

## Update: Biological Objectives for California (*Lilian Busse*)

The State Water Board is moving forward with the development of biological objectives for perennial streams and rivers in California. Ten years of biological monitoring data show that half of California's perennial stream miles do not support the same diverse, healthy biological communities as reference sites. In addition, urbanization and other anthropogenic influences threaten to degrade streams presently in good biological condition. Although biological monitoring is part of current ambient monitoring programs and is required by several permits, benchmarks for identifying biological impairments are not currently enforceable because they are not included in plans or policies adopted by the State Water Board or Regional Water Boards.

The State Water Board and the Southern California Coastal Water Research Project (SCCWRP) have convened three groups to support the development of biological objectives: (1) Stakeholder Advisory Group, (2) Scientific Advisory Group, and (3) Regulatory Advisory Group. The Stakeholder Advisory Group consists of a number of stakeholders from throughout California to ensure that their input is incorporated into technical and policy elements. This group has met several times since March 2010. The Scientific Advisory Group consists of external national experts in the field of bioassessment and is responsible for reviewing the technical aspects of this project. This group has convened three times over the last year. The Regulatory Advisory Group, which met for the first time on September 28, 2011, consists of staff from the State Water Board and each of the Regional Water Board. Its purpose is to ensure that the project delivers the tools that regulators and managers need. David Gibson, Executive Officer of the San Diego Water Board, is on the Regulatory Advisory Group.

The technical group for this project consists of technical staff of the State Water Board, Department of Fish and Game, US Geological Survey, and SCCWRP. This group is currently working on the technical aspects of determining reference conditions throughout California as well as on statewide assessment tools for biological communities. The goal of this task is to establish objective biological expectations for perennial wadeable streams; biological expectations are the foundation of biological objectives. In addition, work is currently being conducted on pilot studies for causal assessment. The goal of this task is to develop the tools necessary to determine the causes of impairment if biological objectives are not met once they are adopted. Information about the causes of impairment is crucial for determining appropriate remediation and compliance measures. The San Diego River watershed is included as a pilot watershed for the causal assessment study as an example of urban runoff-dominated streams in Southern California. Lilian Busse from the Monitoring, Assessment, and Research Unit of the San Diego Water Board follows the development of the biological objectives project closely, attends the meetings of each of the advisory groups, and will lead the work of causal assessment in the San Diego River watershed.

Adoption of biological objectives for perennial streams and rivers in California is planned for 2013.

For more information see Executive Officer Reports for July 2009 and for April 2010.

Additional information can be found on the State Water Boards' Biological Objectives website: [http://www.waterboards.ca.gov/plans\\_policies/biological\\_objective.shtml](http://www.waterboards.ca.gov/plans_policies/biological_objective.shtml)