RMP

REGIONAL MONITORING PROGRAM FOR TRACE SUBSTANCES

Facilitating the Exchange and Reporting of Monitoring Data

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DATA INTEGRITY

Before being made available to water quality managers, decision-makers, researchers, and the general public, laboratory results are reviewed for the following data quality objectives:

COMPLETENESS
Were the expected number of field samples and appropriate number of QA samples reported?

SENSITIVITY
Were detection limits well below ambient field concentrations?

BLANK CONTAMINATION
Was there any contamination in the blank samples?

ACCURACY
Were the methods recovering the expected amounts in known reference samples?

PRECISION
Was the lab able to measure the concentration consistently?

CONSISTENCY
Were there any unusual results based on ranges from previous years or expected congener ratios?

MERCURY IN SEDIMENTS (2002-2003)

DATA USES

RMP Status and Trends contaminant data are used by the Water Board for regulatory purposes, such as:

- evaluating 303(d) listing of water bodies;
- determining the percent of a region above a regulatory guideline, e.g. TMDL;
- establishing background contaminant conditions used in NPDES permits;
- modeling to estimate TMDLs and ecosystem recovery times; and
- evaluating the distribution of contamination in the Estuary.

OVERVIEW

The San Francisco Estuary Institute's Regional Monitoring Program for Trace Substances (RMP) has been the primary source for long-term contaminant monitoring data for the San Francisco Estuary since 1993 and provides high-quality, scientific information for formulating technically based management policies. To facilitate the exchange and use of these monitoring data, the RMP's information management system incorporates standardized data storage procedures in a relational database that are consistent with protocols developed by the State's Surface Water Ambient Monitoring Program (SWAMP). A web-based tool allows users to retrieve results through custom data queries, and a variety of reports synthesize and interpret the condition of contamination in the Estuary for different audiences.

The RMP Status and Trends information management system provides a resource from which monitoring program participants can draw inferences, develop reports, and communicate complex scientific information to the public. For example, RMP data are used by the San Francisco Bay Regional Water Quality Control Board (Water Board) for regulatory purposes, such as evaluating 303(d) listing of water bodies, establishing background contaminant conditions used in National Pollutant Discharge Elimination System (NPDES) permits, and modeling to estimate Total Maximum Daily Loads (TMDL) and ecosystem recovery times. In addition, long-term monitoring data are used to evaluate whether the cumulative range of management actions implemented at the watershed level, by setting permit conditions and/or developing new policies, have been successful in reducing contaminant loads, mitigating impacts to the Estuary, or restoring ecosystem support functions.
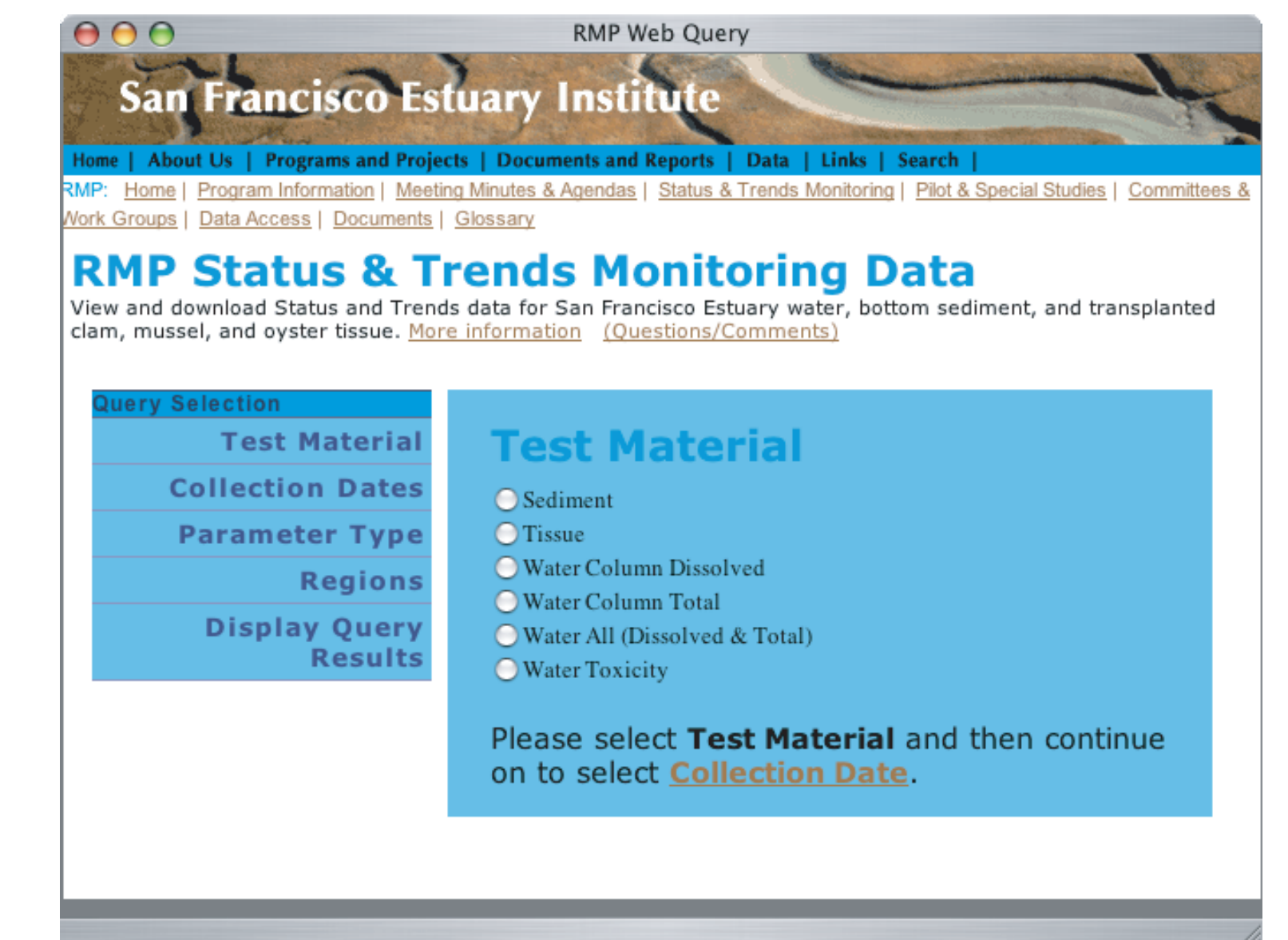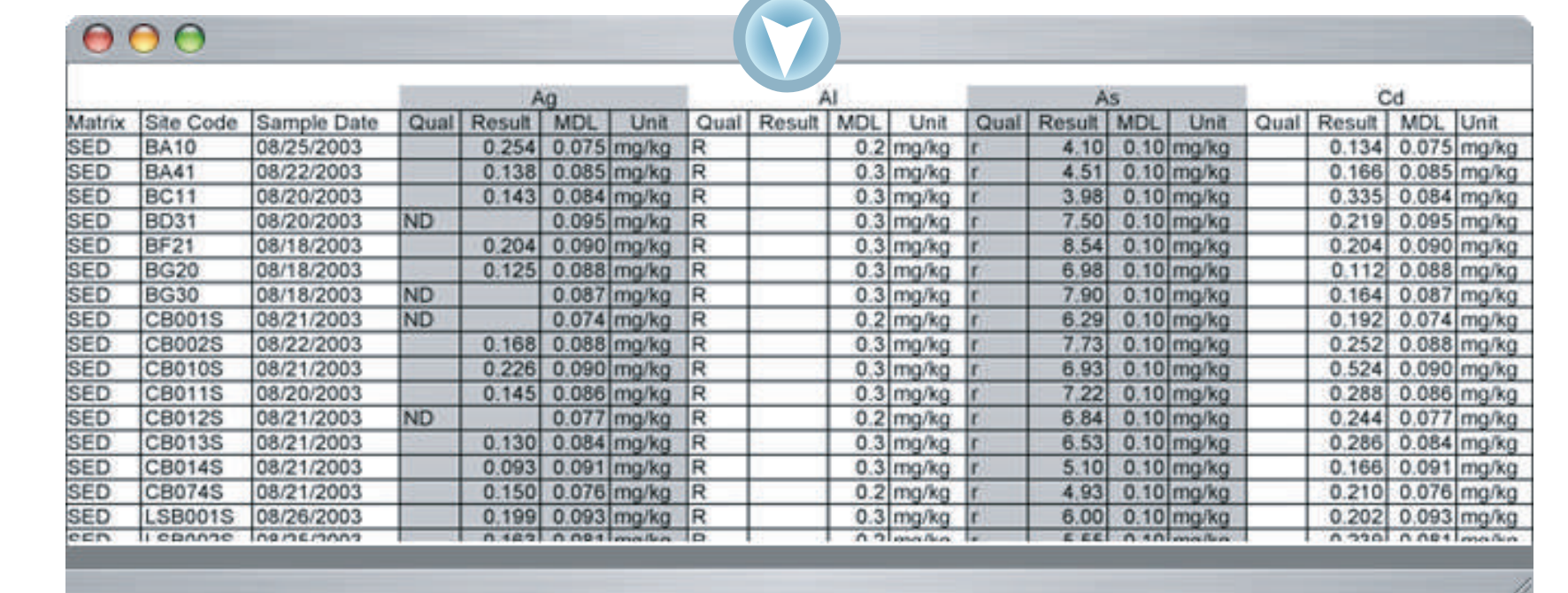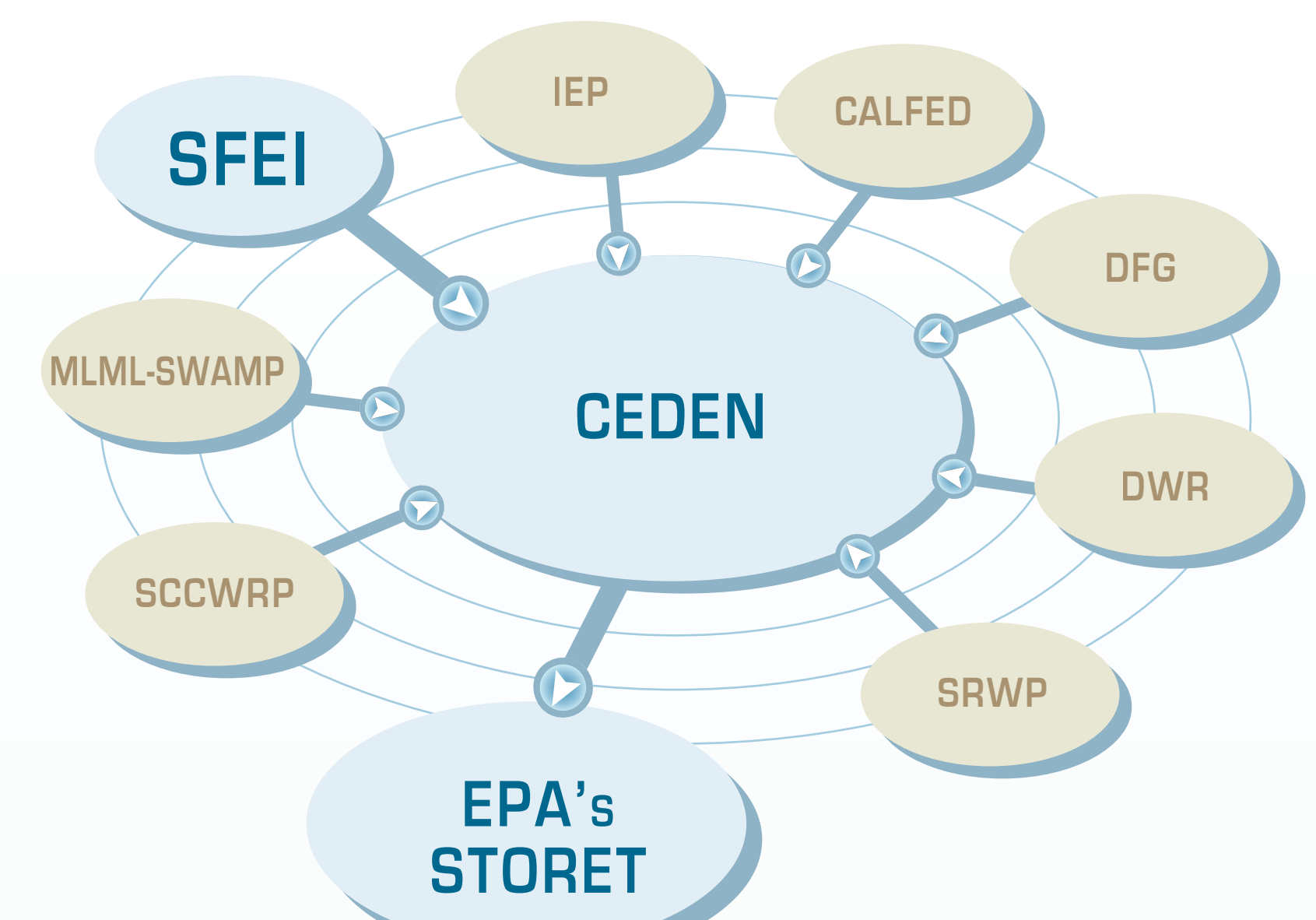
Before RMP Status and Trends data are made available to water quality managers, decision-makers, researchers, and the public, results are reviewed using a rigorous quality assurance and quality control (QA/QC) process to validate the integrity of the data. By maintaining a robust and reliable information management system, the RMP is able to provide the scientific data needed to address important environmental management questions. Furthermore, comparability with the statewide SWAMP database and integration into the State's newly adopted Monitoring Strategy make RMP data a valuable resource for developing better local and regional indicators for assessing the effectiveness of regulatory and management efforts to help protect the beneficial uses of the Estuary.

For more information on the Regional Monitoring Program, please visit our website at www.sfei.org/rmp/index.html.
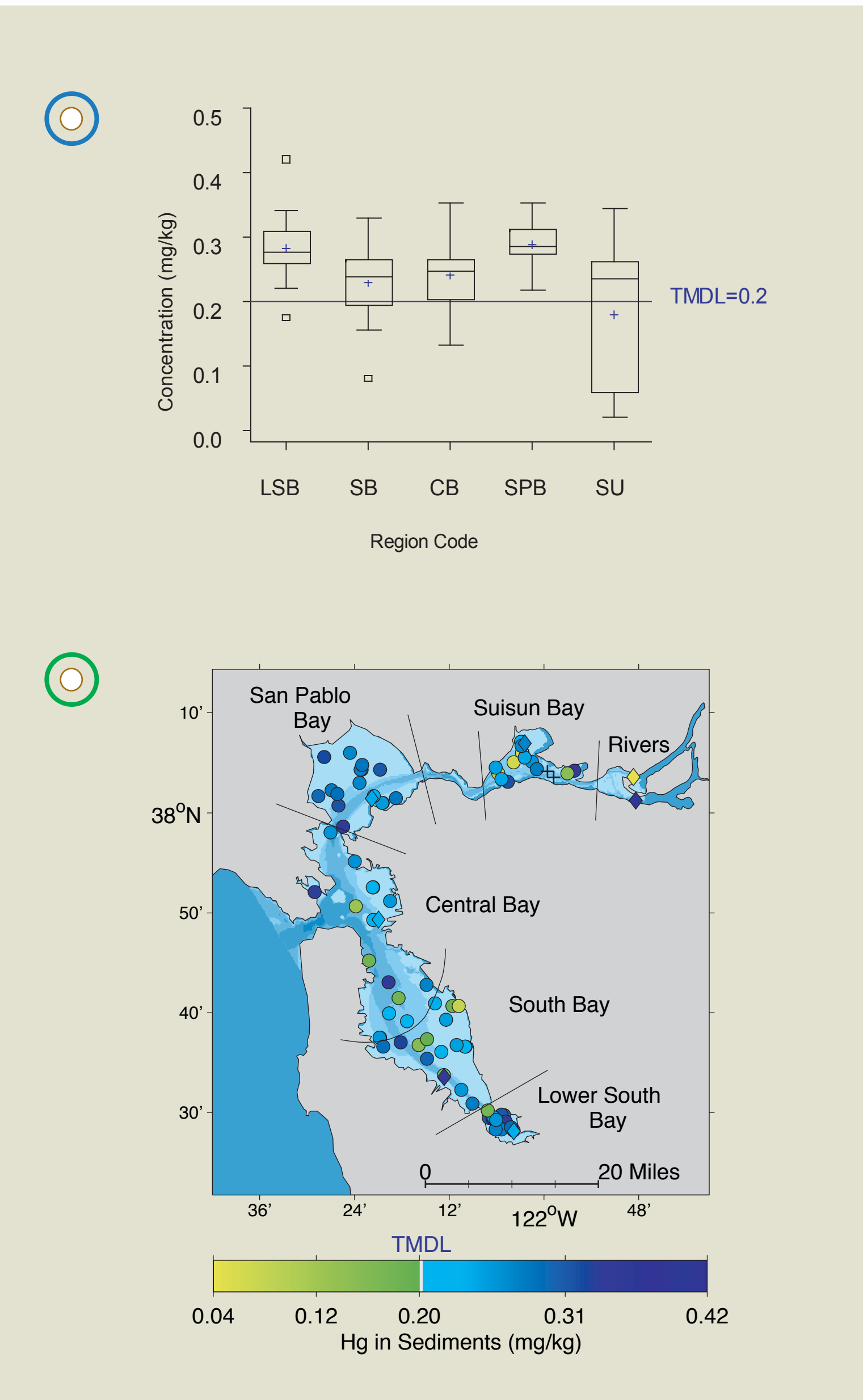
DATA EXCHANGE

Recent improvements have been made to facilitate the exchange and accessibility of RMP data.

- RMP database is comparable to the statewide SWAMP database.
- Web-based tool allows users to access data through custom data queries (www.sfei.org/RMP/report).
- SFEI will be a future participant in the California Environmental Data Exchange Network (CEDEN), which will eventually be uploaded to EPA's data storage and retrieval system (STORET).

DATA REPORTING

The RMP presents synthesized results in a variety of graphical methods and reports that can be downloaded through the SFEI website. These reports include:

- annual reports: *The Pulse of the Estuary* and *Annual Monitoring Results*;
- technical reports;
- peer-reviewed journal articles; and
- quarterly newsletters.