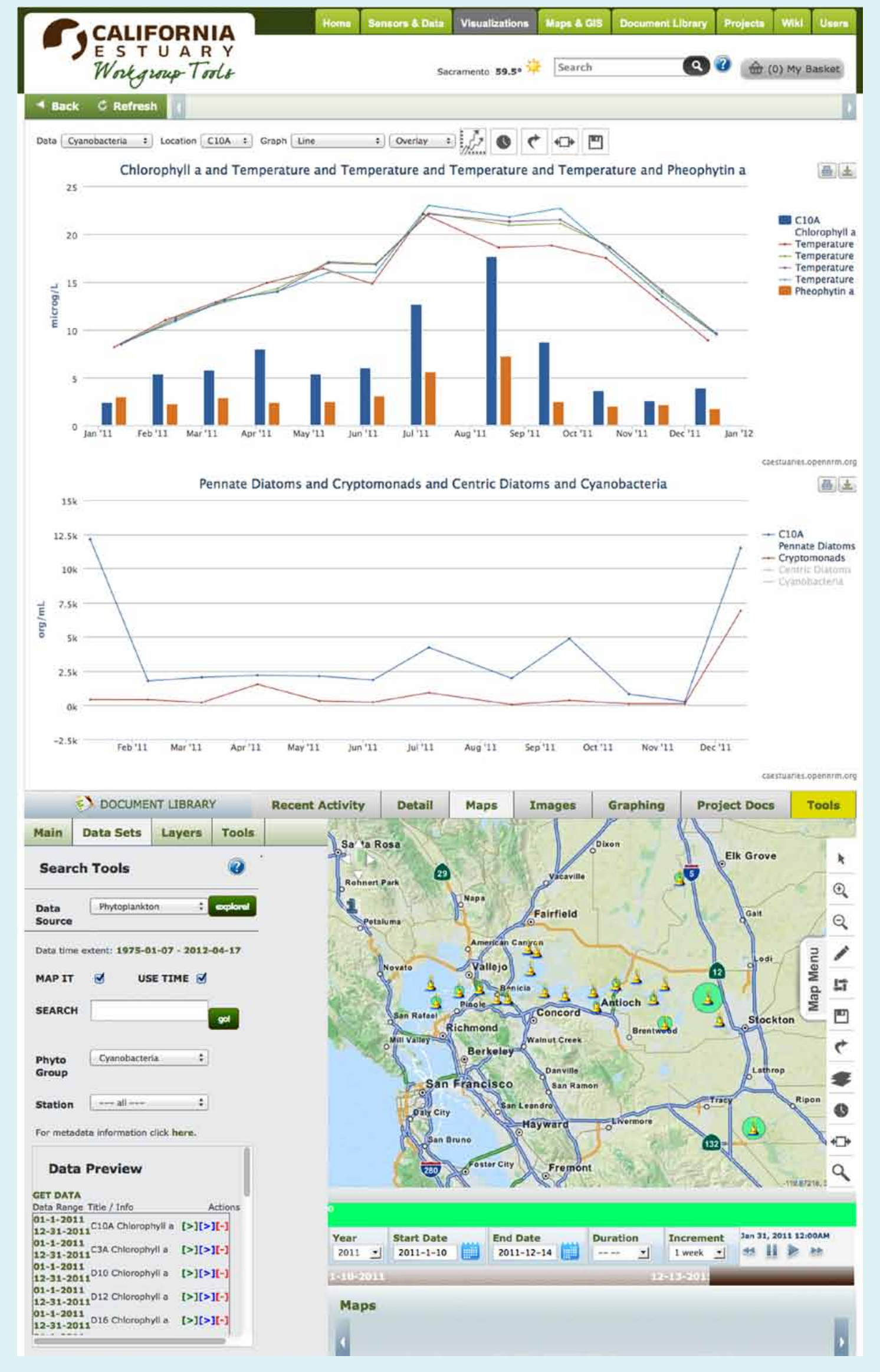
More Spread. Less Sheets.

ENHANCED ACCESS TO ENVIRONMENTAL MONITORING DATA

An initial challenge for the CEMW was to improve access to the 40 years of monitoring results from the Interagency Ecological Program Environmental Monitoring Program. Initial efforts were focused on presenting the Department of Water Resource's "Water Quality Conditions in the Sacramento-San Joaquin Delta" report. California Environmental Data Exchange Network (CEDEN) and California Data Exchange Center (CDEC) data have been added, and representation of other agency monitoring projects and reports are intended for the future.

IEP DATA VISUALIZATION AND ANALYSIS


CALIFORNIA ESTUARY Workgroup Tools
Home
Sensors & Data
Visualizations
Maps & GIS
Document Library
Projects
Wiki
Users
Percent of phytoplankton composition by group, 2011
Secchi Depth


CALIFORNIA ESTUARY Workgroup Tools
Home
Sensors & Data
Visualizations
Maps & GIS
Document Library
Projects
Wiki
Users
Chlorophyll a and Temperature and Temperature and Temperature and Phosphate a
Pennate Diatoms and Cryptomonads and Centric Diatoms and Cyanobacteria

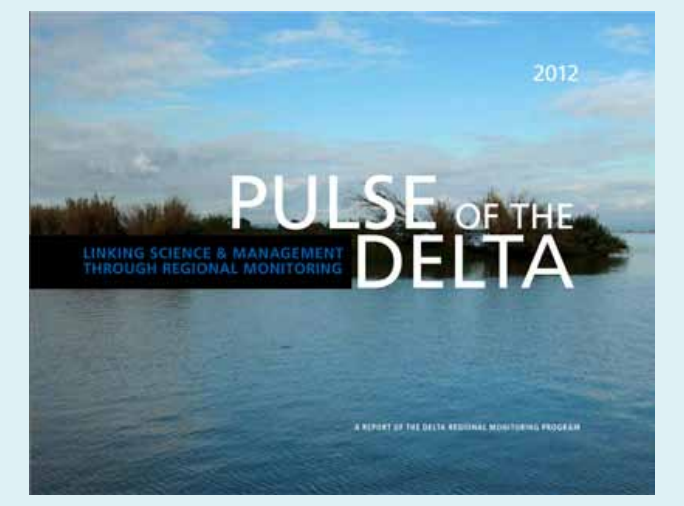
PERFORMANCE MEASURES

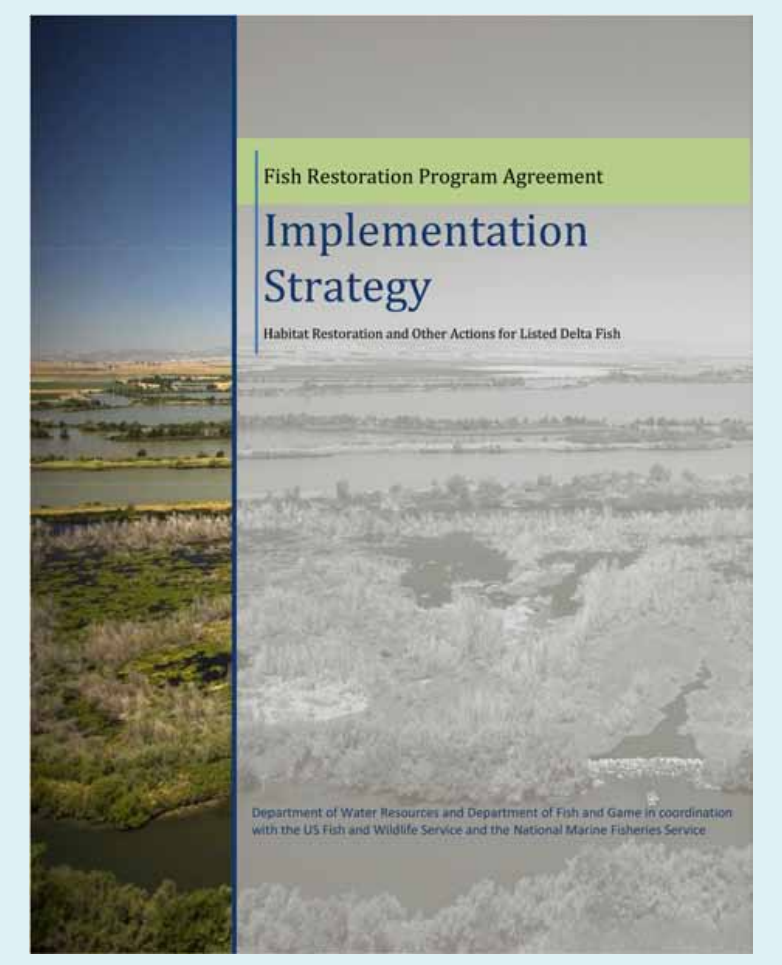
Identifying performance measures (ecosystem health indicators with target goals) is one important part of ecological monitoring in the San Francisco Estuary. These performance measures support restoration efforts in assessing and adaptively managing projects. The Estuaries Portal endeavors to include performance measures in the future as a means of evaluating progress towards restoring the health of the ecosystem. Including these performance measures will not only help managers evaluate the effectiveness of habitat restoration, but also the potential for future sites.

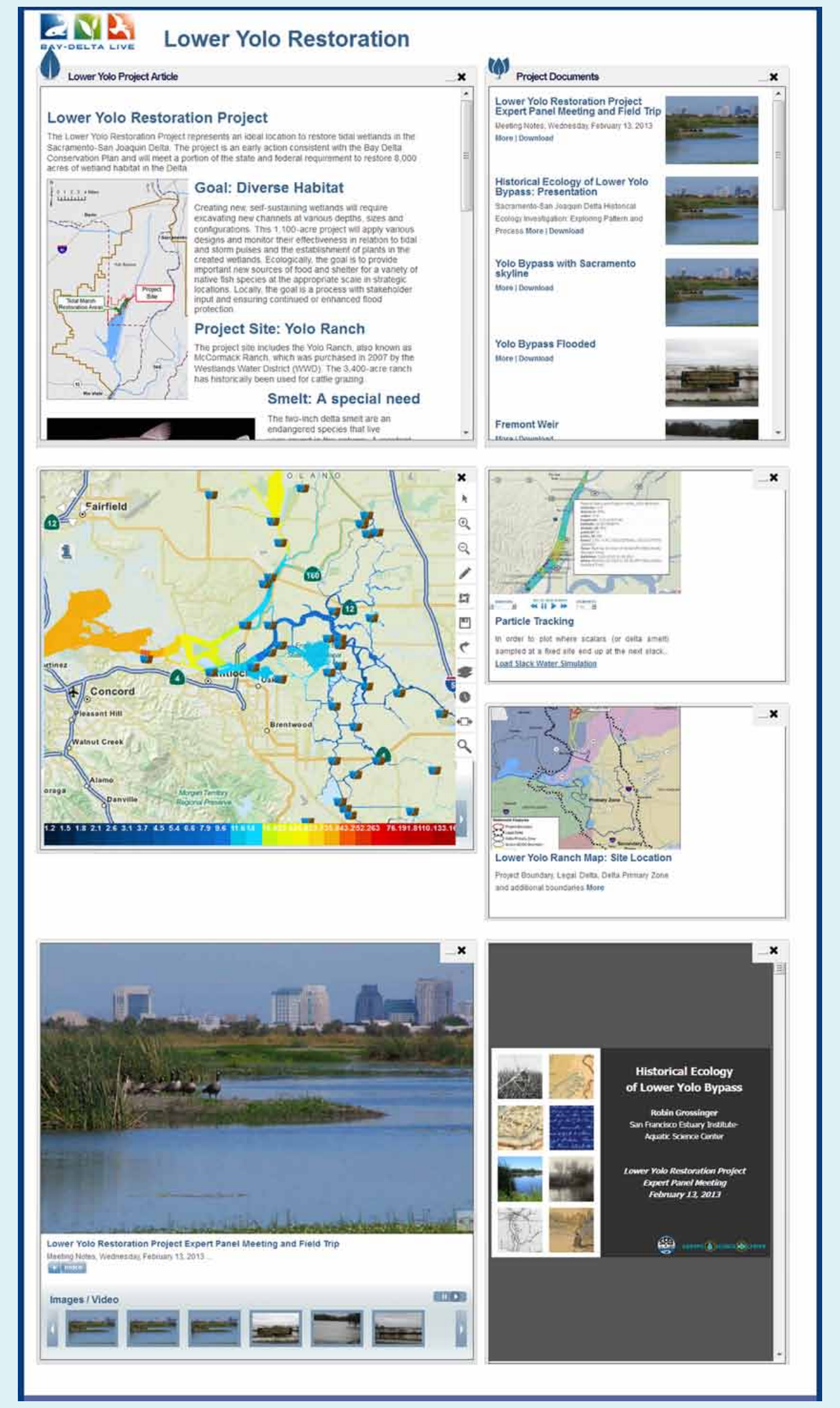
EXISTING OBJECTIVES, ECOLOGICAL INDICATOR ASSESSMENT AND PERFORMANCE MEASURES

- *San Francisco Estuary Partnership's "State of the San Francisco Bay" has "benchmarks" for water, habitat, living resources, ecological processes, and stewardship.*
- *The State Water Resource Control Board's Bay-Delta Plan has established many Water Quality Objectives, including Dissolved Oxygen and Salinity for a variety of Beneficial Uses, and are considering flow objectives.*
- *The Fish Restoration Program Agreement Implementation Strategy includes performance measures for Landscape Restoration.*
- *The Delta Regional Monitoring Program's "Pulse of the Delta"*

The State of San Francisco Bay 2011


PULSE OF THE DELTA


Fish Restoration Program Agreement
Implementation Strategy


BAY-DELTA LIVE
Lower Yolo Restoration
Lower Yolo Project Article
Project Documents
Particle Tracking
Lower Yolo Ranch Map: Site Location

Lower Yolo Restoration Project

The Lower Yolo Restoration Project represents an ideal location to restore tidal wetlands in the Sacramento-San Joaquin Delta. The project is an early action consistent with the Bay Delta Conservation Plan and will meet a portion of the state and federal requirement to restore 8,000 acres of wetland habitat in the Delta.

Goal: Diverse Habitat

Project Site: Yolo Ranch

Smelt: A special need

Lower Yolo Restoration Project Expert Panel Meeting and Field Trip

Historical Ecology of Lower Yolo Bypass: Presentation

Yolo Bypass with Sacramento skyline

Yolo Bypass Flooded

Fremont Weir

WHY GET INVOLVED?

We asked our members what they liked most about the work group and website tool. Here are some of their answers:

- *Opportunities to facilitate interdisciplinary science*
- *Enhanced opportunities for collaboration across organizations*
- *Share ideas and data in an open forum with fewer communication boundaries*
- *Venue for collegial review of monitoring and research plans, assessments, etc.*
- *Establish collaboration networks with other researchers that normally would not exist*
- *Opportunities to identify efficiencies in monitoring programs (e.g., reduce redundancies, improved coordination and comparability, cost effectiveness)*
- *Improved access to data and information generated by others to increase the power of your own research, and increase use potential beyond the original purpose (through collaboration, comparability, and making data readily available to the broader community)*
- *Access to tools that support data analysis and reporting (e.g., visualization tools on workgroup site) and ability to help develop new tools*
- *Dissemination of information generated through monitoring and research activities to a variety of audiences (in appropriate formats)*
- *Provide a place for all sides of stories to be told*

HOW TO GET INVOLVED

Contact co-facilitators
Stephanie Fong sfong@sfcwa.org
or Alison Weber Stover weberstover@bay.org.