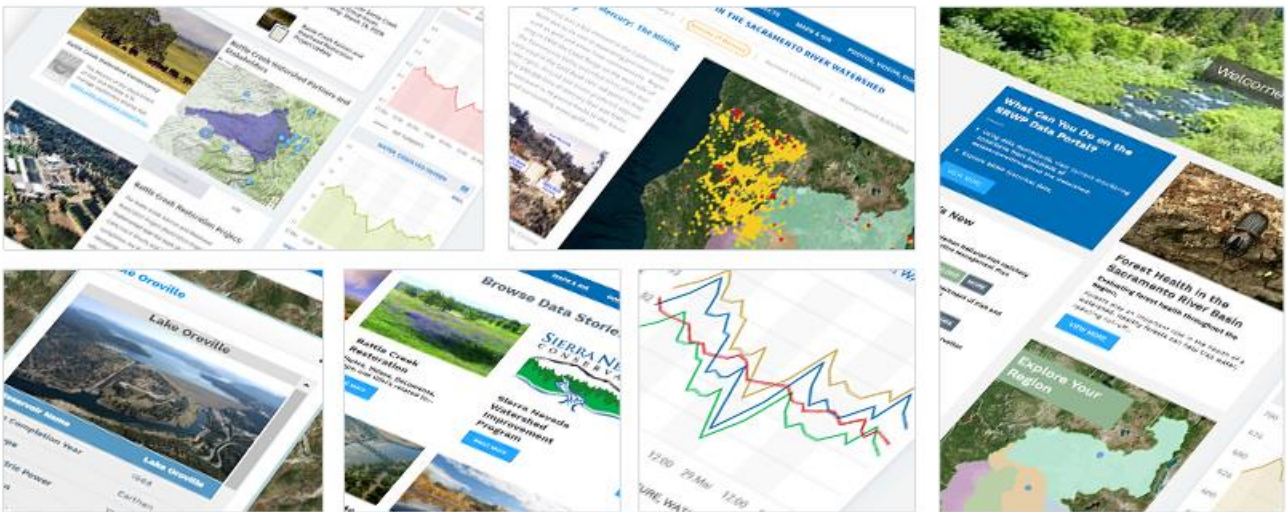


# SRWDP WATER QUALITY PORTAL SACRAMENTO RIVER WATERSHED



## Presenters

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[data.sacrriver.org](http://data.sacrriver.org)

# A Collaborative Effort Regional and Statewide Programs



SACRAMENTO SAN JOAQUIN  
BAY-DELTA



SWRCB MY WATER QUALITY  
PORTALS



CALIFORNIA ESTUARY  
PORTAL



SAN JOAQUIN REAL TIME  
MANAGEMENT



DWR 1641 WATER  
QUALITY



SACRAMENTO RIVER  
WATERSHED

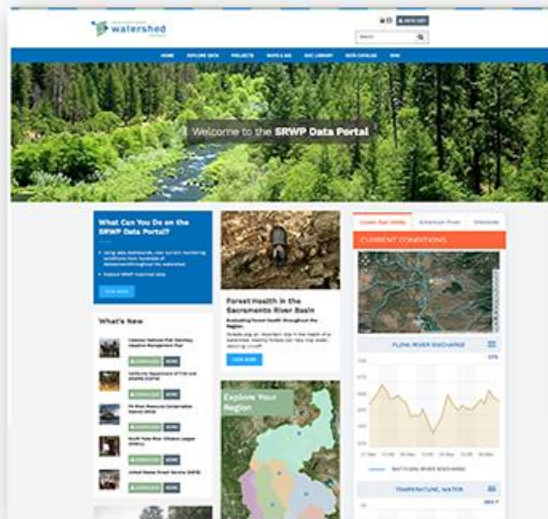
# Building on Each Other's Program

## Each region's needs are different

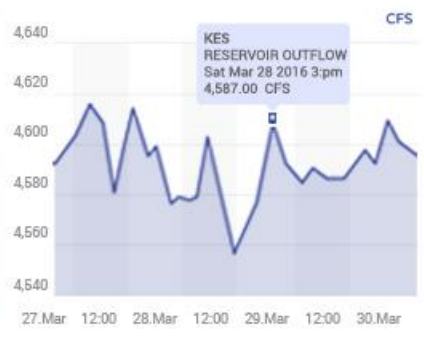


- Various Stakeholder Requirements
- Stakeholder Specific Data Dashboards
- Regional Data
- Tool for Local Ecosystem Projects
- Region Specific Data Analysis
- Special Studies
- Local Mapping and GIS
- Regulatory Reporting
- Regional Document Libraries
- Web Service Development
- Share data and products with other portal's for system wide view

# Sacramento River Watershed Contributing Stakeholders



- ✓ CA Department of Conservation
- ✓ CA Department of Water Resources (regional and CWP for Water Management)
- ✓ Central Valley Regional Water Quality Control Board (regional and Surface Water Ambient Monitoring Program)
- ✓ Northern CA Water Association/Sacramento Valley Water Quality Coalition (Irrigated Lands Regulatory Program)
- ✓ Sac Valley Region of Resource Conservation Districts
- ✓ Sac Valley Regional Water Management Groups (Integrated Regional Water Management)
- ✓ Sierra Nevada Conservancy - WIP/Watershed Assessments
- ✓ State Water Resources Control Board
- ✓ The Nature Conservancy (regional and Fire Learning Network for Forest Health)
- ✓ UC Davis
- ✓ US Forest Service - Watershed Improvement Program (WIP)



**Better understanding of agencies and groups monitor water quality, flows, and ecological conditions**

**Understand data and information gaps exist**

**Insufficient GIS training and software**

**Older data unavailable electronically**

**Lack of information and knowledge of data collection, storage and accessibility**

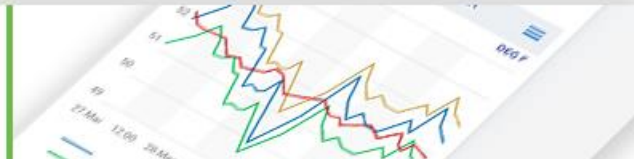
**Stakeholders often have to make decisions based on limited information**

Why and where is water quality an issue?



Whether or not the watershed is healthy?

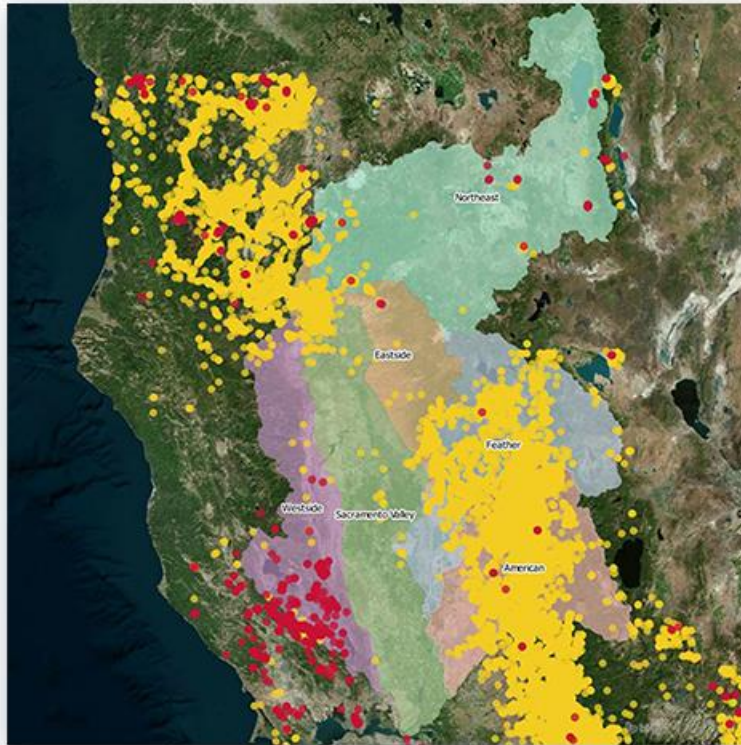
What are the water quality conditions?



What management efforts are underway?

What activities, programs and projects have been successful?





- ✓ Current Monitoring and WQ Conditions (Lower Sac Valley)
- ✓ Region View: Projects, Documents
- ✓ Reservoirs
- ✓ Forest Health and Fire
- ✓ Mercury Mines and Water Quality
- ✓ Water Temperature and Compliance
- ✓ Fish Monitoring
- ✓ Region Focus: Battle Creek, Lower Sac
- ✓ Safe to Swim
- ✓ Nutrients

## Catalogs (Geo-Located Everything)

Store and help organize content throughout the site. Catalogs are organized into the following categories but can be expanded or condensed

## Projects

While officially a type of catalog, projects are organized to showcase project details according to the amount of project information a user has. We currently have 3 project templates

## Explore Data

Explore monitoring programs and key datasets from the region

## Interactive Map Tools

Tools to explore the SRW region spatially. Layers can be combined and saved to be used with projects, data stories, maps stories, dashboards and more.

## Data Stories

Portal topics (questions) are organized here. Data stories templates currently discuss the following topics

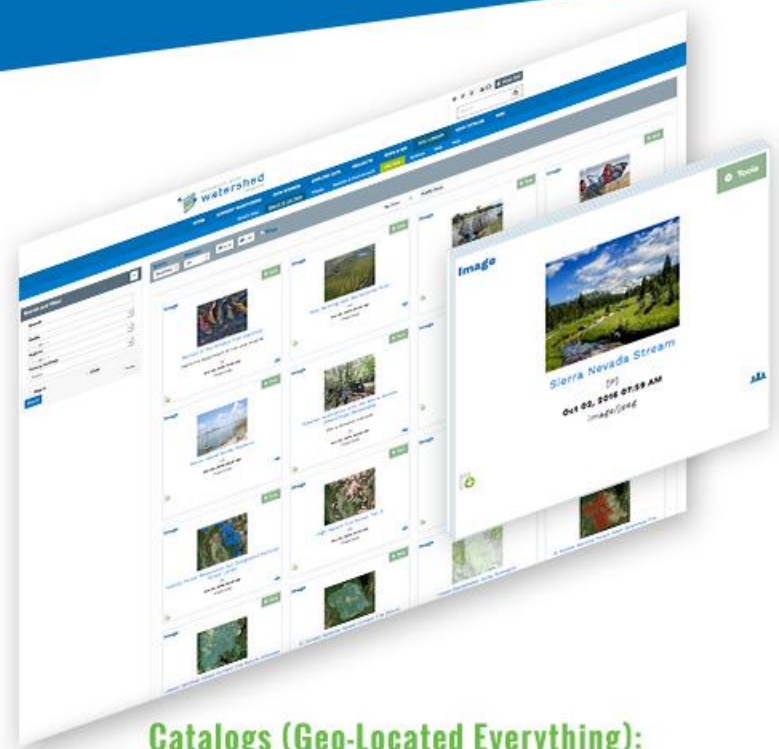
## Data Dashboards

Compilations for easy display and discovery of data

## Community

Share and collaborate with colleagues






## Catalogs (Geo-Located Everything):

Store and help organize content throughout the site. Catalogs are organized into the following categories but can be expanded or condensed:

- > Document Library
- > Projects
- > Data Catalog
- > GIS
- > Resources Wiki


# How the Portal is Organized?



### Salmon and Managing Temperature in the Sacramento River

Maintaining suitable temperatures for egg incubation, fry emergence, and juvenile rearing in the Sacramento River is critically important for survival and recovery of the winter-run ESU. The winter-run ESU has been reduced to a single population, which has been blocked...

[Read More](#)

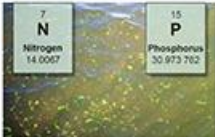


### Reservoirs in the Sacramento River Watershed

This story outlines the important role of reservoirs...

Reservoirs in the Sacramento River Watershed play an important role in water supply, recreation, habitat, and recreation. This story outlines the important role of reservoirs in Sacramento River watershed. Reservoirs attempt to support the beneficial uses for all.

[Read More](#)




7 N Nitrogen 14.0087	15 P Phosphorus 30.973702
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### Nutrients in the Sacramento River Watershed

Human alteration of nutrient cycles has resulted in...

Nutrients in rivers serve the same basic function as nutrients in a garden. Nutrients in water are essential to growing aquatic plants and algae, which serve as food and energy for the aquatic ecosystem. In particular, almost all organisms require...


[Read More](#)



### Lower Sacramento Valley Conditions

The Sacramento valley represents that portion of the Sacramento River Hydrologic Region starting at Shasta Lake and Redding in the north and extending south to Sacramento and the Delta. It is most characterized by the agricultural working landscape that lies...

[Read More](#)




### Safe-to-Swim Data Story

Safe-to-Swim Data Story

Is it safe to swim in the Sacramento River Watershed? Exposure to bacteria and pathogens while participating in water-contact activities such as swimming and wading can cause illness. Bacteria are a normal and natural part of all terrestrial and aquatic...

[Read More](#)



### Western Shasta Resource Conservation District

The mission of the Western Shasta Resource Conservation...

The Western Shasta Resource Conservation District (RCD) is a special district of the State of California and is funded entirely by grants and contracts. The district encompasses approximately 1.7 million acres bounded on the east by the watershed divide between...

[Read More](#)

## Projects:

While officially a type of catalog, projects are organized to showcase project details according to the amount of project information a user has. We currently have 3 project templates:

- › General
- › Data Story
- › Projects with Dashboards



## Data Providers:

Data is aggregated from stakeholders throughout the region:

- > Hydrologic
- > Water Quality
- > Terrestrial
- > Satellite
- > Meteorological
- > Volunteer Sampling

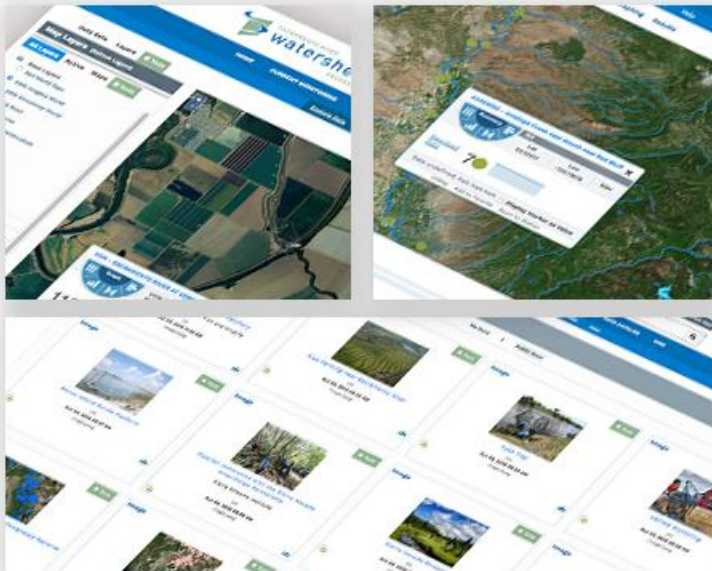
# How the Portal is Organized?



## Explore Data:

Explore monitoring programs and key datasets from the region:

- › Run filters (Avg, 7DADM etc)
- › Save Data Maps and Graphs to your Catalog
- › Share and Download
- › Monitoring Data
- › Combine with Spatial Layers
- › Use Analytics for Visualization



### Portal allows for map based search and catalog access to the following data and monitoring programs

Sacramento Watershed Coordinated Monitoring Program (WDL/SWAMP)

California Data Exchange Center (CDEC)

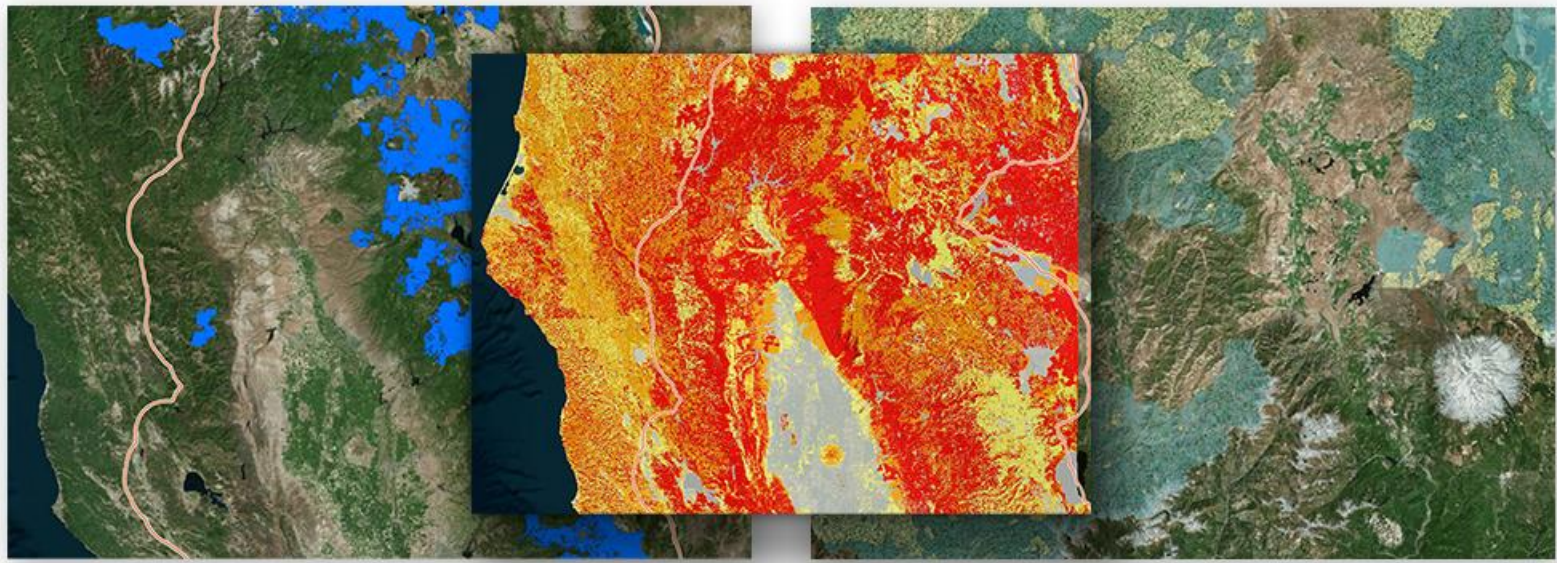
Sacramento Coordinated Monitoring Program (CEDEN)

Irrigated Lands Regulatory Program Monitoring (CEDEN)

Sacramento River Watershed Program Monitoring (CEDEN)

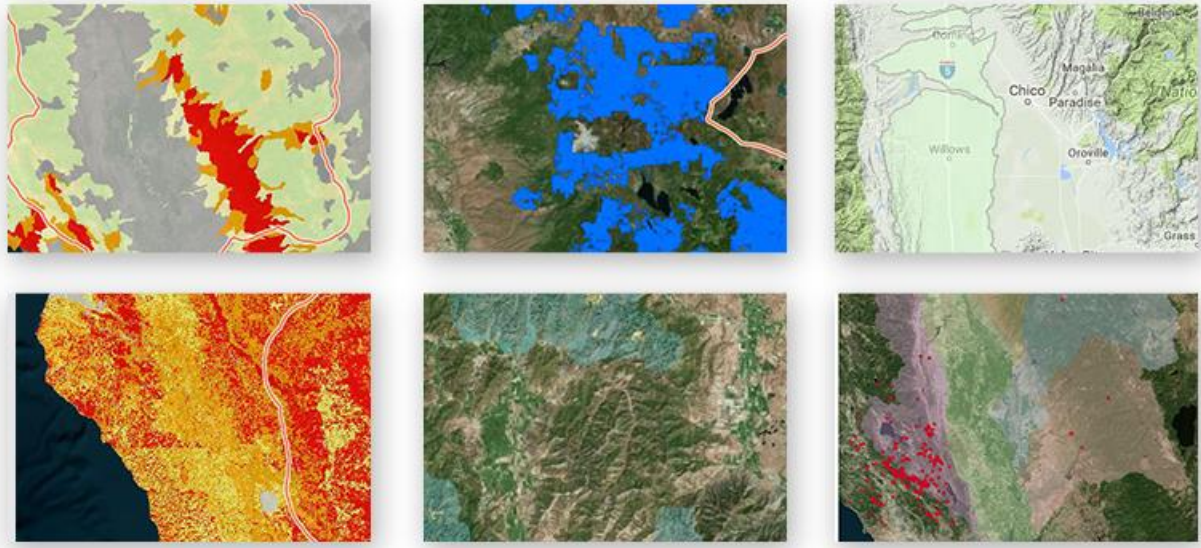
DWR/IEP Environmental Monitoring Program (BDL Web Services)

Fisheries Data (BDL Web Services)



### Specific to SRWP, over 200+ California Wide

- |                         |                     |   |
|-------------------------|---------------------|---|
| 60 Hydrology            | 12 Critical Habitat | 8 Vegetation  |
| 14 Restoration Projects | 18 Fire             | 2 Recreation  |
| 6 Water Projects        | 24 Biogeography     | 30 Administrative (Boundaries, Regions, Partners etc) |
| 60 Fisheries Data       | 5 Land use          |   |
| 28 Geology              | 3 Mercury           |   |



## Interactive Map Tools:

Tools to explore the SRW region spatially. Layers can be combined and saved to be used with projects, data stories, maps stories, dashboards and more.

- › 200 + Map Layers
- › Query Data
- › Create and Save Map Stories
- › Combine Layer with Data

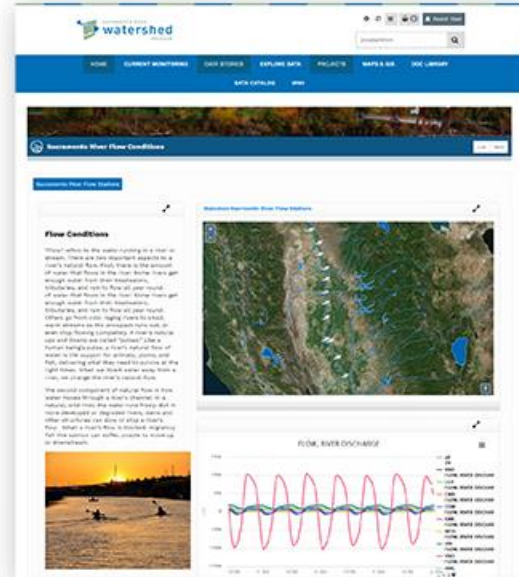
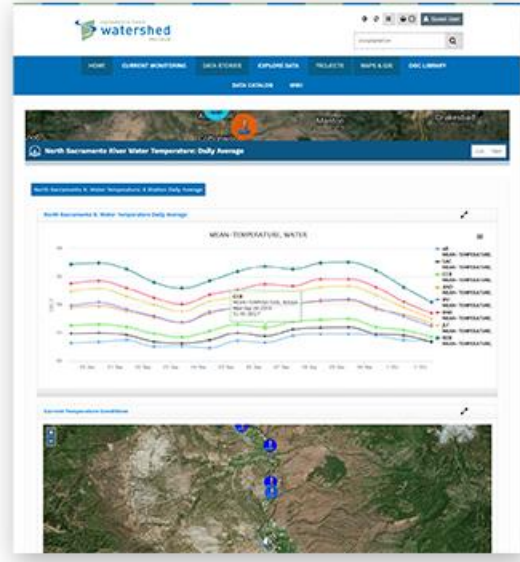
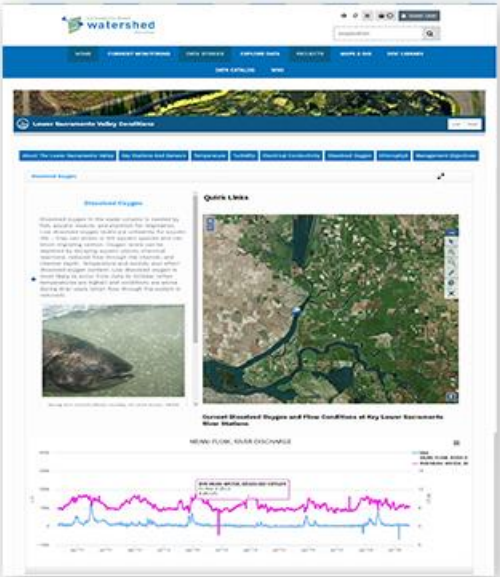


## Data Stories:

Portal topics (questions) are organized here. Data stories templates currently discuss the following topics:

- › Temperature Compliance and Monitoring
- › Lower Sacramento Valley Current Conditions
- › Safe to Swim
- › Mercury and Mining
- › Forest Health and Fire
- › Flow
- › Reservoirs
- › Nutrients

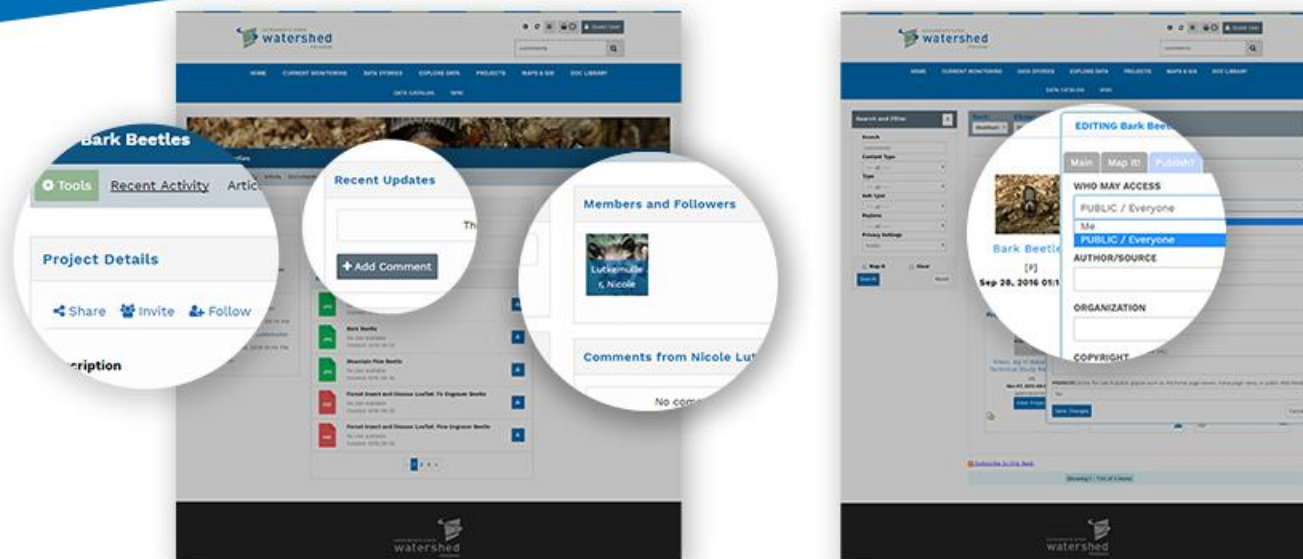




## Data Dashboards:

Compilations for easy display and discovery of data:

- Sacramento River Watershed Coordinated Monitoring Program
- Fisheries
- Triggers and Indices
- Regional Hubs



## Community

Share and collaborate with colleagues:

- › Catalog entries, saved maps, graphs etc can be made public or kept private.
- › All assets (including projects) allow users to share or invite members.
- › Comment Feeds
- › Library Feeds