May 24, 2012

TO: Monitoring Council

FROM: Craig J. Wilson, Co-Chair
        California Wetland Monitoring Workgroup

SUBJECT: Recommendations on Wetland Data Management

Attached are recommendations of the California Wetland Monitoring Workgroup on Wetland Data Management. These recommendations were approved by the workgroup at its May 15, 2012 meeting.

Attachment

cc: Monitoring Council Data Management Workgroup

California Wetland Monitoring Workgroup Findings and Recommendations Regarding
Wetland Data and Information Management

In April 2010, the Water Quality Monitoring Council approved in concept and distributed the Tenets of a Wetland and Riparian Area Monitoring Plan (WRAMP) for California as developed by the California Wetland Monitoring Workgroup (CWMW).[*] The concept of WRAMP is to strengthen capacity among existing federal, state, and local programs for coordinated management of wetlands and riparian resources by providing standardized tools for their planning, assessment, and reporting, as called for by the State Water Board's Wetland and Riparian Area Protection Policy. The Council identified WRAMP as a way to address the following challenges in effective wetland management.

- *California lacks a coherent wetland definition and classification framework.*

- *There is no mechanism for design and coordination of consistent wetland monitoring.*

- *There is no consistent database or central data management system.*

- *Data management across programs and agencies is uneven and inconsistent.*

- *There are no standard agreed-upon data protocols.*

- *Quality assurance processes are absent, unclear, or inconsistent.*

- *Data are often not geo-referenced.*

Some wetland data can currently be found on several web sites, including BIOS, CERES, and CAL-ATLAS. However, none of these systems serves to compile wetland data across all agencies, not all data are available to the public, and the sites are not well integrated. In addition, there is a wealth of data that resides with non-governmental agencies and joint ventures that is difficult to access. There is currently no means or incentive for these organizations to share or disseminate their data. As a result, wetland data are not readily available within and between agencies/organizations, are not of known quality or sufficiently comparable to permit regional or statewide assessments, and are often difficult to access by the public.

On May 15, 2012, the CWMW decided to recommend expanding the WRAMP toolset by further developing the Wetland Tracker data management and visualization system to fully define and integrate all data needed to plan and protect wetlands and riparian areas. This would include data needed to implement the watershed approach to mitigation planning required by federal regulation and the proposed Phase 1 Wetland and Riparian Area Protection Policy of the State Water Board. The CWMW recognized that Wetland Tracker must incorporate many additional kinds of environmental data and information than what is required to just track wetland extent and condition.

---

[*] http://www.mywaterquality.ca.gov/monitoring_council/wetland_workgroup/docs/2010/tenetsprogram.pdf

In this light, the CWMW finds that Wetland Tracker should be re-named EcoAtlas to clearly indicate its broader utility for integrating resource information at various spatial scales. The CWMW recommends that, to be most useful, the EcoAtlas should:

- Display the statewide base map of aquatic resources (California Aquatic Resources Inventory);

- Provide access to public information necessary to assess, plan, and protect aquatic resources in the watershed context (e.g., U.S. Census data, species occurrence information, land cover and land use information, etc.);

- Provide access to up-to-date data and information on the distribution, diversity, extent, and condition of aquatic resources including wetlands and riparian areas;

- Provide access to up-to-date data and information on aquatic and riparian enhancement, restoration, mitigation, and creation projects;

- Include a Landscape Profile tool to dynamically aggregate ecological information at various spatial scales for assessment, planning, and reporting; and

- Be developed in coordination with other relevant federal and state environmental data and information management systems to share costs, technologies, and facilitate connections between the systems as a means of preventing unnecessary redundancies.

An additional recommendation of the CWMW is that initial development of EcoAtlas should focus on the following agency concerns: (1) planning and coordinating restoration and compensatory mitigation projects; (2) incorporating wetlands and riparian areas into Integrated Reporting under Sections 305(b) and 303(d) of the CWA; and (3) coordinating mitigation planning under the CWA and the U.S. and CA Endangered Species Acts. The CWMW regards these functions of EcoAtlas to be essential for implementing the State Water Board's Wetland and Riparian Area Protection Policy.

The CWMW emphasizes that EcoAtlas fulfills distinct needs for data and information storage and processing, synthesis, and visualization. For example, EcoAtlas will support dynamic queries to generate custom reports designed to inform selected regulatory and management decisions and provide information to the *My Water Quality* Wetland Portal to answer basic questions about wetlands posed by decision makers and the public. The EcoAtlas could also provide the base layers and other relevant information to the other Ecosystem portals (e.g., estuaries; streams, rivers, and lakes). The CWMW recommends that the *My Water Quality* Wetland Portal continue to address the general decision maker and public audiences with expert answers to a fixed set of questions, while the EcoAtlas enables exploration and tracking of aquatic resource information for use by investigators, managers and regulators. This differentiation would allow each tool to meet the specific needs of its target audience and user community.

In summary, the CWMW recommends development of an EcoAtlas as the user interface to support comprehensive, coordinated management of wetlands and riparian resources, with the specific role of informing wetland and riparian investigatory, regulatory and management decisions in the landscape, regional, and statewide contexts.