

Summary of Wetland Monitoring Group (WMG) Meeting held December 9, 2008 at the San Francisco Bay Region Water Board, 1515 Clay Street, Oakland, CA. 94612

To: Interested Parties

From: Andree Breau Greenberg, San Francisco Bay Water Board

Date: December 17, 2008/ Revised January 7, 2009

Meeting Attendees: Bob Batha (BCDC); Tim Stevens (CA DFG); John Bourgeois & Howard Shellhammer (H.T. Harvey); Peggy Olofson (Invasive Spartina Project); Phil Lebednik (LFR); Letitia Grenier, Mike May, Meredith Williams (SFEI); Rich Freitas, Louisa Valiela (U.S. EPA); Margarete Beth, Naomi Feger, Andree Greenberg, Bill Johnson, Richard Looker (Water Board).

A summary of the 12/9/08 meeting follows. These notes do not reflect Water Board policy or decisions, but merely describe projects discussed at the WMG meeting:

1. Endangered Species in South Bay

Howard Shellhammer and John Bourgeois (H.T. Harvey) presented results of the 2006 trapping for the City of San Jose which was a condition, along with previous surveys in 1989 and 1990, of the City's NPDES permit. The presentation covered new data on the use of south bay tidal marshes by the endangered salt marsh harvest mouse and the California clapper rail. Highlights of the 2006 study include:

For the Salt Marsh Harvest Mouse (SMHM)

- a) The number of SMHM trapped in this phase of the 2006 study was not significantly different from the number trapped in these marshes in 1990.
- b) During the second phase of the 2006 study, the purpose was to determine whether SMHM preferentially utilize the higher portions of brackish alkali bulrush habitat during high tide events. This was the first time this method of trapping has been employed in the southern San Francisco Bay. The number of SMHM captured at Triangle Marsh were not significantly different between the first and second phases, but the number captured in the second phase at Warm Springs Marsh was marginally significantly greater ($p=0.056$) than the number captured in Phase One. These data indicate that SMHM utilize brackish alkali bulrush habitat to a greater extent than previously thought, and in particular appear to preferentially utilize such habitat above the thatch layer during high tides. This reveals a previously unknown aspect of SMHM habitat use in the southern San Francisco Bay.

For the California Clapper Rail (CCR):

- a) The most notable differences in relative CCR abundance among years were that CCR were detected on Transects 7 (Warm Springs Marsh) and 8 (South Coyote Slough Marsh) in 1990, but not in 1989 or 2006, and that CCR were not detected in 2006 on Transect 6 (Triangle Marsh), where they were detected in fairly high numbers in 1989 and 1990. The relatively high number of CCR detected on Transect 5 in 2006, compared with 1989

and 1990, is also notable. Other points of interest included: the increase of gulls in the south bay may adversely affect the CCR; three surveys in 17 years does not provide enough data to understand the location preferences or population dynamics of endangered species; and the City of San Jose reports are available on its website. The presentation is available at: <ftp://harveyftp.harvey3150@71.6.65.28/RWQCB> .
Contact: John Bourgeois or Howard Shellhammer at jbourgeois@harveyecology.com.

2. Prop 50: Bay Area Model for Wetland Assessment. Letitia Grenier of SFEI presented a plan for a statewide wetlands monitoring and assessment program which is being developed for California and which uses some of the tools being developed with grant funds for the Bay Area Model for Wetland Assessment. A variety of agencies, led by USEPA and the State Water Board, are partnering on several coordinated committees to guide and oversee this process. SFEI is involved as the lead organization coordinating the Technical Advisory Team that will develop the technical plan for the program.

The draft framework of the technical plan has six key areas:

1. Program strategy, objectives, & design
2. Consistency of indicators, methods, & QA
3. Data management infrastructure & procedures
4. Assessment methods & endpoints
5. Reporting capability
6. Sustainability

The State-Federal Wetland Monitoring Workgroup is very active and supports the development of regional programs that use the SWAMP Data Centers, and the Bay Area is recognized as having developed many of the parts of a solid program. Starting in 2009, SFEI will be working on a program plan as part of the regional Prop 50 pilot project and as a demonstration of the state wetland monitoring plan. The WMG can provide useful review and comments on both the regional and state monitoring plans.

As part of the statewide effort, SFEI is assisting with a statewide definition, classification, and delineation for wetlands and, when that is completed, it will provide the same features for riparian systems. The draft wetland definition which will seek to protect State wetlands and waters will be ready for distribution in 2009, and will be distributed to the WMG. Other issues discussed by the WMG included quality assurance and data management; data quality of maps which will be determined through peer reviewed with SCCWRP (SFEI's sister organization in Southern California); funding needs of the Wetland Tracker; the importance of determining which questions to ask, beneficial uses to identify, and methodologies to collect and analyze data. The presentation can be retrieved at: <ftp://ftp.sfei.org/pub/outgoing/ForAndree/>
Greater detail about the plan is available from the WRMP website:
<http://www.wrmp.org/protocols.html>
Contact: Letitia at Letitia@sfei.org.

3. Proposed budget for 2009. Andree Greenberg reported that \$8,000 is expected in 2009 from the San Francisco Estuary Project to support WMG activities. Of that, a large portion could fund a student intern to assist with the Wetland Tracker for the Water Board; and \$2,000 should go to SFEI to maintain the WMG website and continue Wetland Tracker assistance. Other activities may include funding Monitoring Review Teams to review Montezuma, Sears Point, or Bair Island. Suggested WMG activities for 2009 that are not expected to need WMG funds include a Citizen Outreach Wetland Monitoring Workshop proposed by Arthur Feinstein and a Mercury Biosentinel Subcommittee (see below). Please send any suggestions for potential wetland monitoring projects that would benefit from review.
Contact: Andree at agreenberg@waterboards.ca.gov.

4. Wetland Mercury Biosentinel Subcommittee. A wetland mercury biosentinel subcommittee was proposed to provide monitoring guidance on data, analysis, and reporting in 2009. The idea for a subcommittee came from a Mercury Biosentinel Workshop held on 11/14/08 to share information among scientists, managers, and regulators about recent advances in developing mercury biosentinels (e.g., birds, brine flies, fish, etc.), and to draft guiding principles on the appropriate application of biosentinels to different types of monitoring questions. SFEI is writing up the results of the workshop which will be distributed when finalized. The workshop was useful but was only a first step. People interested in following up included most who attended the 11/14/08 workshop, who will be invited if a meeting is scheduled in 2009, in addition to some of the attendees at the 12/9/08 WMG meeting (Richard Looker, Tim Stevens, Phil Lebednik, Richard Freitas, Letitia Grenier, and Andree Greenberg; Bob Batha would like to be notified of meetings, meeting summaries, etc.)

If a WMG mercury biosentinel subcommittee is convened, it could draft a conceptual framework for San Francisco Bay habitats showing which species are most impacted by mercury in the foodweb, and develop the most important principles, questions, beneficial uses, management needs, and data gaps to address for a regional mercury monitoring program. The Water Board's TMDL strategy to reduce mercury in the San Francisco Bay should be followed by wetland restoration projects, some of which cover thousands of acres. Letitia Grenier will take the lead on the Mercury Biosentinel Subcommittee by sending out the completed notes from the 11/14 workshop and distributing her analyzed data on mercury biosentinels collected for the South Bay Salt Pond Restoration Project to those interested in being on the mercury biosentinel subcommittee. If feasible, the subcommittee will begin meeting in 2009 to begin addressing a regional approach to monitoring biosentinels for mercury.

Contact: Letitia at Letitia@sfei.org or Andree at AGreenberg@waterboards.ca.gov.

5. Wetland Regional Monitoring Program. Meredith Williams presented maps showing the line and polygon work depicting San Francisco Bay Region wetlands and streams developed by SFEI under its Prop 50 grant *Bay Area Model for Wetland Assessments in a Watershed Context*. The linear and polygon wetland mapping for the Napa and the Sonoma watersheds has been completed. Riparian mapping for these

watersheds is in progress. SFEI will seek local input to review and correct the maps. The Wetlands Monitoring Group could assist with this. The links to the protocols follow. They are both under: <http://www.wrmp.org/protocols.html> . The mapping progress map can be found at: http://www.wrmp.org/docs/Level1_mapping_progress.pdf . Contact: Meredith at Meredith@sfei.org.

6. Wetland Tracker. Mike May provided an update on SFEI's Wetland Tracker which is now on version 2.0 and has over 250 projects entered, some revised project data, and some California Rapid Assessment Method (CRAM) assessment data. The Water Board has required the Wetland Tracker form from over 60 wetland certification projects and provided some preliminary analysis of those projects. About half of the 63 maps submitted had inaccuracies and should be sent back to the applicants for corrections. More recent project applicants will use the updated form which should make mapping easier by providing a direct link to Google's "My Maps". SFEI plans to expand the Wetland Tracker and make it more automated over the coming year to serve as a wetland portal for statewide wetland monitoring. EPA has awarded SFEI funding to bring the 401 State Board wetland permit application form on-line and to tie it to the Wetland Tracker. The San Francisco Bay Water Board will continue to work with SFEI to assure that project information is properly entered on the Wetland Tracker. Contact: Mike at Mikem@sfei.org.

7. Invasive Spartina Project (ISP). Peggy Olofson reported that efforts to eradicate the highly invasive cordgrass in San Francisco Bay tidal wetland areas continue to be successful. The US FWS allowed earlier treatment in 2008 which was effective in removing unwanted populations. Phasing out the herbicide treatment has begun in some areas. The California Coastal Conservancy has issued 12 grants for controlling invasive spartina. The West Coast Governors Agreement for Ocean Health has added the control of invasive spartina to its list of important tasks to accomplish before 2018. Monitoring of invasive spartina includes important data on clapper rails and other SF Bay tidal marsh species.

Unfortunately the hybrid is moving up some creek channels into freshwater areas approaching endangered red-legged frog and tiger salamander habitats. The hybrid spartina is abundant near the Knapp Tract (Pond A6) of the South Bay Salt Pond Project so it needs to be controlled before the tidal marsh is restored. White Slough in the North Bay off Highway 37 also has hybrids. Cryptic hybrids are hard to identify and treat. Different hybrids continue to sprout in unexpected areas and are being treated when possible. Discovering red-stemmed native *Spartina foliosa* has also complicated matters since it was previously thought that red stems were only present in invasive spartina. The ISP uses an ARC GIS system to monitor CCRs and coordinates with USGS to capture and track birds. So far, there is no correlation between the CCR populations and the eradication efforts. In some treated areas, CCR populations have increased, and where CCR populations have declined there are often other confounding stressors including sewage, oil tankers, drought, and avian cholera.

Contact: Peggy at prolofson2@earthlink.net,

8. Subtidal Goals Project. Marilyn Latta was not able to attend the meeting but requested that the following project update be provided:

Subtidal Habitat Goals Project Updates:

- Hired new project manager Marilyn Latta, who is now working with Administrative Core Group (staff from Coastal Conservancy/Ocean Protection Council; BCDC; NOAA; SF Estuary Project)
- Hired new science advisor Wim Kimmerer: San Francisco State University PhD in Oceanography, with a focus on plankton dynamics and estuarine modeling in SF Bay
- We are working with consultants to assist with restoration goal planning:
 - assess current distributions and ecology of native oysters (Chela Zabin, Ted Grosholz, UC Davis) and native eelgrass (Kathy Boyer, SFSU) in San Francisco Bay.
 - they will begin to draft restoration targets, methods, and research needs for native oyster and native eelgrass habitat in the bay
 - work with focus groups to get feedback from regional and national experts in oyster and eelgrass restoration
- SFEI is conducting a Creosote Piling Assessment in SF Bay- to determine the impacts, benefits, cultural significance, and cost analysis of potential removal or encapsulation of creosote pilings. They are also assessing other artificial structures in the bay to help determine the feasibility of reducing artificial structures.
- We have been resetting schedule, refining materials and planning process, and adding committee members.
- New Winter 2008 Newsletter, Project Website with updates, and 09 Committee Meeting Schedule will be online December 08
- Committee meetings will start up again January- June 2009
- Draft Subtidal Goals Document will be available for public comment Summer 2009
- **Final Goals Document will be completed December 2009**

Contact: Marilyn Latta at mlatta@scc.ca.gov.

9. San Francisco Bay Salt Pond Restoration

North Bay: Ponds 9 & 10 were breached on 10/13/08 at the Napa Plant Site by the Department of Fish & Game.

Contact: Tim Stevens at tstevens@dfg.ca.gov.

South Bay: The South Bay Salt Pond Restoration Project received a permit from the Water Board in August 2008 followed by BCDC. The NMFS Biological Opinion is expected soon, after which the Corps permit is expected. Construction should start on SF2 in Ravenswood after the Corps permit is issued. The Project Management Team received 22 proposals in response to the RFP for Selected Monitoring and Applied Studies. They are undergoing administrative review now and will be sent out to external reviewers in early January. We hope to have funding decisions by May.

Contact: Steve Ritchie at sritchie@scc.ca.gov.

Next meeting: Tuesday, May 5, 2009, 1:30 – 4 p.m. at the San Francisco Bay Water Board, 1515 Clay Street, Room 1400, Oakland, CA 94612.

Please send comments or suggested agenda items to Andree Breaux Greenberg at agreenberg@waterboards.ca.gov or 510-622-2324.