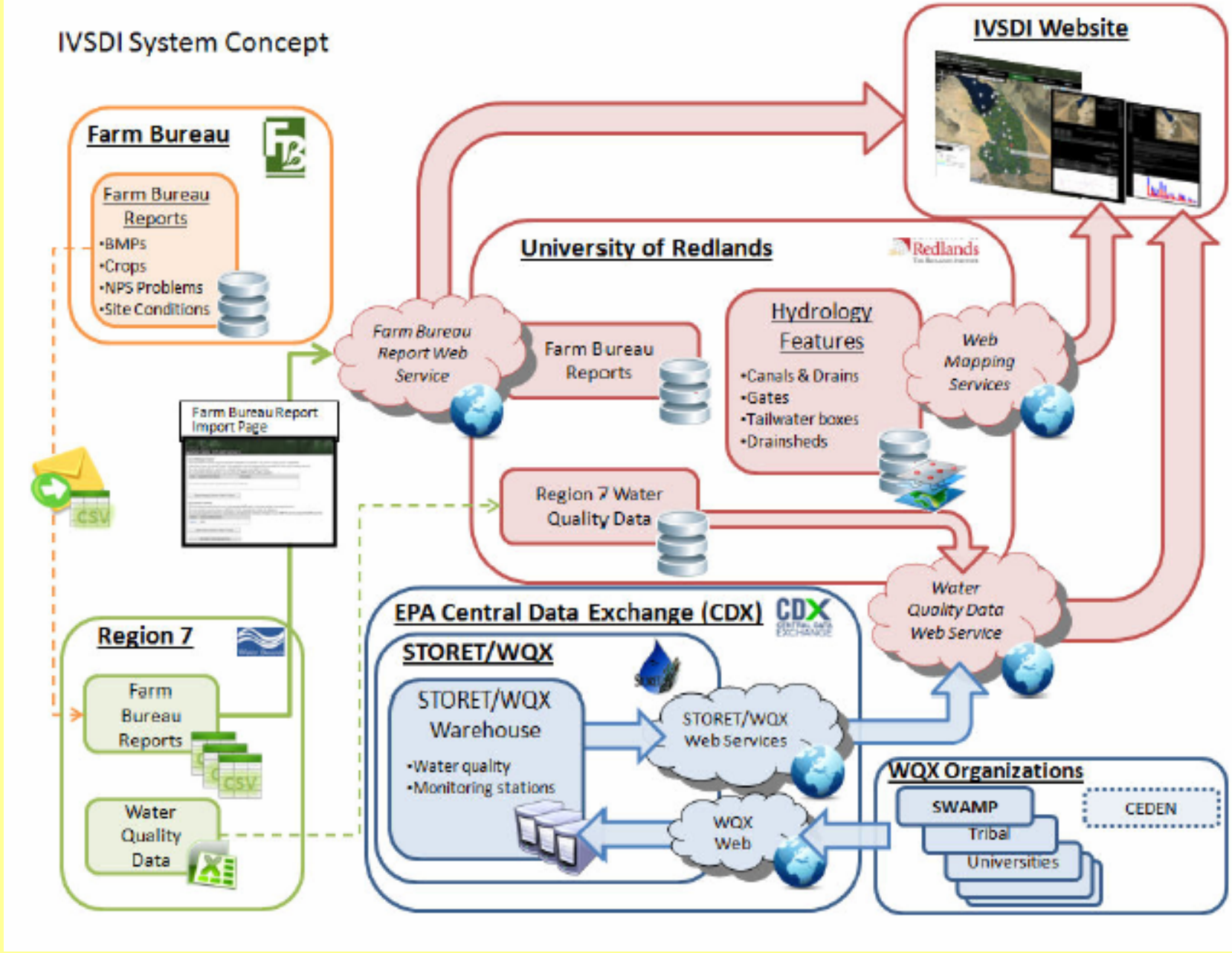
Imperial Valley Spatial Data Infrastructure Site

A partnership among Federal, State, and Local Entities, and the Redlands Institute

Database Design Objectives

- Incorporate data from various agencies (State Agencies, Federal and Local sources, including USGS NHD, EPA STORET)
- Comply with the State Water Resources Control Board (SWRCB) Surface Water Ambient Monitoring Program (SWAMP) standards
- Support analysis and reporting requirements


IVSDI System Concept
IVSDI Website
Farm Bureau
Farm Bureau Reports
•BMPs
•Crops
•NPS Problems
•Site Conditions
University of Redlands
Redlands
Farm Bureau Report Web Service
Farm Bureau Reports
Hydrology Features
•Canals & Drains
•Gates
•Tailwater boxes
•Drainsheds
Web Mapping Services
Farm Bureau Report Import Page
CSV
Region 7 Water Quality Data
Water Quality Data Web Service
EPA Central Data Exchange (CDX)
CDX
STORET/WQX
Region 7
Farm Bureau Reports
CSV
Water Quality Data
STORET/WQX Warehouse
•Water quality
•Monitoring stations
STORET/WQX Web Services
WQX Web
WQX Organizations
SWAMP
CEDEN
Tribal
Universities

Database Development Process

- Stakeholder Survey
- Data Inventory and Assessment
- Data Compilation/ Conversion
- Database Design/ Development
- Analysis and Visualization Products
- Website & Web-based GIS

http://www.spatial.redlands.edu/ivsdi

IVSDI Website

Technical Details:

•Application developed using ArcGIS Server.NET Web ADF 9.2

•Data stored in ArcSDE 9.2 on SQL Server 2005

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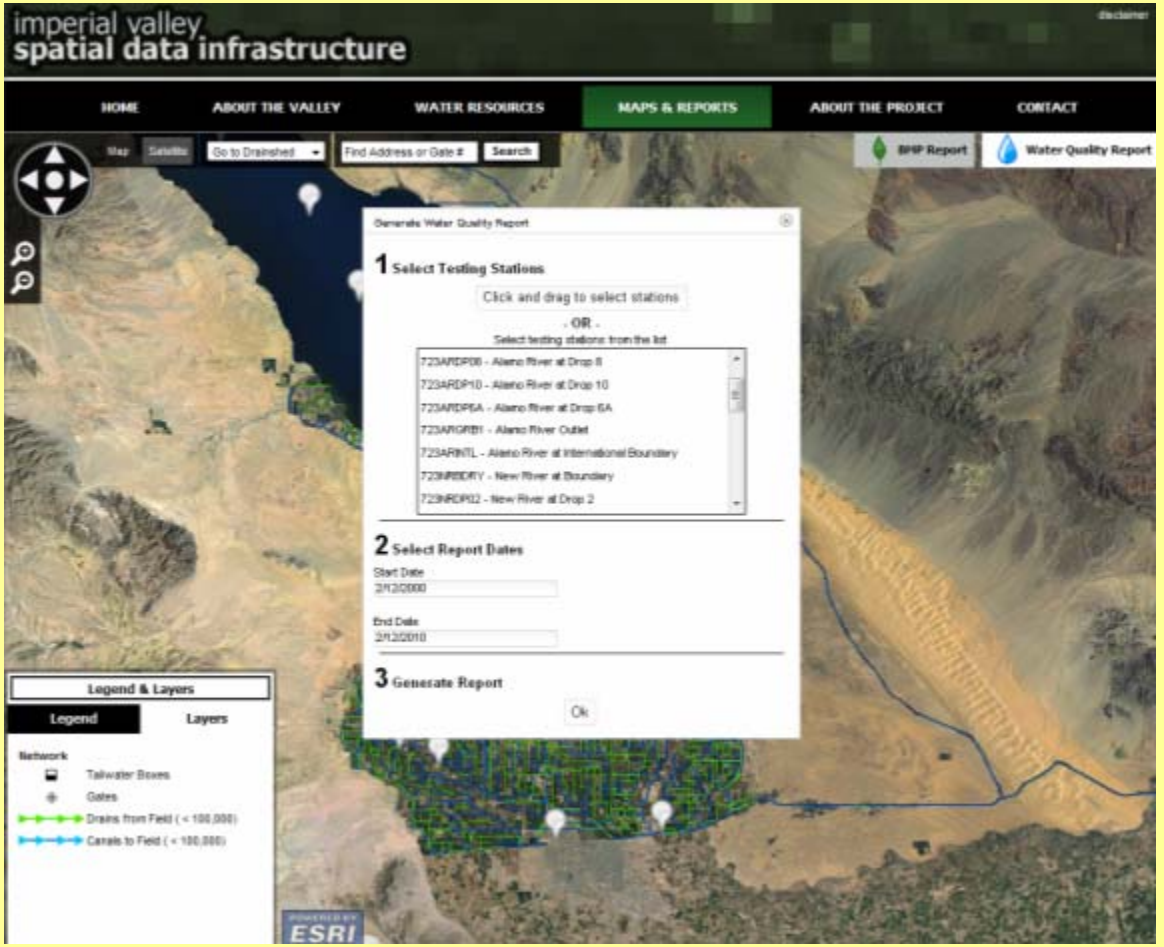
Web-based GIS and reporting tools

IVSDI web map with WQ Monitoring point locations, drains, canals, gates and tailwater boxes

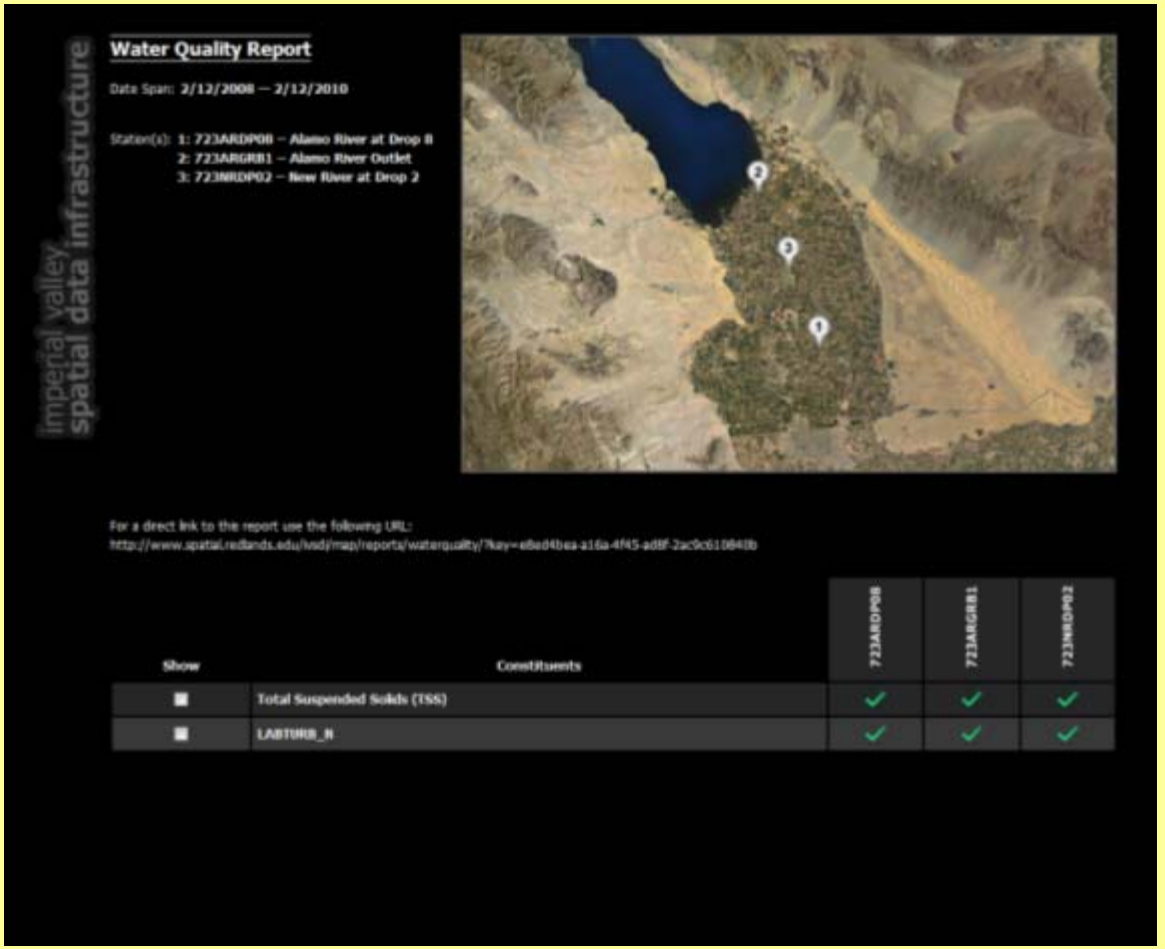
Water Quality Reports

Select one or more WQ stations and a time range and run report

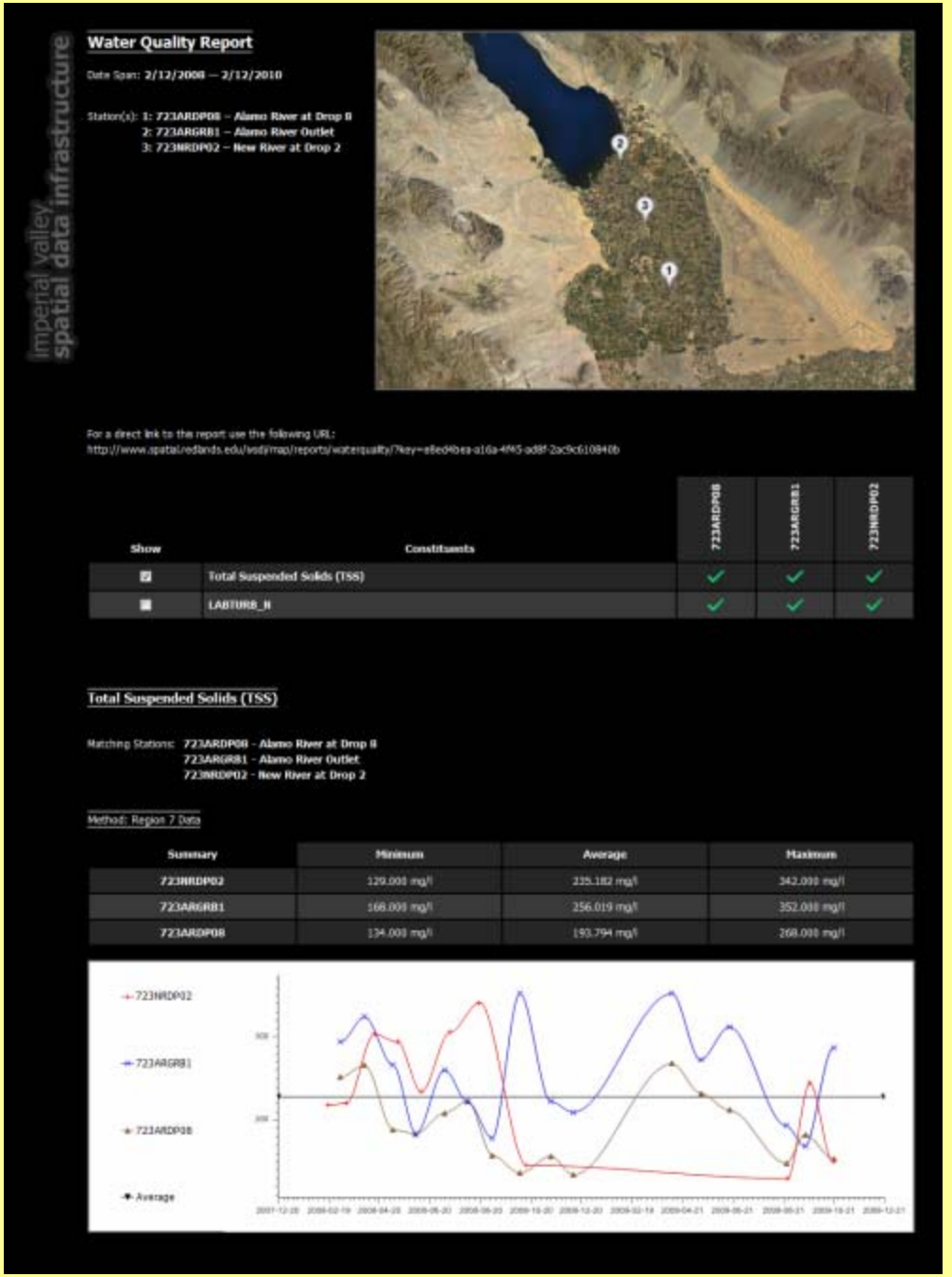


Water Quality Reports

Report shows which constituents were being sampled at the chosen Locations. The report includes an overview map, station Identification, and time frame.



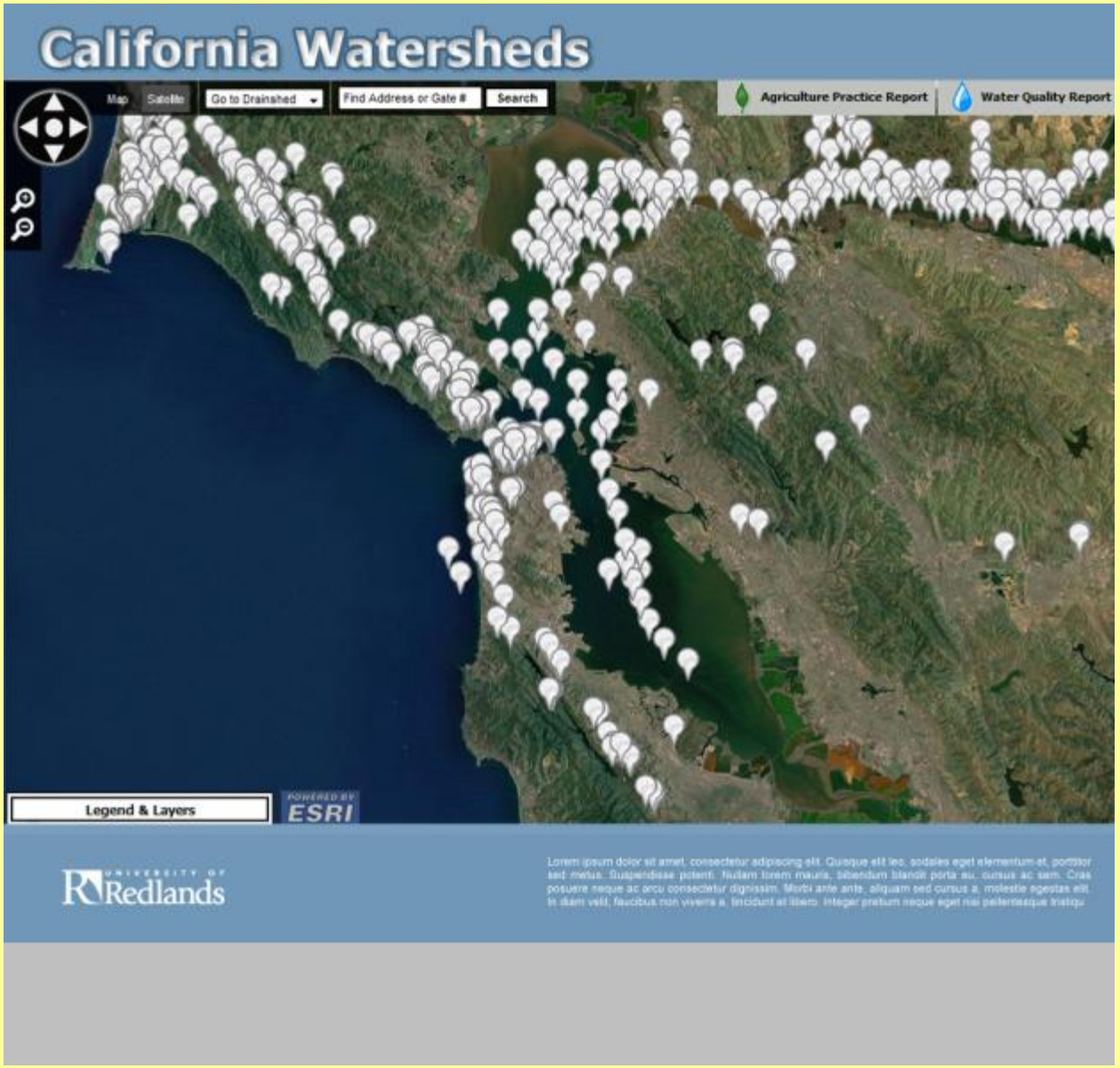
Check a box next to a constituent, and a graph and summary table will appear below. Graphing TSS (Total Suspended Solids), you will see the average for the station and time period you selected, and the State target level.



Potential Statewide Water Quality Sites

Since the program can use data from national, state, regional and local data sources, you can see and report on any water quality monitoring station in the state.

Potential State Watershed site



Future Possibilities

- Develop a web based link among CEDEN and other sources of monitoring data
- Allow both a spatial and topical display of information
- Provide custom graphing and reporting capabilities to users (spatial and topical)
- Enable a central point to access WQ data, without requiring a central repository