

CEMW History of Decisions (6/18/13)

This document is to track the history of decisions made by the CA Estuaries Monitoring Workgroup (CEMW). It serves a couple of purposes. First, as members come and go, there is a need for new members to understand our current plan for implementing the portal on estuary health. Second, as members go, we lose their knowledge and memory, so it is easy to forget what we have already decided. The portal will change over time. This Decision Summary is not meant to imply that we can't not revisit a decision or change direction. But, we do not want to spend time trying to make a decision that has already gone through our formal decision making process. Every attempt will be made to update this table after every workgroup meeting.

Decisions affecting the workgroup and portal are made by several entities.

The CEMW is a workgroup of the CA Water Quality Monitoring Council (CWQMC). We try to implement the guidance provided by the Council. That guidance comes in two forms. First, they have developed written guidance that is available on the workgroup site and through the Council webpage. Second, we periodically brief the Council on our progress to get their comments and seek approval that they are comfortable with the specific approaches we are following.

The Council originally proposed that our workgroup be under the direction of the Interagency Ecological Program (IEP). IEP declined because the time commitment is too big, but members of the IEP Coordinators still play an active role in the workgroup, and the workgroup facilitators make an effort to check-in with the Coordinators quarterly to brief them and receive feedback.

Our actual workgroup makes decisions by the process outlined in our Charter and our Roles and Responsibilities agreement. In between workgroup meetings substantial activity occurs by smaller work teams (the worker bees). It is the responsibility of the worker bees to implement the decisions of the workgroup, and bring to the workgroup items or issues that require a formal decision.

Please let one of the facilitators know if anything in this document needs attention. Thank you.

When	Who	What
8/11/10	CWQMC	Monitoring Council requests briefings on San Francisco Bay Delta monitoring: <ul style="list-style-type: none"> • IEP presentation – Anke Mueller-Solgar

		<ul style="list-style-type: none"> • IEP data access presentation – Rich Breuer • DWR Environmental Monitoring Program Presentation – Karen Gehrts <p>Informal Council decision that an estuary portal with an initial focus on SFE under IEP leadership was appropriate.</p>
10/7/2010	IEP Coordinators	UMARP suggested as approach for Performance Measures
10/13/10	CWQMC	Proposal to develop a CA Estuaries Portal with initial focus on the San Francisco Bay Delta Estuary: The Monitoring Council suggested that the IEP is the likely entity to provide a leadership role for the CEMW that will coordinate the development of the Estuaries theme initially focusing on the San Francisco Bay-Delta estuary.
3/7/11	IEP Coordinators to CWQMC	IEP Coordinators Response: “The IEP acknowledges the CWQMC mandates, and IEP staff have participated in the process to date. IEP at this time does not want to assume management of the entire Estuaries Portal PWT, because of resource limitations. The IEP coordinators have suggested pursuing the SFCWA science program as a PWT coordinator, or as a contracting source. IEP staff will participate in the workgroups to help establish the metrics, the synthesis, and visualization of the results for the website.”
3/3/2011	IEP Coordinators	<p>IEP participation with the CWQMC’s Estuarine Health portal: A subset of Coordinators agree to develop a proposal that conceptually describes the way in which IEP will coordinate with the CEMW and what IEP resources are needed to accomplish this. The Coordinators need to discuss this concept and decide if it’s ready to be presented to the Directors at the March 24, 2011 meeting.</p> <p>IEP proposes to have SFCWA facilitate with TBI, the CEMW that is developing the web portal.</p> <p>Val will brief IEP coordinators and bring draft workgroup products to coordinators for review and approval, ideally before approval by CEMW.</p>
4/7/2011		The IEP-Environmental Monitoring Program proposes to work with the SWRCB to comply fully with D-1641 report “Water Quality Conditions in the Sacramento-San Joaquin Delta and Suisun and San Pablo Bays. Staff will work with the Board to determine information

		compliance through visualization of EMP data on the web portal. The current proposal includes a commitment of support from the SFCWA to provide facilitation, web and GIS portal development services through 34 North, the organization that developed the BayDeltaLive.com project for the Metropolitan Water District.
7/7/2011	IEP Coordinators	Draft Workgroup Site presented and “approved”.
2/29/12	CWQMC	<p>California Estuary Monitoring Workgroup Progress Report</p> <p>Workgroup got off the ground in 2011</p> <p>Development of workgroup charter and guidelines initiated, with approval scheduled for February meeting</p> <p>Work group operates under the umbrella of the Monitoring Council and will follow the guidelines for workgroups</p> <p>Co-facilitators represent the State and Federal Contractors Water Agency (SFCWA) and The Bay Institute (TBI)</p> <p>Workgroup meetings are bi-monthly</p> <p>Initial focus on translating the Water Rights decision D-1641 report from the Department of Water Resources into a web-based report</p> <p>Initiating discussion at next meeting on Bay monitoring</p> <p>Investigating other existing tools like EPA’s e-estuary</p> <p>Workgroup recognizes the need to produce meaningful tangible results while developing a long term vision; for example, the portal could track Delta Performance Measures once developed</p> <p>Consensus driven with multiple perspectives acknowledged; but voting members include agencies, not other stakeholders</p> <p>Any big issues will be elevated to the Monitoring Council for resolution</p> <p>SFCWA has funded estuary portal development for at least 2 years</p> <p>The Delta Regional Monitoring Program has expressed interest in using the estuary portal to display results of Delta RMP, when available; this will be a topic for the next workgroup</p>

		meeting .
4/5/2012	IEP Coordinators	<p>Portal Approach presented and “approved”</p> <ul style="list-style-type: none"> • EMP main page “ecological condition” • This page answers the principal question. <ul style="list-style-type: none"> – Ecological condition is described by the biological response patterns • Need to identify key indicators for each biological group shown in response patterns • Main principle explained <p>Show biological responses (≡“health”) → then drivers of those responses → then driver details</p> <ul style="list-style-type: none"> • Main principles setup 2 <p>Example for one bio. response (<i>longfin smelt</i>, “LFS”); each level to be shown on its own page</p> <ul style="list-style-type: none"> • Examples of “ecological condition” 2 • Guiding principle is that for each biological response variable included (i.e., each graph), a clear case must be made for its importance <ul style="list-style-type: none"> – so we do not end up with too many graphs – Our suggestions for response categories: <p>1 Birds <i>Species #1, #2, #...; native diversity, richness</i> 2 Fish <i>Species (DS, LFS, Chin FR, Chin WR...); diversity</i> 3 “Food” <i>Species #1, #2, ...; ? (biomass?)</i></p> <ul style="list-style-type: none"> – all need defining/refining • Examples of “ecological condition” • Examples of graphs for the “ecological conditions” page • The next level: drivers of “ecological condition” • Answers the question “what is behind the biological trends”; same general layout as the “ecological condition” • These are hypotheses... but: • Must be either peer-review-supported, or generally <i>accepted</i> • Examples of drivers • Each biological response variable included (i.e., each graph), will have a separate set of specific drivers

		<ul style="list-style-type: none"> – so that we can show meaningful causal links, without overwhelming the reader <ul style="list-style-type: none"> • Some examples of drivers: <ol style="list-style-type: none"> 1 Birds <i>Habitat types extent; habitat diversity; toxics? (Se)</i> 2 Fish <i>Floodplain habitat extent; outflow (specific months); SJR inflow; exports; water qual.; oxygen</i> 3 “Food” <i>Turbidity (?); Nutrients (?)</i> <ul style="list-style-type: none"> – These are examples; final list to be worked out. <ul style="list-style-type: none"> • Third level: “drivers” in detail • Only where needed and applicable • Avoid overwhelming the reader with graphs, but provide selected details • Link out to original data sources
6/16/12	CEMW	<p>DECISION: Approval of charter and set of guidelines</p> <p>Proposal: Bringing Bay to CEMW</p>
8/12	CEMW	<p>At the June CEMW meeting, Tomas Jabusch gave a presentation on the State of the Bay report and the potential for Bay area entities to work with the CEMW. Everyone was interested in exploring this issue in more detail. Rainier Hoenicke (SFEI) and Judy Kelly (SFEP) will attend our meeting to continue this discussion. There is the potential to partner with SFEP to develop a State of the Estuary Report.</p> <p>Information exchange sufficient to bring a decision-making agenda item to the October CEMW meeting regarding State of the Estuary Report.</p> <p>To ensure the workgroup members concur with the approaches being developed to deliver the D-1641 report to the portal.</p> <p>A separate group has begun discussions on using the UMARP framework to develop performance measures for ecosystem restoration</p>
12/12	CEMW	<p>At the June CEMW meeting, Tomas Jabusch gave a presentation on the State of the Bay</p>

		<p>report and the potential for Bay area entities to work with the CEMW. Everyone was interested in exploring this issue in more detail. Rainier Hoenicke (SFEI) and Judy Kelly (SFEP) will attend our meeting to continue this discussion. There is the potential to partner with SFEP to develop a State of the Estuary Report.</p> <p>Information exchange sufficient to bring a decision-making agenda item to the October CEMW meeting regarding State of the Estuary Report.</p> <p>To ensure the workgroup members concur with the approaches being developed to deliver the D-1641 report to the portal.</p> <p>A separate group has begun discussions on using the UMARP framework to develop performance measures for ecosystem restoration</p>
8/29/12	CWQMC	<p>Demonstrate Workgroup Site (Web Toolbox)</p> <p>Propose public portal initially focused on Biota and Food Web</p>
	CEMW	<p>Initial Public Portal -</p> <ul style="list-style-type: none"> ○ Integrating Existing Portals: <ul style="list-style-type: none"> ○ Existing common entry point ○ Simple link to other relevant information (Safe to swim; Safe to eat fish; Habitat: Healthy streams, Wetlands) ○ <u>State of the Estuary Report</u> Framework ○ Living Resources and Food web
	CEMW	<p>Real -Time Continuous Data Update and Discussion</p> <p>Workgroup Site: Post "raw" CDEC data Post QA procedures Post data of known and documented quality from D-1641 report and NWIS</p>

		GR tool for eliminating outliers
	CEMW	<p>Bringing the D-1641 report to life on the web</p> <p>Focus on biology status and trends</p> <p>Phytoplankton</p> <p>Zooplankton</p>
	CEMW	<p>Fish Example from State of the Bay Indicators and Indices</p> <ul style="list-style-type: none"> Fish – State of the Bay Fish Index - 10 indicators <p>How many? Abundance (4)</p> <p>Pelagic, demersal, sensitive, anchovies</p> <p>How many species? Diversity (2)</p> <p>What kind of fish? (2)</p> <p>Species Composition</p> <p>Native vs Non-native</p> <p>Where are the fish? Distribution (2)</p> <p>Native vs Non-native</p>
1/22/13	CEMW	<p>DECISION: Phytoplankton</p> <ul style="list-style-type: none"> Chlorophyll A (biomass estimate) Community composition (97%): <ul style="list-style-type: none"> Centric and Pennate diatoms Cyanobacteria Unidentified, Chrysophyte & Cryptophyte flagellates Green algae Capture “winners and losers”; not HABs Tell story of changing food web Aggregate for portal
1/22/13	CEMW	<u>NO</u> DECISION: Zooplankton (??%) -form work team

		<ul style="list-style-type: none"> ○ Mysids (5 most abundant) ○ Calenoid copepods (5 most abundant) ○ Cyclopid copepods (3 most abundant) ○ Cladocerans (3 most abundant) ○ Rotifers (3 most abundant) <ul style="list-style-type: none"> ● Capture “winners and losers” ● Tell story of changing food web ● Aggregate for portal
1/22/13	CEMW	<p>DECISION: Hydrologic Conditions-D-1641</p> <ul style="list-style-type: none"> ○ Freshwater outflow ○ Exports ○ Rain data
1/22/13	CEMW	<p>DECISION: Water Quality –D-1641 – Status and Trends/“Vital Signs”??</p> <ul style="list-style-type: none"> ○ Temperature ○ Dissolved Oxygen ○ Specific Conductance ○ Secchi Depth, turbidity ○ Nutrients
1/22/13	CEMW	<p>DECISION: Water Quality – Delta Pulse PM</p> <p>Nutrients</p> <p>Current Use Pesticides; pyrethroids</p> <p>Salinity</p> <p>Selenium (from SJR)</p> <p>Dissolved Oxygen (in lower SJR)</p> <p>Fish –Abundance Indices</p> <p>POD: Delta Smelt, Longfin Smelt, Stripped Bass (YOY), Threadfin Shad</p> <p>Centrachids</p> <p>Salmon</p>
	CEMW	<p>NO DECISION: SPATIAL DATA AGGREGATION METHODS - Identify needed presets for aggregating data spatially.</p>

		<ul style="list-style-type: none"> ○ Entrapment Zone in D-1641 is outdated ○ Low Salinity Zone ○ ROA's ○ Station Clumping ○ Historical Regions ○ ERP Map ○ Tidal Stage ○ Regional Approach: San Pablo Bay, Napa River, Suisun Marsh, Lower Sac River, Cache Slough, Sacramento Ship Channel, Upper Sacramento River, near Franks Tract, East Central Delta, East Southeast Delta, Southeast Delta, Middle River, Old River, Lower San Joaquin River, Chipps Island, Suisun Bay, Carquinez Strait <p>Investigate option of selection of sites by drawing a polygon</p>
	CEMW	<p>2013 CEMW Meetings– 3rd Tuesdays</p> <p>January 22nd (4th Tuesday)</p> <p>March 19th</p> <p>May 21st – approve portal screen shots for 5/29 Council mtg</p> <p>July 16th or August 20th – approve draft portal for 8/28 Council mtg</p> <p>September 17th – approve initial portal</p> <p>November 18th</p>
3/7/13	CWQMC	<p>2012 ANNUAL REPORT</p> <p>CEMW Accomplishments in 2012</p> <ul style="list-style-type: none"> • Launched the California Estuary Workgroup Website as a venue for Bay-Delta scientists to work together using data generated through existing monitoring and research programs, to develop a better understanding of the Bay-Delta Estuary, and to provide a platform to create and vet content for display on the Portal. Future plans include expanding the tools provided by this website to encompass other estuaries of the state. ○ The website includes project management tools and summaries, document management capabilities, data sets generated through the Interagency Ecological Program and other relevant programs, live conditions from real-time data sources, mapping and GIS layers, data visualization tools, and knowledge Wikis.

		<ul style="list-style-type: none"> • Converted the Department of Water Resources annual publication, “Water Quality Condition in the Sacramento-San Joaquin Delta and Suisun and San Pablo Bays,” into digital formats that will allow for more effective and efficient transfer of information to interested parties through the Portal and support assessments relevant to the Portal. These data have been collected since 1970 to fulfill the reporting requirements of monitoring required by the State Water Board’s Water Right Decision-1641 and its predecessors. • Increased collaboration among interested parties. <p>Plans for 2013 :</p> <ul style="list-style-type: none"> • Develop a metadata plan for the first release of the Portal • Mock-up the California Estuaries Portal <ul style="list-style-type: none"> ○ Further develop a storyboard for answering the question, “How healthy is my estuary?” for general public consumption. The storyboard will be drawing on previous indicator work, and will be vetted through peer review. • Present the mock-up of the Portal to the Monitoring Council for approval • Release the Portal to the public • Develop a metadata plan for longer-term Portal development • Continue to improve and update the CEMW website with new and pertinent information ○ Continue to improve and develop tools through that support data analysis and reporting <ul style="list-style-type: none"> ○ Continue to collaborate with interested parties in developing the CEMW website to benefit users’ management and reporting needs • Continue to improve and update the Portal <ul style="list-style-type: none"> ○ Develop a lines of evidence approach for controversial topics • Identify and track performance measures for the estuary <ul style="list-style-type: none"> ○ Performance measures of landscape-scale habitat restoration will start with indicators of interest to the Fish Restoration Program Agreement (FRPA; http://www.water.ca.gov/environmentalservices/frpa.cfm) and water quality, starting with indicators incorporated in the Delta Regional Monitoring Program’s “Pulse of the Delta.” ○ Performance measures will also evaluate indicators of general estuarine health that are not tied to particular restoration projects
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		<ul style="list-style-type: none"> ○ Performance measures will adapt previous work from the Unified Monitoring Assessment and Reporting Program and the Logic Chain. The Logic Chain links ecosystem goals to objectives that are Specific, Measurable, Achievable, Relevant (to larger ecosystem), and Time-Bound (S.M.A.R.T.). SMART objectives enable management to chart a course towards restoration while adapting to a changing knowledge base. • Seek and develop opportunities for enhanced integration with other workgroups and Portals (e.g., California Wetlands Monitoring Workgroup, Healthy Streams Partnership).
3/19/13	CEMW	<p>DISCUSS: WIKI terms and definitions; Approval decision delayed</p> <p>DECISION: Framework for Portal Questions: Approval of SOTB Framework as a guide and process. Key attributes of estuary: water, habitat, living resources, ecological processes and stewardship. Initial focus on food web</p>
5/17/13	DWR EMP	Approve Water Quality Conditions Report chapters 1 – 4, 8 ; sign-off on posting on BDL
5/21/13	CEMW	<p>DISCUSS: Reconfirmation of earlier decisions; propose formal decision in June</p> <p>DECISION: Draft portal screenshots to present to CWQMC</p> <p>DECISION: Confirm schedule to launch public portal</p> <p>View: Water Quality Conditions Report Chapters 1 – 4, 8</p> <p>DISCUSS: Process (review, training and launch) and timeline for Water Quality Conditions Report</p>
5/22/13	SWRCB	Present Water Quality Conditions Report Chapters 1 – 4, 8
5/29/13	CWQMC	Present proposed portal draft screenshots; seek approval
6/__/13	IEP	<p>DECISION: Action on Water Quality Conditions Report</p> <p>REVIEW: SOTB Framework as Long Term Vision for Portal</p> <p>REVIEW: Living Resources as Initial Portal focus</p> <p>REVIEW: Schedule</p>
6/__/13	CEMW	DECISION: Reconfirm Living Resources as Initial Portal focus