

FACT SHEET

Water Quality Conditions Interactive Report 12-03

Deliverables: An interactive version of the Decision 1641-mandated Water Quality Conditions in the Sacramento-San Joaquin Delta and Suisun and San Pablo Bays Report.

Status: Released as part of the California Estuaries Portal.

Primary Investigator: 34 North

Recipient Organization: 34 North

Project Cost:

SFCWA Funding:

Partners: CEMW and DWR

Introduction

The Water Quality Conditions in the Sacramento-San Joaquin Delta and Suisun and San Pablo Bays Reports (Water Quality Conditions Report) summarize the results of water quality monitoring and special studies conducted by the Environmental Monitoring Program (EMP). The monitoring is mandated by Water Right Decision 1641 (D-1641). Data has been collected since 1975 by the EMP and have been stored and managed by the Department of Water Resources (DWR) and the Department of Fish and Wildlife (DFW). The report summarizes and displays major patterns and trends of the findings on water quality, benthic, phytoplankton, zooplankton, and special study components. Until now, the reports have focused on reporting annual results in a static format that wasn't widely distributed to the public. The goal of this contract was to develop an interactive portal that allows the dissemination of these reports and web tools that allow for analysis and visualization of data over multiple reporting years.

Objective

- Aggregation of data collected under the D-1641 requirements
- Begin presentation of D-1641 data through customization of graphing component
- Initial data QA/QC
- Provide access to data gathered and reported in the Water Quality Conditions Report
- Provide web tools that assist users in determining important trends related to the health of the San Francisco-Bay Delta Estuary

Results

An interactive version of the Water Quality Conditions Report has been published on the California Estuary Portal, the sixth My Water Quality internet portal hosted by the California Water Quality Monitoring Council. The report displays graphic representations of hydrologic conditions, water quality, algal community composition and biomass, and benthic community data. All visualized data is available for download in a variety of different formats. These visualization tools allow new ways to view data without interpretation.

Conclusions

1. Visualization tools allow scientist, managers, and the public to view data in a new way and without interpretation
2. Increased access to data collected in the Delta

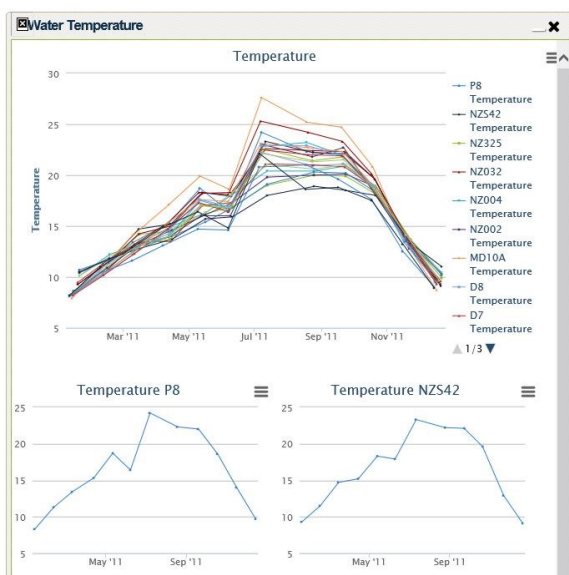
Relevance

Many state, federal and local agencies, regulated dischargers, and water bond grant recipients spend millions of dollars each year monitoring, assessing and reporting on the condition of the San Francisco Bay-Delta estuary ecosystem. While significant coordination efforts currently exist—including the Interagency Ecological Program (IEP, since 1970), the San Francisco Bay Regional Monitoring Program (Bay RMP, since 1993) and an emerging Delta RMP—there is currently no overall structure to coordinate all of these activities nor a universally agreed upon way to integrate the data and information gained from these activities into a coherent ecosystem health assessment. Turning the Water Quality Conditions Report into an interactive form is the first step in developing easier access to water quality and biological data.

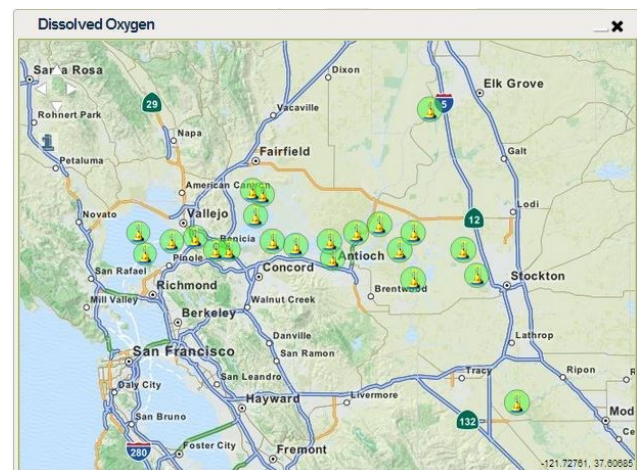
SFCWA’s Strategic Plan has an implementing strategy that calls for the dissemination and understanding of science findings, and a strategic objective for the participation in the collaborative efforts with Delta science entities to improve monitoring, assessment, and report of Bay Delta monitoring and research results. The Water Quality Conditions Interactive Report is a tool that allows the public, scientists, and managers to access part of the vast amounts of data that is collected in the system.

Next Steps

- Develop visualization tools to display Zooplankton data
- Develop tools that allow the comparison across different data sets, examples include visualization of water quality data and phytoplankton community data at the same time. Known as the “Explore Data” tab
- Develop visualization tools that show Continuous Data
- Continue to work with DWR and the Data Management Workgroup to include more datasets



Graphic representation of Temperature by station in 2011



Visualization of Dissolved Oxygen by station in 2011.