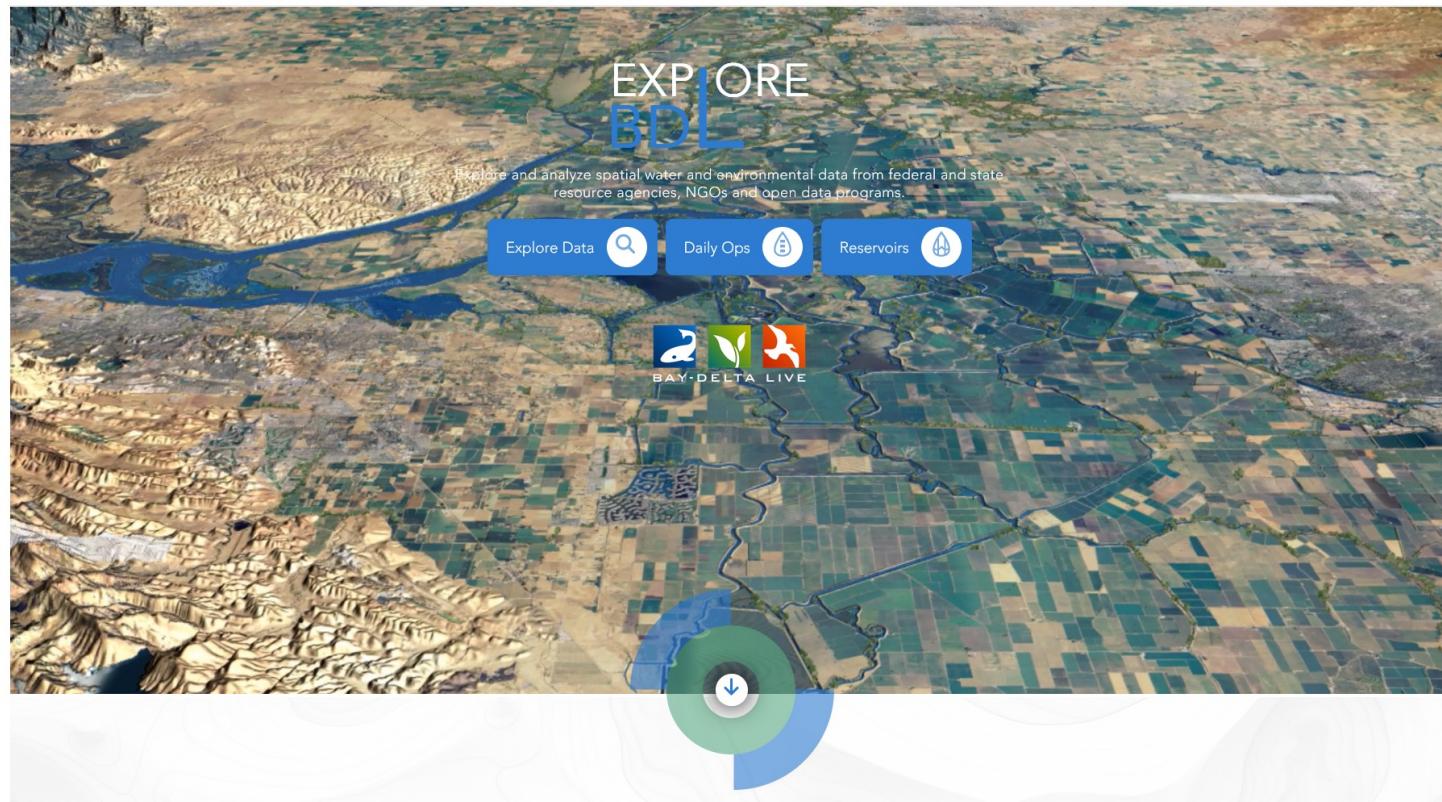




## Bay Delta Live Data Discovery and Analysis Presentation to the IEP

April 18, 2024



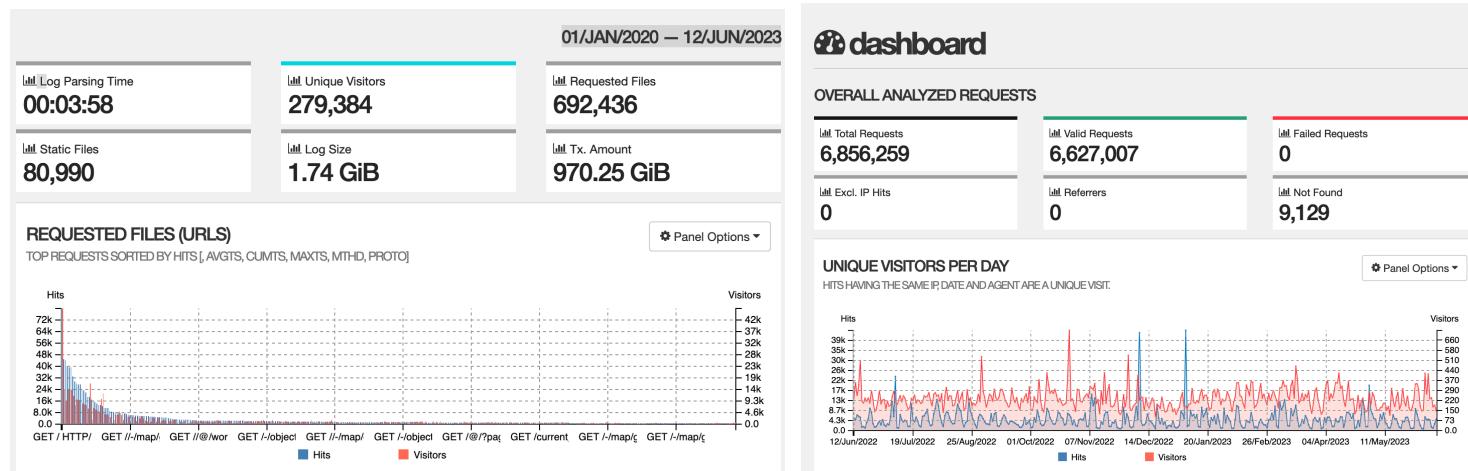
[www.baydeltalive.com](http://www.baydeltalive.com) (BDL)

# Presentation Overview

- ✓ User Community 2022-23
- ✓ BDL Overview
- ✓ Partners and Investments
- ✓ What is BDL?
- ✓ Review of Past Work
- ✓ 2024 New Data and Tools

The screenshot shows the homepage of the Bay Delta Live (BDL) website. At the top, there is a dark blue header bar with the website's name in white. Below the header is a navigation bar with links for Home, Operations, Current Conditions, Weather, Fish, Explore Data, Maps, Projects, Docs, Help, and a search icon. The main content area features a large satellite map of the Sacramento-San Joaquin River Delta and surrounding agricultural fields. Overlaid on the map are several interactive elements: a central logo for "EXPLORE BDL" with the tagline "Browse and analyze spatial water and environmental data from federal and state resource agencies, NGOs and open data programs"; a "Explore Data" button; a "Daily Ops" button; and a "Reservoirs" button. In the bottom right corner of the map area, there is a circular graphic with a downward arrow. Below the map, there is a section titled "DATA PROGRAM HIGHLIGHTS" with icons for Water Ops, Water Quality, Current Conditions, Reservoirs, Drought, Fish Surveys, Precipitation, and Atlas. At the bottom of the page, there is a larger map titled "SACRAMENTO SAN JOAQUIN BAY-DELTA WATER QUALITY CONSTITUENT TRACKER AND DECISION SUPPORT". This map includes a legend for "View Turbidity" and "View Salinity", a timestamp for "Measures Flow Time, Typicity 2/10/20 at 2010/20", and a video player. A detailed description of the Constituent Tracker is provided, stating it is a water quality constituent tracking tool that assimilates real-time and historic data collected at fixed stations in the Delta, monitors the Delta's hydro network, and provides data and decision support tools for viewing and analyzing current water quality conditions at finer spatial scales.

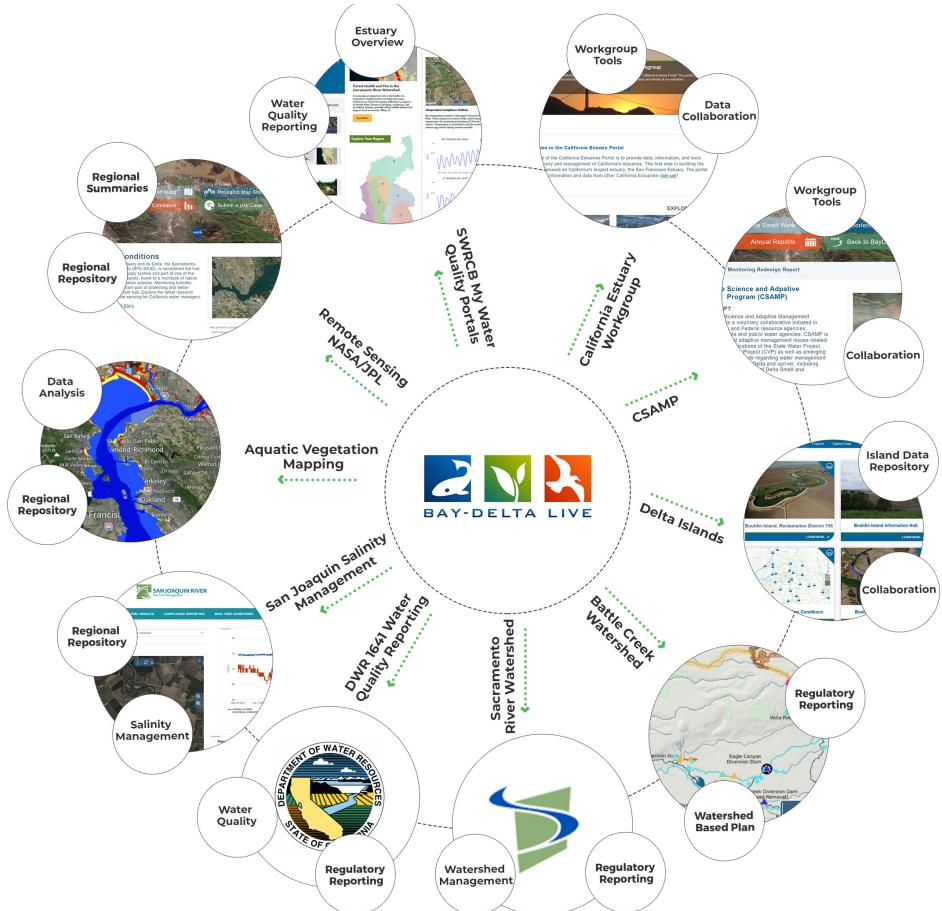
# User Community 2020-2023



## Funding Partners & Regional Programs

### Community Investment

- ✓ SFCWA
- ✓ USBR
- ✓ DWR Environmental Monitoring
- ✓ State Water Contractors
- ✓ MWD
- ✓ JPL/NASA
- ✓ CalFire
- ✓ Sierra Nevada Conservancy
- ✓ Battle Creek Conservancy
- ✓ SWRCB
- ✓ RCDs & FSCs
- ✓ Delta Science Council



## What is BDL?

- ✓ **Open Data Access and Visualization Platform**
- ✓ **API Consumer- Data Federation that aggregates data from hundreds of sources. NWIS, CDEC, NOAA, DWR, USBR, USFWS, CADFWS, Academia, NGOs, NASA, OpenET, AGOL**
- ✓ **Creates a Common Operating Picture with current conditions**
- ✓ **Web application provides tools use federated data through custom templates, dashboards, maps**
- ✓ **Sensor network observations. View many monitoring programs in one location**
- ✓ **Map based/spatial data analytics**
- ✓ **Provides collaborative and special project workspaces (Forest Health, Battle Creek, Fisheries, CSAMP, Islands, Estuary Workgroup, Remote Sensing)**

## Data Reporting Dashboards

Home Operations Current Conditions Weather Fish Explore Data Maps Projects Docs Help EDSM  

### STATE WATER PROJECT EXECUTIVE OPERATIONS SUMMARY



**Operations Summary**  
Data is preliminary, subject to change  
This summary State water Project informational data, and data for previous 30 days  
Data Collected: 2024-04-11

Delta Operations		Estimated Hydrology		Schedule Exports	
Delta Conditions	Excess with Restrictions for San Joaquin Flow	Total Delta Inflow	39127 CFS	Clifton Court Inflow	600 CFS
Delta X Channel	Delta Gates ( of day is open)0	Sacramento River	31384 CFS	Jones Pumping Plant	970 CFS
% of Inflow Diverted	Inflow 4.4 (14-day avg) %	San Joaquin River	4763 CFS		
Outflow	35600 CFS				
X2 Position	(yesterday)61				
Controlling Factors	SJR I/E				
Reservoir Storages			Reservoir Releases		
Shasta Reservoir	4335 TAF	Keswick	6000		
Folsom Reservoir	755 TAF	Nimbus	4000		
Oroville Reservoir	3156 TAF	Oroville	7000		

## What Do They Do?

- ✓ Present disparate data in one UI
- ✓ Simplify Access to Important Data
- ✓ Present a Common Operating Picture
- ✓ Report on Delta Conditions
- ✓ Easy Reporting

## Who is Using it?

- ✓ Managers
- ✓ Mobile App Community
- ✓ Workgroups
- ✓ Operations

**Environmental Indicators of Fish Migration <sup>i</sup>**  
Key river flow and water temperature station data help managers better understand salmon migration.

<b>Wilkins Slough (WLK)</b> Flow, Mean Daily <b>13885.0 CFS</b> Threshold: > 7500 CFS Data Collected: 2024/04/11	<b>Mill Creek (MLM)</b> Flow, Mean Daily      % Change <b>373.0 CFS</b> <b>8.7</b> Threshold: > 95 CFS      Threshold: > 50 % Data Collected: 2024/04/10	<b>Deer Creek (DCV)</b> Flow, Mean Daily      % Change <b>446.75 CFS</b> <b>0.8</b> Threshold: > 95 CFS      Threshold: > 50 % Data Collected: 2024/04/10	<b>Wilkins Slough (WLK)</b> Water Temperature <b>59.043 °F</b> Threshold: < 56.3 F (13.5 C) Data Collected: 2024/04/10
--	--	---	--

**Old and Middle River Operations**

-1807.0 CFS Data Collected: 2024/04/10	Old and Middle River (OMR) Tidally Filtered Estimate Flow, Mean Daily Data Collected: 2024/04/10	-871.0 CFS Data Collected: 2024/04/10	Old River at Bacon Island (OBI) Flow, Mean Daily Data Collected: 2024/04/10	-644.0 CFS Data Collected: 2024/04/10	Middle River at Middle River (MDR) Flow, Mean Daily Data Collected: 2024/04/10
-1010.0 CFS Data Collected: 2024/04/09	NWIS Old River at Bacon Island (OBI) Discharge, Tidally Filtered Data Collected: 2024/04/09			9261 CFS Data Collected: 2024/04/10	QWEST Discharge, Tidally Filtered Net Flow at Jersey Point Data Collected: 2024/04/10

**Old Middle River Index Calculation Water Year 2024**  
Preliminary Data - Subject to Change  
(\*\*\* Computed from available USGS Tidally Filtered Data)

-2350 CFS Daily Average Data Collected: 02/29/24	-2460 CFS 5-Day Average	-2500 CFS 14-Day Average
--	----------------------------	-----------------------------

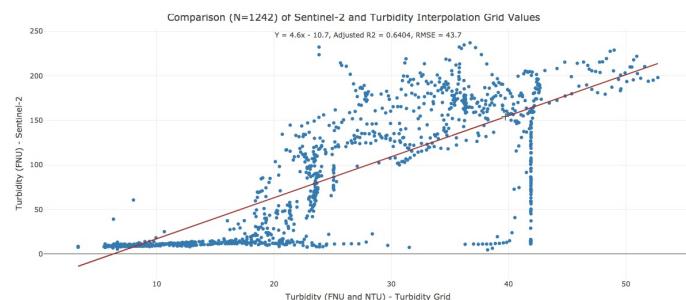
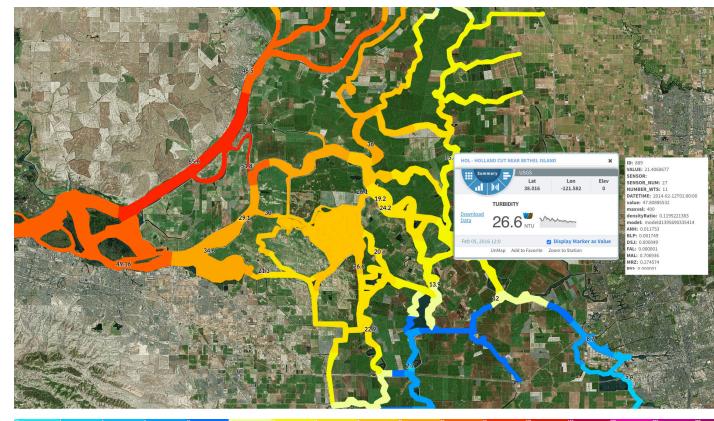
# Constituent Tracker - Drought Monitoring and First Flush

## What Does it Do?

- ✓ Data Assimilation Model
- ✓ Animated Spatial Maps for Real Time Constituent Tracking
- ✓ View Data at both 15-minute intervals or a Constant Point in Tide
- ✓ Advance data modeling algorithms
- ✓ Collaboration with USGS

## Who is Using it?

- ✓ Drought Monitoring
- ✓ Trawl Managers
- ✓ Science Community
- ✓ Water Ops



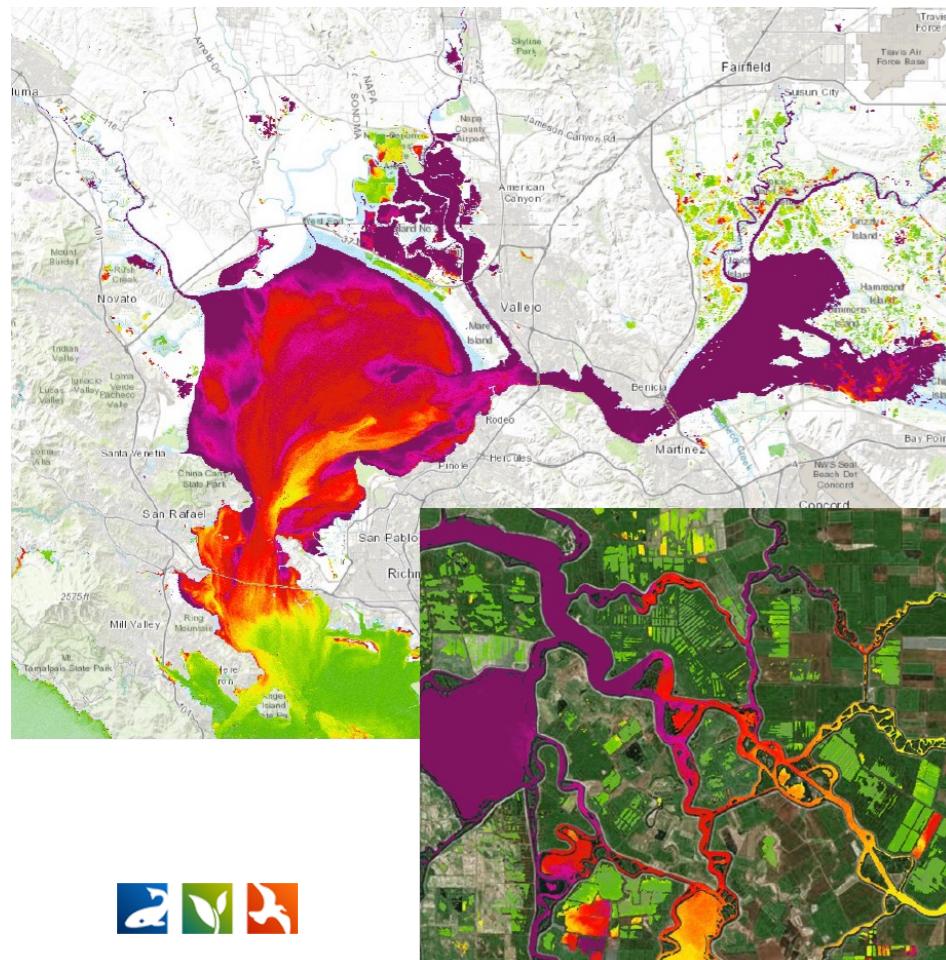
## Remote Sensing -NASA/JPL Collaboration

### What Does it Do?

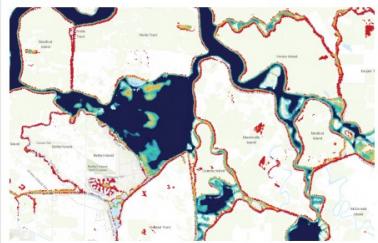
- ✓ Provides data and decision support tools to view and analyze current research in the remote sensing space
- ✓ Repository for Remote Sensing Data for and by the science community

### Who is Using it?

- ✓ Managers
- ✓ Science Community
- ✓ Water Ops

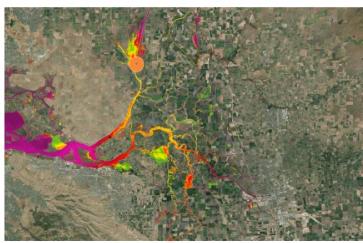


# Geospatial Resources from Open Data Portals



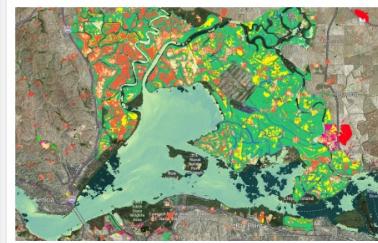
**San Francisco Bay Landsat Temperature & EDSM Fisheries...**

Water surface temperature maps were derived from the Land 8 sat Level 2 Collection 2 dataset and validated using thermal radiometer data collected from 2008-2019 from a validation site on a platform in the Salton Sea (RMSE = 0.78, r...

[View](#)

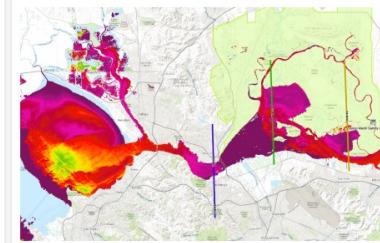
**EDSM and L8 Nechoch Turbidity**

San Francisco Bay L8 Nechoch Turbidity paired with Enhanced Delta Smelt Monitoring program catch data for all species of concern. EDSM set to monthly summaries.

[View](#)

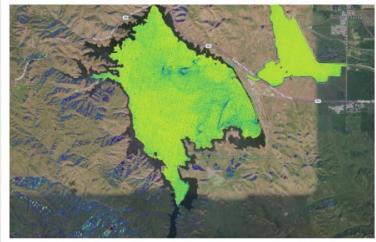
**San Francisco Bay Mishra Chlorophyll 2016-2021**

Sentinel 2 Chlorophyll Data Products using Mishra algorithm combined with the Bay Area Aquatic Resource Inventory for Wetlands (2015) used to explore the area for potential habitat types required for species restoration.

[View](#)

**Suisun Marsh Turbidity During 2018 Gate Actions**

This map displays turbidity in the Suisun Marsh during the 2018 Suisun Marsh Salinity Control Gates Actions. For all seven acquisitions considered from June 29 to September 27, 2018, turbidity conditions in Bays and Sloughs sub-regions were consistently higher (and...

[View](#)

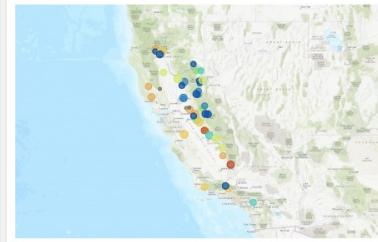
**San Luis Reservoir Mishra Chlorophyll Map**

This map displays chlorophyll-a concentrations in San Luis Reservoir derived from Sentinel 2 Imagery. The imagery was processed using the Mishra algorithm. Imagery is time enabled and can be explored using the timeline.

[View](#)

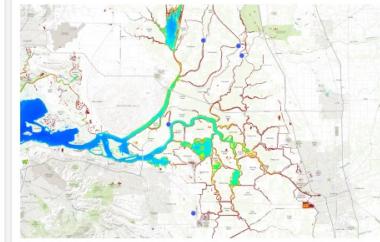
**San Luis Reservoir L8 OC3 Chlorophyll Map**

This map displays chlorophyll-a concentrations in San Luis Reservoir derived from Landsat 8 Imagery. The imagery was processed using the OC3 algorithm. Imagery is time enabled and can be explored using the timeline.

[View](#)

**Reservoir Summary Conditions Map**

This map shows near real time reservoir capacity at the major reservoirs across the state. Data retrieved daily from the California Data Exchange Center.

[View](#)

**Landsat and CDEC stations for Water Temperature Spring...**

Landsat Temperature data paired with 5 Celsius real time stations in the Sacramento San Joaquin Bay Delta. Color scale ranges from 10-28.6 Degree Celsius.

[View](#)

# Geospatial Resources - GIS Reporting

Home Operations Current Conditions My Dashboard Weather and Tides Fish Explore Data Maps Projects Docs Help 0 Dave Osti Search

Analyze Data

Use analyze tools to ask questions about area of interest.

Island Analysis

Data Single Draw

Wildlife Conservation Board Approved Projects

Data Single Draw

Delta Analysis

Data Single Draw

EMPA Fish Abundance and Water Quality

Data Single Draw Extent By Polygon

Jul 18, 2021 12:00AM Step 1 hour Start 07/16/2021 End 07/18/2021 Duration Go!

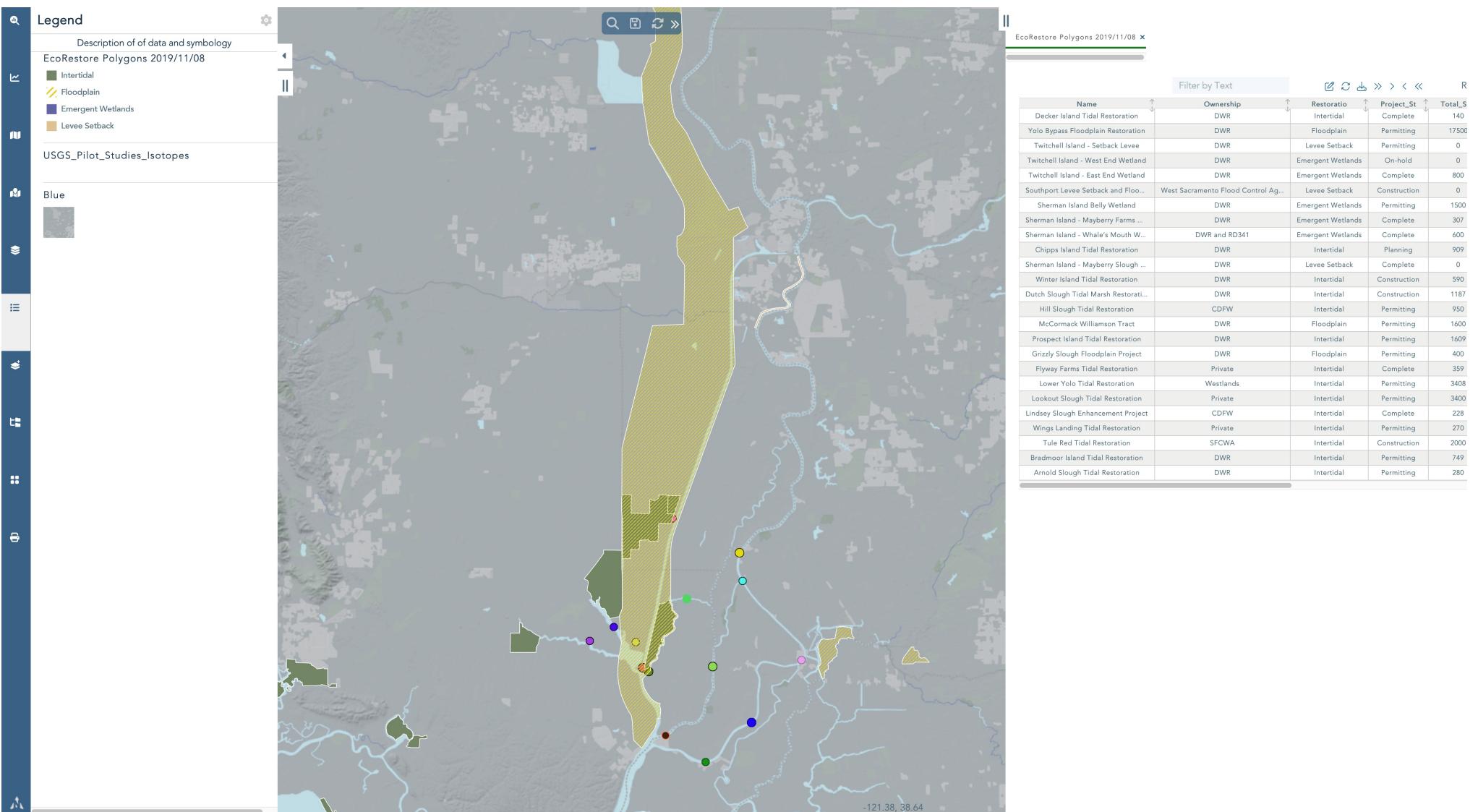
ISLAND ANALYSIS  
Calculated Acres : 6030.00

Delta Crop Mapping 2015

Crop Type	Acres
FIELD CROP	~4,500
SUBSIDIARY	~500
NATIVE	~50
IDLE	~10
RIPARIAN	~10
PASTURE	~10
NATIVE PASTURE	~10
WATER SYSTEM	~10
YOUNG PLANT	~10
GRASSLAND	~10
URBAN AREA	~10
TRUCKING	~10
DECIDUOUS FOREST	~10

Delta Levee Anatomy

Levee Component	Count
Levee Landfill	~140
Toe Berm	~130
Toe Ditch	~80
Levee Crown	~60
Levee Waterside	~10
Waterside Flank	~5
Ramp Landside	~5
Ramp Waterside	~5
Bridge Approach	~5

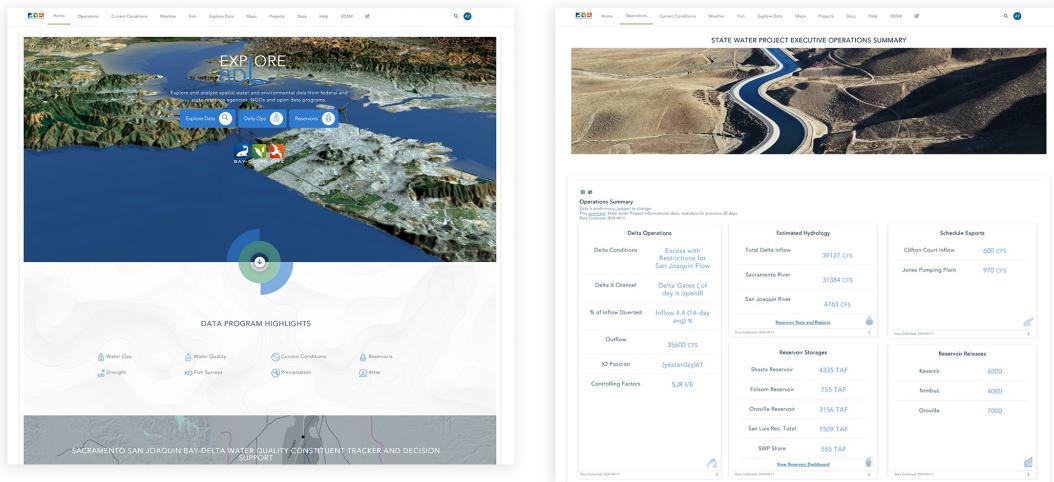


## 2024 New Data and Tools

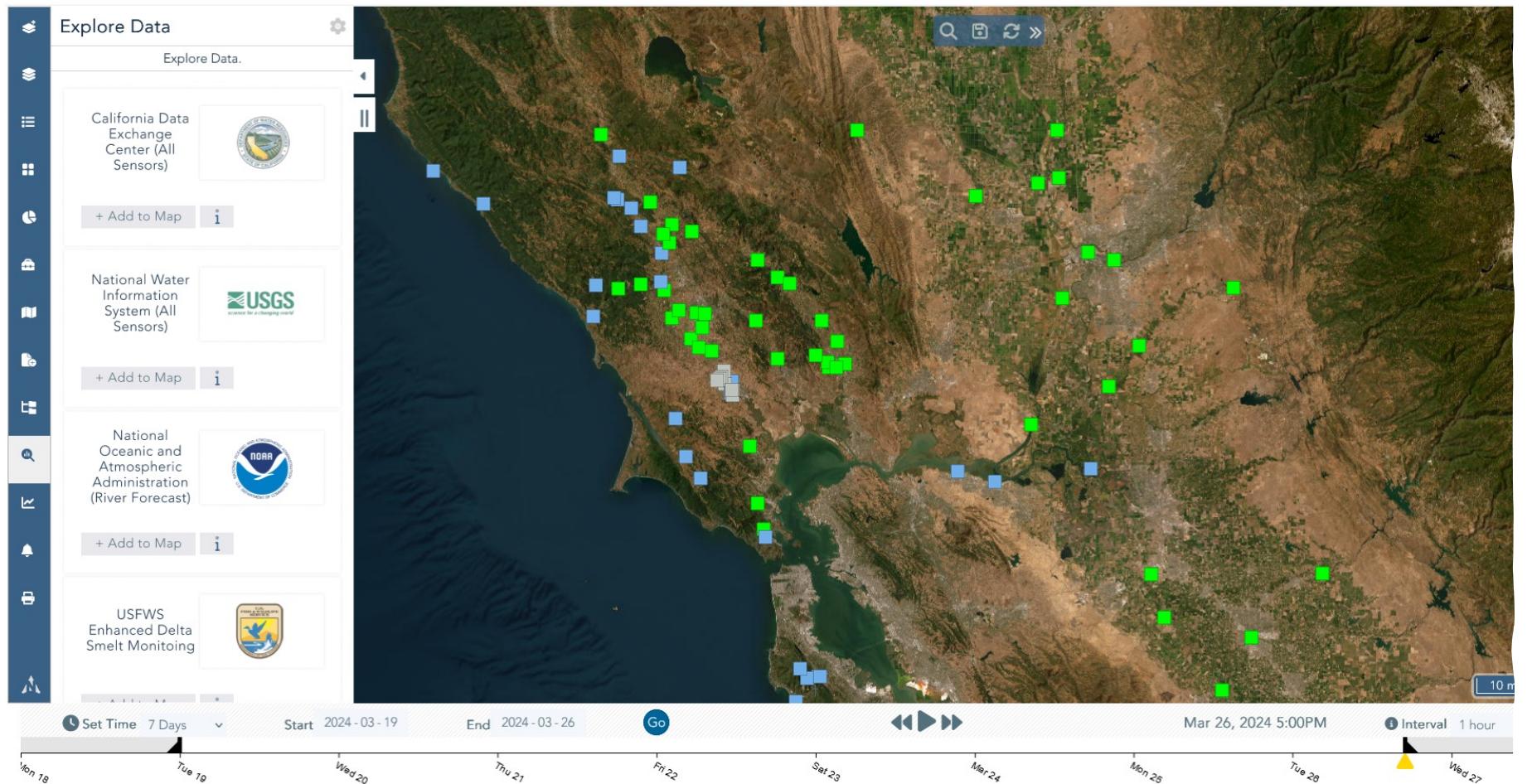
- ✓ [Explore.baydeltalive.com](http://Explore.baydeltalive.com)
- ✓ Operationalize Water Data Library
- ✓ Operationalize ECOSTRESS NASA Remote Sensing
- ✓ Aquatic Vegetation Mapping
- ✓ Upgrade EDSM/DJFMP Daily and Weekly Reports
- ✓ Integrate OpenET Models
- ✓ LiDAR
- ✓ Upper Watersheds



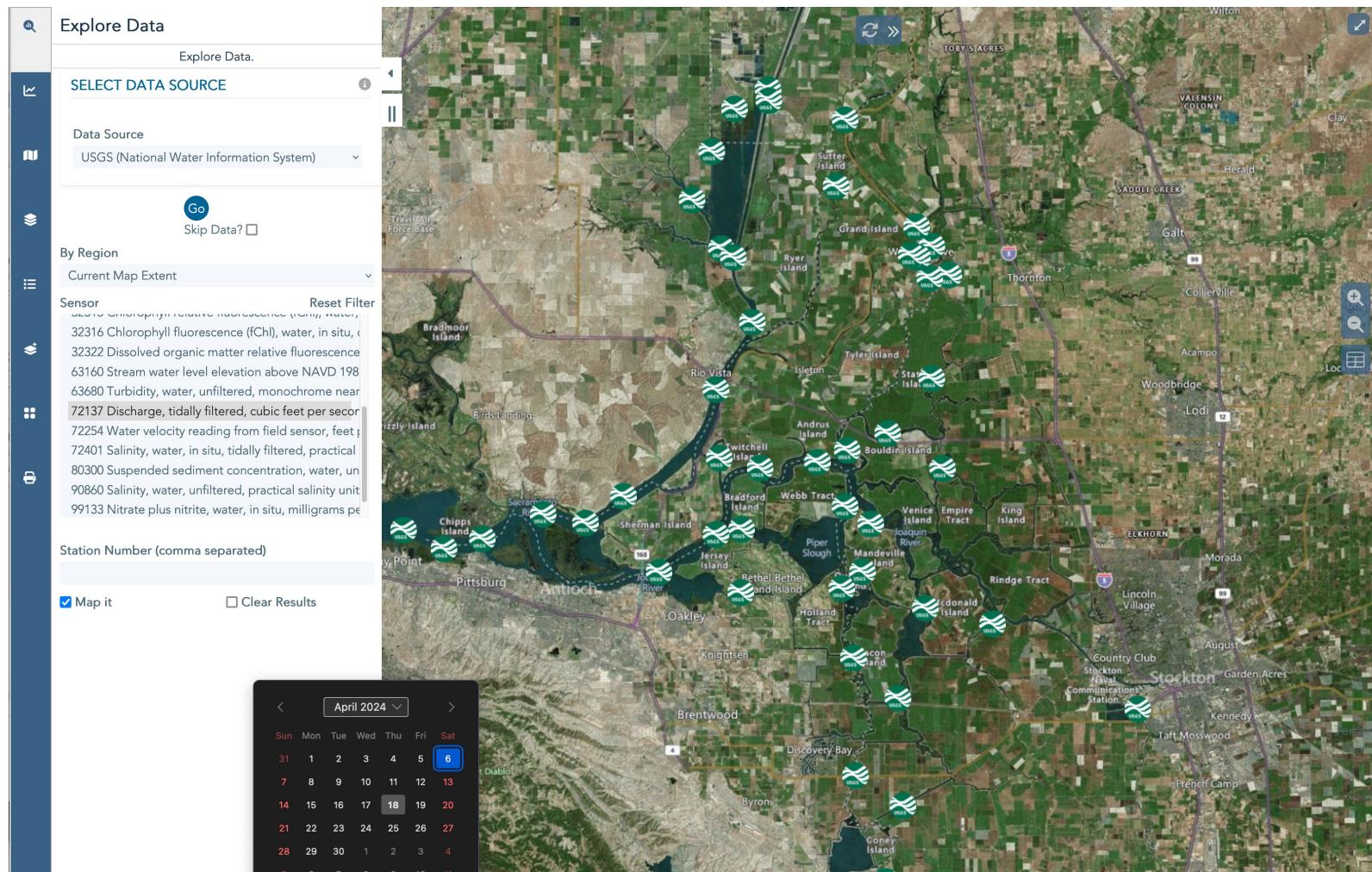
## Explore BDL



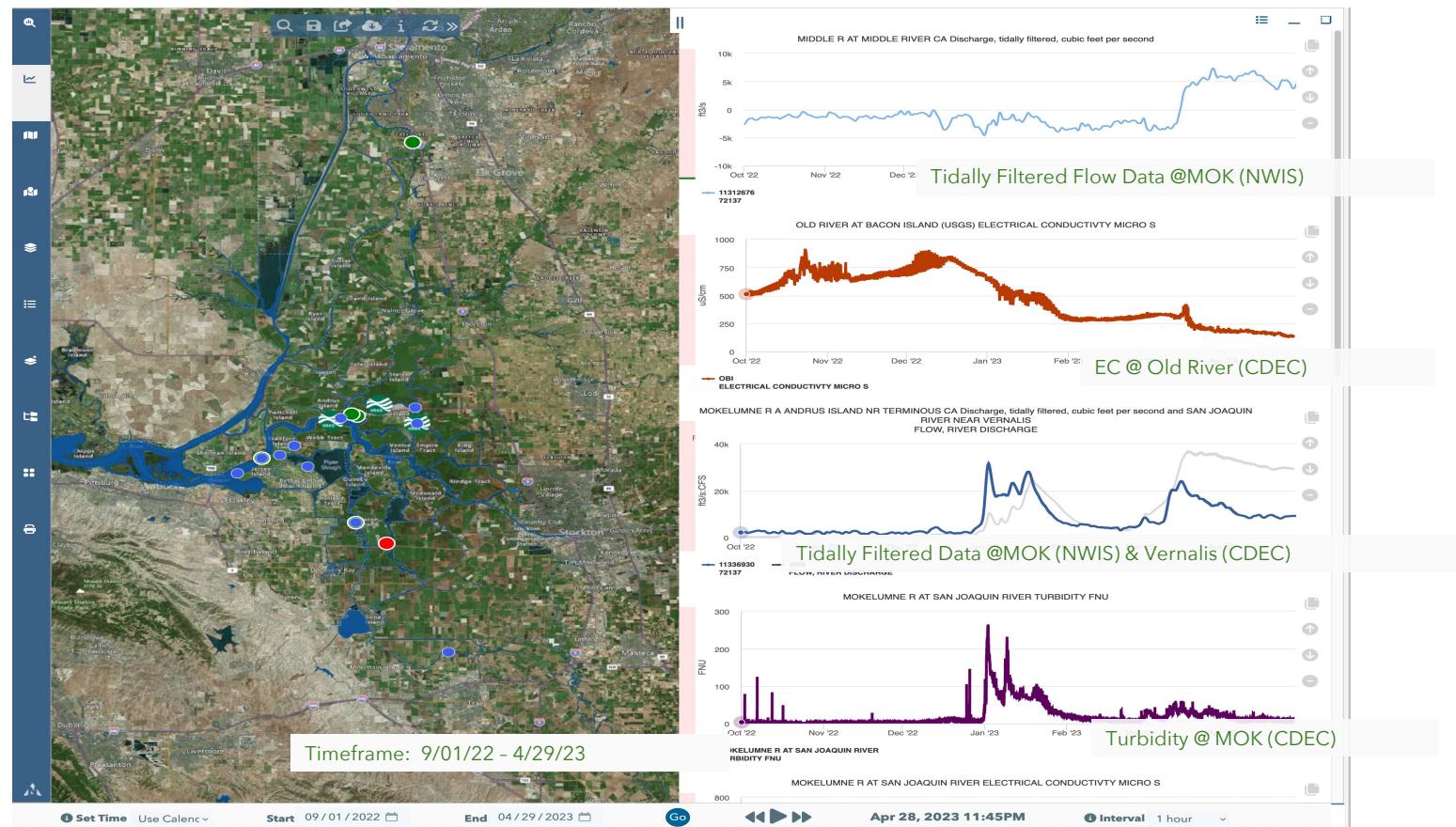
# Explore BDL Data Access & Download Methods



## Current Data Access & Download Methods



## Current Data Access Methods



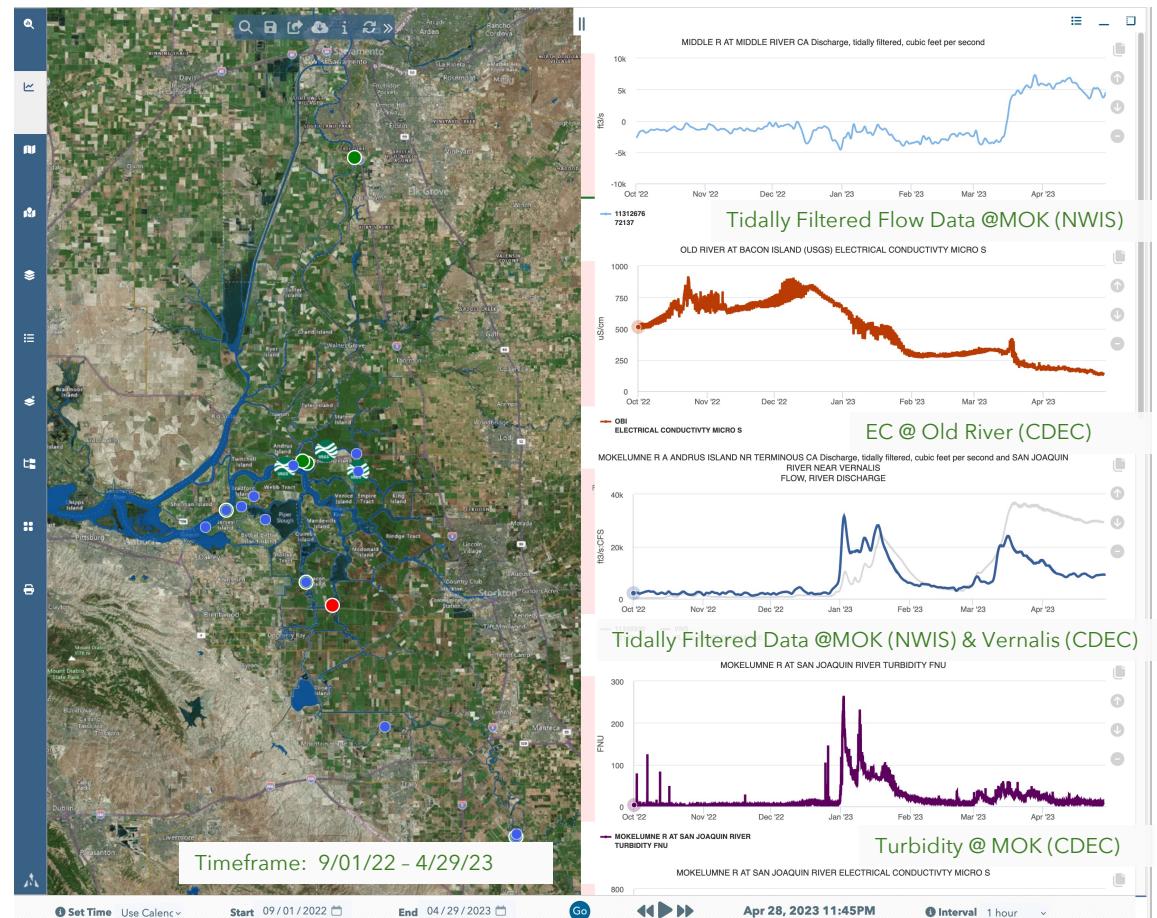
# Current Data Access Methods

```

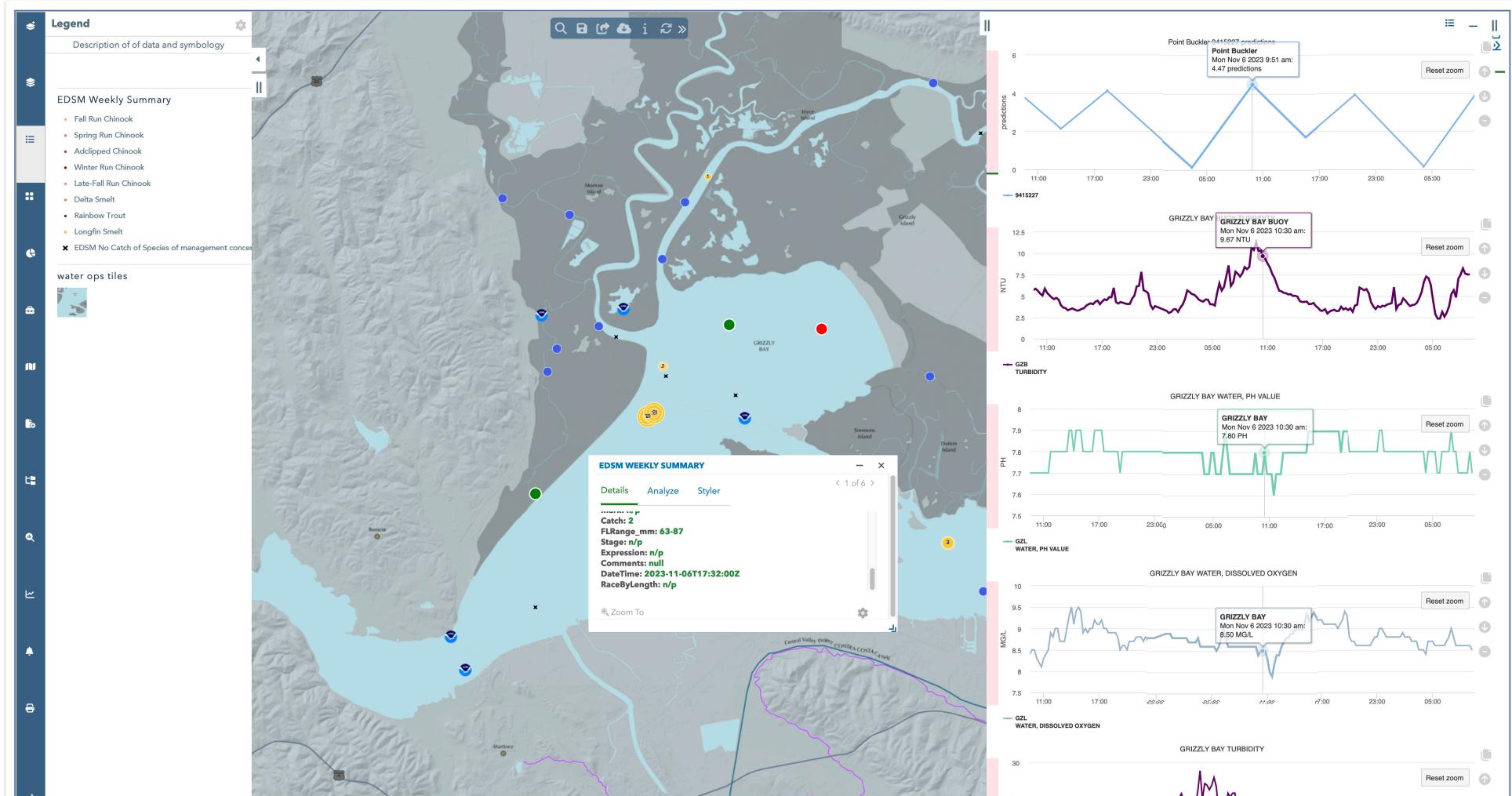
# ----- WARNING -----
# Some of the data that you have obtained from this U.S. Geological Survey database may not
# have received Director's approval. Any such data values are qualified as provisional and
# are subject to revision. Provisional data are released on the condition that neither the
# USGS nor the United States Government may be held liable for any damages resulting from its use.
# Go to http://help.waterdata.usgs.gov/policies/provisional-data-statement for more information.
#
# File-format description: http://help.waterdata.usgs.gov/faq/about-tab-delimited-output
# Automated-retrieval info: http://help.waterdata.usgs.gov/faq/automated-retrievals
#
# Contact: gs-w_support_nwisweb@usgs.gov
# Retrieved: 2 (nadw01)
#
# Data for the following 1 site(s) are contained in this file
# USGS 11312676 MIDDLE R AT MIDDLE RIVER CA
#
#
# TS_ID - An internal number representing a time series.
#
# Data provided for site 11312676
# TS_ID Parameter Description
# 15237 72137 Discharge tidally filtered cubic feet per second
#
# Data-value qualification codes included in this output:
# A Approved for publication -- Processing and review completed.
# P Provisional data subject to revision.
#
agency_cd site_no datetime tz_cd 15237_72137 15237_72137_cd
5s 15s 20d 6s 14n 10s
USGS 11312676 10/1/22 0:00 PST -2660 A
USGS 11312676 10/1/22 1:00 PST -2650 A
USGS 11312676 10/1/22 2:00 PST -2650 A
USGS 11312676 10/1/22 3:00 PST -2640 A
USGS 11312676 10/1/22 4:00 PST -2630 A
USGS 11312676 10/1/22 5:00 PST -2610 A
USGS 11312676 10/1/22 6:00 PST -2600 A
USGS 11312676 10/1/22 7:00 PST -2580 A
USGS 11312676 10/1/22 8:00 PST -2560 A
USGS 11312676 10/1/22 9:00 PST -2540 A
USGS 11312676 10/1/22 10:00 PST -2510 A
USGS 11312676 10/1/22 11:00 PST -2490 A
USGS 11312676 10/1/22 12:00 PST -2460 A
USGS 11312676 10/1/22 13:00 PST -2430 A
USGS 11312676 10/1/22 14:00 PST -2400 A
USGS 11312676 10/1/22 15:00 PST -2370 A
USGS 11312676 10/1/22 16:00 PST -2340 A
USGS 11312676 10/1/22 17:00 PST -2310 A
USGS 11312676 10/1/22 18:00 PST -2270 A
USGS 11312676 10/1/22 19:00 PST -2240 A
USGS 11312676 10/1/22 20:00 PST -2210 A
USGS 11312676 10/1/22 21:00 PST -2170 A
USGS 11312676 10/1/22 22:00 PST -2140 A
USGS 11312676 10/1/22 23:00 PST -2110 A
USGS 11312676 10/2/22 0:00 PST -2070 A
USGS 11312676 10/2/22 1:00 PST -2040 A
USGS 11312676 10/2/22 2:00 PST -2010 A
USGS 11312676 10/2/22 3:00 PST -1980 A
USGS 11312676 10/2/22 4:00 PST -1950 A
USGS 11312676 10/2/22 5:00 PST -1920 A
USGS 11312676 10/2/22 6:00 PST -1900 A
USGS 11312676 10/2/22 7:00 PST -1870 A

```

11312676-Discharge, tidally fil +

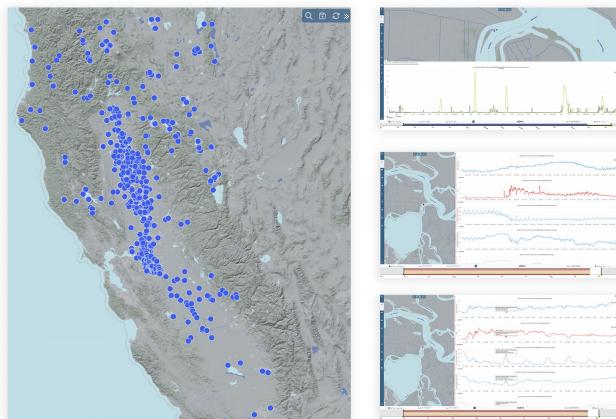


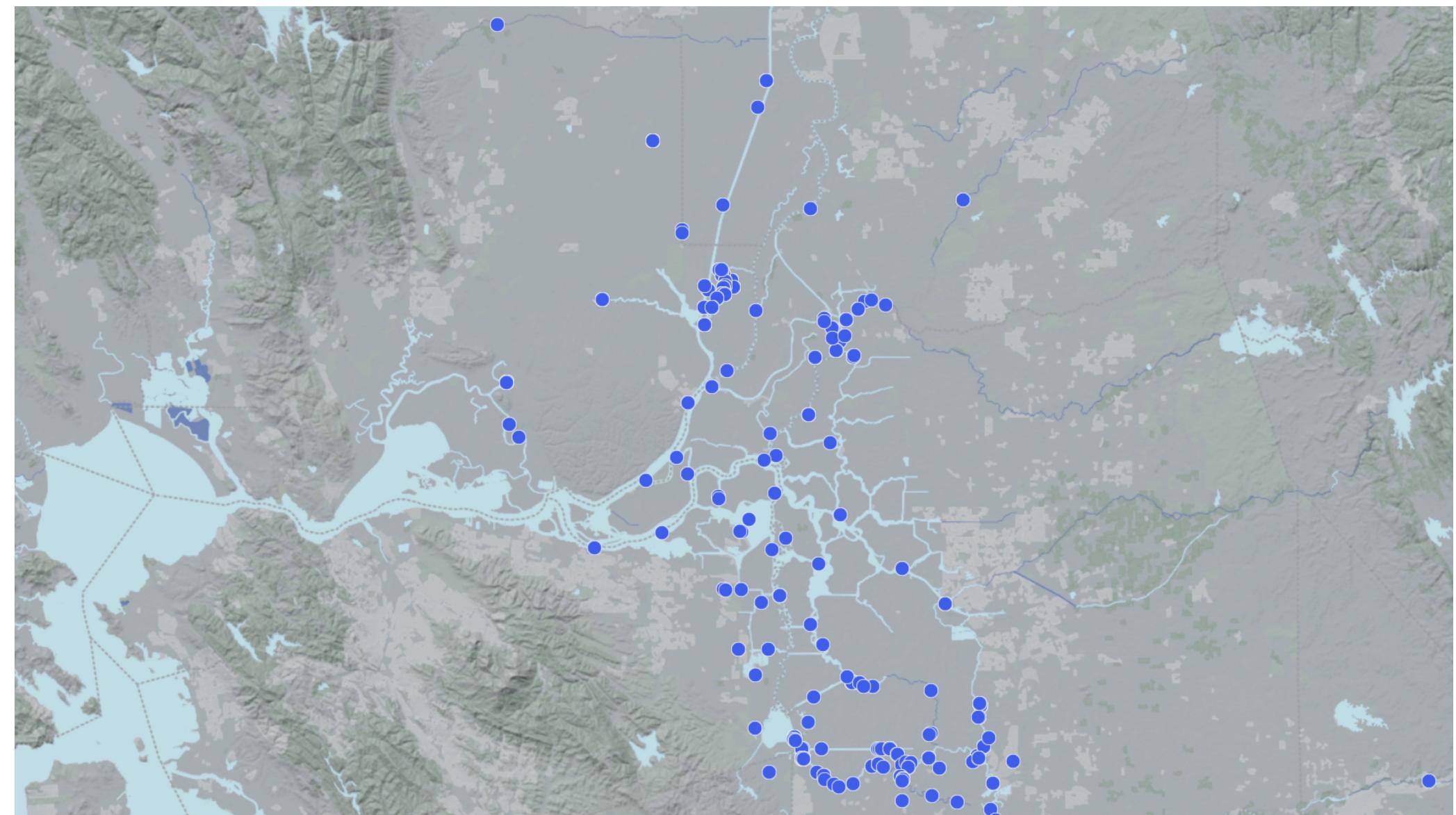
# Compare CDEC/NWIS/NOAA Data to EDSM/DJFMP

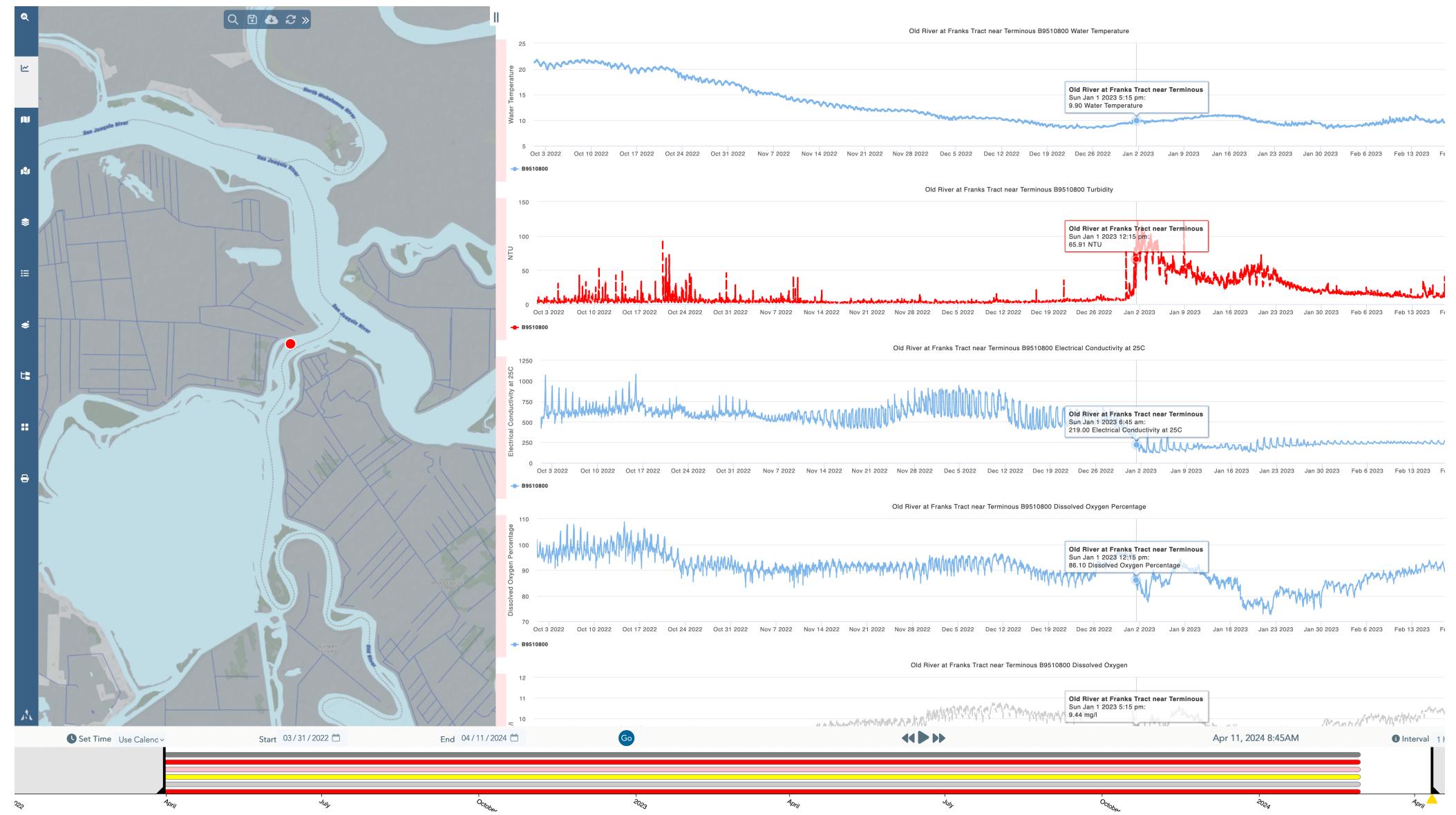


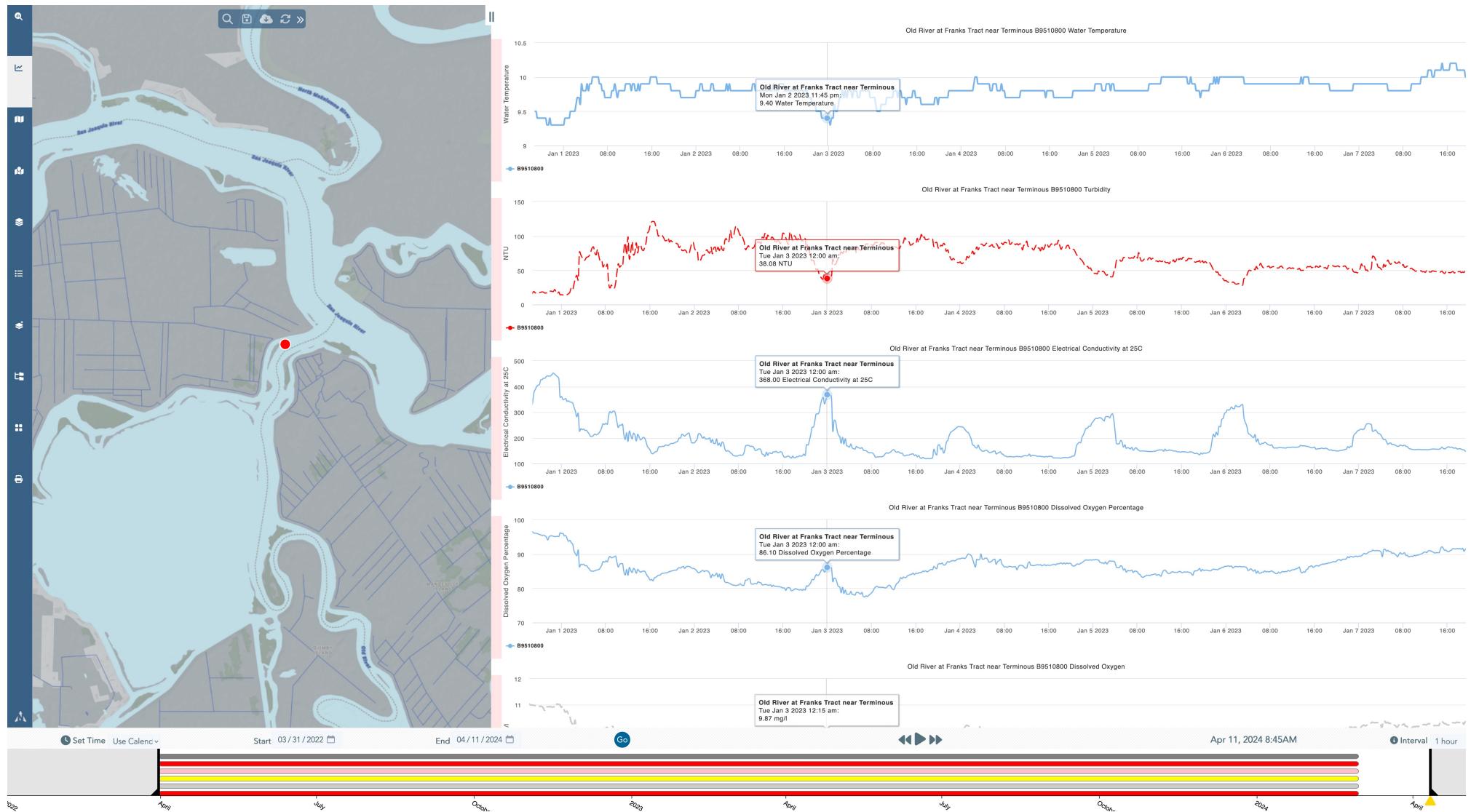


## Water Data Library





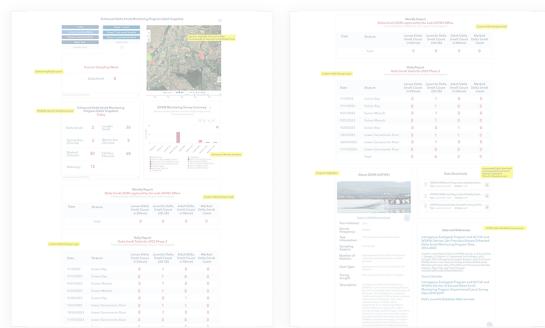








## USFWS EDSM Data Dashboard



 **34NORTH**  
WEB • DATA • GIS

ENHANCED DELTA SMELT MONITORING PROGRAM CATCH SNAPSHOT

Today

Current Sampling Week

Previous Sampling Week

Water Year

### Custom Time

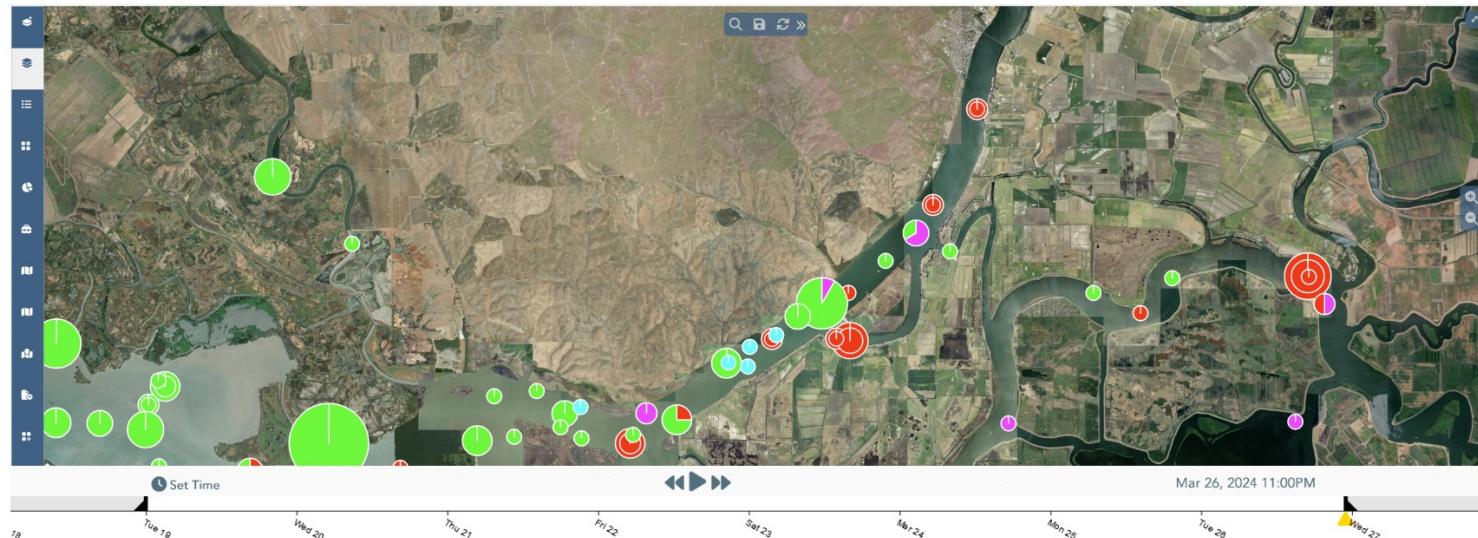
## Phase 1: Adult

## Phase 2: Larval/Juvenile

### Phase 3: Juvenile/Sub-Adult

Explore All

Filter by Species



Daily Report  
Delta Smelt Totals for 2023 Phase 3

Enhanced Delta Smelt Monitoring Program Catch Snapshot

Data	Stratum	Larvae Delta Smelt Count (<20mm)	Juvenile Delta Smelt Count (20-58)	Adult Delta Smelt Count (>58mm)	Marked Delta Smelt Catch
1/1/2023	Suisun Bay	0	1	0	0
7/11/2023	Suisun Bay	0	1	0	0
9/21/2023	Suisun Marash	0	1	0	0
9/25/2023	Suisun Marash	0	1	0	0

## ENHANCED DELTA SMELT MONITORING PROGRAM CATCH SNAPSHOT

Today      Current Sampling Week      Previous Sampling Week      Water Year      Custom Time

Phase 1: Adult      Phase 2: Larval/Juvenile      Phase 3: Juvenile/Sub-Adult      Explore All

Filter by Text      Row Count 100 ▾

site_name	region	station_type	sample_date	method_code	station_name
Shenwood Harbor	2	KOTR	20240208	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240209	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240210	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240208	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240208	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240208	KOTR	Shenwood Harbor S
Terminus	3	seine	20240207	SEIN	Terminus U
Terminus	3	seine	20240207	SEIN	Terminus U
Terminus	3	seine	20240207	SEIN	Terminus U
Terminus	3	seine	20240207	SEIN	Terminus U
Shenwood Harbor	2	KOTR	20240208	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240213	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240207	MNTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240213	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240212	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240213	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240209	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240213	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240213	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240213	KOTR	Shenwood Harbor S
Shenwood Harbor	2	KOTR	20240207	MNTR	Shenwood Harbor S

Mar 26, 2024 11:00PM

Set Time

Enhanced Delta Smelt Monitoring Program Catch Snapshot Week

Delta Smelt	45	Longfin Smelt	12
Winter-Run Chinook	88	Spring-Run Chinook	74
Fall-Run Chinook	5	Marked Chinook	50
Wakasagi			200

Data Collected: 03-18-2024

Enhanced Delta Smelt Monitoring Species Highlight Week

Delta Smelt	45
-------------	----

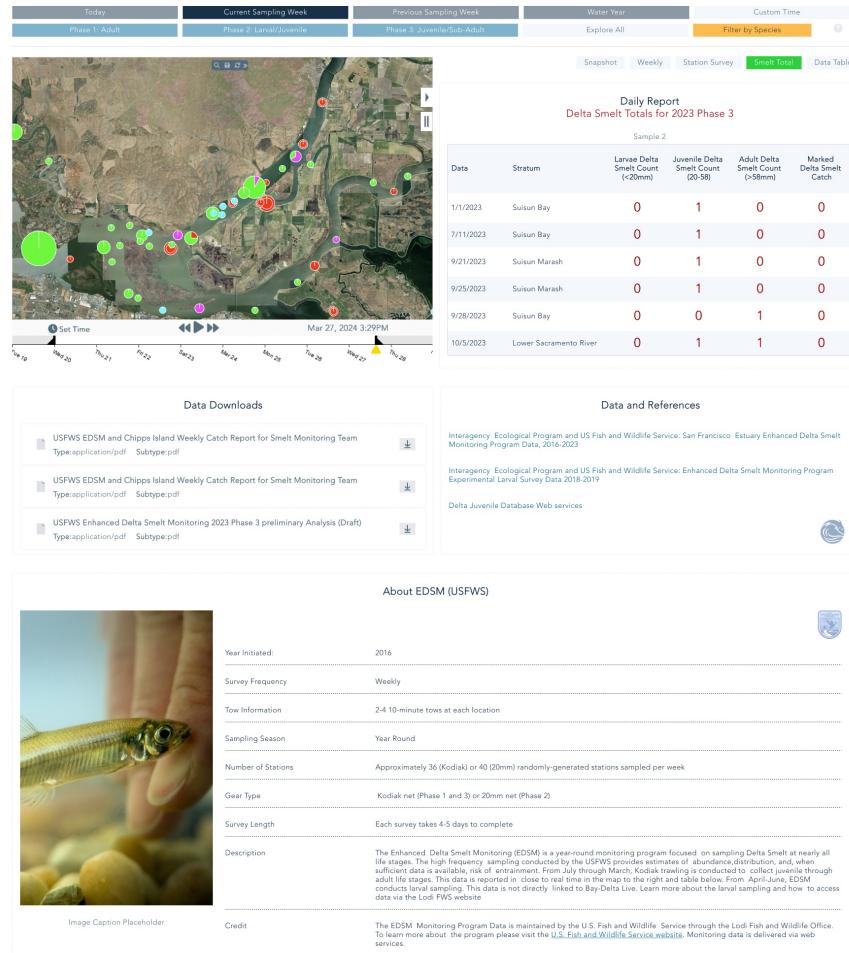
Data Collected: 03-18-2024

Enhanced Delta Smelt Monitoring Species Highlight  
Species of management concern caught at key survey monitoring locations (Last 7 days)

Estimated Data:

Date	Catch Count
Mar 18	80
Mar 19	85
Mar 20	80
Mar 21	80
Mar 22	80
Mar 23	80
Mar 24	80
Mar 25	80
Mar 26	80
Mar 27	80

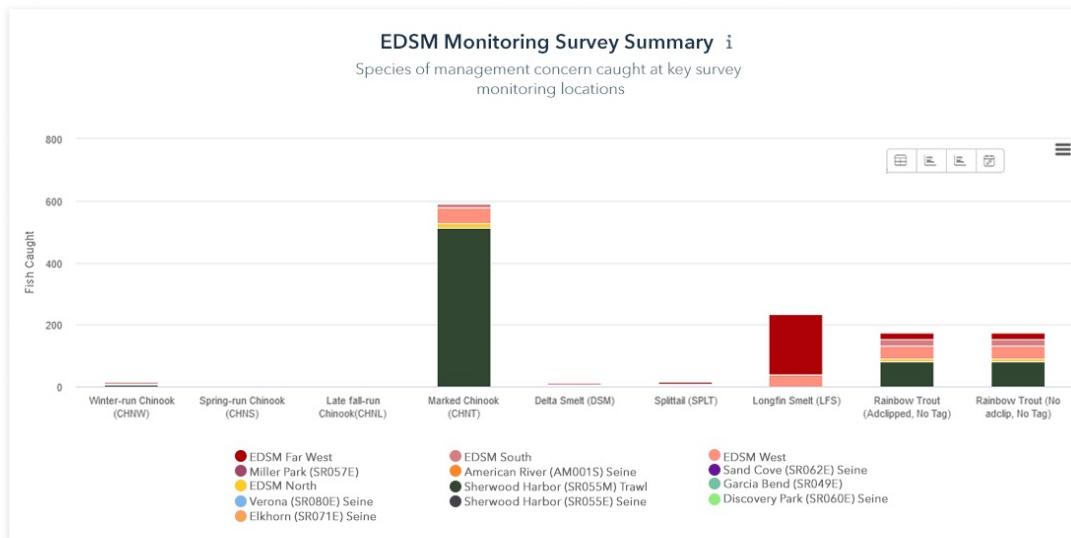
## ENHANCED DELTA SMELT MONITORING PROGRAM CATCH SNAPSHOT



Enhanced Delta Smelt Monitoring Program Catch Snapshot					
Today					
Delta Smelt	2	Longfin Smelt	26	Spring-Run Chinook	2
Winter-Run Chinook	2	Fall-Run Chinook	68	Marked Chinook	82
Wakasagi	12				

Data Collected: 2024-01-26

i



### Data Downloads

- [USFWS EDSM and Chippis Island Weekly Catch Report for Smelt Monitoring Team  
Type:application/pdf Subtype:pdf](#)
- [USFWS EDSM and Chippis Island Weekly Catch Report for Smelt Monitoring Team  
Type:application/pdf Subtype:pdf](#)
- [USFWS Enhanced Delta Smelt Monitoring 2023 Phase 3 preliminary Analysis \(Draft\)  
Type:application/pdf Subtype:pdf](#)

### Data and References

[Interagency Ecological Program and US Fish and Wildlife Service: San Francisco Estuary Enhanced Delta Smelt Monitoring Program Data, 2016-2023](#)

[Interagency Ecological Program and US Fish and Wildlife Service: Enhanced Delta Smelt Monitoring Program Experimental Larval Survey Data 2018-2019](#)

[Delta Juvenile Database Web services](#)

### About EDSM (USFWS)

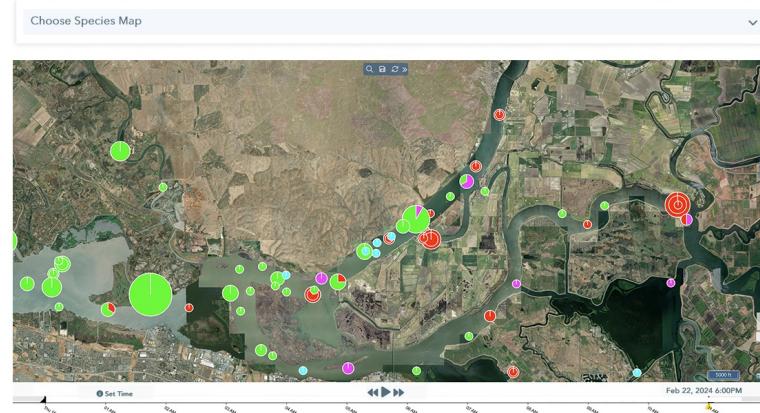
Year Initiated:	2016
Survey Frequency	Weekly
Tow Information	2-4 10-minute tows at each location
Sampling Season	Year Round
Number of Stations	Approximately 36 (Kodiak) or 40 (20mm) randomly-generated stations sampled per week
Gear Type	Kodiak net (Phase 1 and 3) or 20mm net (Phase 2)
Survey Length	Each survey takes 4-5 days to complete
Description	The Enhanced Delta Smelt Monitoring (EDSM) is a year-round monitoring program focused on sampling Delta Smelt at nearly all life stages. The high frequency sampling conducted by the USFWS provides estimates of abundance, distribution, and, when sufficient data is available, risk of entrainment. From July through March, Kodiak trawling is conducted to collect juvenile through adult life stages. This data is reported in close to real time in the map to the right and table below. From April-June, EDSM conducts larval sampling. This data is not directly linked to Bay-Delta Live. Learn more about the larval sampling and how to access data via the Lodi FWS website.

Image Caption Placeholder

Credit

The EDSM Monitoring Program Data is maintained by the U.S. Fish and Wildlife Service through the Lodi Fish and Wildlife Office. To learn more about the program please visit the [U.S. Fish and Wildlife Service website](#). Monitoring data is delivered via web services.

USFWS EDSM AND CHIPPS ISLAND WEEKLY CATCH REPORT FOR SMELT MONITORING TEAM  
Report Date: May 22, 2023



Maps Spatially Display Delta Smelt (a) and Longfin Smelt (b) catch by station as of current processing levels for EDSM 2023 Phase 2 20mm trawls from survey week 41 (5/8-5/12/2023). Delta Smelt catch is differentiated between primary and confirmed ID status. Sites with no Delta Smelt or Longfin Smelt catch are indicated with squares.

#### Summary

Table 1. Summary of new detections of Delta Smelt (DSM) captured by the Lodi USFWS Office since the last Smelt Monitoring Team meeting. Further detail on each fish is included in the following tables depending on capture date. Fish that are crossed out are previously-reported fish that are no longer identified as DSM.

Summary of New Detections of Delta Smelt (DSM) Captured by the Lodi USFWS Office						
TBD						
Table 1						
Sampling Method	New DSM Detections	Date	Region	Stratum	Fork Length (mm)	
EDSM 20mm	1	05/08/2023	West	Suisun Marsh	7.1	
EDSM 20mm	1	05/08/2023	West	Suisun Marsh	9.5	
EDSM 20mm	1	05/08/2023	West	Suisun Marsh	10.0	

EDSM Delta Smelt Total WY2023	
Delta Smelt	40

**EDSM 2023 Phase 2****TBD**

(20mm larval surface trawling) week numbers and corresponding sample dates

Survey Week	Survey Week Dates
36	April 3-7, 2023
37	April 10-14, 2023
38	April 17-21, 2023
39	April 24-28, 2023
40	May 1-5, 2023
41	May 8-12, 2023
42	May 15-19, 2023
43	May 22-26, 2023
44	May 29-June 2, 2023
45	June 5-9, 2023
46	June 12-16, 2023
47	June 19-23, 2023
48	June 26-30, 2023

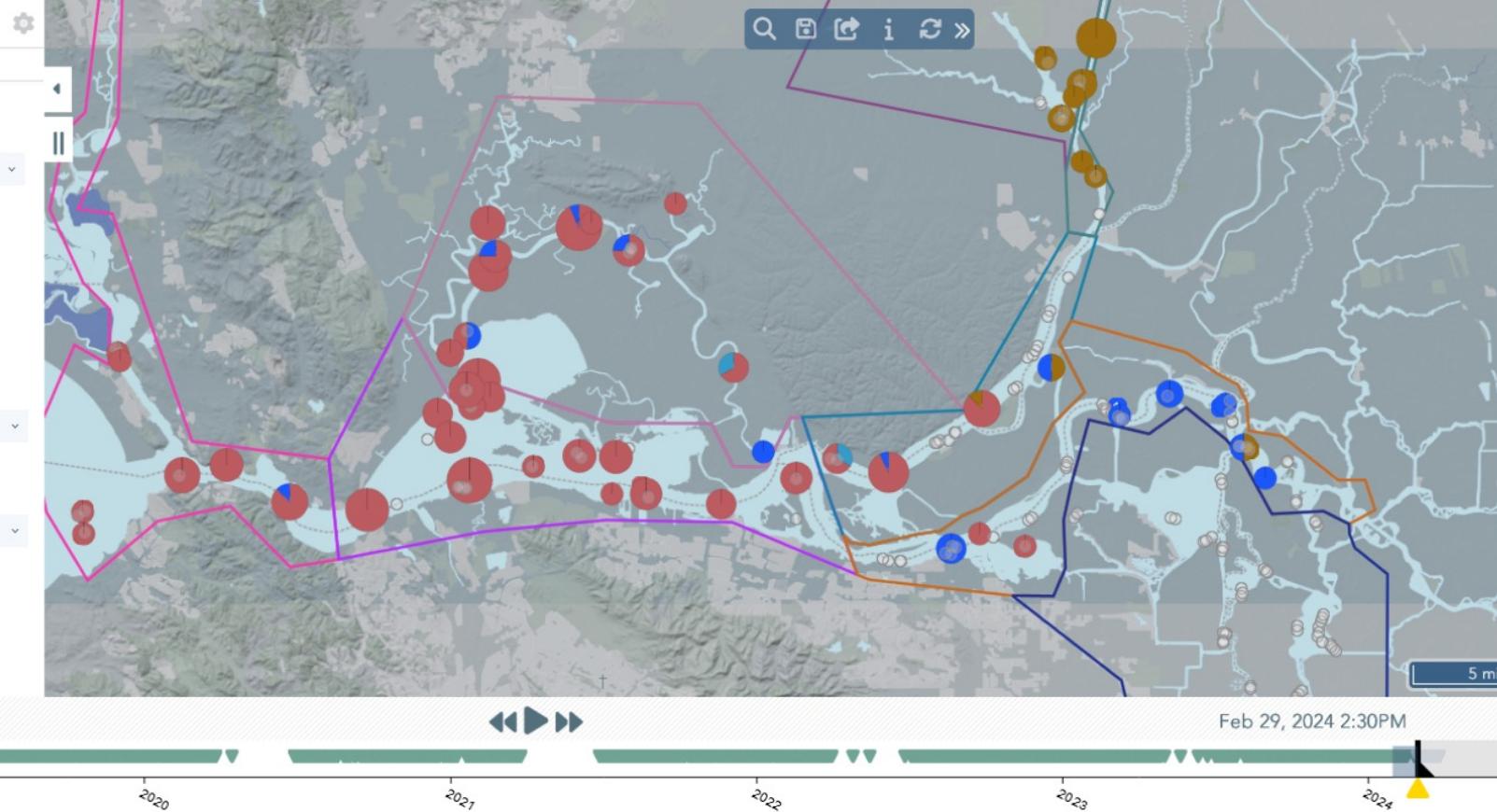
**Interagency Ecological Program****TBD**

Fork length ranges for life stages of Delta Smelt and Longfin Smelt as defined by the Interagency Ecological Program.

Species	Larvae	Juvenile	Adult
Delta Smelt	<20mm	20-58mm	>58mm
Longfin Smelt	<20mm	20-84mm	>84mm

**Chipps Island****TRD**

## Enhanced Delta Smelt Monitoring





## Build

The image displays the Bay-Delta Live application interface and two overlapping 'Edit Widget' dialog boxes.

**Main Application View:** Shows a map of the San Francisco Bay-Delta region with various monitoring sites marked. Below the map are several data tables and charts, including one titled "ENHANCED DELTA SMELT MONITORING PROGRAM CATCH SNAPSHOT".

**Edit Widget Dialog (Left):** A modal window titled "EDIT WIDGET" with tabs for Layout, Type, Content, and Advanced. Under "Widget Title", there is a title bar and a "Widget Size" section with five size options. Under "Widget Class", it shows "Basic". Under "Modify Layout", the height is set to "300px". At the bottom are "Update" and "Cancel" buttons.

**Edit Widget Dialog (Right):** Another modal window titled "EDIT WIDGET" with tabs for Layout, Type, Content, and Advanced. It lists various widget components under "Type": TEXT, LIST / SEARCH, MAPPING, ADV. MAPPING, MY, DEFAULT, UI, SITE, DOSS, OPERATIONS, VIEWERS, EXPLORE DATA, DELTA CONDITIONS, EDSM, REPORTING, DATA GRAPHING, MESSAGING, ADMIN, JSON, Cache. Under "Content", there is a section for "EDSM" with a "Icon/Title" field containing "EDSM". Below this are sections for "Edsm About", "Edsm Buttons Simple", "Edsm Buttons Species", "Edsm Logging", "Edsm Daily Report Sm...", "Edsm References", and "Edsm Snapshot Row". At the bottom are "Contained" and "Constrain Searches to: default" checkboxes, and "Update" and "Cancel" buttons.

The image displays three sequential screenshots of the EDSM (Environmental Data System) application interface, illustrating the process of creating a new workspace.

**Screenshot 1:** The user is on the "FISHERIES TEST PAGE". A modal window titled "EDIT WIDGET" is open, showing tabs for Layout, Type, Content, and Advanced. Under the Layout tab, the "Widget Title" is set to "New" and the "Widget Size" is set to "1/3 Page". A "Workspace Options" button is visible in the top right corner of the main page area.

**Screenshot 2:** The user has switched to the "Type" tab in the "EDIT WIDGET" modal. The "Icon/Title" field contains the text "EDSM". Below this, a grid of widget options is shown, including "Edsm About", "Edsm Buttons Simple", "Edsm Buttons Species", "Edsm Buttons", "Edsm Daily Report Sm...", "Edsm References", "Edsm Logging", and "Edsm Snapshot Cell".

**Screenshot 3:** The user has switched to the "Content" tab in the "EDIT WIDGET" modal. The "Icon/Title" field still contains "EDSM". Below this, the same grid of widget options is displayed. At the bottom of the modal, there are checkboxes for "Constrain Content Choices to: Fisheries Test Page" and "Contained" (with "Constrain Searches to: default" checked), and a large "Update" button.



**Download The BDL App**



<https://www.baydeltalive.com>

THANK YOU!

## Constituent Tracker Drought Monitoring Oct. - Dec. 2022

