

Use of EcoAtlas in Program Implementation

Pete Kauhanen and Cristina Grosso
San Francisco Estuary Institute

**Wetlands, Remote Sensing & Participatory
Science Case Studies**

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Topics

- WRAMP Framework
- California Aquatic Resource Inventory and Editor Tool
- Project Tracking
- Landscape Profile Tool

What is WRAMP?

Wetland and Riparian Area Monitoring Plan

comprehensive framework for monitoring and assessment of aquatic resources within the watershed or landscape context



What is WRAMP?

- WRAMP advises CA's Wetland and Riparian Area Protection Policy (WRAPP)
- EcoAtlas is a toolset that supports CA's three level monitoring and assessment framework



What is EcoAtlas?



A scientifically produced
toolset to visualize the
abundance, diversity and
condition of aquatic resources
within a landscape

ecoatlas.org

What is EcoAtlas?

Supports **wetland monitoring and reporting** throughout California



Aggregates different kinds of environmental data in one place



Provides **adaptable and customized reporting tools**



Numerous
federal, state,
local agencies
and NGO
partners



California
Department of
Fish and Wildlife



California
Department of
Transportation



California
Department of
Water Resources



California
Environmental
Data Exchange
Network



California
Natural
Resources
Agency



California State
Coastal
Conservancy



California Water
Quality
Monitoring
Council



California
Wetland
Monitoring
Workgroup



Central Coast
Wetlands Group



Central Valley
Joint Venture



Delta
Stewardship
Council



Klamath
Watershed
Partnership

EcoAtlas

LEVEL

1

LANDSCAPE
ASSESSMENT



LEVEL

2

RAPID
ASSESSMENT



LEVEL

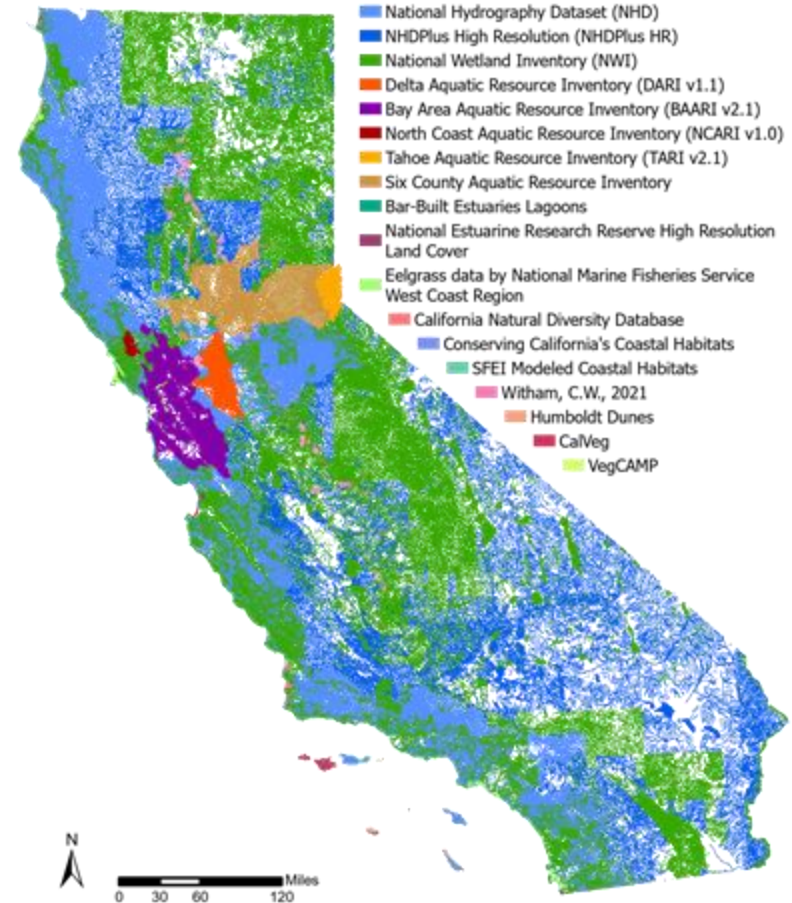
3

INTENSIVE
ASSESSMENT



CARI: California Aquatic Resource Inventory

- Statewide compilation of best available regional mapping efforts
- Wetlands, streams
- Common classification system
- Detail supports local use planning
- Updates to NWI support national assessments



Layers ▾

Legends ▾

Basemap ▾

Overlays ▾

Project Information

- ☐ Habitat Projects
- ☐ CIWQS Projects
- ☐ Tahoe Projects

Protected + Recreational Areas

- ☐ Conservation Easements (CCED)
- ☐ Protected Areas (CPAD)
- ☐ Conservation/Mitigation Banks

Aquatic Resources

- ☒ Existing Aquatic Resources (CARI)
- ☐ Historical Aquatic Resources
- ☐ Eelgrass Aquatic Resources
- ☐ CALVEG Habitat Types
- ☐ Beneficial Uses

Condition

- ☐ CRAM
- ☐ CEDEN Sediment Toxicity
- ☐ CEDEN Water Toxicity
- ☐ CEDEN Water Quality
- ☐ SSURGO Hydric Soils
- ☐ Stream Condition Index (CSCI)



CARI Editor Tool

Existing Aquatic Resources (CARI)

☒ Rivers and Streams

Transparency

— Fluvial

— Tidal

☒ Lakes and Wetlands

Transparency

Estuarine and Marine

— Tidal Flat and Marsh Pannes

— Tidal Marsh

— Emergent Tidal Wetland

CARI Editor

Edit existing feature

☐ Stream ☒ Wetland

Click on a wetland feature to edit and edit the geometry on the map. Once you are done editing, complete the form below. On submission, the highlighted area will be recorded as edited (pending approval).

Email Address *

Confirm Email Address *

Organization

Supporting Comments (512 chars. max.)

Feature Name

Wetland Type

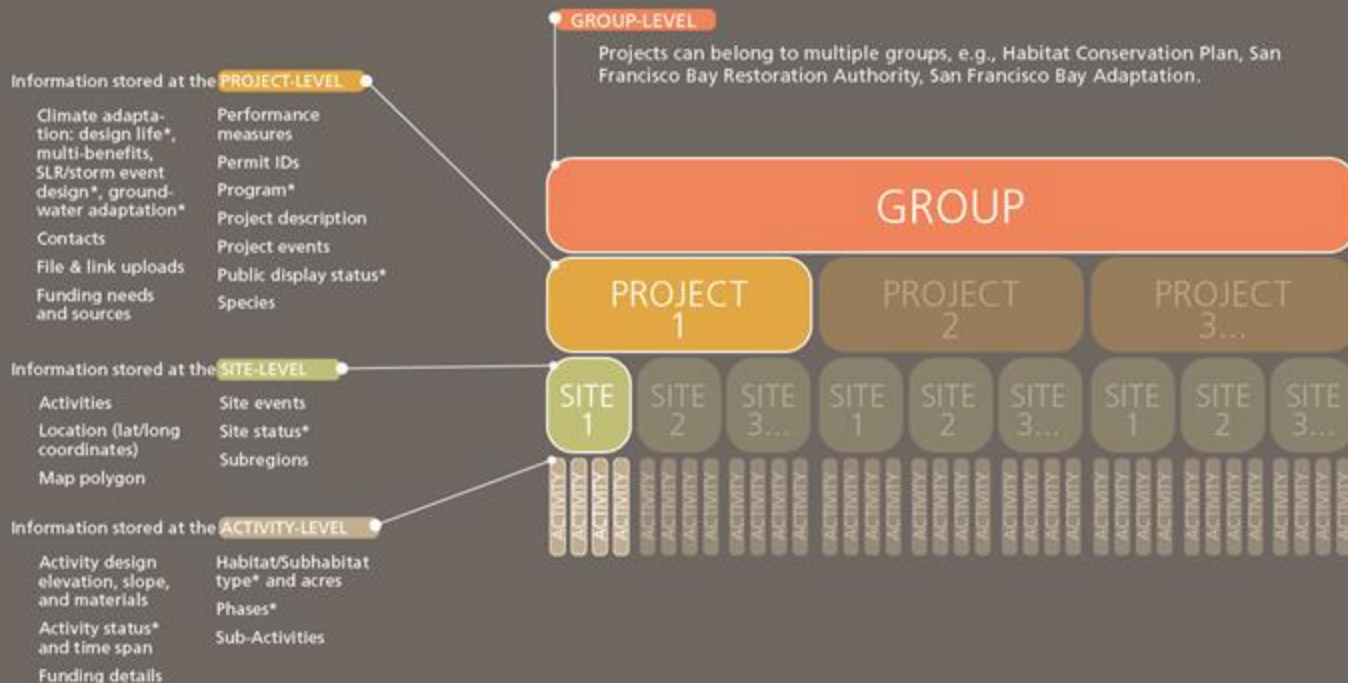
Estuarine Saline Natural Intertidal Emergent

Source Data

NAIP2009

Project Tracker

SHORELINE ADAPTATION + HABITAT RESTORATION PROJECT TRACKING

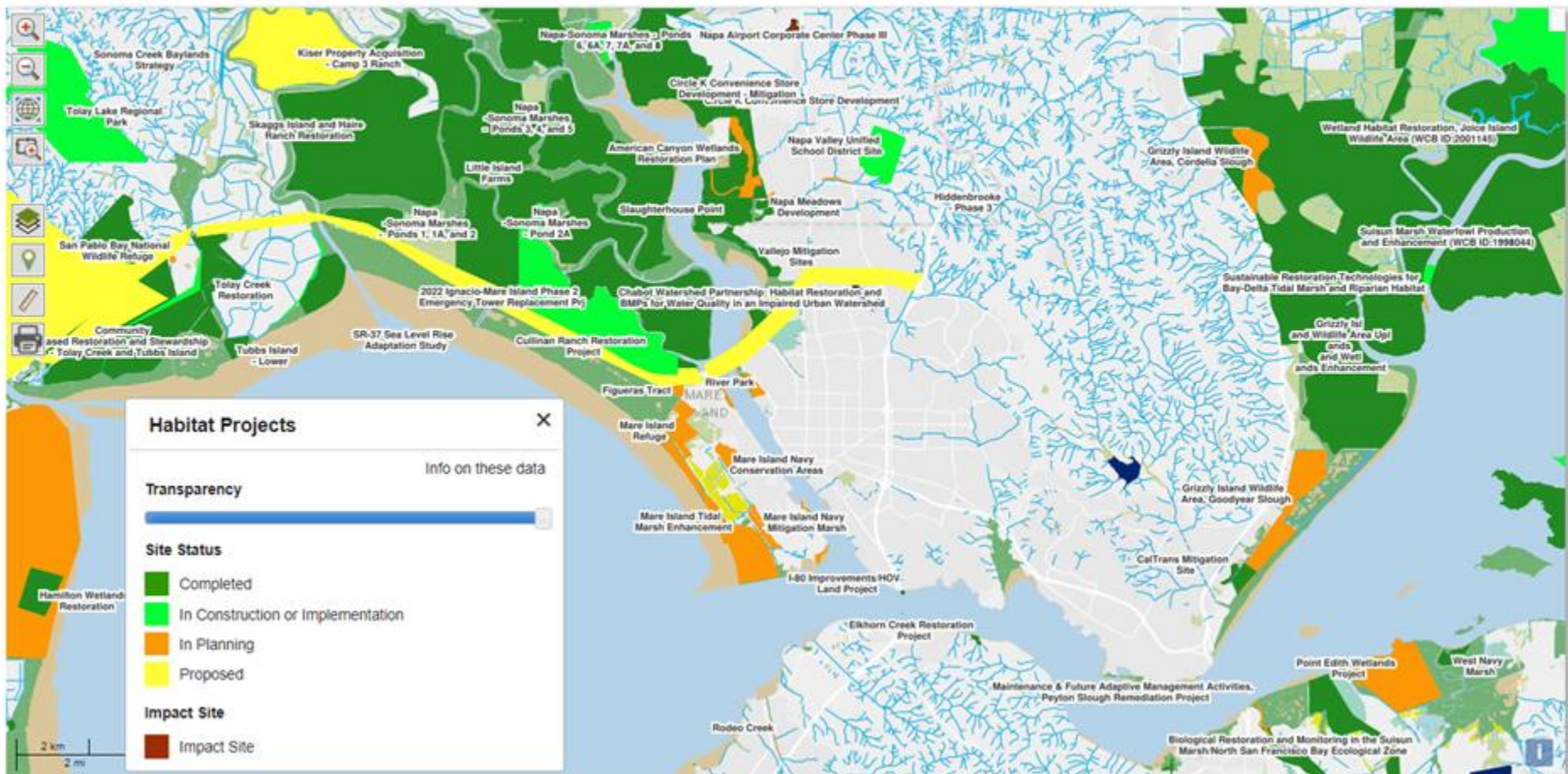


Layers ▾

Legends ▾

Basemap ▾

Overlays ▾



Project Information Page



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Montezuma Wetlands Restoration Project

[Basic Information](#) | [Files & Links](#) | [Project Map](#) | [Habitat Development Curves](#)

Print Project Factsheet

Status	In-progress	County	Solano
Project Type	Non-mitigation	Location	38.09541°N, -121.87327°W Map
Project Area (Acres)	2,129	Last Updated	19 July 2022
Project Abstract	This 4-stage project will restore about 1,820 acres of tidal wetlands, seasonal wetlands, intertidal ponds, vernal pools, and upland buffer zone habitats through the engineered placement of about 20 million cubic yards of agency-approved dredged sediment to raise the subsided site to elevations appropriate for intertidal marsh.		
Project Groups	San Francisco Bay Adaptation San Francisco Bay Restoration Authority (Eligible) San Francisco Bay Restoration Authority (Funded)		
Administrative Region	San Francisco Bay Joint Venture - Sandra Scoggin, SFBJV		

Project Identification [?]

ID	Type
RA-001	SFBRA - Project ID
02-48-D0005	SWRCB - 401 Certification Letter (e.g., Site Number or WDIID)
201051	SWRCB - CIWQS Place Number
194050	USACE - DA File Number

Habitat Plan [?]

Site Name	Phase	Activity	SubActivities	Habitat	SubHabitat	Acres	Activity Status	Water Regime
Montezuma Avoided Seasonal Wetlands and Vernal Pools	Implementation	Acquisition/Preservation/Protection		Vernal pools and swales	None	1.40	Completed	
Montezuma Created Vernal Pools	Implementation	Creation/Establishment		Vernal pools and swales	None	3.78	Completed	Unknown/Unspecified
Montezuma Preserved Vernal Pools	Implementation	Acquisition/Preservation/Protection		Vernal pools and swales	None	3.80	Completed	

Layers ▾

Legends ▾

Basemap ▾

Overlays ▾

CEDEN Water Toxicity



Info on these data

Transparency

- Non-toxic
- Some Toxicity
- Moderate Toxicity
- High Toxicity

Habitat Projects



Info on these data

Transparency

Site Status

- Completed
- In Construction or Implementation
- In Planning
- Proposed

Impact Site

- Impact Site

At this location

Blue Rock Springs Creek at Golf Course-
207R00064 (Non-toxic)

Most recent water toxicity results for this location

Sample Date	Test Species	Endpoint	Result	Toxicity
07/11/2013	Ceriodaphnia dubia	Survival	100 %	No
07/11/2013	Hyalella azteca	Survival	100 %	No
07/11/2013	Pimephales promelas	Survival	100 %	No
07/11/2013	Selenastrum capricornutum	Total Cell Count	5070000 cells/ml	No
03/20/2013	Ceriodaphnia dubia	Survival	100 %	No
03/20/2013	Hyalella	Survival	98 %	No

Landscape Profile Tool

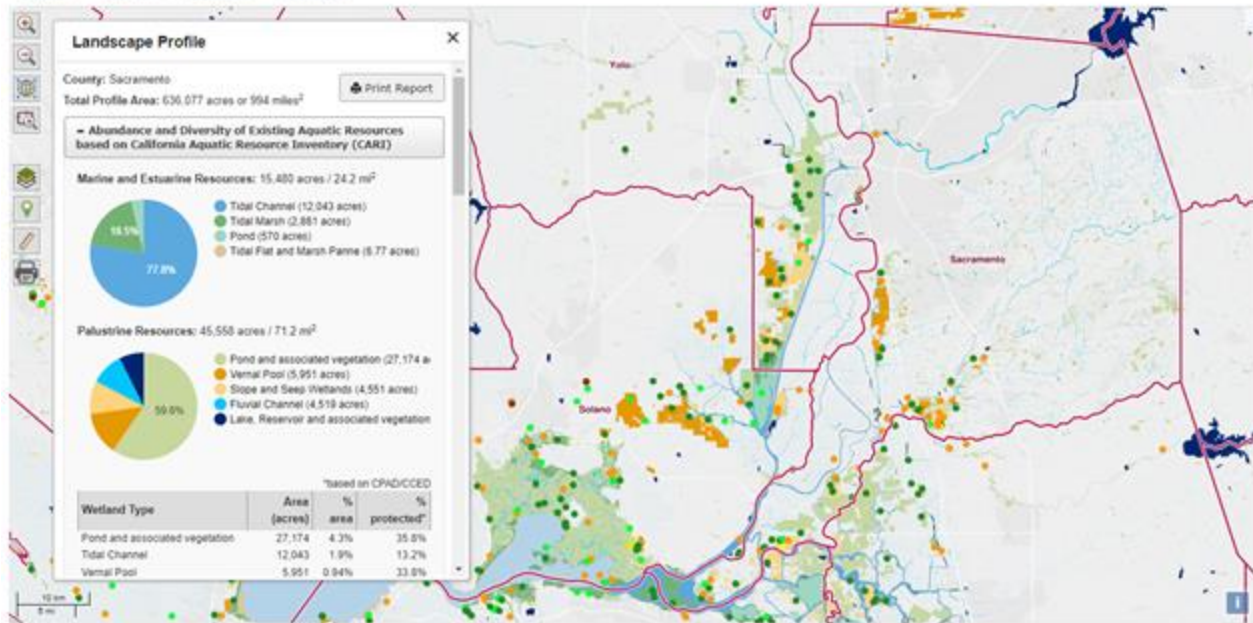


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[+ Hide Tools](#)



Landscape Profiles

Select Profile Mode

- ☒ Landscape ☐ Condition
☐ Connectivity

Define Profile Region

Draw your area of interest

Pre-defined areas

- ☒ None
☐ Congressional Districts
☐ Counties
☐ Hydrologic regions (HUC8)
☐ Hydrologic regions (HUC10)
☐ Hydrologic regions (HUC12)
☐ Santa Clara County Watersheds
☐ Santa Clara County Subwatersheds

Upload map file

Auto-delineated basin by Stream Stats

Landscape Profile Tool



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Landscape Profile

Vernal Pool Resources: 2,331 acres / 3.6 mi²



- Individual vernal pool (167 acres)
- Vernal pool complex (2,164 acres)

Attribute	Total Estimated Acres of Vernal Pool Complex	Individual Pool Acres	Vernal Pool Habitat Acres (Estimated Pool Acres)
Diversity			
High	745	0.0	11,072 (745)
Medium	755	0.0	10,619 (755)
Low	853	0.0	24,480 (853)
% Cover of Vernal Pools			
<2%	156	0.0	16,587 (156)
2-5%	752	0.0	21,496 (752)
5-10%	775	0.0	10,332 (775)
>10%	470	0.0	3,784 (470)
100%	167	167	0.0 (0.0)
Density			
High	770	0.0	8,406 (770)
Medium	781	0.0	14,859 (781)
Low	613	0.0	28,914 (613)
% Disturbance Area (2010)			
<1%	1,001	42.6	28,070 (956)
1-5%	530	0.0	11,955 (530)

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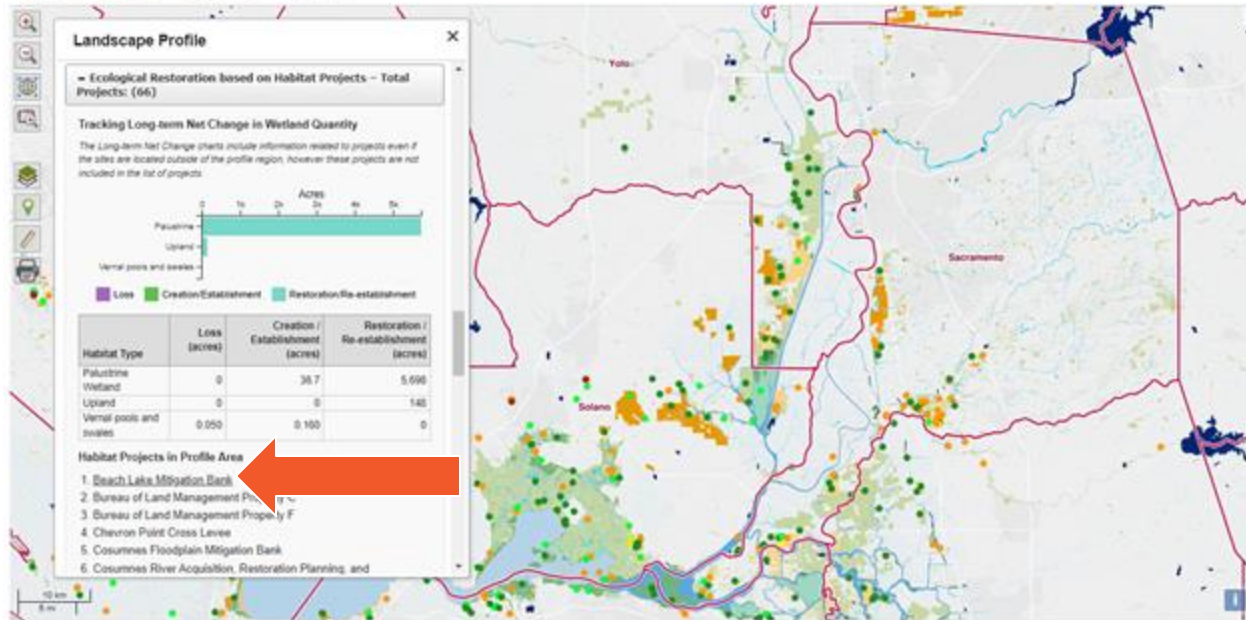
[Pre-defined areas](#)

- ☒ None
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[Auto-delineated basin by Stream Stats](#)

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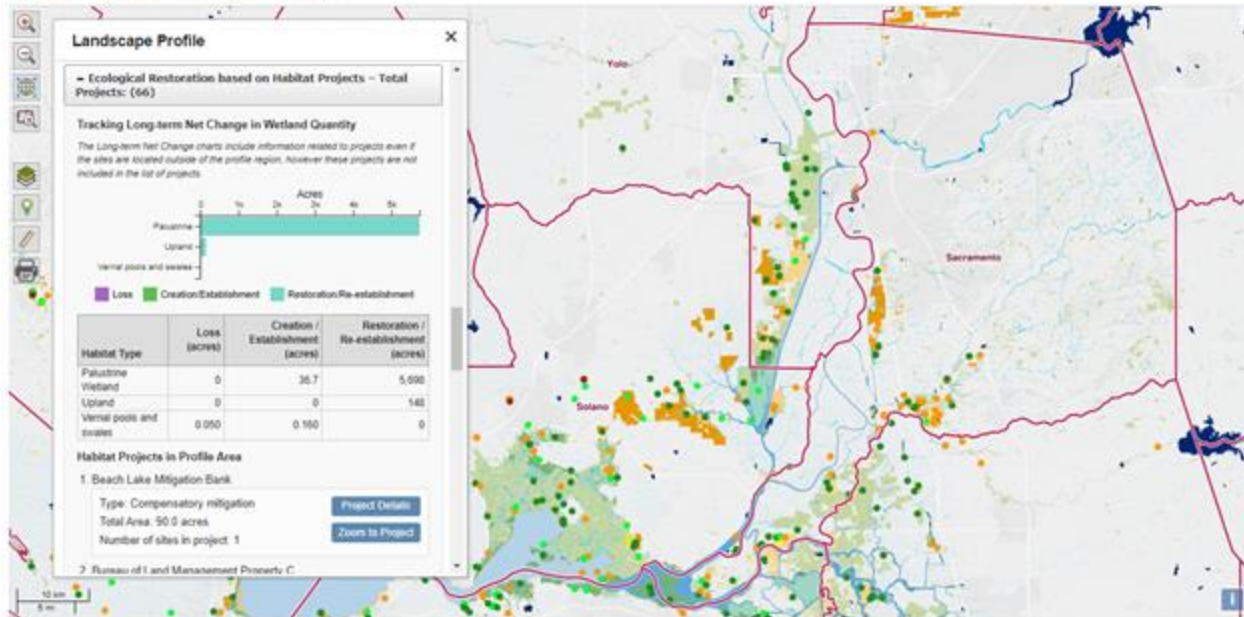


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Bay/Delta Map Projects Groups Dashboards

Layers Legend Basemap Overlays

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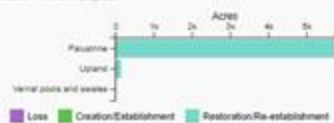
[+ Hide Tools](#)

Landscape Profile

Ecological Restoration based on Habitat Projects – Total Projects: (66)

Tracking Long-term Net Change in Wetland Quantity

The Long-term Net Change charts include information related to projects even if the sites are located outside of the profile region, however these projects are not included in the list of projects.



Habitat Type	Loss (acres)	Creation / Establishment (acres)	Restoration / Re-establishment (acres)
Palustrine	0	36.7	5,090
Upland	0	0	143
Vernal pools and	0.050	0.100	0

Habitat Projects in Profile Area

1. Beach Lake Mitigation Bank

Type: Compensatory mitigation
Total Area: 50.0 acres
Number of sites in project: 1

[Project Details](#)

[Zoom to Project](#)

Bureau of Land Management Priority C

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Auto-delineated basin by Stream Stats

EcoAtlas

Landscape Profile

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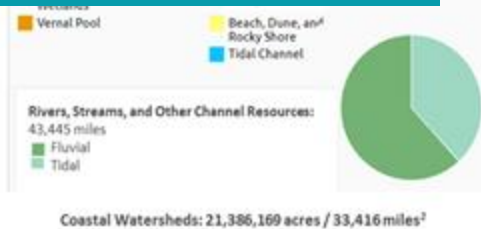
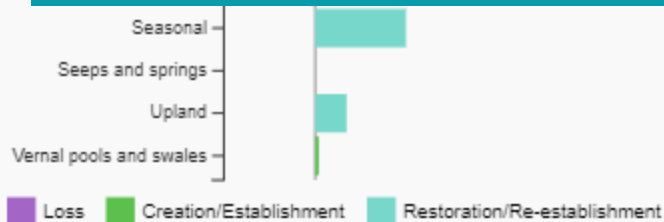
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OUR VISION: Healthy, resilient and productive coastal and ocean ecosystems in California for the benefit of current and future generations.



Visualize information at different scales:
local, regional, programmatic, statewide



A map of the San Francisco Bay Area, showing various islands and waterways. The map is light-colored with blue water and green land. Labels for islands like Seward, Tiburon, and Sausalito are visible.

Questions?

petek@sfei.org



- EcoAtlas - ecoatlas.org
- CARI Editor - <https://ecoatlas.org/regions/ecoregion/statewide/?carit=1>
- Project Tracker - ptrack.ecoatlas.org