


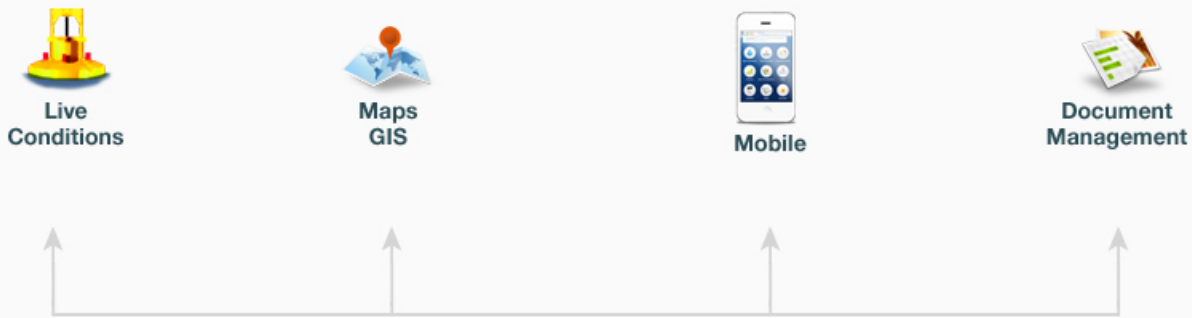
WEB SERVICES • GIS • VISUALIZATION

Open and Collaborative
Natural Resource Management

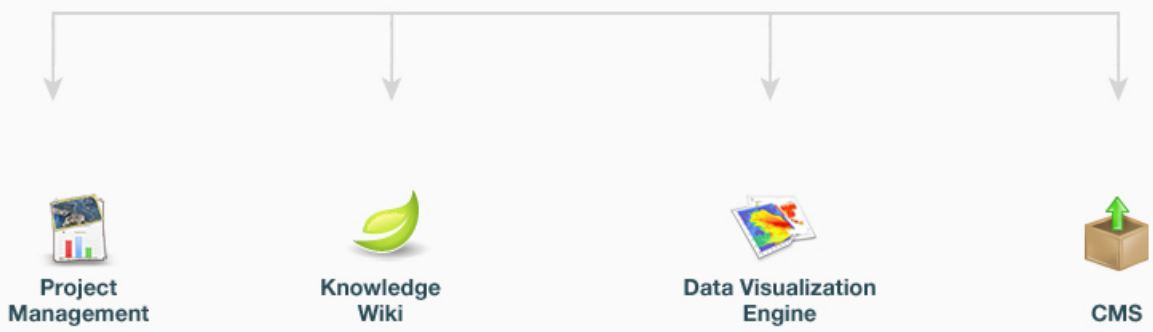


THE OPENNRM DEVELOPMENT PHILOSOPHY

- INTEROPERABILITY is cornerstone
- COMMUNITY is a GOOD thing
- The BIG picture is complicate, software shouldn't be
- We are committed to making DATA DISCOVERABLE, COMPARABLE AND EASY to work with
- Your data will be PORTABLE and TRACEABLE
- SOFTWARE Tools should help you TELL STORIES
- The SOURCE CODE is license free



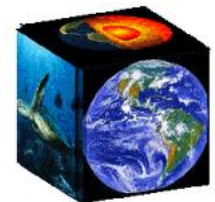
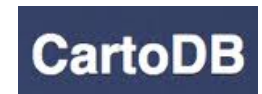
What is OpenNRM?





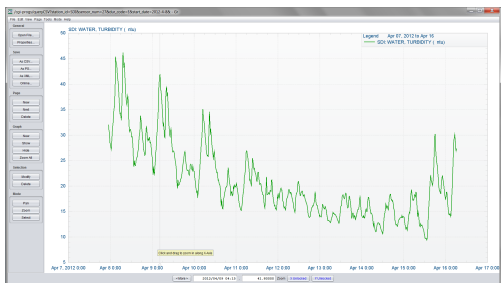
ASSOCIATED PROJECTS, OUR PARTNERS, THE OPEN SOURCE COMMUNITY

- NSF Earth Cube
- Cassandra
- Hadoop
- OpenGeo
 - Geoserver
 - PostGIS
 - Openlayers
- CartoDB & Mapstraction
- Mapfish
- Open Geospatial Consortium





THE OPEN SOURCE COMMUNITY: COLLABORATIVE PROJECTS



Region	Water Content (in inches)	% Avg to Date	% April 1 Avg (2)
Northern Sierra	8.50	34	30
Central Sierra	7.00	28	24
Southern Sierra	7.00	33	29
Statewide	7.60	31	27




Recent Projects

California Estuary Portal Data Catalog

Aggregation of estuary data and metadata for reference by the CAEMWG. Data is not live and is being used for data visualization tool development only. Efforts are currently being made to... [More](#)

Jepson Prairie Preserve Restoration


Purpose: To implement a three year, three-component program along two northwest Delta sloughs and adjacent perennial grasslands at Jepson Prairie. Together, these components will result in direct... [More](#)



Recent Photos


Estuary Illustration by Barbara Harmon

This is a sample illustration for possible ideas for the CA estuary portal [More](#)



San Francisco Bay

San Francisco Bay is a shallow, productive estuary through which water draining from approximately forty percent of California, flowing in the... [More](#)



Document Library

20 MM Trawl Database

This study monitors postlarval-juvenile delta smelt distribution and relative abundance throughout their historical spring range in the... [More](#)

IEP Bay Delta Monitoring Discrete Water Quality Lab Data 1985 1995

Since 1975, all water quality analyses are conducted by staff at the DWR Bryte Laboratory. Located in West Sacramento, its primary function is... [More](#)

CEMAR GIS

This map and layer was developed by CEMAR. CEMAR is committed to the use of scientific information for the sustainable management of... [More](#)





Search Tools

Search

Sub Type

Regions


Privacy Settings

Map It Clear Results

[Reset Listings](#) [Search](#)

Showing 1 - 50 of 340 items. Sort by Results per page Map View

REPORT [+ tools](#)



GUIDELINES FOR WORKGROUPS AND THE DEVELOPMENT OF MY WATER QUALITY...
California Water Quality...
[P] Jun 13, 2012 02:13 PM
application/pdf

IMAGE [+ tools](#)




STRIPED BASS.JPG
EOL
[P] Jun 19, 2012 08:55 AM
image/jpeg

IMAGE [+ tools](#)




STONELAKES .JPG
[P] Jul 25, 2012 07:01 PM
image/jpeg

IMAGE [+ tools](#)




SPATIAL SALINITY ZONE.PNG
[P] Jul 18, 2012 03:03 PM
image/png

APPLICATION/PDF [+ tools](#)




SFBAYGOALS 031799.PDF
Jun 07, 2012 01:57 PM
application/pdf

IMAGE [+ tools](#)



SCIENCE CALWATER BLACKLOCKRESTORATION.JPG
Jul 25, 2012 08:17 PM
image/jpeg

IMAGE [+ tools](#)




IMG_2522.J PG
Jun 28, 2012 02:53 PM
image/jpeg

IMAGE [+ tools](#)



ESTUARY-TO-CUESTA-BY-THE-SEA-AT-LOW-TIDE.JPG
[P] Jun 27, 2012 03:29 PM
image/jpeg

APPLICATION/PDF [+ tools](#)



DISCRETEWQ HISTORICALLY SAMPLED STATIONS.PDF
Jun 06, 2012 12:08 PM
application/pdf

IMAGE [+ tools](#)



DELTA SMELT EOL.JPG
eol
[P] Jul 20, 2012 01:02 PM
image/jpeg



MORRO BAY 53.1°

Search

(0) My Basket

Back Refresh

What's New

Search & List View

Document Library

My Projects

Add New

Search Tools

Showing 1 - 6 of 16 items. Sort by Modified Date Results per page Map View

Search

Type --- all ---

Sub Type --- all ---

Regions --- all ---

Privacy Settings All

Map It Clear Results

Reset Listings

Search

PROJECT



CALIFORNIA ESTUARY PORTAL DATA CATALOG
California Estuary...
[P] Jul 31, 2012 07:32 PM

PROJECT



CALIFORNIA ESTUARY PORTAL DEVELOPMENT OBJECTIVES
[P] Jul 31, 2012 09:00 AM

PROJECT



BLACKLOCK TIDAL HABITAT RESTORATION
CALFED ERP
[P] Jul 25, 2012 08:13 PM

1 2 3



MORRO BAY 53.1°

Search

(0) My Basket

Back Refresh

What's New

Search & List View

Document Library

My Projects

Add New

Search Tools

Showing 1 - 24 of 16 items. Sort by Modified Date Results per page Map View

Search

Type --- all ---

Sub Type --- all ---

Regions --- all ---

Privacy Settings All

Map It Clear Results

Reset Listings

Search

BAY DELTA IEP MONITORING DATA ANALYTICS
Jun 04, 2012 04:21 PM

ESTUARY ILLUSTRATION DESIGN IDEAS
[P] Jun 05, 2012 04:21 PM

PORTAL CONTENT AND DEFINITIONS
Collaboration
[P] Jun 18, 2012 12:12 PM

JUNE 19, 2012: CEMW MEETING MATERIALS
[P] Jun 18, 2012 02:15 PM

FALL MIDWATER TRAWL DATA EXPLORATION AND VISUALIZATION
California Department of Fish and Game
[P] Jun 20, 2012 10:22 AM

UNIFIED MONITORING ASSESSMENT AND REPORTING PROGRAM (UMARP)
Committee Chair: Samuel Luoma - Committee: Roger Fujji, Bruce Herbold,...
[P] Jun 25, 2012 04:08 PM

CLIMATE CHANGE AND SEA LEVEL RISE
Admin
[P] Jul 11, 2012 02:52 PM

1641 REPORT ON THE WEB
Estuary Workgroup Admin
[P] Jul 17, 2012 07:37 PM

FALL LOW SALINITY HABITAT (FLASH) STUDIES AND ADAPTIVE MANAGEMENT...
Delta Stewardship Council
[P] Jul 18, 2012 12:01 PM

DELTA RMP
Megan Sullivan, Steph Fong
[P] Jul 20, 2012 11:04 AM

CALHOUN CUT ECOLOGICAL RESERVE/ LINDSEY SLOUGH TIDAL HABITAT RESTORATION
[P] Jul 25, 2012 03:52 PM



Back Refresh

IEP BAY DELTA MONITORING DISCRETE WATER QUALITY...



PREVIOUS

NEXT



IEP BAY DELTA MONITORING DISCRETE WATER QUALITY...

Main Search Tools PDF Article Maps Images Related Docs / Results

DOCUMENT LIBRARY

IEP Bay Delta Monitoring Discrete Water Quality Lab Data 1985 1995



Caption

Years 1985-1995

Author/Source

IEP Bay-Delta Monitoring

Description

Since 1975, all water quality analyses are conducted by staff at the DWR Bryte Laboratory. Located in West Sacramento, its primary function is to analyze drinking water, surface water, groundwater, and wastewater. DWR Bryte lab has maintained certification by the Environmental Protection Agency and the California Department of Health Services for water analysis since 1978. It also provides quality assurance, and related technical services.

Subtype

Data

More Info URL

http://www.water.ca.gov/bdma/meta/

Copyright

IEP Bay-Delta Monitoring

Added By: Workgroup Admin

Date Added: Jun 27, 2012 02:58 PM

Last Edited By: Workgroup Admin

Last Edited: Jul 31, 2012 06:55 AM

Public

Discrete Water Quality Meta Data - Brianne Sakata

IEP Bay-Delta Monitoring and Analysis Section Discrete Water Quality Metadata Last updated: July 8, 2009

I. Contact Information
Program Manager: Karen Gehrts
Lead Contact: Brianne Sakata
Department of Water Resources
Division of Environmental Services
3500 Industrial Blvd, West Sacramento, CA 95691
(916) 376-9741
email Brianne Sakata
Laboratory:
DWR Bryte Laboratory
1450 Riverbank Road
West Sacramento, CA 95605
(916) 375-6008

Sid Fong - Acting Supervisor Chem. Test Section
email Sid Fong

II. Study Mandate and Objectives
The State Water Resources Control Board (SWRCB) sets water quality objectives to protect beneficial uses of water in the Sacramento-San Joaquin Delta and Suisun Bay. These objectives are met by establishing standards mandated in water right permits issued to the Department of Water Resources (DWR) and U.S. Bureau of Reclamation (USBR) by the SWRCB. The standards include minimum Delta outflows, limits to Delta water export by the State Water Project (SWP) and the Central Valley Project (CVP), and maximum allowable salinity levels.
In 1971, the SWRCB established Water Right Decision 1379 (D-1379). This Decision contained new water quality requirements for the San Francisco Bay-Delta Estuary. D-1379 was also the first water right decision to provide terms and conditions for a comprehensive monitoring program to routinely determine water quality conditions and changes in environmental conditions within the estuary. The monitoring program described in D-1379 was developed by the Stanford Research Institute through a contract with the SWRCB. Implementation of the monitoring program began in 1972, as SWRCB, DWR, and USBR met to define their individual responsibilities for various elements of the monitoring program. In 1978, amendments to water quality standards were implemented and resulted in Water Right Decision 1485 (D-1485). More recently these standards were again amended under the 1995 Water Quality Control Plan and Water Right Decision 1641 (D-1641) established in 1999. The SWP and CVP are currently operated to comply with the monitoring and reporting requirements described in D-1641. D-1641 requires DWR and USBR to conduct a comprehensive environmental monitoring program to determine compliance with the water quality standards and also to submit an annual report to SWRCB discussing data collected. Discrete water quality monitoring is one element of the Bay-Delta Monitoring and Analysis Section (BDMA) conducted by DWR and USBR with assistance from DFG and the USGS under the Interagency Ecological Program (IEP) umbrella. The BDMA also monitors water quality with a set of continuously recording automated stations, and it has complementary phytoplankton, zooplankton and benthic macro-invertebrates monitoring elements. The overall objective of the water quality monitoring program is to provide information for water resource management in compliance with flow-related water quality standards set forth in the series of Water Right Decisions described above. These decisions permit the USBR and DWR to appropriate water for operation of the CVP and the SWP. In return, the two agencies are required to monitor the effects of diversions and flow manipulations resulting from project operations and ensure the compliance with existing water quality standards. Another objective of the BDMA water quality monitoring is to provide abiotic information relevant to the interpretation of the results of the biological



Main

Search

Tools

PDF

Article

Maps

Images

Related Docs / Results

DOCUMENT LIBRARY

Zooplankton



Author/Source

Wikipedia

Description

Zooplankton is a categorisation spanning a range of organism sizes including small protozoans and large metazoans. It includes holoplanktonic organisms whose complete life cycle lies within the plankton, as well as meroplanktonic organisms that spend part of their lives in the plankton before graduating to either the nekton or a sessile, benthic existence. Although zooplankton are primarily transported by ambient water currents, many have locomotion, used to avoid predators (as in diel vertical migration) or to increase prey encounter rate.



Corophium_Alienense.jpg

...



Images / Video





Sacramento 77.1°

Search (0) My Basket

Back Refresh

What's New

Search & List View

Document Library

My Projects

Add New

PROJECTS

FEATURED QUESTION FOR PORTAL

What is the San Francisco Estuary and Bay-Delta?



[VIEW](#)

SEARCH / VIEW ALL



MOST RECENT

Liberty Island Tidal Habitat Restoration



[VIEW](#)

The San Francisco Bay is both a bay and an estuary. The former term refers to any inlet or cove providing a physical refuge from the open ocean. An estuary is any physiographic feature where freshwater meets an ocean or sea. The northern portion of the Bay is a brackish estuary, consisting of a number of physical embayments which are dominated by both marine and fresh

Liberty Island in the Cache Slough complex of the north Delta appears to provide key habitat for delta smelt and other native fish species. Today, research is being done to examine and learn from the success of the island's accidental launch into ecosystem restoration—after a levee breach more than a decade ago. Recent studies have revealed several important observations in the Cache Slough complex: It appears that delta smelt are



Back Refresh

WHAT IS THE HEALTH OF THE BAY DELTA ESTUARINE...



PREVIOUS

NEXT

WHAT IS THE HEALTH OF THE BAY DELTA ESTUARINE...

Main Search Tools PDF Article Maps Images Related Docs / Results

PROJECTS

What is the Health of the Bay Delta Estuarine Ecosystem? Food Web



Author/Source

Ca Estuaries Workgroup

Description

As part of the overall question: What is the ecological condition of my estuary? The approach of group is to evaluate the estuary condition as a biological response using ecosystem indicators and the drivers behind these indicators.

Subtype

Question For Portal

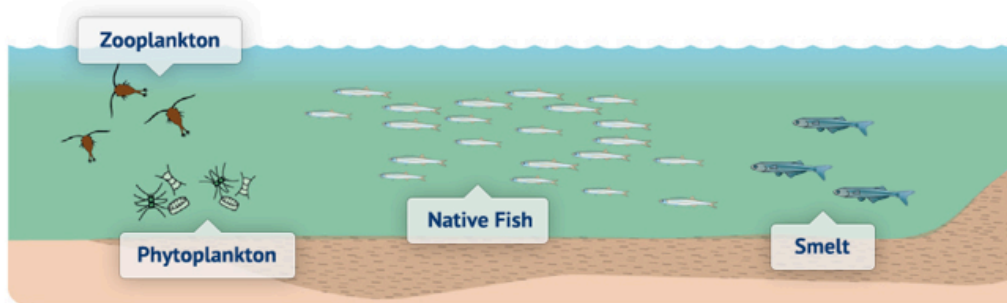
Food Web Evaluation

Metrics Used: Chlorophyll a, Phytoplankton species, Primary production, Zooplankton species and density, Mesozooplankton species and density, Benthic invertebrate species and density

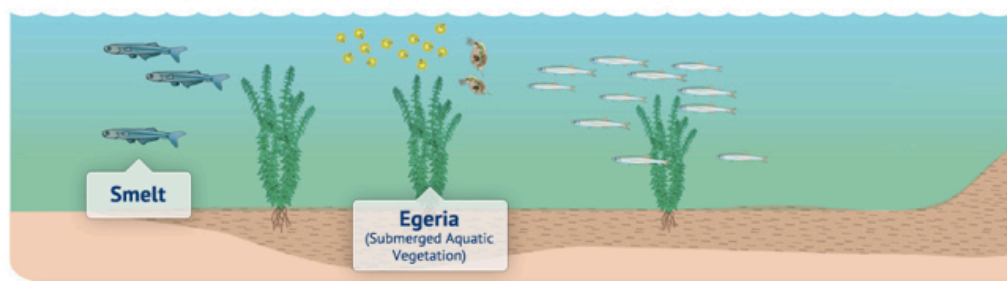
Definitions:

How it's measured in 1641 and FRPA: Continuous and discrete data (includes microcystis), discrete food web.

Food Web Historical



Food Web Changes





◀ Back ↻ Refresh

JUNE 19, 2012: CEMW MEETING MATERIALS



PREVIOUS

NEXT



PORTAL CONTENT AND DEFINITIONS

Main Search Tools PDF Article Maps Images Related Docs / Results

PROJECTS

Liberty Island Tidal Habitat Restoration



Caption

Estimated: 3,150 ac tidal perennial aquatic, 1600 ac fresh emergent tidal wetland

Description

CalFED ERP

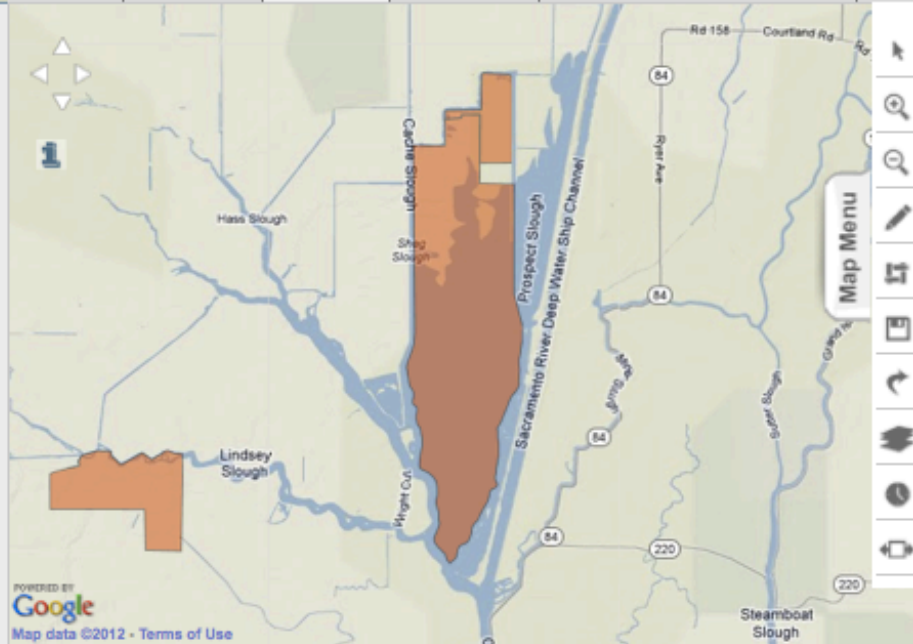
Added By: Workgroup Admin

Date Added: Jul 25, 2012 12:56 PM

Last Edited By: Workgroup Admin

Last Edited : Jul 31, 2012 07:31 PM

Public



1. Liberty Island Tidal Habitat Restoration

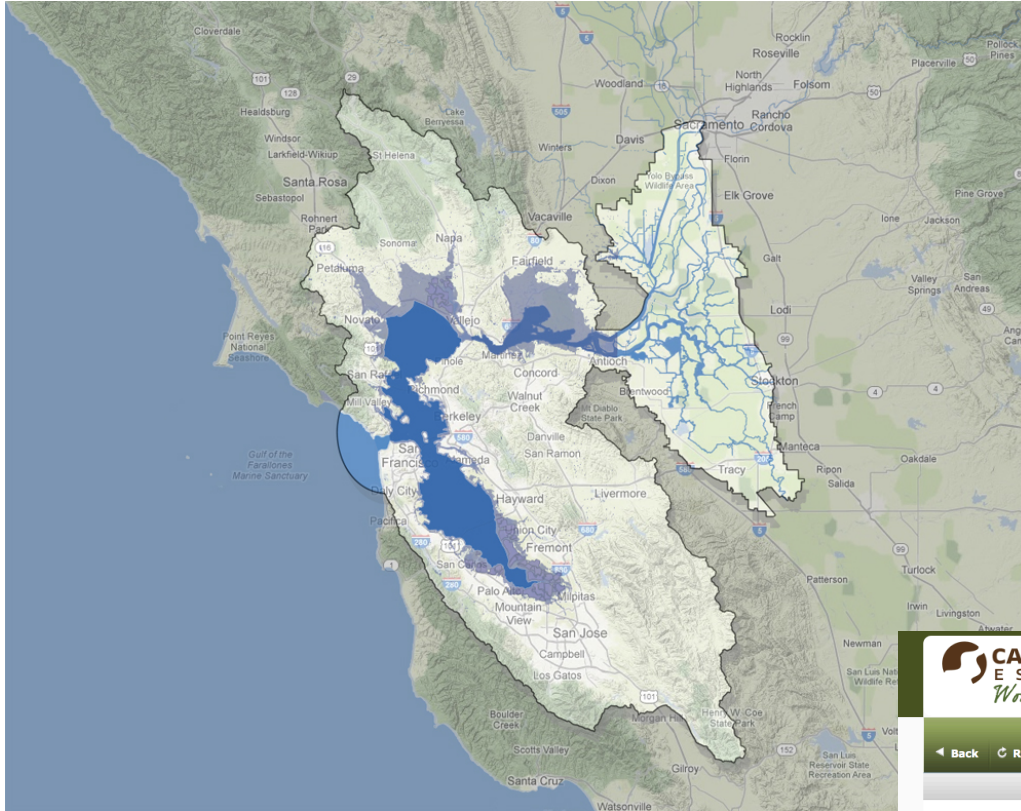
Estimated: 3,150 ac tidal perennial aquatic, 1600 ac fresh emergent tidal wetland.

Maps

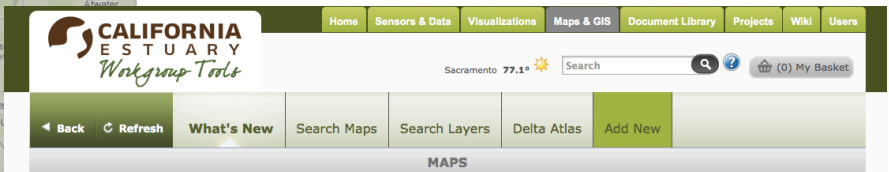




MAPS | GIS



- Manage / Upload
- Layers And Web Services
- Draw, Measure, Query
- Save And Share
- Associate To Projects,
- Documents, Wiki, Anything
- Build A Story
- Overlay With Datasets



FEATURED CDEC: CONTINUOUS

Flow/Discharge: Rio Vista to Liberty Island



CDEC continuous data served as web service for three flow stations on the Sacramento River. Stations: LIB, RYI, SRV

SEARCH /
VIEW ALL



MOST RECENT

Delta Smelt CDEC continuous Indicator Stations



Discharge: FPT, VNS Pumping; TRP, HRO
Turbidity: FPT, SJR, MOK, LPS, HOL, PPT, VCU



California Data Layers

A Compilation of Spatial Data

Data

DELTA FEATURES & DWR ATLAS

- BullTrout_BT_FCH_Lakes_2010
- BullTrout_BT_FCH_Streams_2010
- Chinook_cklcr_chf1
- Chinook_ckpug_chf1
- Chinook_ckucs_chf1
- Chinook_ckuwr_chf1
- Chum_cmcol_chf1
- Coho_COORC_FCH_2-11-08
- Steelhead_stlcr_chf1
- Steelhead_stmcr_chf1
- Steelhead_stsnr_chf1
- Steelhead_stucr_chf1

- Steelhead_stuwr_chf1
- Cc_chinook_ch_06_2005
- Ccc_steelhead_ch_06_2005
- Ccc_steelhead_ch_06_2005_Pro
- Ccv_steelhead_ch_06_2005
- Cvsr_chinook_ch_06_2005
- Delta Smelt Critical Habitat
- Sc_steelhead_ch_06_2005
- Sccc_steelhead_ch_06_

CA DFG BIOS DATA

- Chinook_Abundance_Line_Features
- Chinook_Critical_Habitat_Central_Valley
- Non_Salmonid_Abundance_line_features
- Steelhead_Abundance_line



DATA VISUALIZATION TOOLS

Navigation: Home | Live Conditions | Operations | **Data Visualizations** | Map Builder | Photos/Video | Projects | Wiki | Users

Location: Rio Vista, CA. 70.1°

Search: [search] (0) My Basket

Actions: Back | Refresh

Categories: Main | Search | Tools | PDF | Article | Maps | Images | Related Docs / Results

Delta Turbidity: 7 Days Observed

Share | Load Now

Caption
Turbidity visualizations of CDEC data for the Delta. Date Range: The last 7 days. The Firefox browser is recommended.

Description
Click the Load Now button above to load the data. This may take a few moments. Once the loading is complete, the play button on the timeline below the map to plays the visualization. Click on a station icon to view the data value. If you have Java 6 (<http://www.java.com/en/download/index.jsp>), click the Graph button to load the time series data into

Search Tools

Start Date: 2012-4-1 | End Date: 2012-4-9 | Duration: 7 Days

Data Source: Fishcatch | explore

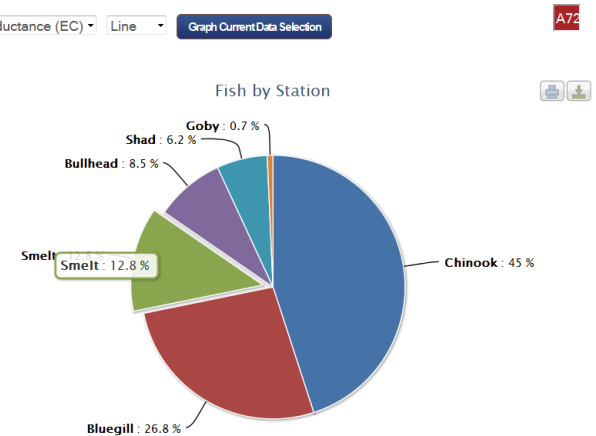
MAP IT | USE TIME

SEARCH: [] | go!

Observation: Brown Bullhead fish

Data Preview
Data Range: [] | Title / Info | Actions

- Access Data In Time And Space
- Compare Datasets
- Save Data Presets
- Share Data
- Associate To Projects, Documents, Wiki, Anything
- Build A Story
- Syndicate Results to Baydeltalive.com and Portals
- Track Lineage





Environmental Data

Current Data Sets Available or Work in Progress

Data

Discrete Water Quality Data

Lab Data 1996-Oct 2011

Lab Data 1985-1995

Lab Data 1975 to 1984

Field Data 2007-Oct 2011

Field Data 1988-2006

Field Data 1975-1987

Phytoplankton and Chlorophyll

All Data from 2008 to 2010

All Data from 1975 to 2007

2007 Common Name Data

Flat File for 1970-2000

Zooplankton

Discrete Benthic Data

Continuous Water Quality (CDEC QA/QC)

Fall Mid-Water Trawl

NOAA Tides and Currents

Historic Table Sample

SF Bay Water Quality and Nutrient Data (USGS)

Sediment Loads

DayFlow (X2)

CEDEN

20 MM Trawl & FMWT

Smelt Larva Survey

Salvage Monitoring

Historical Delta

Pelagic Organism Decline

TNC West Coast Estuary Assessment

Ca DFG ERP Project Database

Delta Science Council Projects Database

DFG Ecosystem Restoration Maps

Striped Bass Study



Rio Vista, CA 70.1°

search



(0) My Basket

Back Refresh

Main Search Tools

PDF

Article

Maps

Images

Related Docs / Results

Delta Turbidity: 7 Days Observed



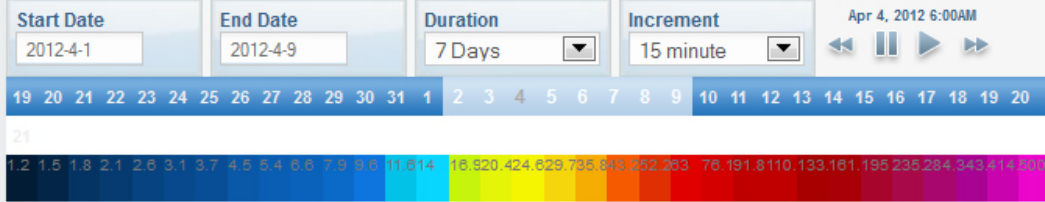
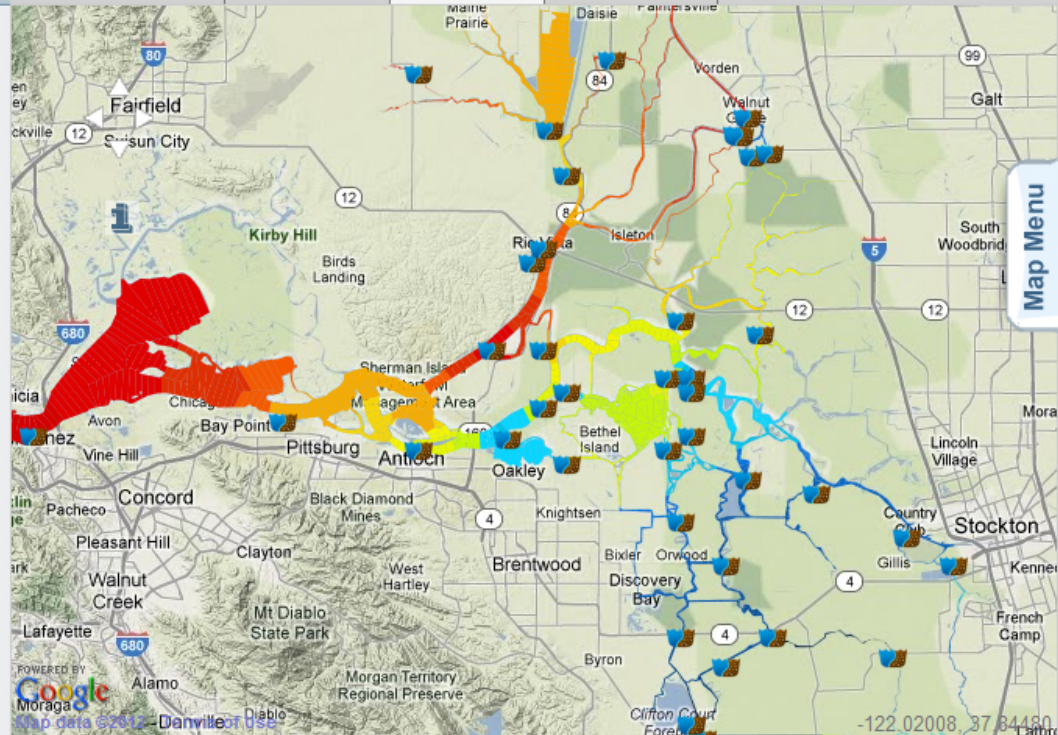
share load now

Caption

Turbidity visualizations of CDEC data for the Delta. Date Range: The last 7 days. The Firefox browser is recommended.

Description

Click the Load Now button above to load the data. This may take a few moments. Once the loading is complete, the play button on the timeline below the map to plays the visualization. Click on a station icon to view the data value. If you have Java 6 (http://www.java.com/en/download/index.jsp) , click the Graph button to load the time series data into





Live Conditions

Operations

Data Visualizations

Map Builder

Photos/Video

Projects

Wiki



Rio Vista, CA. 68.9°

search



(0) My Basket

Back

Refresh

Main

Data Sets

Layers

Tools

Maps

Edit Data

Related Docs/ Results

Back >>

All Layers

Active

DELTA GEOMORPHOLOGY

WEATHER & TIDES

PLACES, URBAN AREAS AND CENSUS

Maps Baydelta Live - WFS

Live Conditions

HYDRODYNAMIC DATA

flow, river discharge

river stage

water velocity

GET DATA

Data Range/Title / Info Actions

2012-4-2 ANH TURB W HOURLY

2012-4-9 ANH TURB W HOURLY

2012-4-2 BKS TURB W HOURLY

2012-4-9 BKS TURB W HOURLY

2012-4-2 BLP TURB W EVENT

2012-4-9 BLP TURB W EVENT

2012-4-2 CLC TURB W DAILY

2012-4-9 CLC TURB W DAILY

2012-4-2 DGL TURB W EVENT

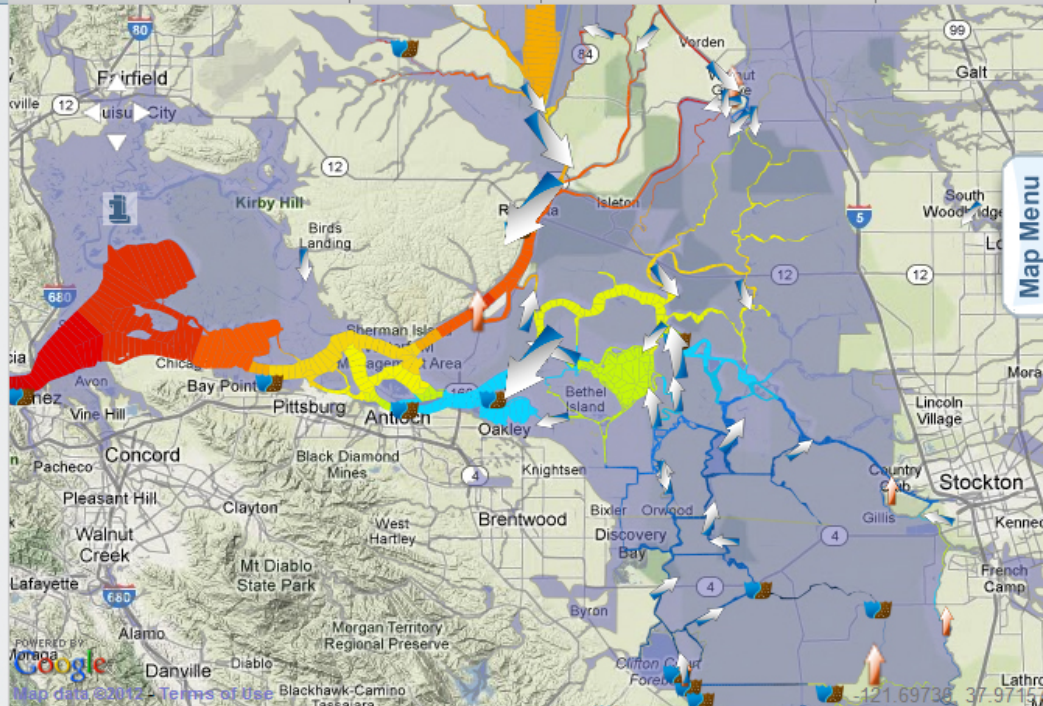
2012-4-9 DGL TURB W EVENT

2012-4-2 DLC TURB W EVENT

2012-4-9 DLC TURB W EVENT

2012-4-2 DSJ TURB W EVENT

2012-4-9 DSJ TURB W EVENT



Start Date

2012-4-1

End Date

2012-4-9

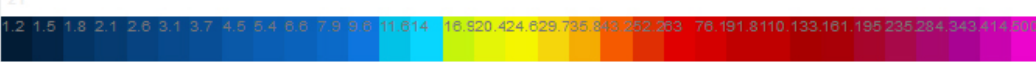
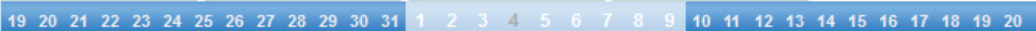
Duration

7 Days

Increment

1 hour

Apr 4, 2012 8:00AM



Related Maps



Live Conditions

Operations

Data Visualizations

Map Builder

Photos/Video

Projects

Wiki

Login

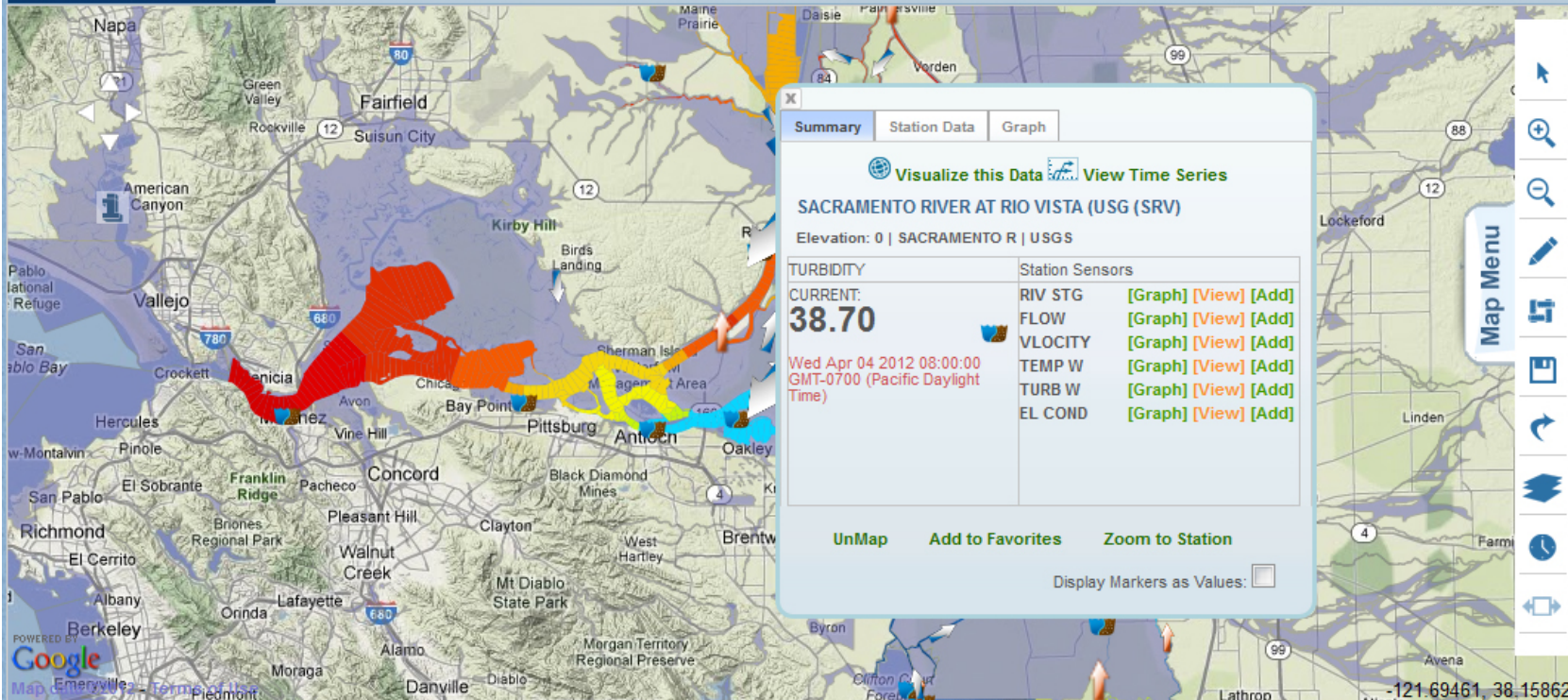


Rio Vista, CA 68.9°

search

(0) My Basket

Back Refresh



Start Date

2012-4-1

End Date

2012-4-9

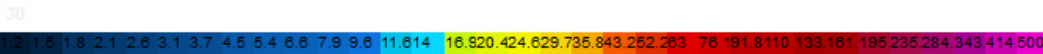
Duration

7 Days

Increment

1 hour

Apr 4, 2012 8:00AM



Main

Data Sets

Layers

Tools

Maps

Edit Data

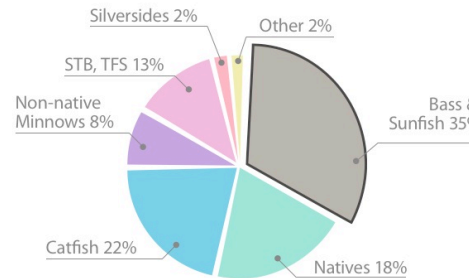
Related Docs/ Results

Back >>

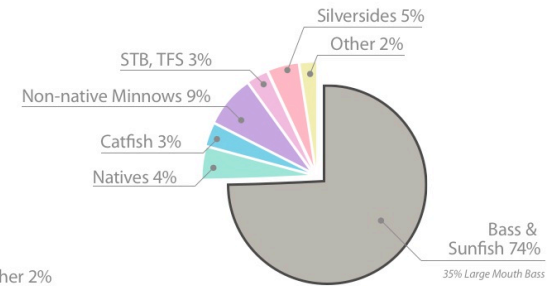


VIEWING AND COMPARING DATA

Rise of Centrarchids



1981-82



2009-10

STB = Striped bass
TFS = Threadfin shad

Source: CDFG Resident Fish Survey (81-'82), UC Davis Study (09-'10).
Catch for month of February, April, June and August.
Source: Conrad et al. 2010 DWR, Delta Science Conference

Search Tools

Data Source: Fishcatch explore!

MAP IT USE TIME

SEARCH go!

Observation Types: Brown Bullhead fish

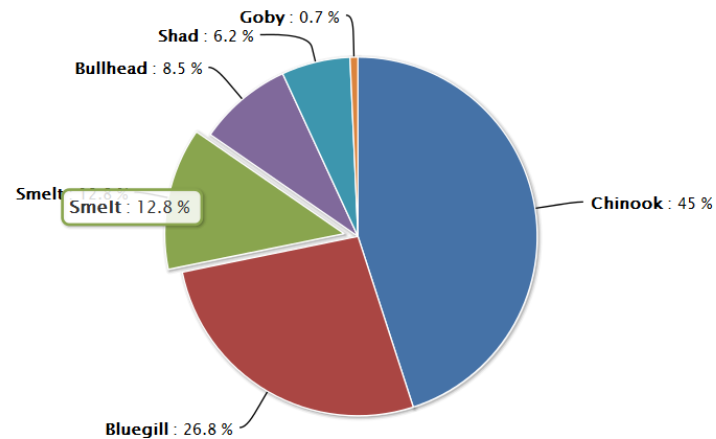
Data Preview

Data Range	Title / Info	Actions

Conductance (EC) Line Graph Current Data Selection

A72

Fish by Station





LIBRARIES OF KNOWLEDGE

CALIFORNIA ESTUARY Workgroup Tools

Home Sensors & Data Visualizations Maps & GIS Document Library Projects Wiki Users


MORRO BAY 52.9° Search (0) My Basket

Back Refresh COLLECTION OF DELTA AND SAN FRANCISCO BAY REPORTS PREVIOUS NEXT PROJECTED MEMBERSHIP

Main Search Tools PDF Article Maps Images Related Docs / Results

WIKI

Elkhorn Slough



share

Caption
Monterey County

Author/Source
California Estuary Portal Workgroup

Description
Elkhorn Slough is an exceptional ecosystem on the central California coast providing a key linkage between land and sea. The slough harbors California's largest tract of tidal salt marsh outside San Francisco Bay. Elkhorn Slough tidal habitats encompass extraordinary biological diversity, providing critical habitat for more than 135 aquatic bird, 550 marine invertebrate, and 102 fish species. The Elkhorn Slough is also home for sea lions, harbor seals, and California sea otters. More than 200 different bird species use the slough as a resting spot during their annual migration.

More Info URL
<http://www.elkhornslough.org>

Added By: Workgroup Admin

CALIFORNIA ESTUARY Workgroup Tools

Home Sensors & Data Visualizations Maps & GIS Document Library Projects Wiki Users

MORRO BAY 52.9° Search (0) My Basket

Back Refresh SAN FRANCISCO ESTUARY PREVIOUS NEXT ZOOPLANKTON META DATA

Main Search Tools PDF Article Maps Images Related Docs / Results

Temperature



Water Temperature Water temperature was measured in °C with a YSI thermistor. Temperatures were measured from water collected from a through-hull pump at a depth of 1 m for all sites except for C3A and C10A. At C3A and C10A, temperatures were measured from water collected at the continuous monitoring station through a float-mounted pump that draws water at 1 m in depth. A water temperature minimum of 9.1°C was recorded in January 2010 at station D28A in the central Delta (Figures 3-2 and 3-3). This minimum temperature represents an increase of 0.7 °C from the previously recorded minima in 2009 (Riordan et al., 2010). Temperature minima at all sites during 2010 occurred during the month of January. The timing of these temperature minima is similar to the 2009 study period, where all temperature minima occurred during January or December (Riordan et al., 2010). A water temperature maximum of 26.7 °C was recorded in August at station P8 in the south Delta. This maximum is a 0.6 °C increase over the temperature maximum reported for 2009 (Riordan et al., 2010). Recorded temperatures exhibited strong seasonal variability, with cooling during the winter and warming during the summer.

[EDIT THIS PAGE](#)

COMMUNITY COMMENTS

There are currently no comments. Please add a comment by [clicking here](#).

URCE

1

Except as noted, all discrete samples were obtained with shipboard equipment using the USBR research vessel 2WR research vessel San Carlos. Secchi samples were taken with equipment at sites in the north and C10A) that are inaccessible to Secchi disk depth is not C10A due to restrictions of the



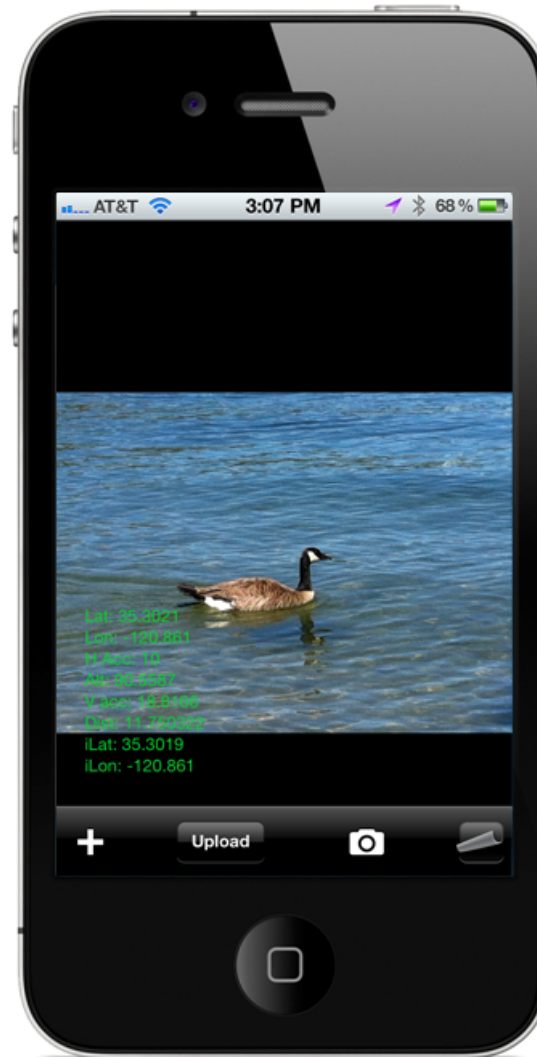
Elkhorn Slough

The Elkhorn Slough NERR sits on the edge of a large estuary with habitats that include salt marshes, mudflats, and tidal creeks. Dozens of algae and plant species, over 100 fish species, over 135 bird ...



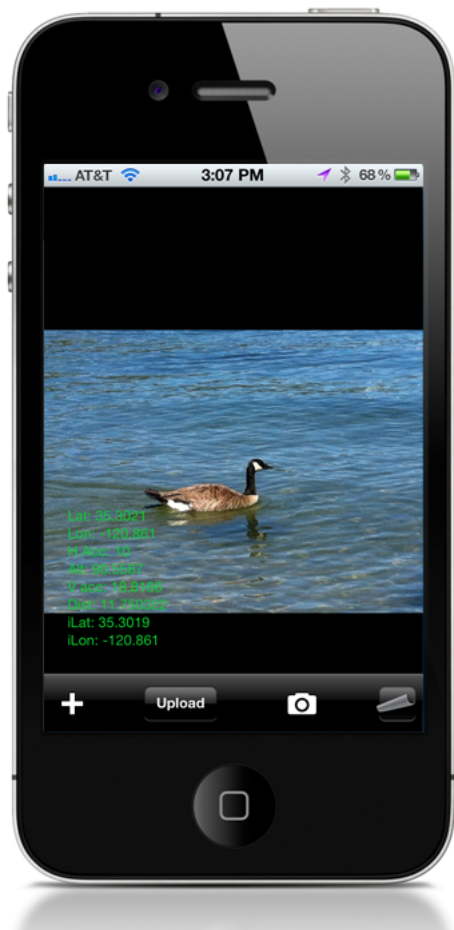


MOBILE: OPEN CAMERA





OPEN CAMERA IPHONE APP



OpenNRM.ORG APPLICATION DEMO

MORRO BAY 59.5° Search (0) My Basket


Home Sensors & Data Visualizations Maps & GIS Document Library Projects Wiki Users

Back Refresh FROG PREVIOUS NEXT JEEP BOTSWANA

Main Search Tools PDF Article Maps Images Related Docs / Results

DOCUMENT LIBRARY

goose

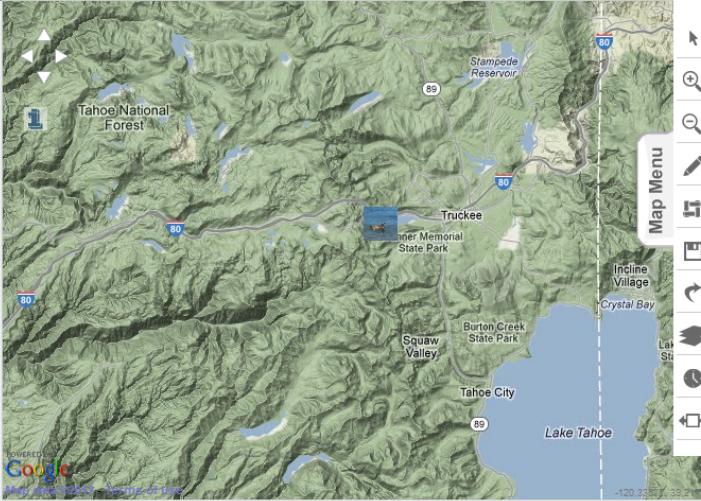


[share](#)
[download](#)

Description
Dinner lake

Subtype
Image

Added By: David Osti
Date Added: Jun 27, 2012 02:58 PM
Last Edited By: David Osti
Last Edited: Jul 04, 2012 01:26 PM
Private



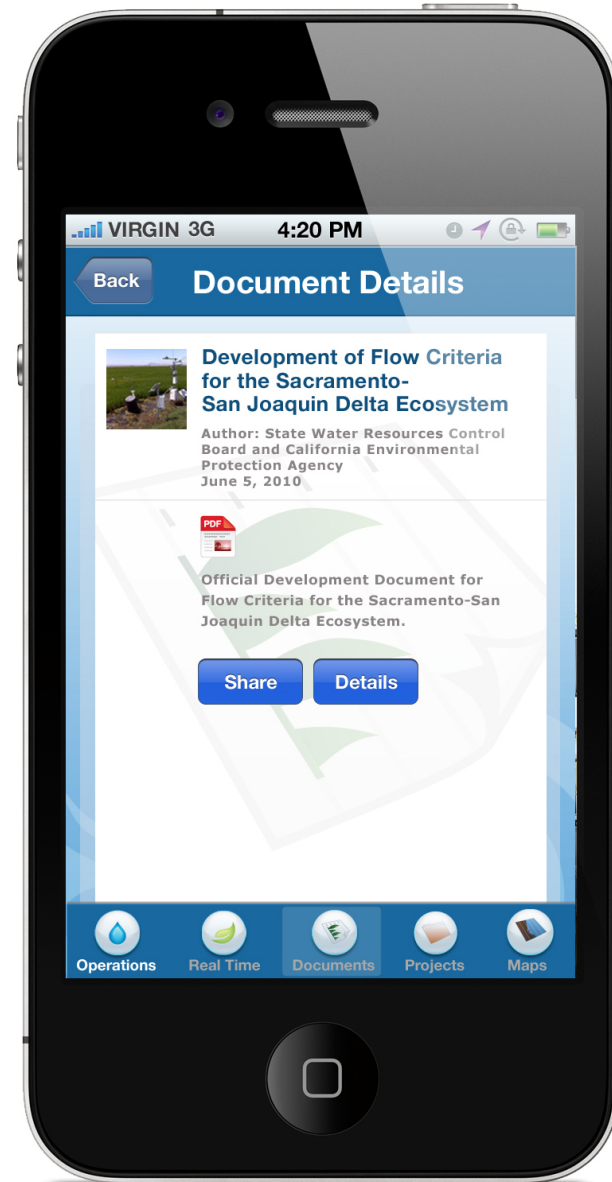
Maps

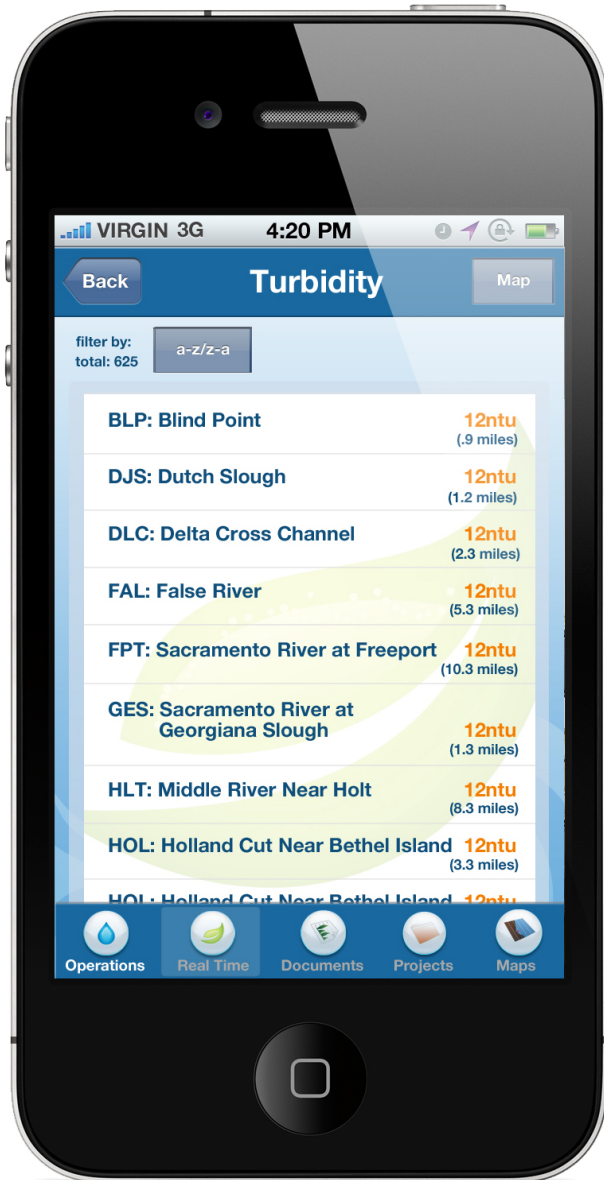
Upload to OpenNRM: Image is tagged with metadata



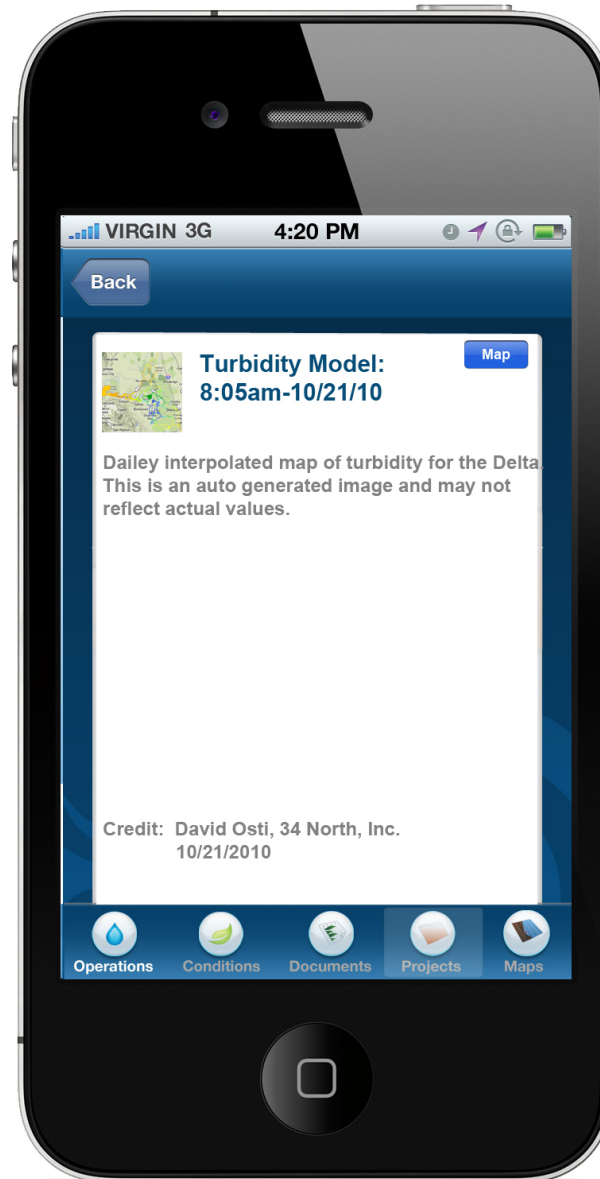
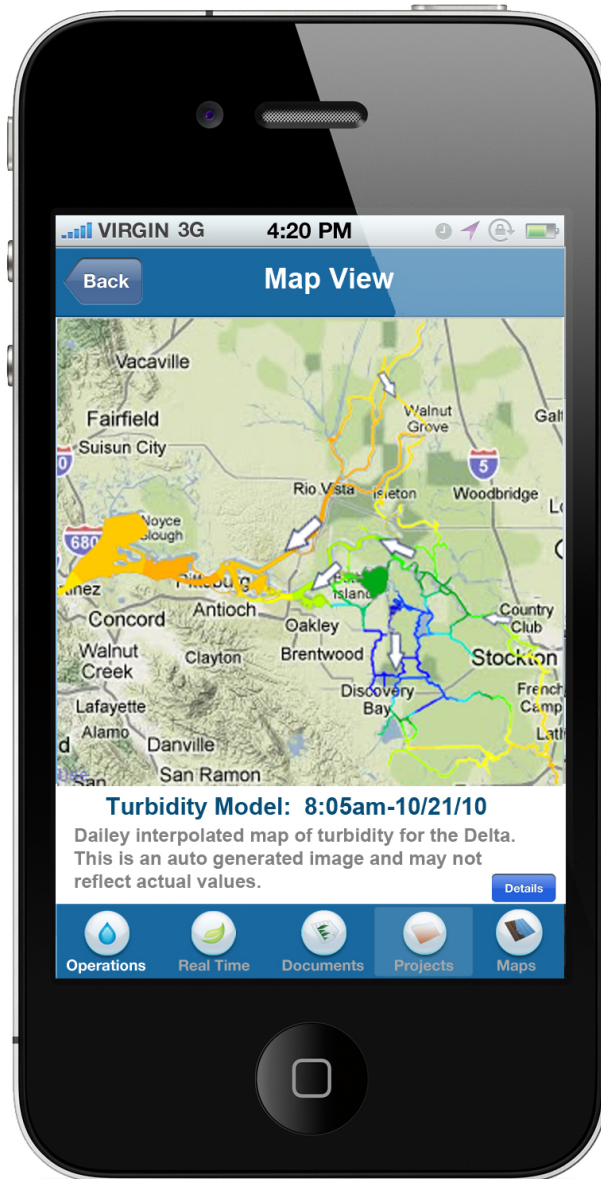
BAYDELTAIVE.COM IPHONE APP













ESTUARY PORTAL WORKGROUP SHORT TERM PROJECTS

1. DWR 1641 Water Quality Report Data Online
 1. *Answer Estuary Portal Questions With 1641 Datasets*
 2. *Workgroup Approval Of Answers*
 3. *Prepare “Finished” Content For State Portals*
 4. *Publish Answers For Syndication To Stakeholders*
2. State Of The Estuary Report On The Web
3. Estuary Portal Development

Contact Us



604 Henderson Ave Suite 200-B
San Luis Obispo, CA 93401

PH: 310.305.8289

FAX: 866.305.1390

contact@34north.com

