

Progress Report
California Wetland Monitoring Workgroup
November 15, 2010

Mission of the CWMW (per the Charter)

To improve the monitoring and assessment of wetland and riparian resources by developing a comprehensive wetland monitoring plan for California and increasing coordination and cooperation among local, state, and federal agencies, tribes, and non-governmental organizations.

Overall Assessment of Success of the CWMW

The CWMW has emerged as the central coordinating entity for wetland monitoring, assessment, and information management in California. The CWMW has met bi-monthly since its 2008 inception and enjoys broad participation from approximately 20 State and Federal agencies with responsibility for wetland protection or management (*Attachment 1*). The CWMW continues to provide a forum for developing consistent approaches to wetland monitoring and assessment, pursue data sharing strategies, and to develop shared priorities for future program elements (research and implementation). Substantial challenges over the next year include finding a replacement for founding co-chair Craig Wilson, who retired from CDFG this year, encouraging participation by additional agencies and programs, outreach and education and developing resources to continue to support program implementations, such as training, facilitation, and data management.

Our Approach is to Implement a Coordinated Statewide Monitoring and Assessment Program

To achieve its primary goal of coordinated wetland monitoring, assessment, and reporting, the CWMW is developing the Wetland and Riparian Area Monitoring Program (WRAMP) to serve all State agencies and support the State Water Board's new Wetland and Riparian Area Protection Policy. The goal of the WRAMP is to produce regular reports on trends in wetland, riparian and surface water extent and condition and to relate these trends to management actions, climate change, and other natural and anthropogenic factors in ways that inform future decisions.

The CWMW has decided to focus the WRAMP on answering two basic questions: (1) where are the wetlands (and other aquatic resources), and (2) how are they doing (what is the status of projects relative to ambient condition in the watershed context). These questions are relevant to all State and Federal water quality policies and programs.

Over its first year of existence, the CWMW has had substantial accomplishments:

- Serves as the forum for statewide coordination of wetland and riparian monitoring and assessment;
- Serves as the primary inter-agency clearinghouse for technical memoranda produced by the Technical Advisory Team (TAT) for the Wetland and Riparian Area Protection Policy (WRAPP);
- Produced an interagency technical bulletin on implementation of the California Rapid Assessment Method (CRAM) for projects;
- Established a committee of the CWMW to coordinate further development and implementation of CRAM and other rapid assessment methods;
- Completed statewide ambient assessments for riverine wetlands (in coordination with the SWAMP program) and estuarine wetlands using CRAM;
- Completed multiple watershed assessments using CRAM and the draft standardized mapping protocols;
- Created and launched the first iteration of the California Wetland Web Portal.

Key activities toward implementation of the WRAMP are occurring in the following areas:

Level 1 (Mapping) is the Foundation of the Program

Standard methods to map wetlands, streams, other aquatic areas, and the associated riparian areas have been drafted and favorably reviewed by The National Wetland Inventory (NWI) of the USFWS, the National Hydrological Dataset (NHD) of the USGS, and the California Riparian Habitat Joint Venture. The methods are currently being piloted by SFEI in the Bay Area, by SCCWRP along the Southern California coast, and by the Lahontan Regional Board and other regional interests in the Tahoe Basin. SCCWRP is also working with NOAA to develop and pilot standard methods for mapping eelgrass in marine and estuarine environments. Further vetting of the mapping methods with DFG, DWR, and other State interests is scheduled for the next six months. DFG has agreed in concept and principle to take ownership over the Level 1 mapping protocols, including helping to finalize them, advising their implementation, and housing the output maps.

The success of the mapping tools depends on representation of DFG programs, notably LSA, THP, VegCamp, and Stream Bioassessment that significantly influence the conditions of wetlands and riparian areas or their assessment. The needed participation is beginning to happen as a result of the Council's "WRAMP Endorsement Letter," and the need for further encouragement by the Council is not anticipated at this time.

Level 2 (Rapid Assessment of Overall Condition and Stressors of Aquatic Areas) is the Key to Coordination

The CWMW has established a Statewide Level 2 Committee to guide the training, use, and further development of the California Rapid Assessment Method (CRAM). Since 2008 CRAM has been included in the State Water Board's Perennial Stream Assessment (PSA). The State Water Board is finishing the final steps of the peer review of CRAM that is necessary for implementing CRAM through additional programs of the State and Regional Water Boards. The Level 2 Committee maintains a list of action items. Highlights from the current list reflect the fact that the Level 2 Committee is the only existing technical committee of the CWMW and therefore does some of the technical work of the CWMW, above and beyond its primary Level 2 concerns.

- Since 2008, approximately 25 CRAM trainings have been offered, with over 400 individuals having been trained. The trainings have been distributed between Central Coast, North Coast, and South Coast and have included a mix of 1-day agency and 3 –day practitioner trainings. The CRAM team has also run training courses in Texas, Oklahoma, Montana, and New Mexico. We anticipate between 6 and 10 three-day practitioner training courses being offered in 2011. We have submitted a proposal for an additional 6 two-day agency courses to be offered through the Water Board Training Academy. In May 2009, an on-line CRAM interest form was posted on cramwetlands.org to help track interest in future CRAM training courses.
- A total of 1,635 CRAM assessments have been uploaded into the CRAM database; 43% of the assessments were added in 2009-2010.
- Recruit experts for montane wet meadow systems. This was accomplished in part by recruiting a senior scientist from the Tahoe National Forest.
- Develop a workplan for developing an arid/episodic stream module of CRAM. The workplan has been drafted to guide state-planned project mitigation funds to CRAM development (see Implementation Opportunities below).
- Prepare "Five Year Wetland Work Plan and Implementation Strategy" for CWMW review and approval. The workplan will be consistent with USEPA's request that states develop strategic plans for wetland and riparian protection and restoration. These plans will be used to help form future funding decisions under USEPA grant programs.
- Compile recommended revisions to the CWMW charter for presentation to CWMW in December 2010. The revisions have been compiled.

- Use the Monitoring Council’s “WRAMP Endorsement Letter” to help facilitate inclusion of riparian maps into the Aquatic Atlas through various large-scale State projects and initiatives (see Implementation Opportunities below).
- Develop an outreach strategy that includes PowerPoint presentations and factsheets about the Monitoring Council, CWMW, and WRAMP as well as slides on the funding strategy. Create a schedule for outreach to the habitat joint ventures and other potential WRAMP partners. The outreach strategy has not yet been developed, although the TAT continues to vet the WRAMP with key programs of State agencies.

The L2 Committee members have secured new funds to:

- Develop performance curves for estuarine and riverine modules of CRAM (performance curves show the relationship CRAM scores and developmental stage for habitat creation, restoration, and mitigation projects) (USEPA 104(b)(3) program);
- Recommend a program for assessing ambient condition status and trends for wetland and other aquatic areas (USEPA 104(b)(3) program);
- Update the CRAM manual and training materials (USEPA 104(b)(3) program);
- Begin developing a wet meadow CRAM module USEPA 104(b)(3) program);
- Continue developing seasonally tidal estuarine CRAM module (USEPA 104(b)(3) program);
- Develop a seasonal depressional wetland CRAM module (DOI Coastal Impact Assistance Program);
- Develop a seasonal depressional wetland CRAM module (Regional Water Board applications of the State Water Board’s Surface Water Ambient Monitoring Program (SWAMP) funds;
- Develop and initialize a process to establish regional networks of wetland reference sites (USEPA 104(b)(3) program and Proposition 50);
- Pilot WRAMP in the Tahoe Basin (USEPA 104(b)(3) program);
- Pilot WRAMP in a North Coast watershed (and thus develop a North Coast regional WRAMP Team through the Region 1 Water Board) (DOI Coastal Impact Assistance Program or CIAP).

Level 3 (Intensive Assessment of Condition or Stress of Aquatic Areas) Provides Additional Information

The CWMW has not attempted to address Level 3 methods or to integrate existing Level 3 monitoring efforts into the CWMW. There are many Level 3 monitoring and assessment efforts happening in every region of the State. Many efforts to catalogue and track these efforts have come and gone. The State Water Board’s Perennial Stream Assessment (PSA) is currently the only standardized statewide Level 3 assessment program. .

The San Diego, Santa Ana, and Los Angeles Regional Boards have recently initiated a process to develop an ambient assessment program for depressional wetlands (funded and coordinated through the SWRCB’s Surface Water Ambient Monitoring Program). This program will include validation of the depressional module of CRAM and development of new Level 3 indicators for depressional wetlands.

To efficiently implement WRAMP, the PSA should be represented on the CWMW. This recommendation is included in the CWMW workplan being drafted by the Level 2 Committee.

Data and Information Management

The CWMW continues to work with the California Environmental Data Exchange Network (CEDEN) to support and enhance the Regional Data Centers of the State Water Board’s Surface Water Ambient Monitoring Program, including their relationship to the My Water Quality Portals of the Monitoring Council. In essence, the CWMW has put forth the following vision:

- The Regional Data Centers of SWAMP manage regional water quality data based on the Level 1-2-3 Framework to serve all government agencies operating in each region and the concerned public with the data necessary to plan and manage local land use for the purpose of improving water quality;
- The Level 1 mapping protocols are used to develop the California Aquatic Resources Inventory (CARI), which intensifies NWI and NHD as needed to implement WRAPP and other water quality programs in the watershed context;
- CARI serves as the interactive base map for the California Aquatic Atlas, which is the name for the seamless user interface for the Regional Data Centers (and perhaps CEDEN) that facilitates easy public queries of all water quality data managed by the Regional Data Centers;
- CEDEN and the Regional Data Centers populate the Monitoring Council's My Water Quality Portals, each of which addresses a few high-priority questions about water quality for a targeted public audience.

We are Pursuing Implementation Opportunities

The Monitoring Council's "WRAMP Endorsement Letter" has led to emerging opportunities to implement the WRAMP through a variety of large-scale land use projects, as described briefly below. These opportunities are complex and still evolving. They represent willingness at this time for some State and Federal agencies to explore the utility of the WRAMP tools, without yet committing to them. In each case, the intent of the CWMW is to help plan data collection and analysis, transfer the WRAMP tools to the responsible agencies and their contractors through dedicated training, provide QAQC of WRAMP data, ensure proper data management through the Aquatic Atlas, and to coordinate assessment reports. Together, these projects provide a very large opportunity to institutionalize WRAMP within large agencies and to coordinate water quality assessment and monitoring representing a very large portion of the State.

- *Solar energy transmission corridor alternatives analysis and impact assessment.*
- *California High-Speed Rail.*
- *Central Valley Flood Protection Plan (CVFPP).*
- *Delta Conveyance Alternatives.*
- *Willits Bypass.*

Requests for Monitoring Council Input

The CWMW would like to acknowledge that the Council's "WRAMP Endorsement Letter" urging all State agencies to support implementation of the WRAMP has been a tremendous help in creating opportunities to realize WRAMP through large-scale land use projects being planned by the State. The CWMW requests that the Council continue to ask for briefings by the CWMW on the status of implementation efforts through these projects and other opportunities. Transfer of the WRAMP tools to the State agencies is beginning to happen, but will surely continue to include technical and administrative challenges. CWMW will continue to seek the Council's guidance and recommendations, and perhaps its affirmation and support when warranted, to encourage broader participation in the WRAMP.

Attachment

Attachment 1 - List of Agencies Participating in the CWMW***State Agencies***

- * California Coastal Commission
- * California Department of Fish and Game
- * California Department of Parks and Recreation
- * California Department of Water Resources
- * California Natural Resources Agency
- * California State Lands Commission
- * Central Coast Regional Water Quality Control Board
- * Central Valley Regional Water Quality Control Board
- * Los Angeles Regional Water Quality Control Board
- * San Diego Regional Water Quality Control Board
- * San Francisco Bay
Regional Water Quality Control Board
- * Santa Ana Regional Water Quality Control Board
- * State Water Resources Control Board

Federal Agencies

- * National Marine Fisheries Service
- * Natural Resources Conservation Service
- * U.S. Army Corps of Engineers
- * U.S. Environmental Protection Agency
- * U.S. Fish and Wildlife Service

Other Agencies

- * Humboldt Bay Harbor District
- * Moss Landing Marine Laboratories
- * San Francisco Estuary Institute
- * Southern California
Coastal Water Research Project
- * UC Merced
- * Riparian Habitat Joint Venture