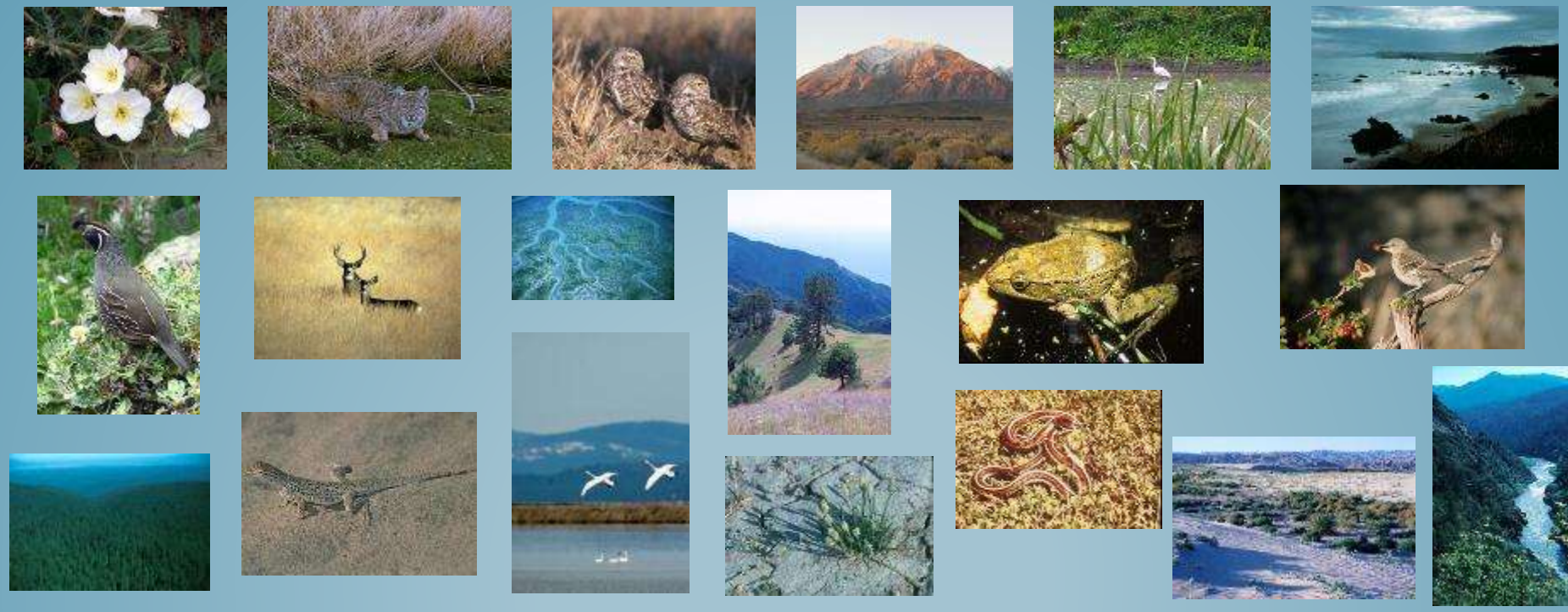

AREAS OF CONSERVATION EMPHASIS
ACE VERSION 3.0

Biogeographic Data Branch
Conservation Lecture Series
April 12, 2018

Areas of Conservation Emphasis

Photos courtesy of USFWS National Image Library

ACE: TALK OVERVIEW

1. Introduction: Overview

2. Navigating ACE: Where to find the information

3. ACE Model: Datasets, data sources, attributes, caveats

4. Example scenarios: How the data and viewer can be used

5. Future updates

ACE
Areas of Conservation Emphasis

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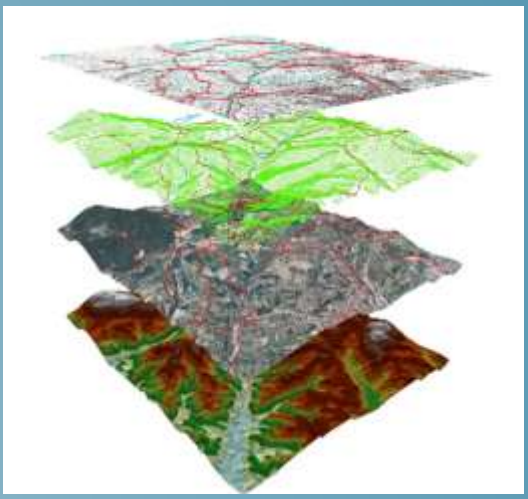
ACE
Areas of Conservation Emphasis

ACE: GOALS AND PURPOSE

https://www.wildlife.ca.gov/Data/Analysis/ACE

- **Best-available, conservation-relevant spatial data**
- **Non-regulatory maps and viewer tool**
- **Coarse level view of information for conservation planning purposes**

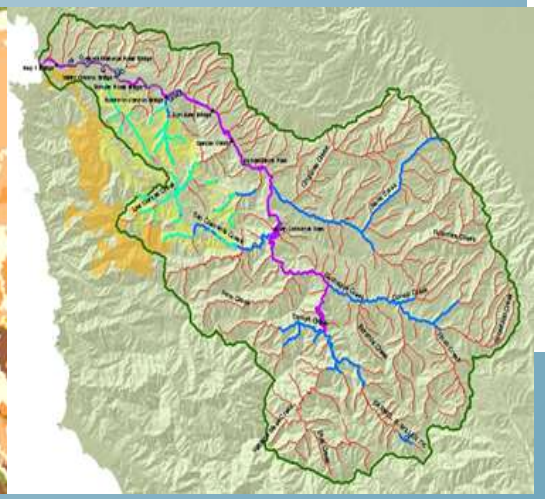


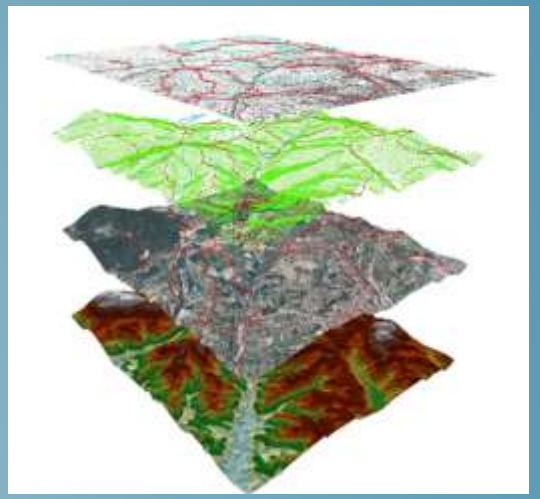
ACE: ACKNOWLEDGEMENTS

- **Working Group Team:** Karen Miner, Biogeographic Data Branch, Habitat Conservation Planning Branch, Wildlife Conservation Board, Wildlife Branch, Fisheries Branch, Watershed Restoration Branch, Water Branch, SWAP, Climate Science, Ecosystem Services
- **Development team:** Melanie Gogol-Prokurat, Sandra Hill, Diane Mastalir, Kristi Cripe, Dan Applebee, Janet Brewster, Kristina White, Patrick McIntyre, Todd Keeler-Wolf, Lisa Ohara, Steve Goldman, Peter Ode, Whitney Albright, Ryan Hill, and Karen Miner

GIS Scripting: Ryan Hill and Sandra Hill

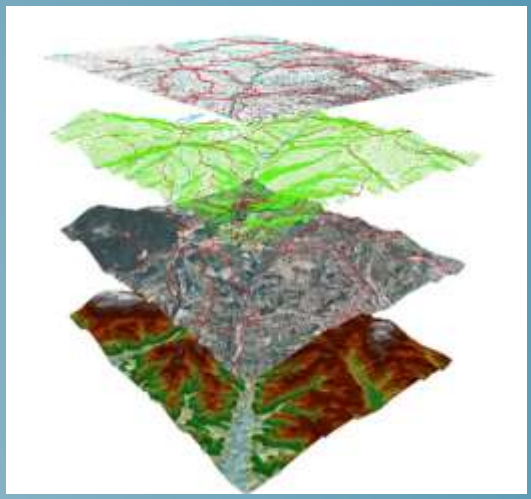
Viewer Development: Dean Chiang, Chet Egbert, Steve Goldman



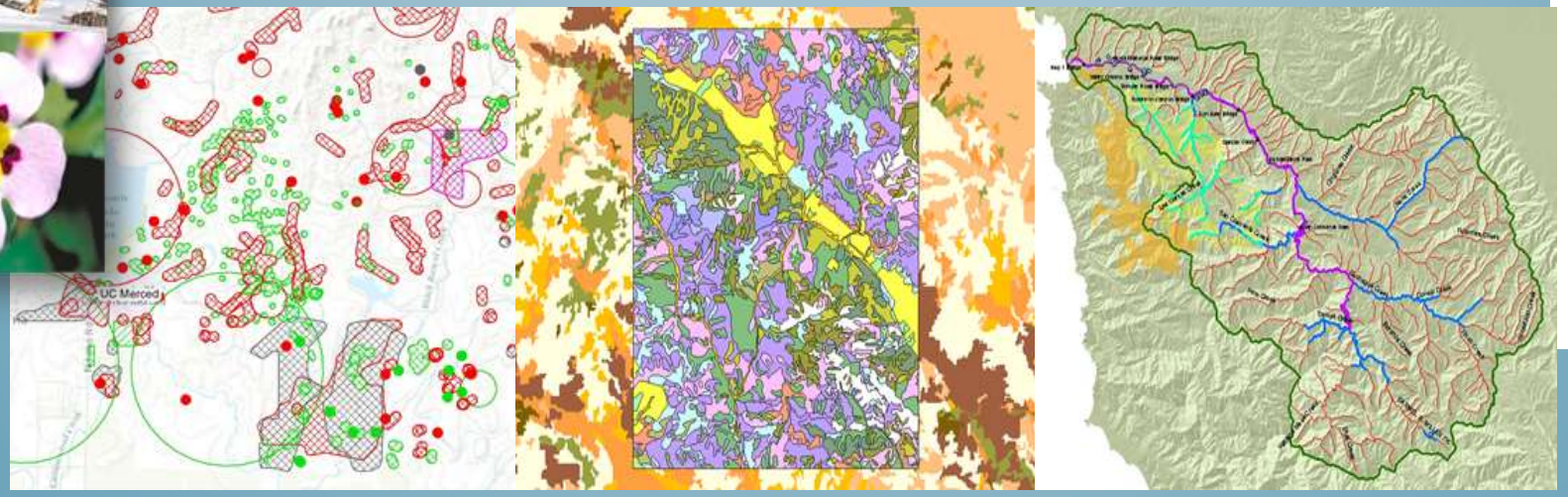


ACE: HISTORY

- ACE-II developed in 2009
- Focused on biodiversity and significant habitats
- Updated ~ annually

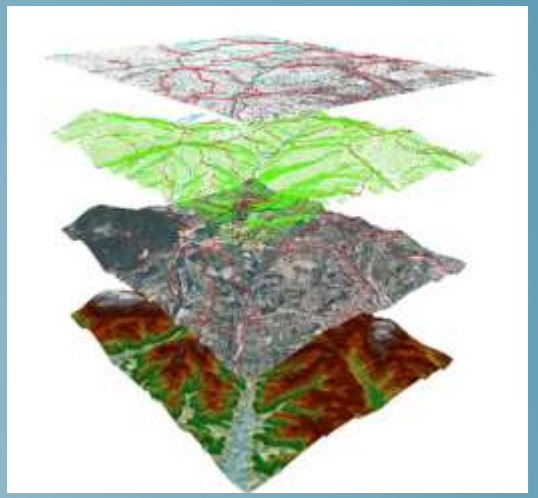


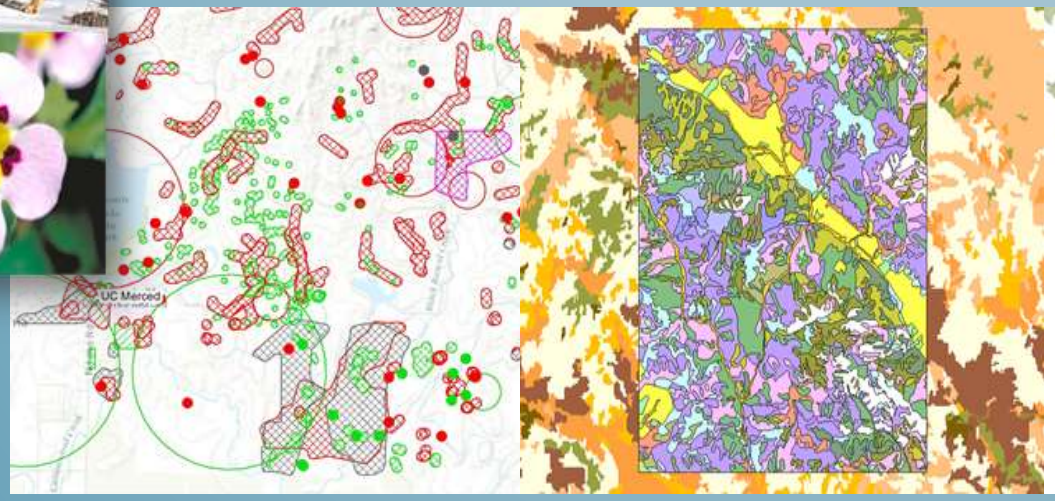
- **ACE-II Development Team:** Melanie Gogol-Prokurat, Monica Parisi, Adrienne Truex, Eric Haney, Dan Applebee, Armand Gonzales, et al.

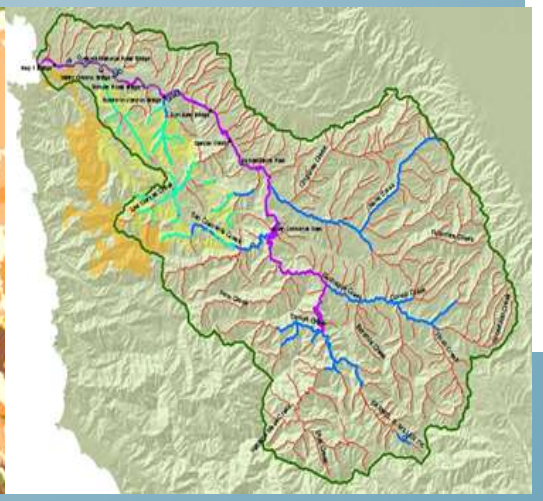


ACE VERSION 3.0

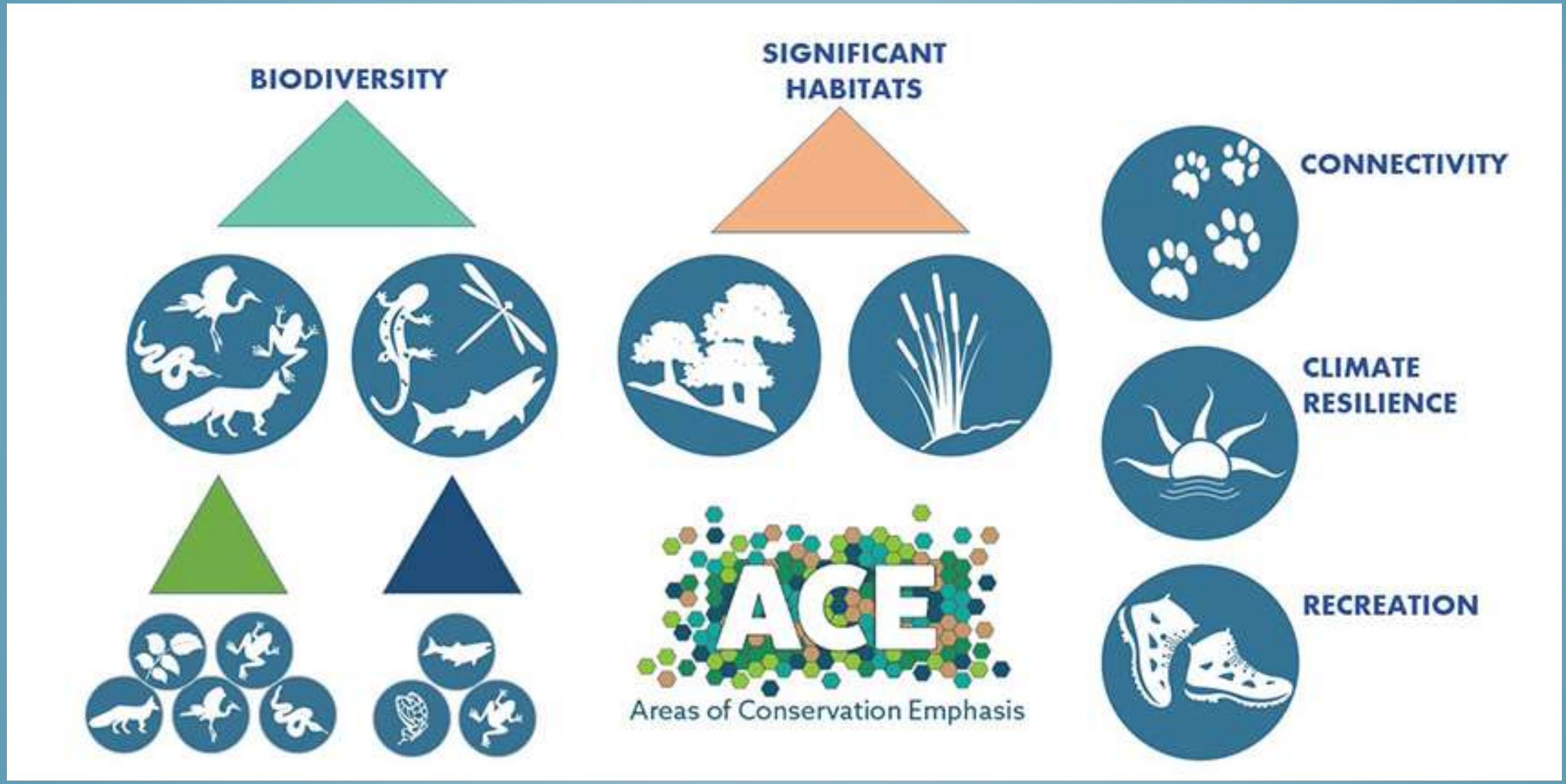
- 2017-2018 update
  - Separate terrestrial and aquatic
  - Revise and add new models
    - Connectivity
    - Climate resilience
    - Recreation
  - Add 2015 State Wildlife Action Plan (SWAP) priorities







ACE: DATA STRUCTURE



SWAP • Stressors • Land conservation status

ACE: ANALYSIS UNITS

Terrestrial

hexagon grid

standard size

2.5 miles^2 (1600 acres)

Aquatic

HUC 12 watersheds

variable size

4 - 425 miles^2 (mean 38 miles^2)

(24,284 acres)

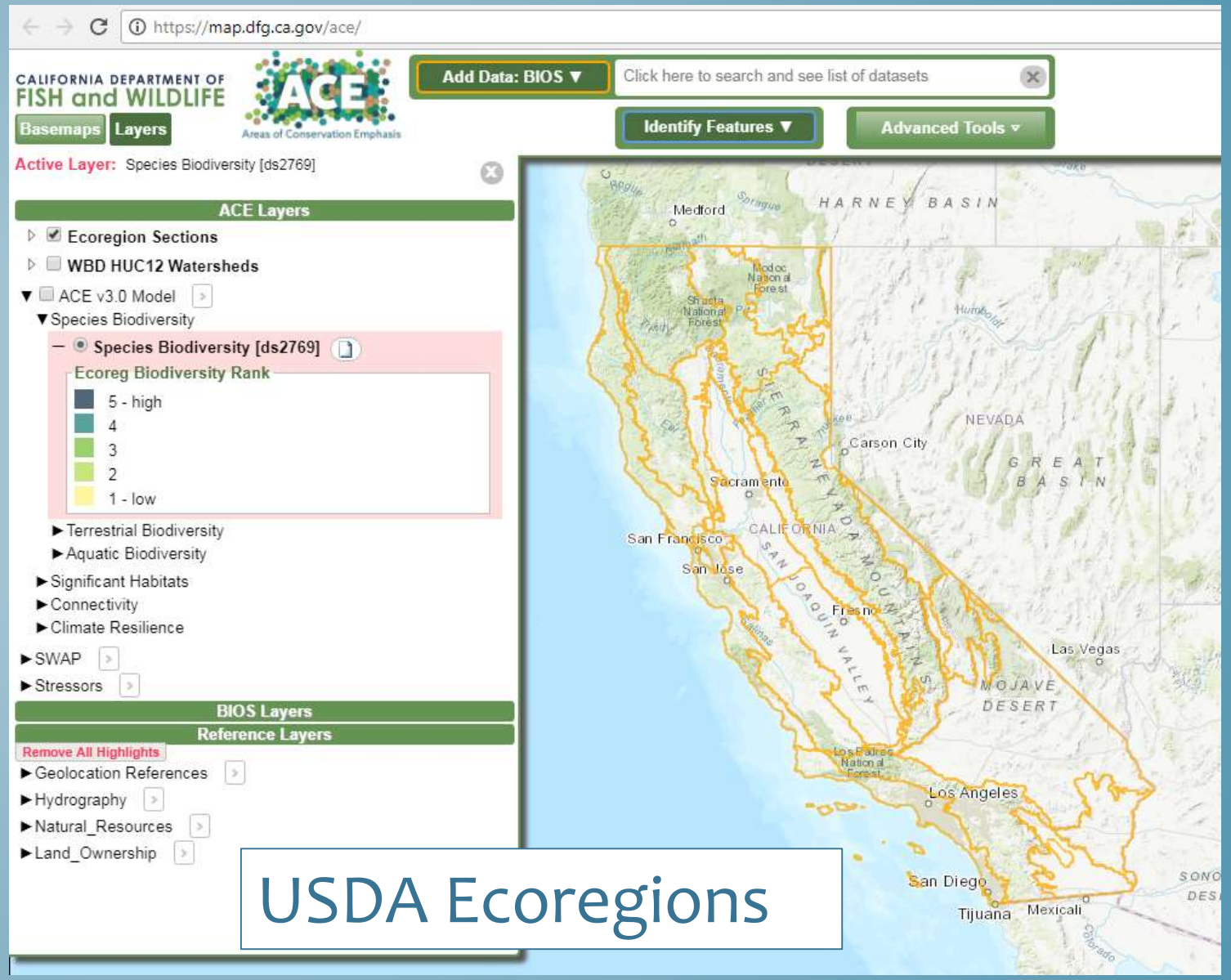
ACE: RANKING (TERRESTRIAL)

Terrestrial

hexagon grid

standard size

2.5 miles² (1600 acres)



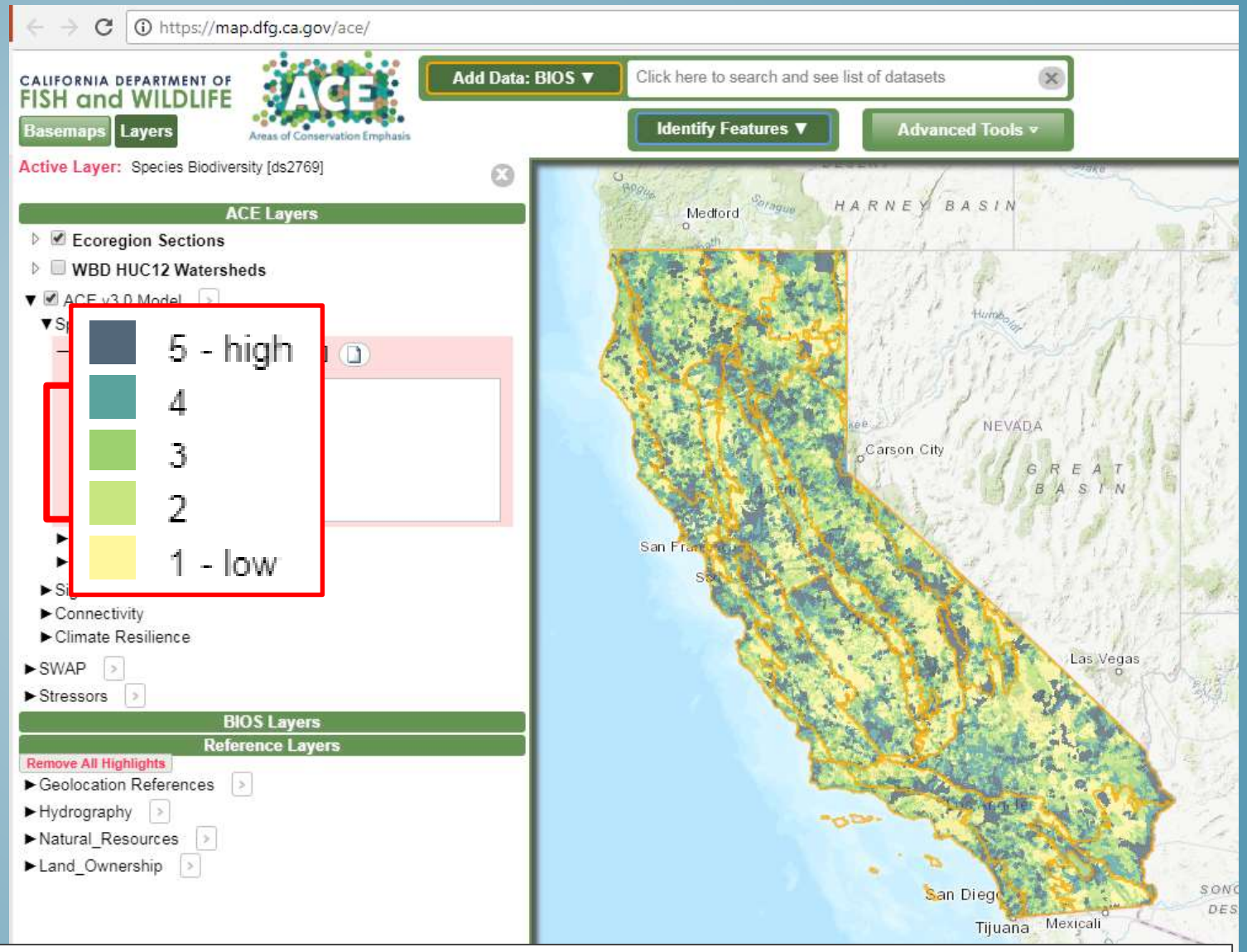
ACE: RANKING (TERRESTRIAL)

Terrestrial

hexagon grid

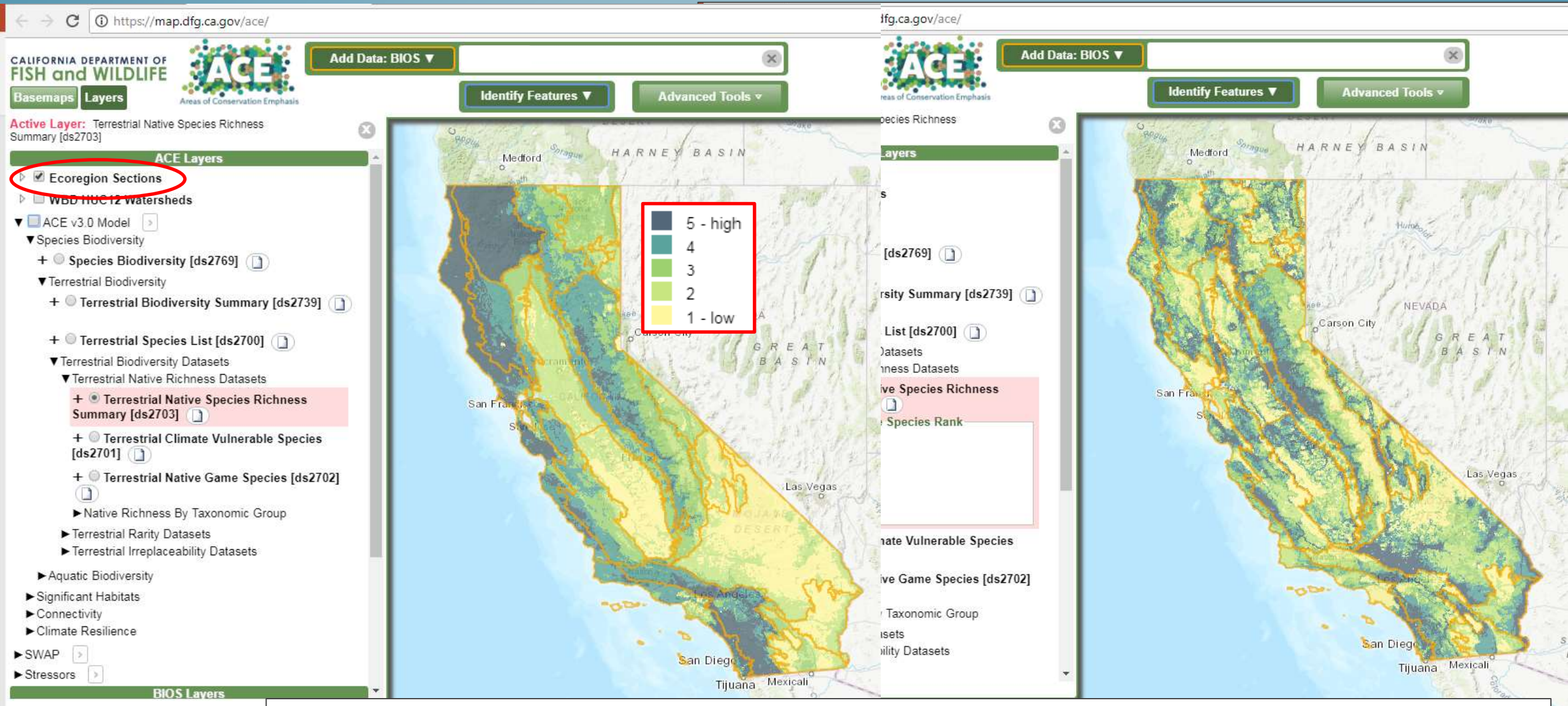
standard size

2.5 miles² (1600 acres)



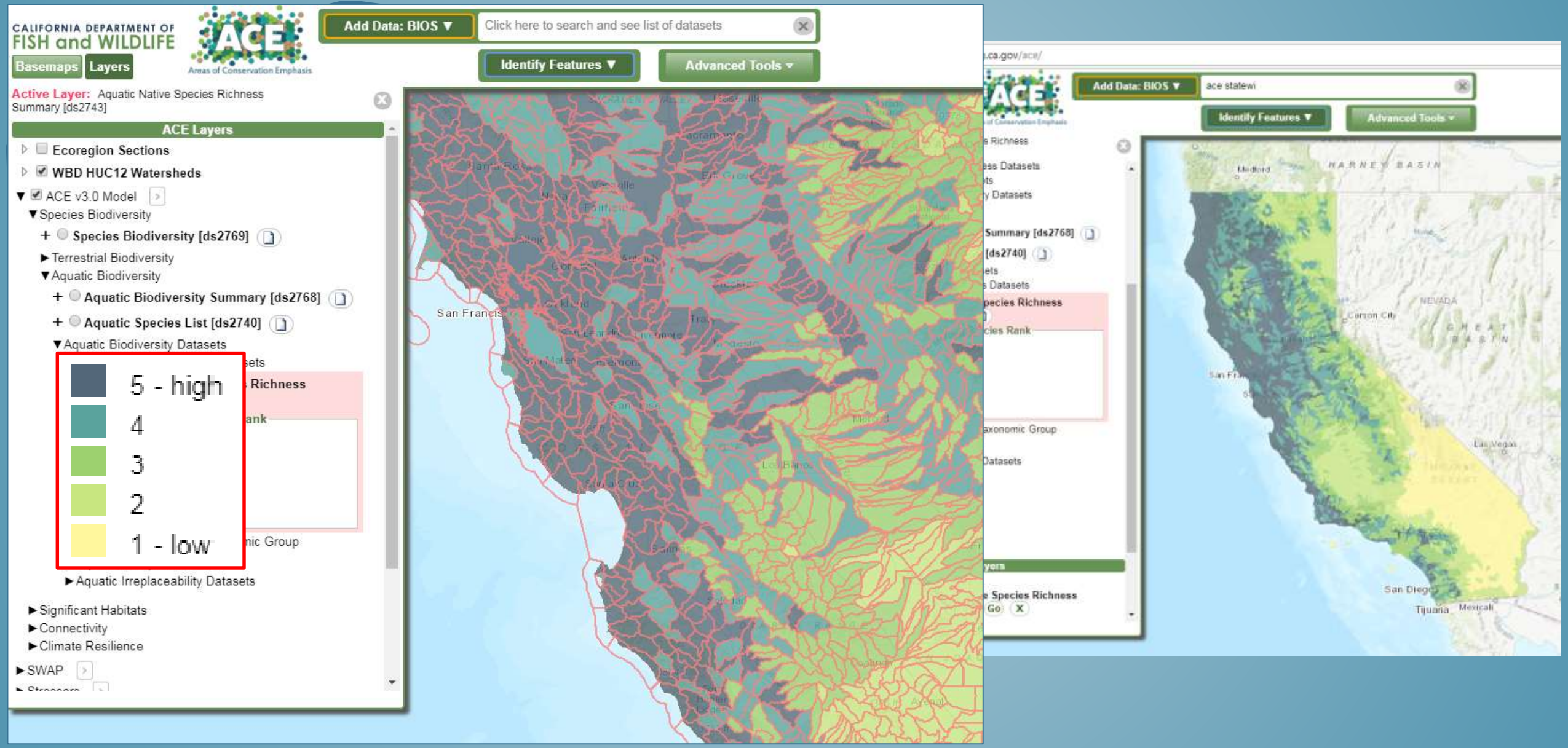
Data was ranked from 1-5 by quantile, where 20% of the map units are assigned to each rank.

ACE: RANKING



To identify the range of values within each ecoregion, data was ranked high to low by ecoregion.

ACE: RANKING (AQUATIC)



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ACE
Areas of Conservation Emphasis

ACE: WEBSITE

ttps://www.wildlife.ca.gov

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CA.GOV

California Department of Fish and Wildlife

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HELP WILDLIFE WHEN YOU FILE YOUR STATE INCOME TAX RETURN.

Contribute to the Rare and Endangered Species Protection Program on Line 403 and/or the California Sea Otter Fund on line 410.

For details, click here. Thank you!

News Feed

CDFW Wildlife Officers Arrest Three for Poaching Succulents in Humboldt County 4/6/2018

Ivory Sales Lead to a Conviction in Los Angeles County 4/4/2018

Regions

Check out services and recreational opportunities

Announcements

- Log In to Report Your Harvest
- Cannabis Program
- Drought Related Actions
- Public Notices and Meetings

REPORT POACHERS AND POLLUTERS 1-888-334-2258

Report Oil Spills 1-800-852-7550

"PROBLEMS" WITH WILDLIFE?

ACE: WEBSITE

http://www.wildlife.ca.gov/Conservation

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Home | Conservation

Conservation and Management of Wildlife and Habitat

ensuring scientific quality and visibility
SCIENCE Institute

Species Management

- Mammals
- Birds
- Reptiles

Species Data Systems

- BIOS
  Biogeographic Information and Observation System
- CNDDB
  California Natural Diversity Database
- VegCAMP
- Conservation Analysis
  CWHR, ACE, etc.

Habitat Conservation

- Cannabis Program
- Climate and Energy
- Environmental Review
  CEQA, CESA, Timber, Lake or Streambed Alteration
- Grant Opportunities
- CDFW Lands

ACE: WEBSITE

https://www.wildlife.ca.gov/Data/Analysis/Ace

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Areas of Conservation Emphasis (ACE)

What is ACE?

ACE is a CDFW effort to analyze large amounts of map-based data in a targeted, strategic way, and expressed visually, so decisions can be informed around important goals like conservation of biodiversity, habitat connectivity, and climate change resiliency. The ACE maps provide a coarse level view of information for conservation planning purposes, ranging from ecological research and modeling to local land-use planning and conservation decision-making. However, they do not replace the need for site-specific evaluation of biological resources and should not be used for regulatory purposes.

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ACE
Areas of Conservation Emphasis

- **Launch ACE Viewer**
  CDFW map viewers will perform best in ***Mozilla Firefox*** or ***Google Chrome*** browsers.
- ACE Viewer Guide (PDF)
- Download GIS Data

Related Information

- BIOS
- California Wildlife Habitat Relationships
- CA Natural Diversity Database
- State Wildlife Action Plan

ACE: WEBSITE

Areas of Conservation E... | CDFW ACE 3.0

Secure | https://www.wildlife.ca.gov/Data/Analysis/Ace

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- Overview
- Species Biodiversity
- Significant Habitats
- Connectivity
- Climate Resilience
- Recreation

Contact Information

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Conservation Data Analysis

- Sierra Nevada Foothills Connectivity Modeling Project
- Climate Change Vulnerability Assessment
- ACE
- CWHR
  - Life History Accounts and Range Maps
  - Species List (PDF)
  - Guide to Wildlife Habitats of California

ACE: WEBSITE


Areas of Conservation E
CDFW ACE 3.0
Secure | https://www.wildlife.ca.gov/Data/Analysis/Ace
Areas of Conservation Emphasis (ACE)
Overview
Species Biodiversity
Significant Habitats
Connectivity
Climate Resilience
Recreation
Recreation
Contact Information

ACE: WEBSITE

Overview

Species Biodiversity

Species Biodiversity Summaries combine the three measures of biodiversity developed for ACE into a single metric. These three measures include: 1) native species richness, which represents overall native diversity of all species in the state, both common and rare, as well as climate vulnerable species and important game and sport fish species; 2) rare species richness, which represents diversity of rare species; and, 3) irreplaceability, which is a weighted measure of endemism that highlights areas that support unique species of limited range. Terrestrial Datasets include native richness, rarity, and irreplaceability for each of five taxonomic groups: birds, amphibians, plants, mammals, and reptiles. While the Aquatic Datasets include native richness, rarity, and irreplaceability for each of four taxonomic groups: fish, aquatic invertebrates, aquatic amphibians, and aquatic reptiles. The data can be used to view the distribution of biological richness by individual taxonomic group and overall, within each USDA ecoregion (terrestrial) and across the state's watersheds (aquatic). Users can view a list of species that contribute to the biodiversity measures for each hexagon (for terrestrial species) or watershed (for aquatic species) by selecting the layer called Terrestrial Species List and Aquatic Species List, respectively. Further information is available in the dataset factsheets.

Dataset Factsheets:

Biodiversity Summary [ds2769] (PDF)

	
Terrestrial Biodiversity Summary [ds2739] (PDF)	Aquatic Biodiversity Summary [ds2768] (PDF)
Terrestrial Native Species Richness [ds2703] (PDF)	Aquatic Native Species Richness [ds2743] (PDF)
Terrestrial Rare Species [ds2709] (PDF)	Aquatic Rare Species [ds2748] (PDF)

ACE: FACT SHEETS

ACE DATASET FACT SHEET

Terrestrial Biodiversity

DS2739

UPDATED 2/14/2018

INTENT AND PURPOSE

The **Terrestrial Biodiversity Summary** is a compilation of the best available information on terrestrial species biodiversity in California, including amphibians, birds, mammals, plants, and reptiles, for the California Department of Fish and Wildlife's (CDFW) Areas of Conservation Emphasis Project (ACE). It is one component, together with Aquatic Biodiversity, **of overall species biodiversity in California.** The terrestrial biodiversity summary combines the three measures of biodiversity developed for ACE into a single metric: 1) terrestrial native species richness, which represents overall native diversity of all species in the state, both common and rare; 2) terrestrial rare species richness, which represents diversity of rare species; and, 3) terrestrial irreplaceability, which is a weighted measure of endemism. The data can be used to **view patterns of overall species diversity**, and **identify areas of highest biodiversity** across the state and in each ecoregion, taking into account common, rare, and rare endemic species. Users can **view a list of species** that contribute to the biodiversity measures for each hexagon.

The **terrestrial biodiversity summary** displays relative biodiversity values for each ecoregion of the state, so that the areas of highest diversity within each ecoregion are highlighted. The data is

ACE DATASET FACT SHEET

Terrestrial Biodiversity

DATA SOURCES AND MODELS USED

The Terrestrial Biodiversity Summary is a combination of three ACE datasets that were developed to

Data Sources

Terrestrial vertebrate distribution data
Predicted Habitat Suitability models for
represent potential suitable habitat with
CWHR species habitat relationship table
FVEG15_1 (Calfire 2015). All native terre
Suitability Model was available were inc
species was mapped within a hexagon, t
Terrestrial vertebrate counts were base
varieties because range maps were gene

Data Processing Steps and Ranking Criteria

Data normalization by taxonomic group corrected for any bias caused by differences in the number of taxa per taxonomic group. Due to large differences in total numbers of species between taxonomic

HOW TO USE THE DATA LAYER

The biodiversity summary maps can be used to view and explore how biodiversity is distributed across the state and within each ecoregion. The user can view patterns of overall biodiversity by ecoregion

Field	Definition
Climate Vulnerable Species Count	Count of climate vulnerable species (not including plants) with potential habitat in each hexagon.
	ount of native amphibian potential habitat models that intersect he hexagon.
	ount of native reptile potential habitat models that intersect the exagon.
	potential habitat models that intersect the
	mal potential habitat models that intersect

DATA PRECISION AND LIMITATIONS

ACE provides data to help guide and inform conservation priorities in California. All ACE data layers are limit
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Beca

DATA ACCESS

All datasets are available for viewing and download in BIOS.

For assistance with interpretation cont

ACKNOWLEDGEMENTS

Native Species Richness Index, Rare Species Richness Index, and Rarity-weighted Index model

SELECTED PUBLICATIONS

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, Editors. 2012. *The Jepson Manual: vascular plants of California, second edition.* University of California

Areas of Conservation Emphasis (ACE)

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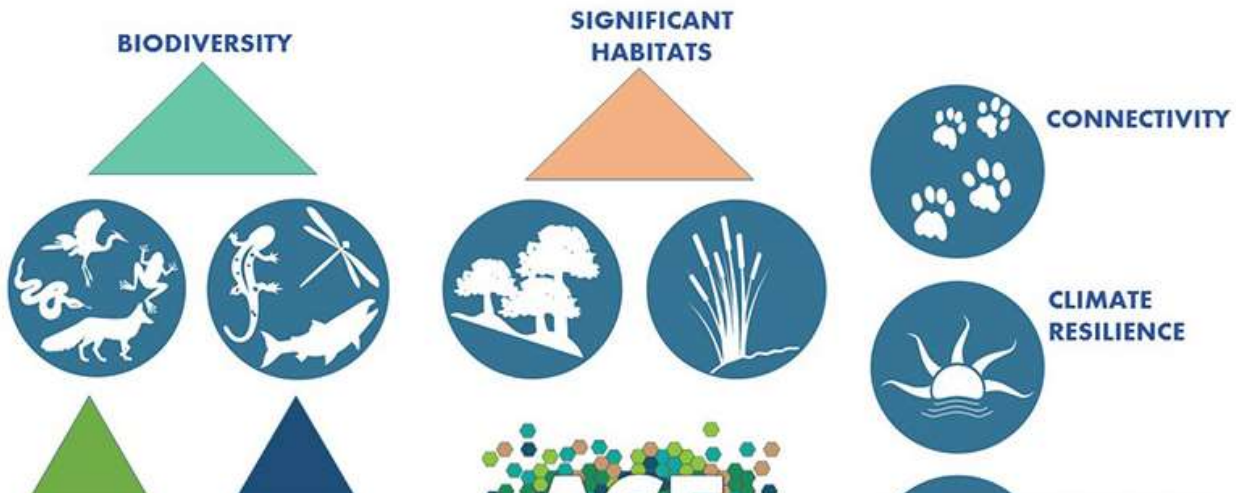

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Areas of Conservation Emphasis (ACE)

Version 3, Phase 1

ACE provides data to help guide and inform conservation priorities in California.

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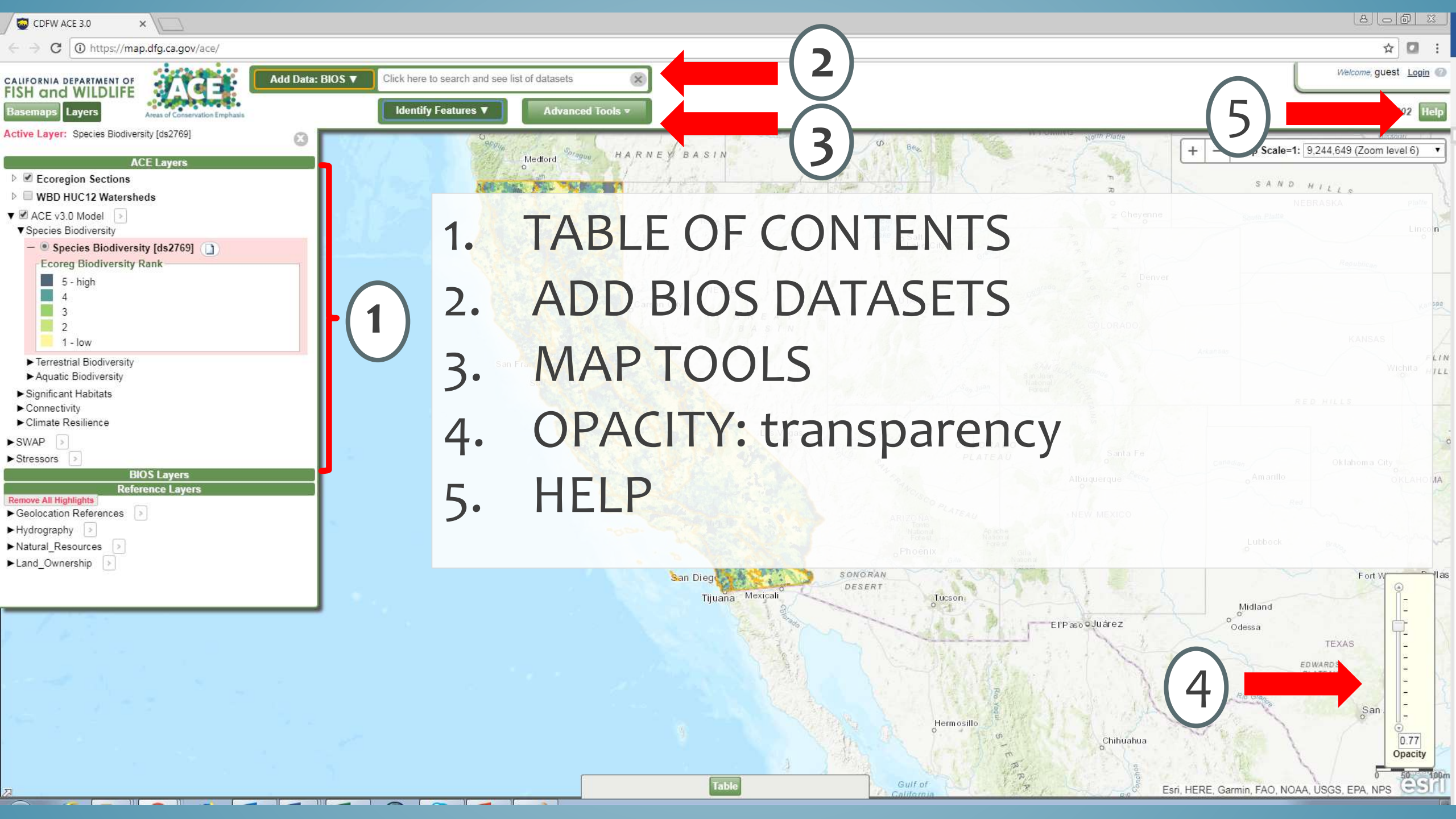
For more detailed information see: www.wildlife.ca.gov/Data/Analysis/ACE

(Released 2018/02)

Login OR Use Public ACE

(CDFW staff use your regular network login)

All ACE layers are public. Login option is for CNDDB subscribers.


CDFW ACE 3.0
https://map.dfg.ca.gov/ace/
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS
Click here to search and see list of datasets
Identify Features
Advanced Tools
Welcome, guest
Login
Help
Active Layer: Species Biodiversity [ds2769]
ACE Layers
Ecoregion Sections
WBD HUC12 Watersheds
ACE v3.0 Model
Species Biodiversity
Species Biodiversity [ds2769]
Ecoreg Biodiversity Rank
5 - high
4
3
2
1 - low
Terrestrial Biodiversity
Aquatic Biodiversity
Significant Habitats
Connectivity
Climate Resilience
SWAP
Stressors
BIOS Layers
Reference Layers
Remove All Highlights
Geolocation References
Hydrography
Natural_Resources
Land_Ownership
Scale=1: 9,244,649 (Zoom level 6)
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4
5
1. TABLE OF CONTENTS
2. ADD BIOS DATASETS
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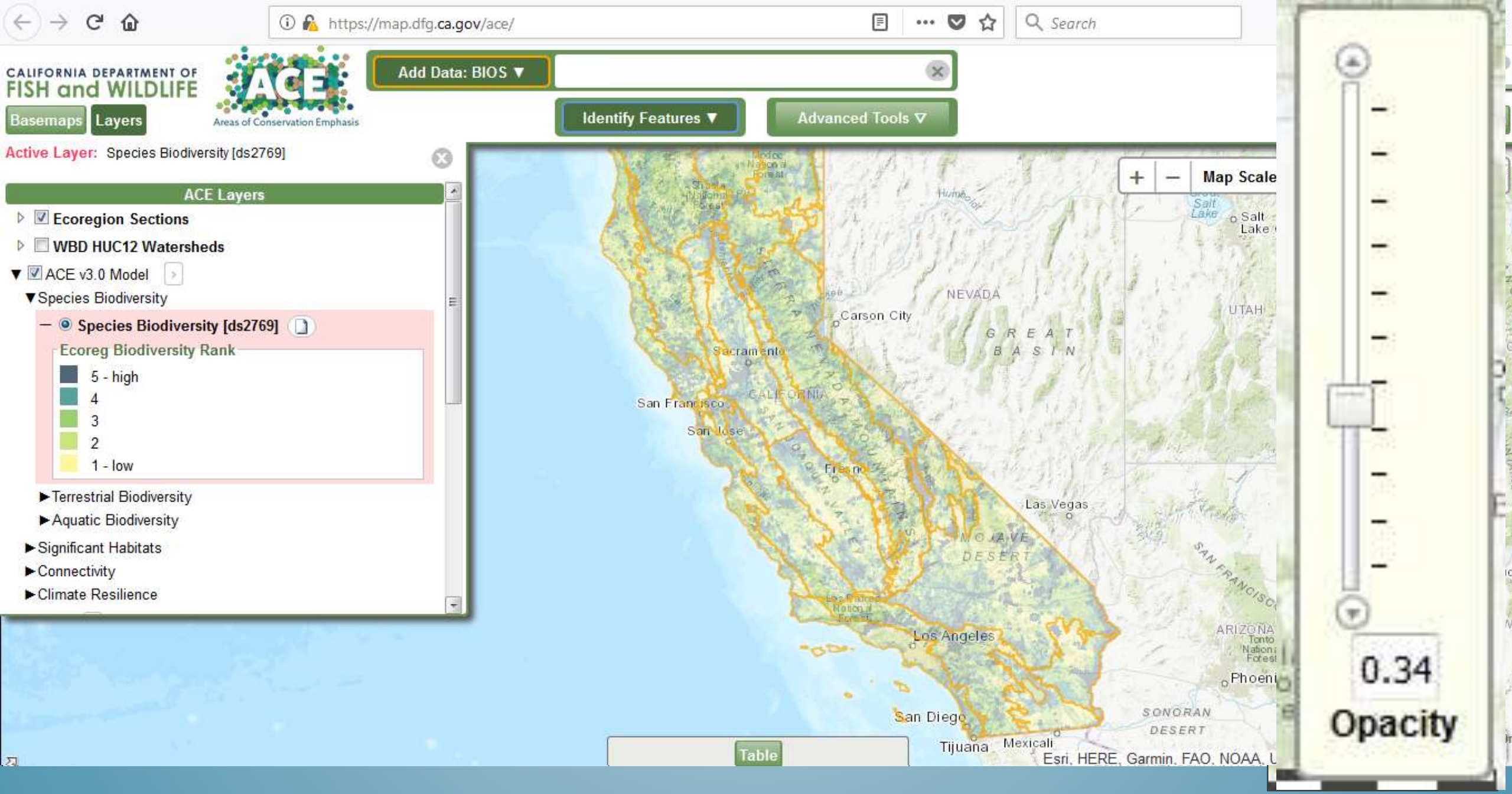
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
esri

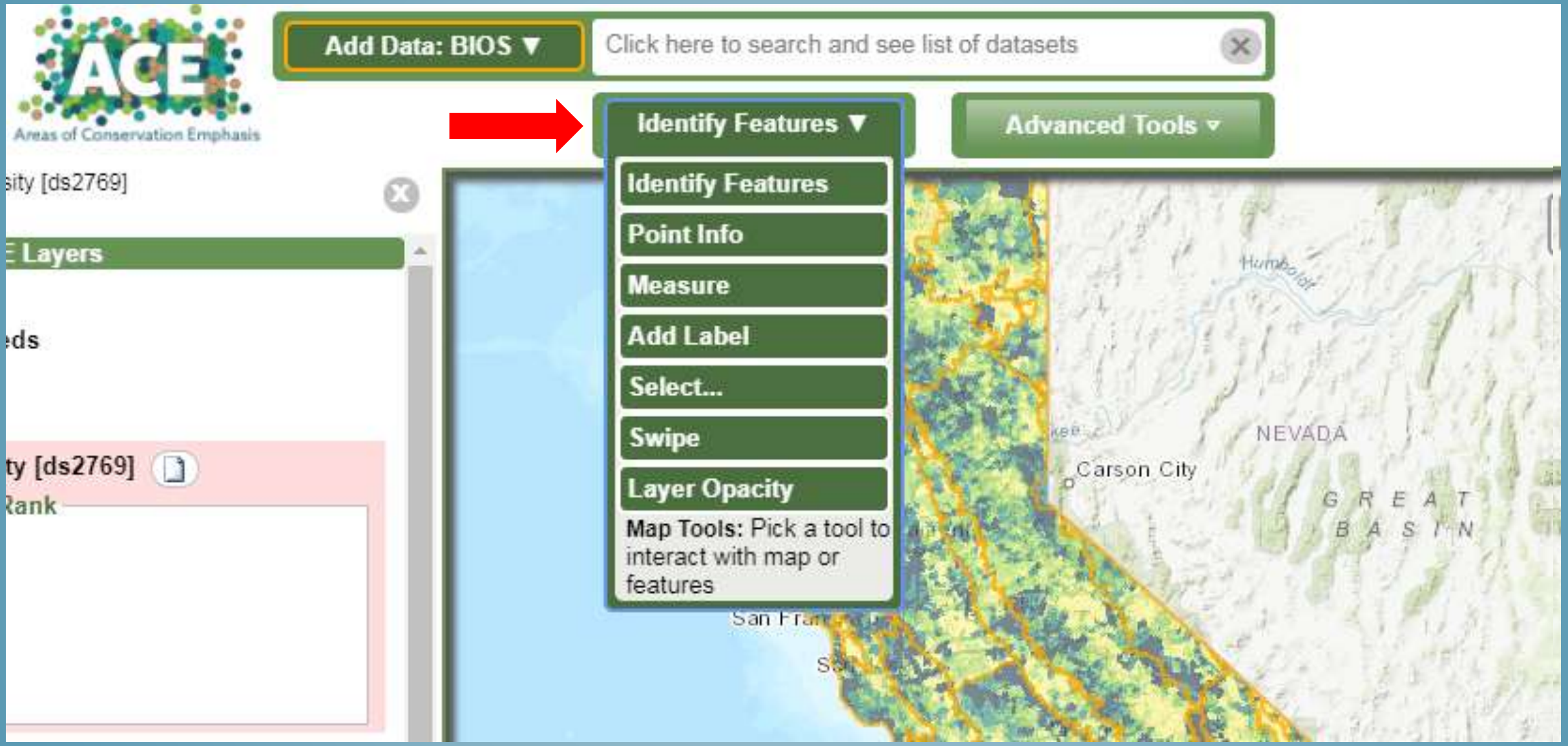
TABLE OF CONTENTS

- Toggle between ACE datasets
- Only one ACE dataset can be turned on
- Active layer (selectable) highlighted pink
- Overlay Ecoregions or Watersheds
- Change basemap
- Add reference layers

ADD BIOS DATASETS



OPACITY: CHANGE TRANSPARENCY OF ACTIVE LAYER


ACE
Areas of Conservation Emphasis
Add Data: BIOS ▼
Click here to search and see list of datasets
Identify Features ▼
Advanced Tools ▾
Identify Features
Point Info
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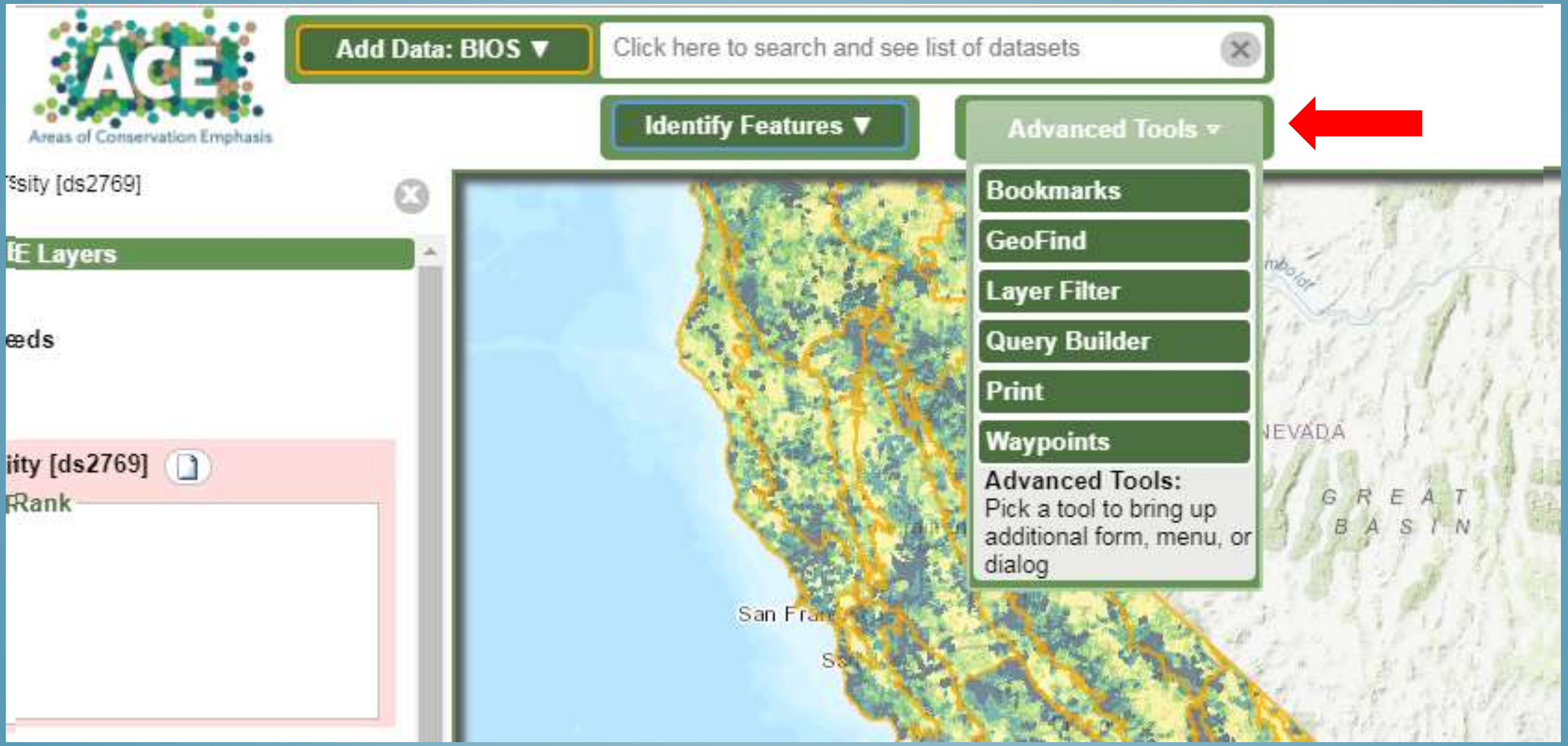
GREAT BASIN

MAP TOOLS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Identify Features ▼
Advanced Tools
Bookmarks
GeoFind
Layer Filter
Query Builder
Print
Waypoints
Advanced Tools:
Pick a tool to bring up additional form, menu, or dialog
E Layers
NEVADA
GREAT BASIN

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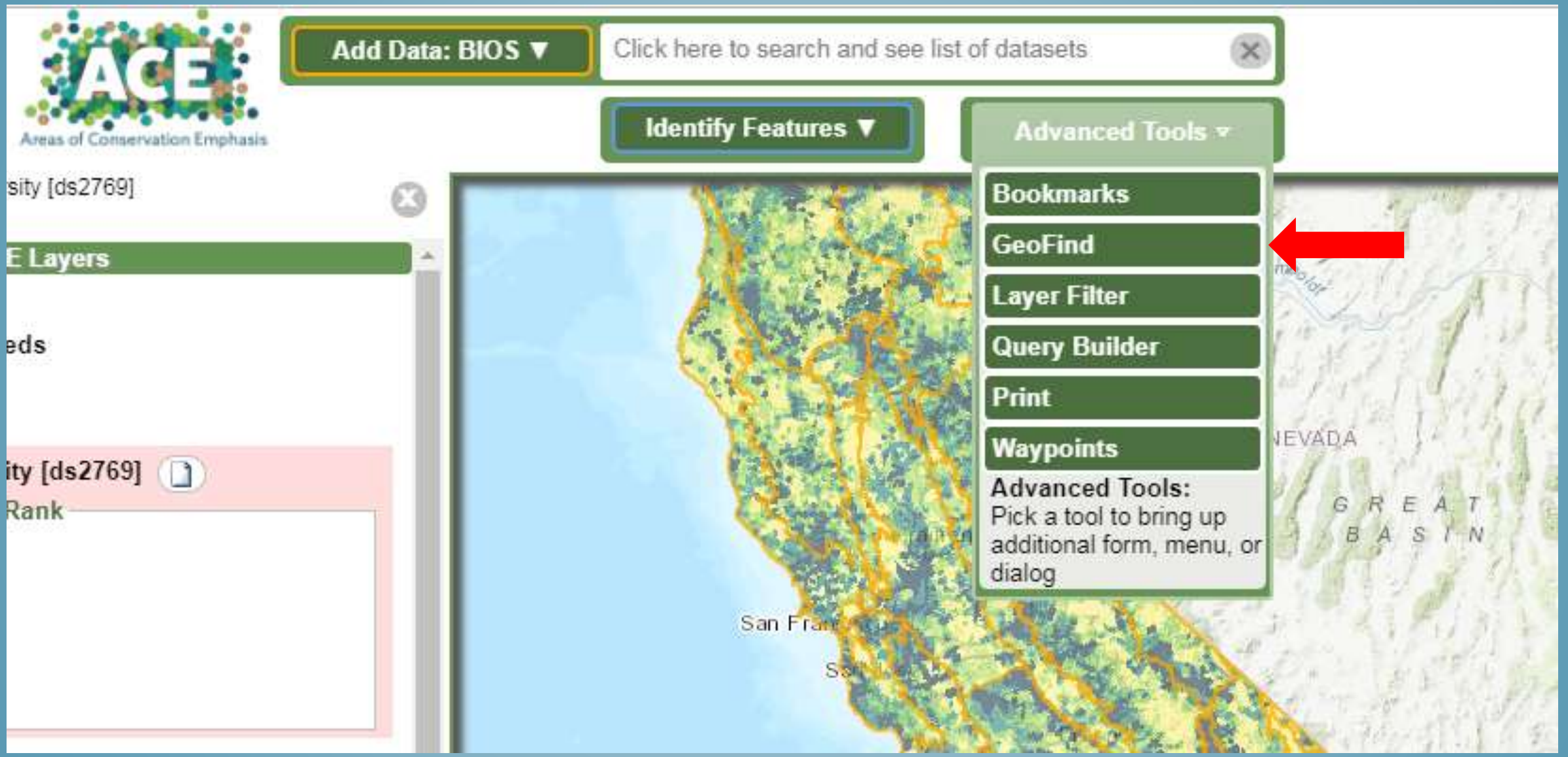
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Query Builder
Print
Waypoints
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Pick a tool to bring up additional form, menu, or dialog
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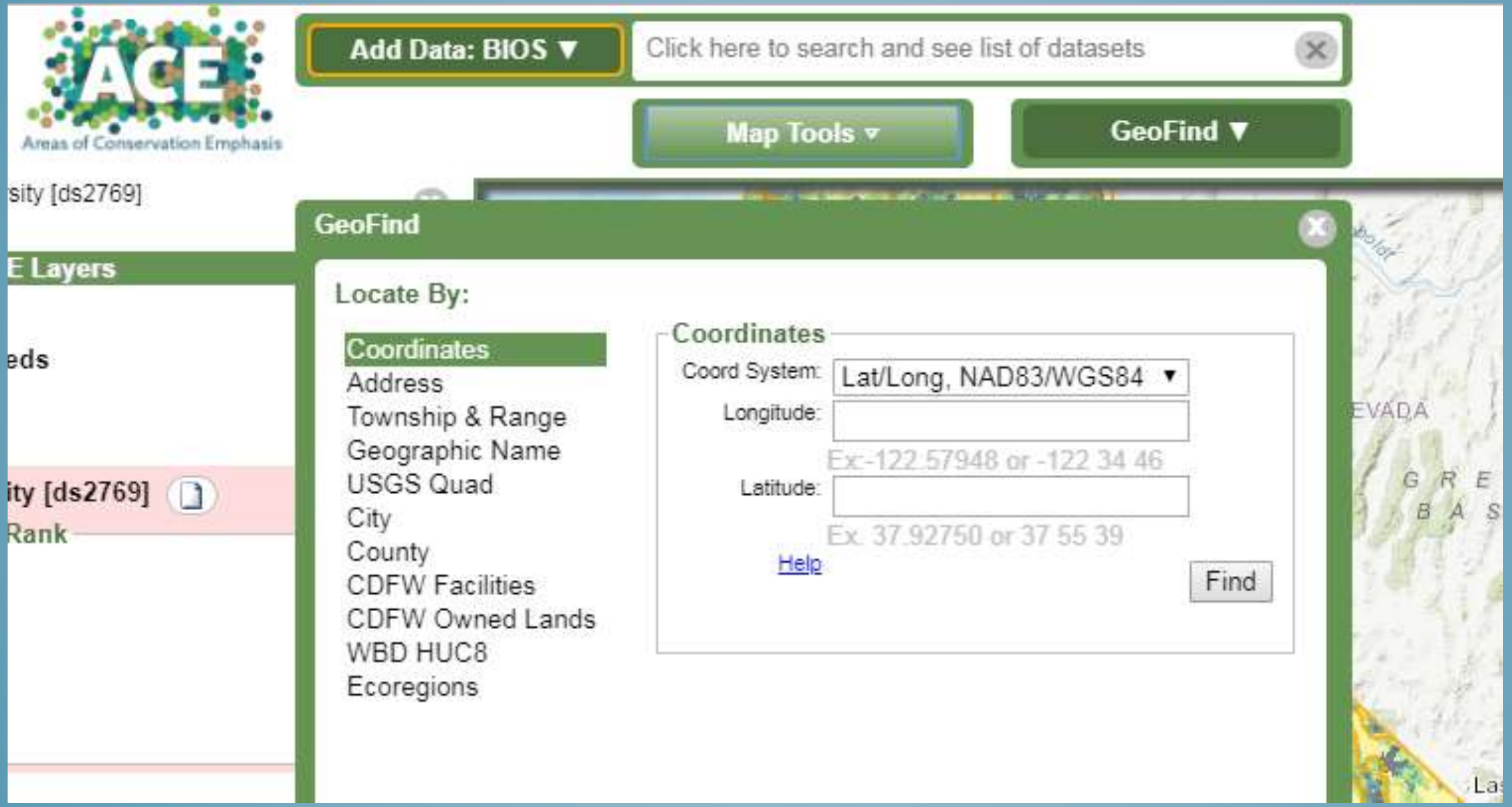
MAP TOOLS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GeoFind ▼
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Rank
GeoFind
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Coordinates
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County
CDFW Facilities
CDFW Owned Lands
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Ex:-122.57948 or -122 34 46
Latitude:
Ex: 37.92750 or 37 55 39
Help
Find
EVADA
G R E
B A S

MAP TOOLS

Secure | https://www.wildlife.ca.gov/Data/Training

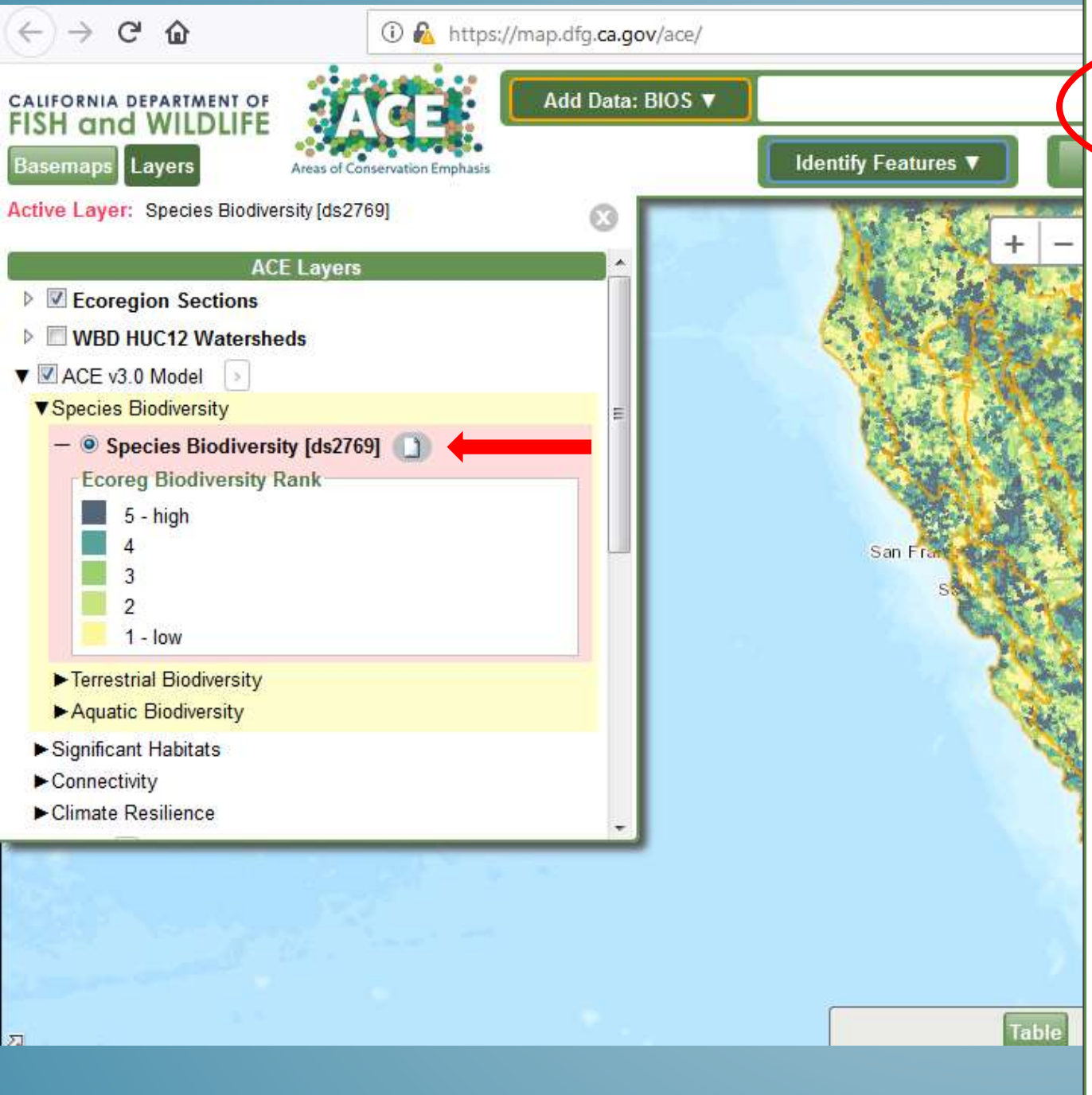
CNDDB, RareFind and BIOS Tutorials and Training

Introduction Videos and Tutorials

BIOS 5

- Getting Started in BIOS 5 (PDF): Just the basics to get you going.
- BIOS 5 User Guide (PDF): A complete overview of every tool.
- BIOS 5 Demo (video - 18 min): An introduction to the BIOS 5 web mapping application, and a demo operate its basic functions.
- Using CNDDB in BIOS 5 (PDF): A demonstration of using the CNDDB dataset in BIOS 5.
- Using the Spotted Owl Report Generator in BIOS 5 (PDF): A demonstration of using the Spotted Ow 5 to generate reports.
- CNDDB QuickView Tool User Guide (PDF): A user guide for using the CNDDB QuickView tool in BI

Live Training Course



identified. The ACE maps and data can be viewed in the ACE online map viewer, or downloaded for use in ArcGIS. For more detailed information see https://www.wildlife.ca.gov/Data/Analysis/ACE and https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=24326.

Last Updated In BIOS On:

02/22/2018

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Division:	Biogeographic Data Branch
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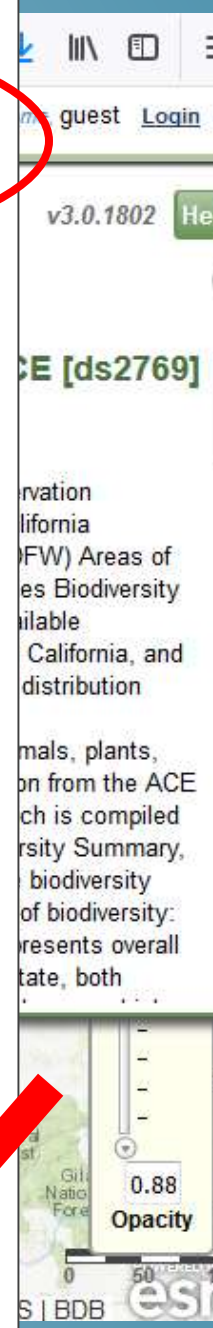
Phone:	(916) 324-9265
Email:	Melanie.Gogol-Prokurat@wildlife.ca.gov

Complete metadata | Download data



ACE: TALK OVERVIEW

1. Introduction: Goals and Purpose

2. Navigating ACE: Where to find the information

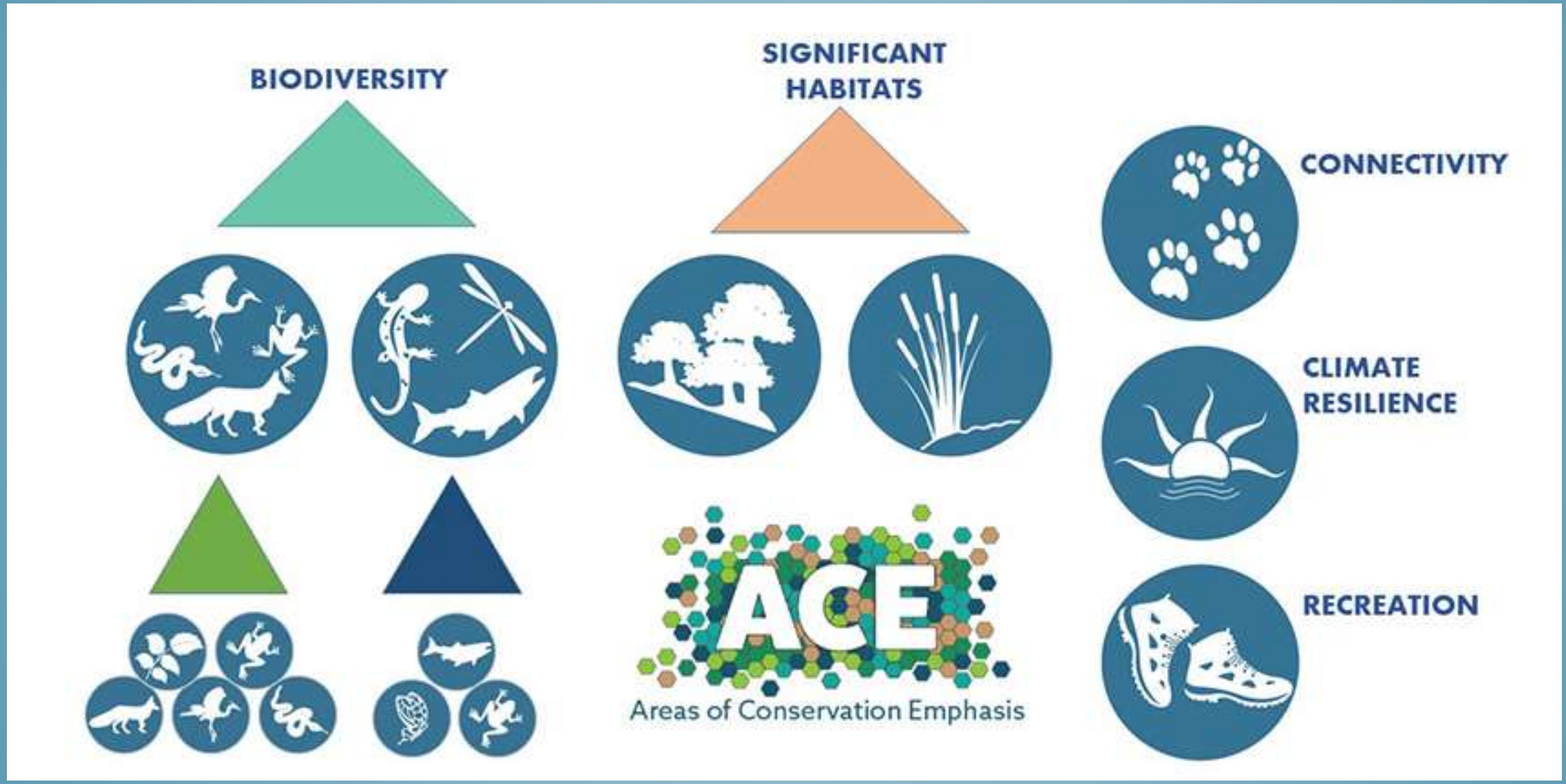
3. ACE Model: Datasets, data sources, attributes, caveats

4. Example scenarios: How the data and viewer can be used

5. Future updates

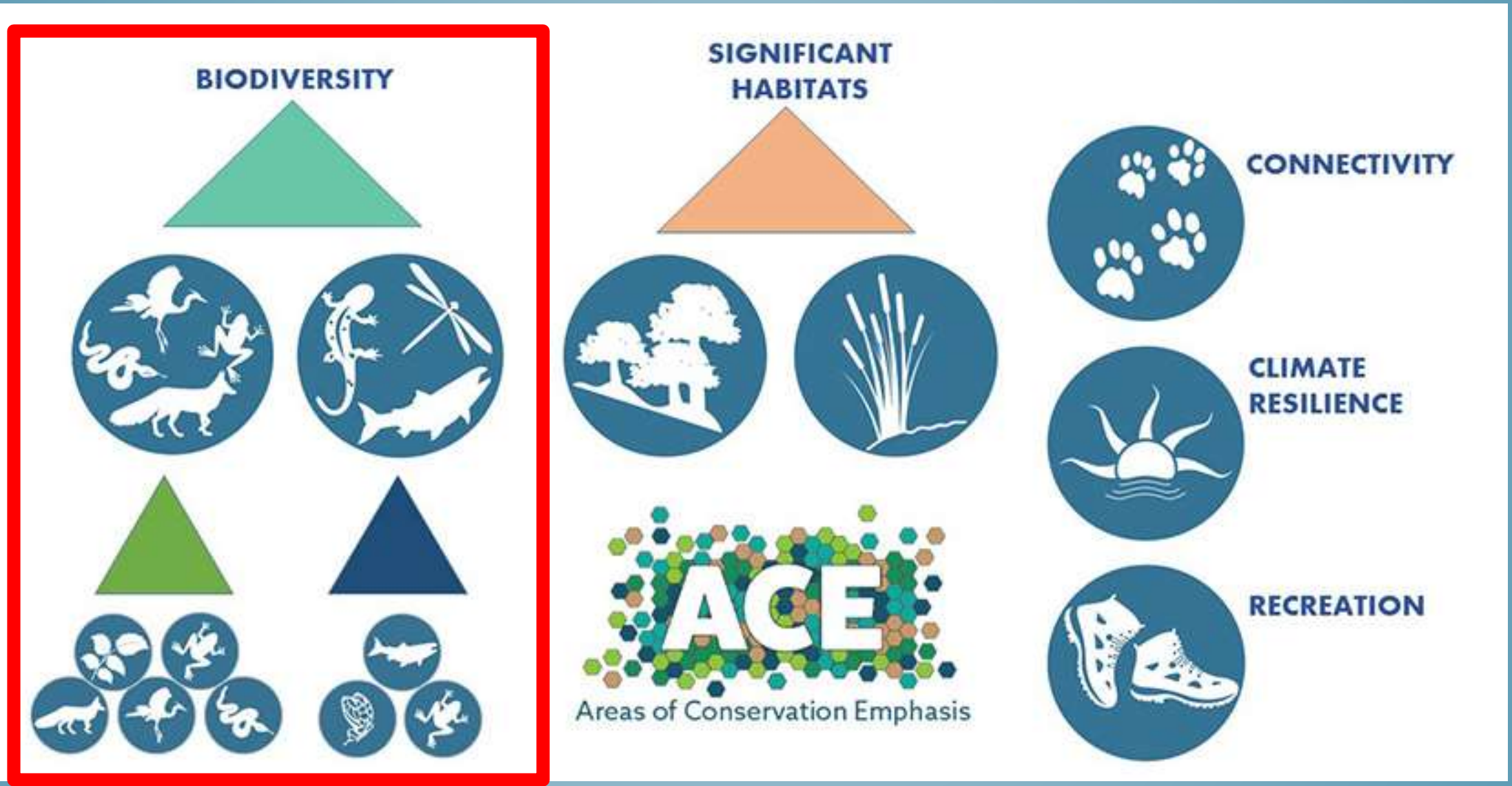
ACE
Areas of Conservation Emphasis

ACE: DATA STRUCTURE

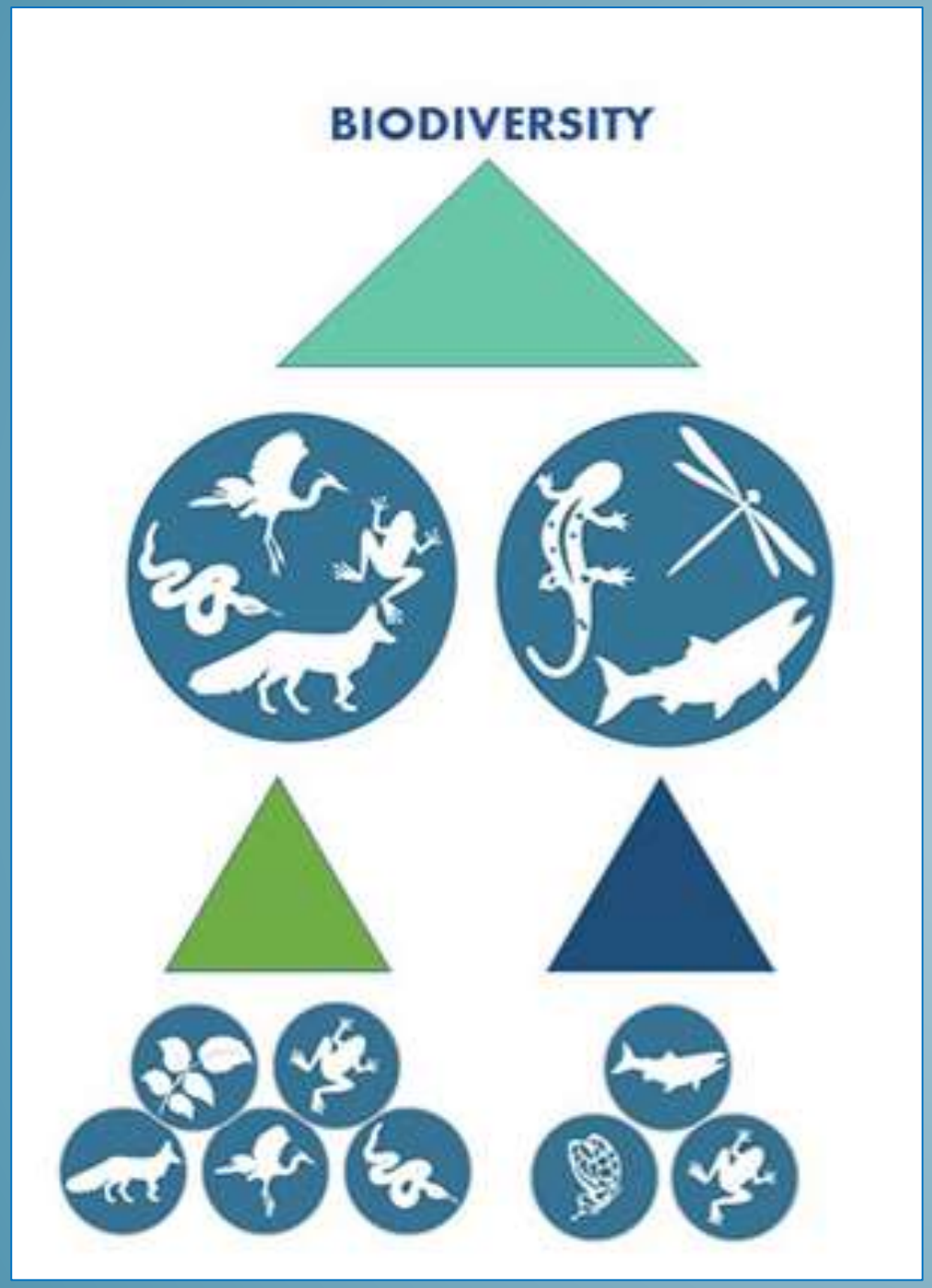


SWAP • Stressors • Land conservation status

ACE: DATA STRUCTURE



SWAP • Stressors • Land conservation status



Components of Biodiversity

1. Native Richness: common and rare

2. Rarity: Species of Greatest Conservation Need (SGCN)

3. Irreplaceability: Endemic species

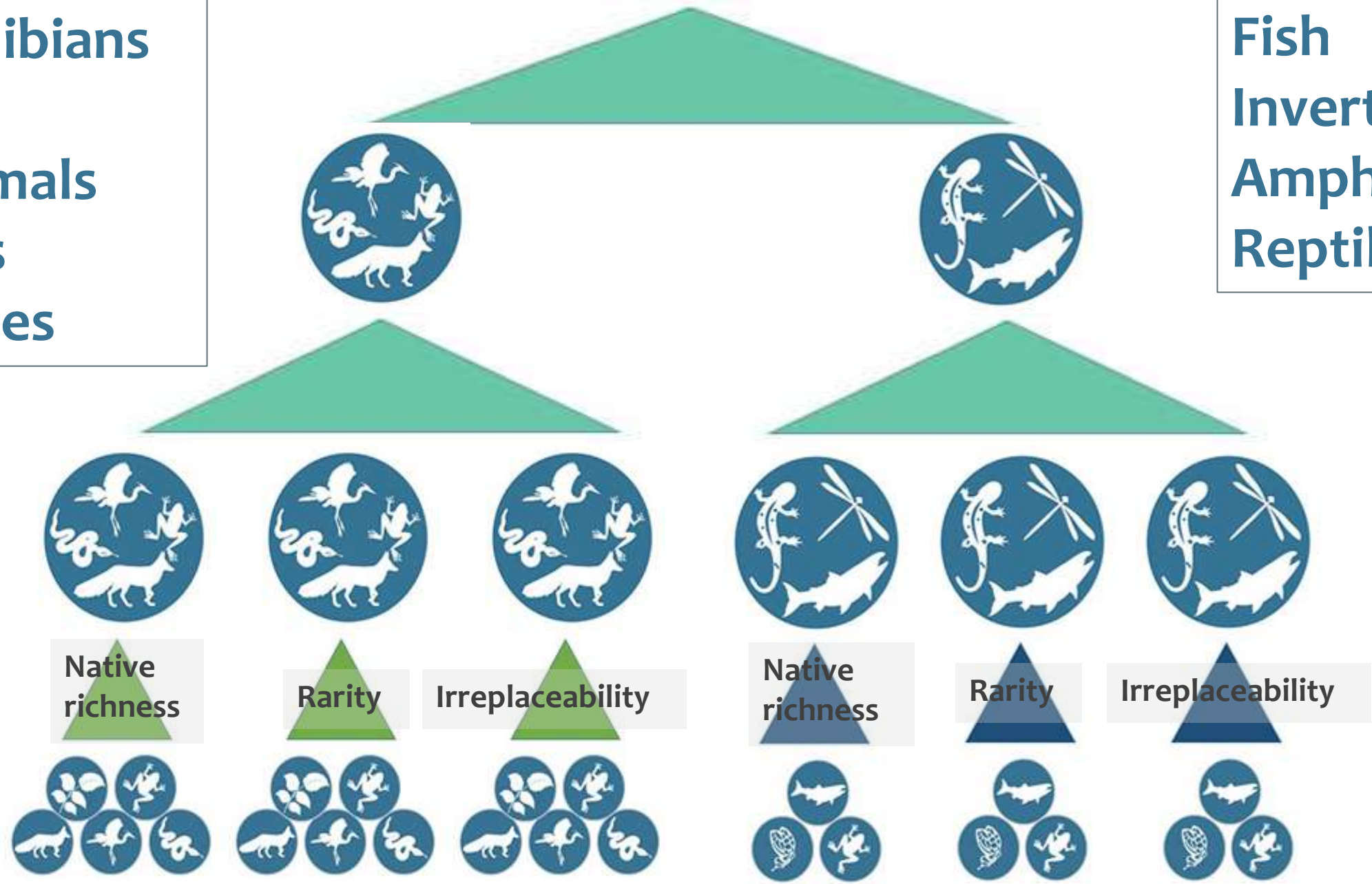
BIODIVERSITY

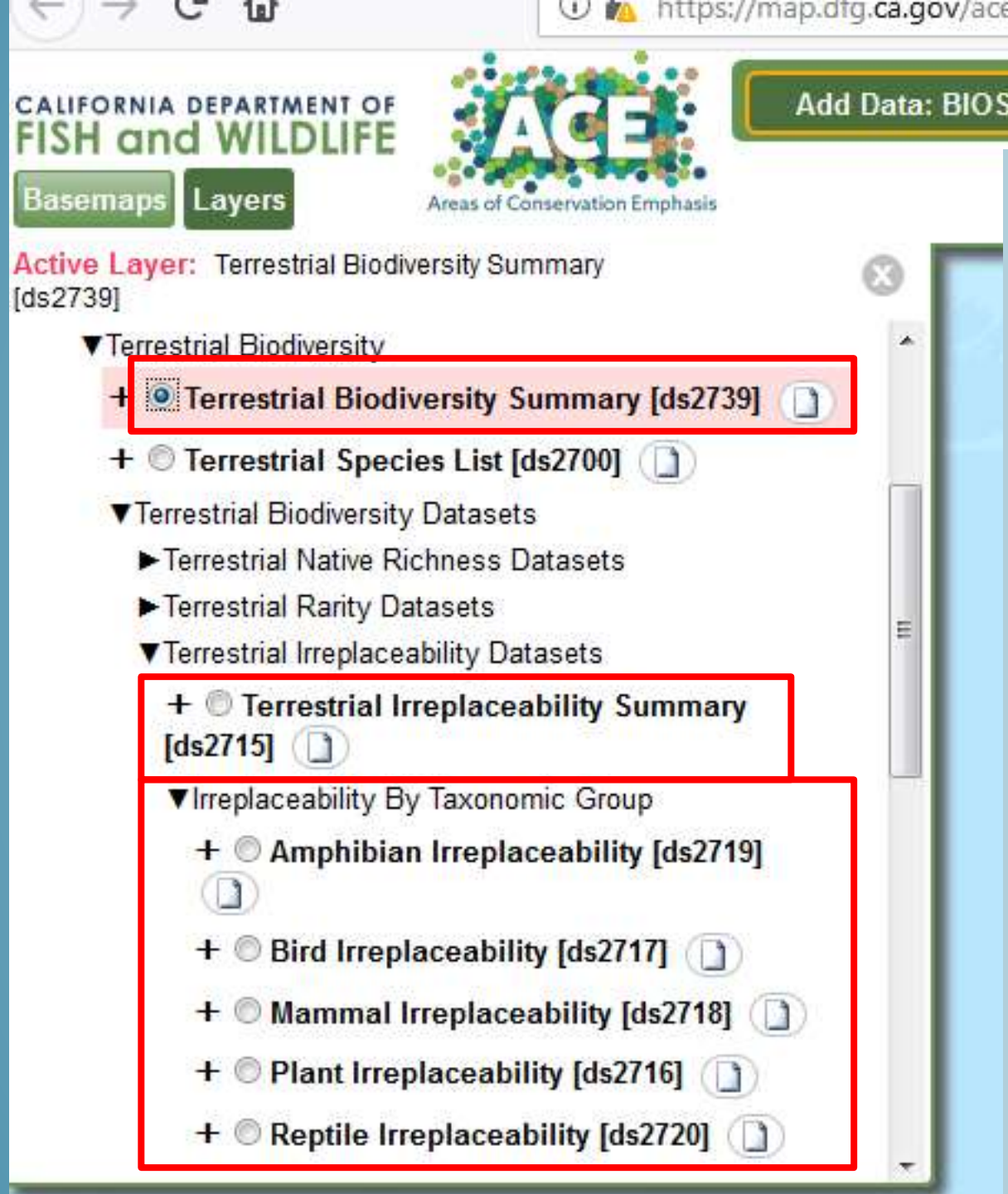
TERRESTRIAL

- Amphibians
- Birds
- Mammals
- Plants
- Reptiles

AQUATIC

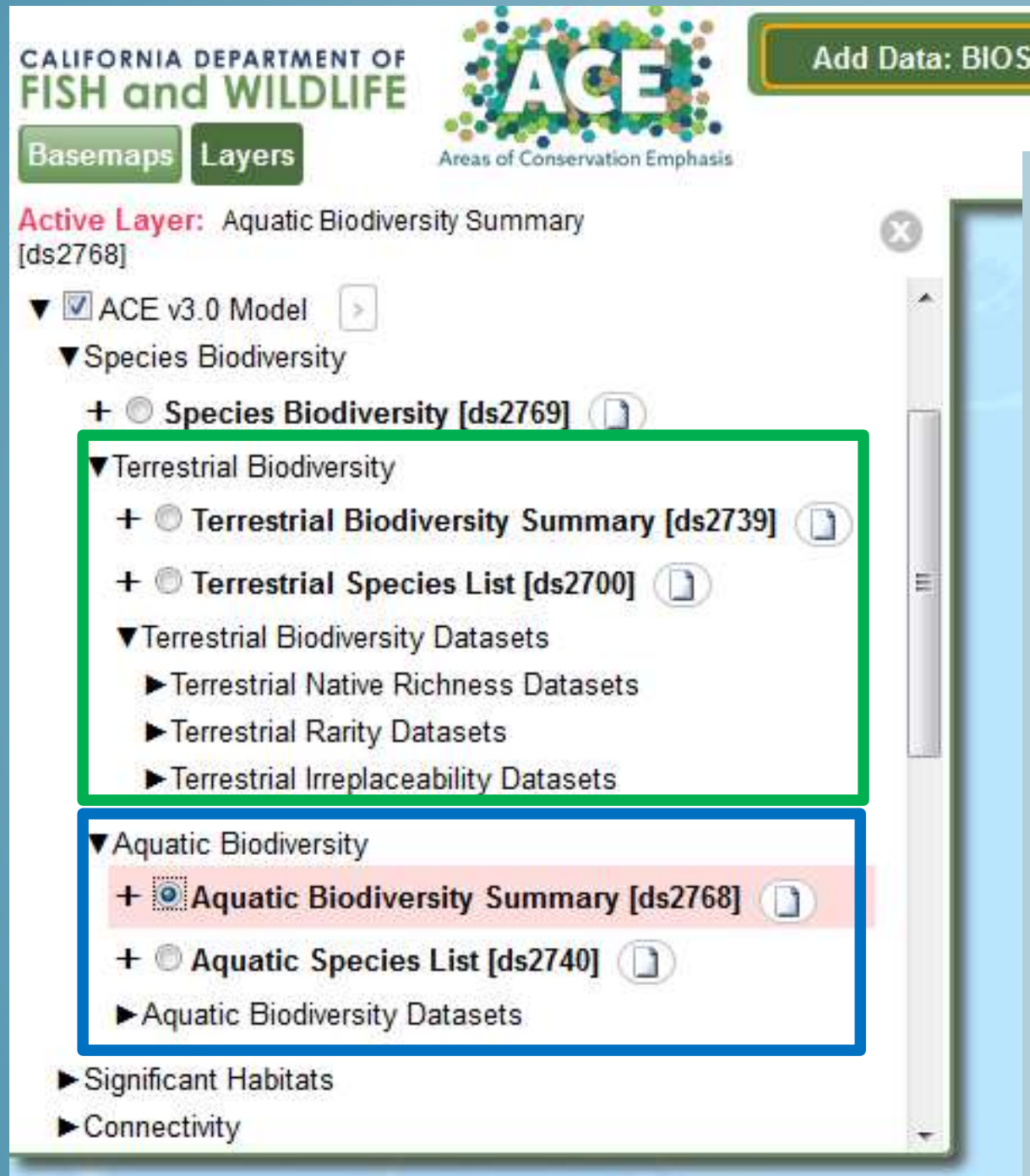
- Fish
- Inverts
- Amphibians
- Reptiles





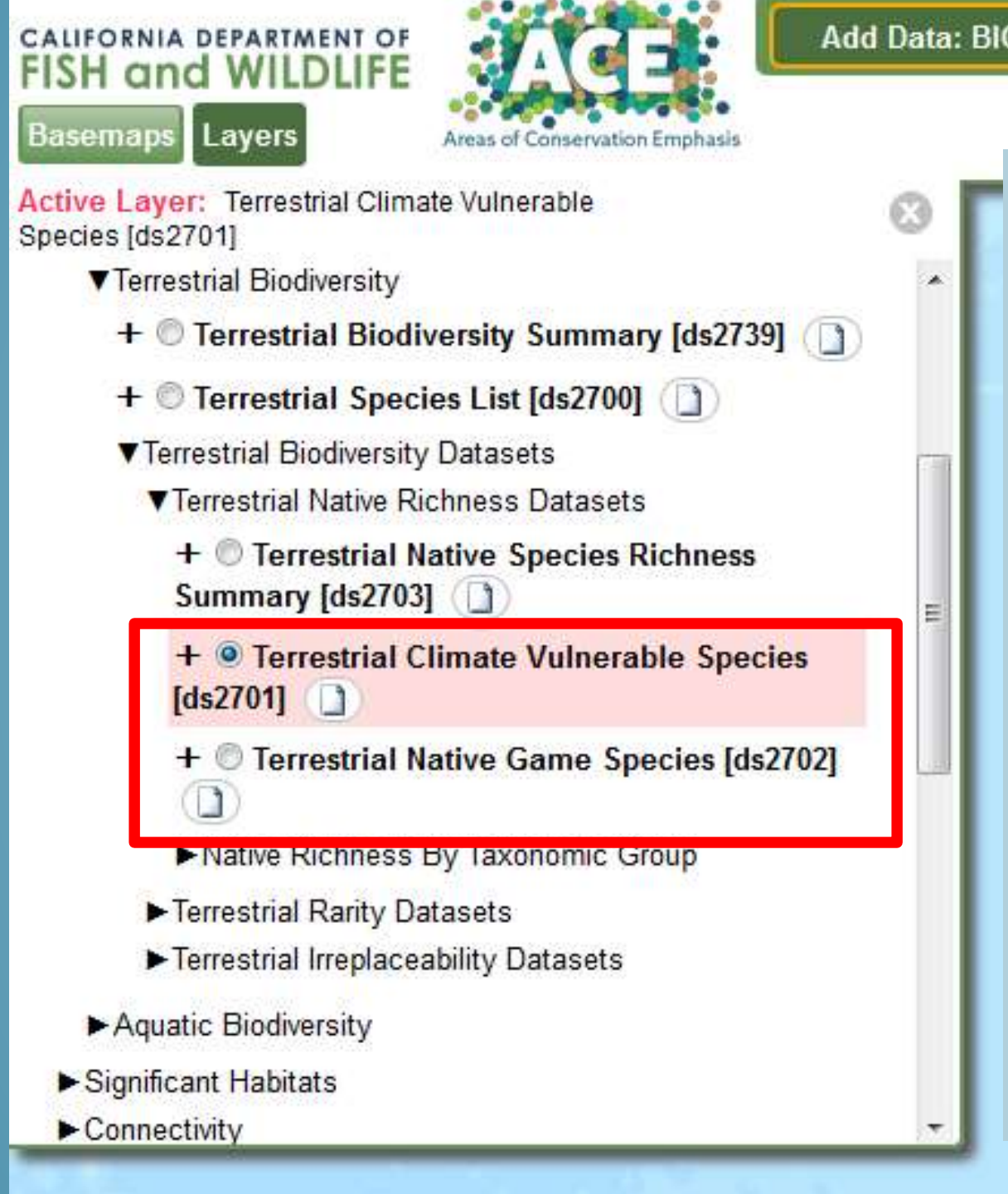
ACE Biodiversity maps

- **Native Species Richness**
- **Rare Species Richness**
- **Irreplaceability**
  - Summaries
  - By taxonomic group



ACE Biodiversity maps

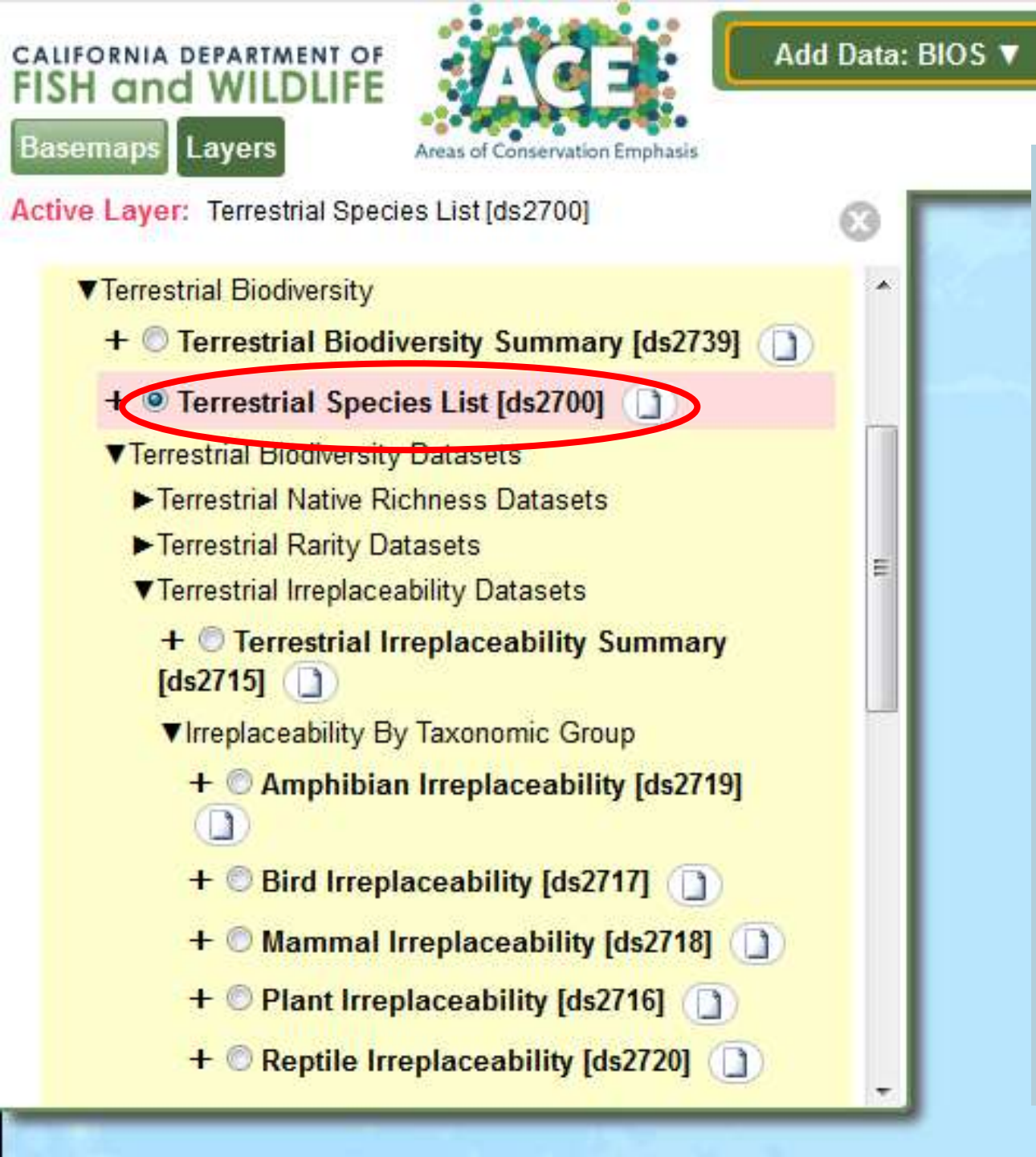
- **Native Species Richness**
- **Rare Species Richness**
- **Irreplaceability**
  - Summaries
  - By taxonomic group
  - **Terrestrial**
  - **Aquatic**



ACE Biodiversity maps

- Native Species Richness
- Rare Species Richness
- Irreplaceability

- **Climate Vulnerable Species**
- **Game Species**

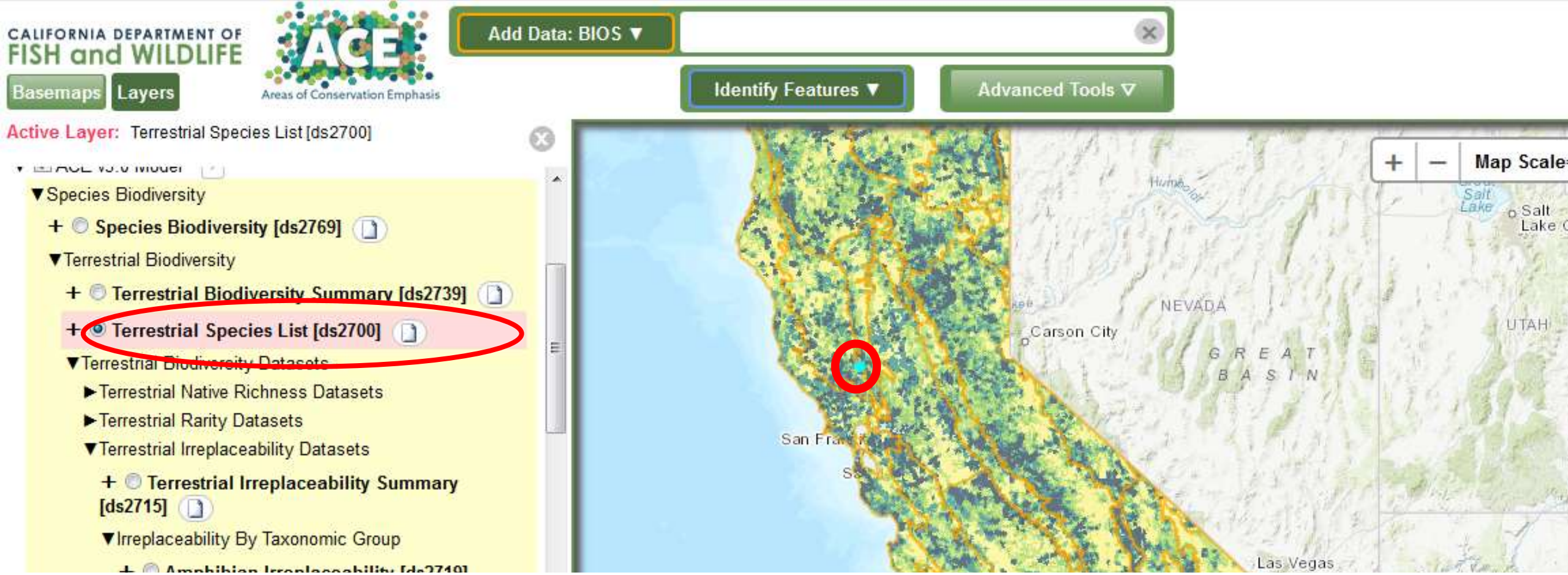


ACE Biodiversity maps

- Native Species Richness
- Rare Species Richness
- Irreplaceability

- Climate Vulnerable Species
- Game Species

- **Species lists**



Com_Name	Observation	Model	Rare	Endemic	Climate_Vulnerable	Game
cooper's hawk	N	Y			N	N
sharp-shinned hawk	N	Y			N	N
western pond turtle	Y	Y	Y	Y	Y	N
spotted sandpiper	N	Y			N	N

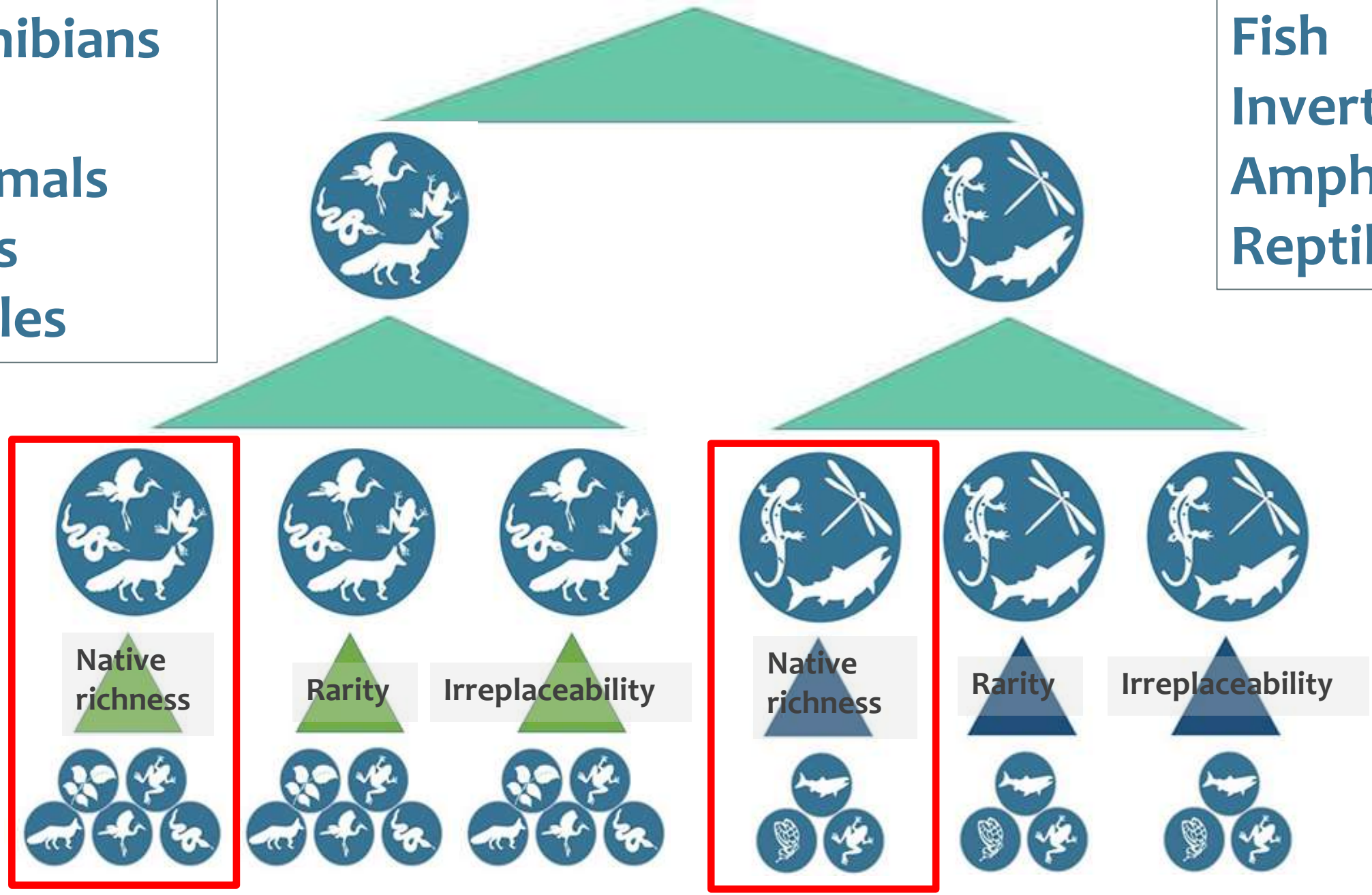
BIODIVERSITY

TERRESTRIAL

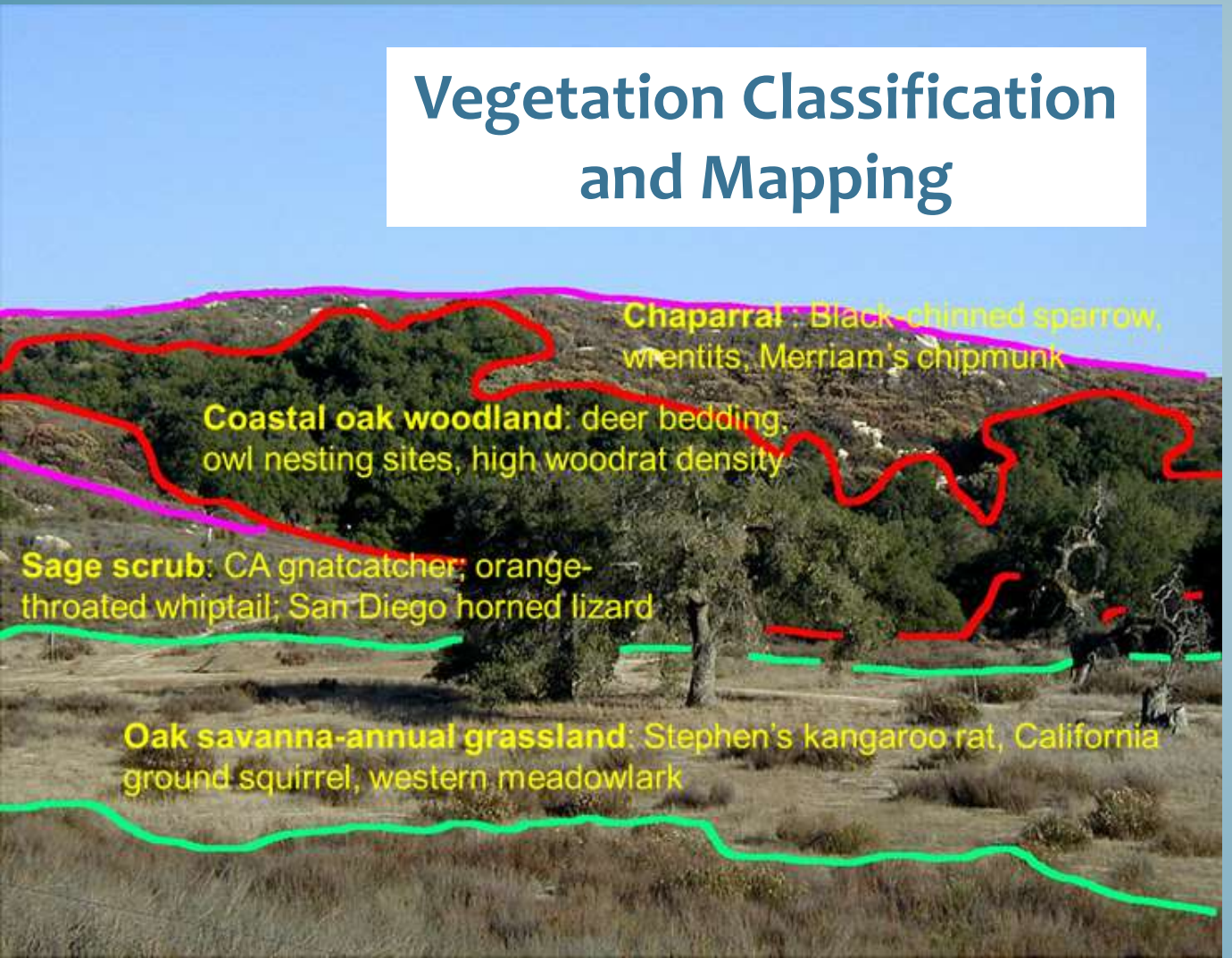
Amphibians
Birds
Mammals
Plants
Reptiles

AQUATIC

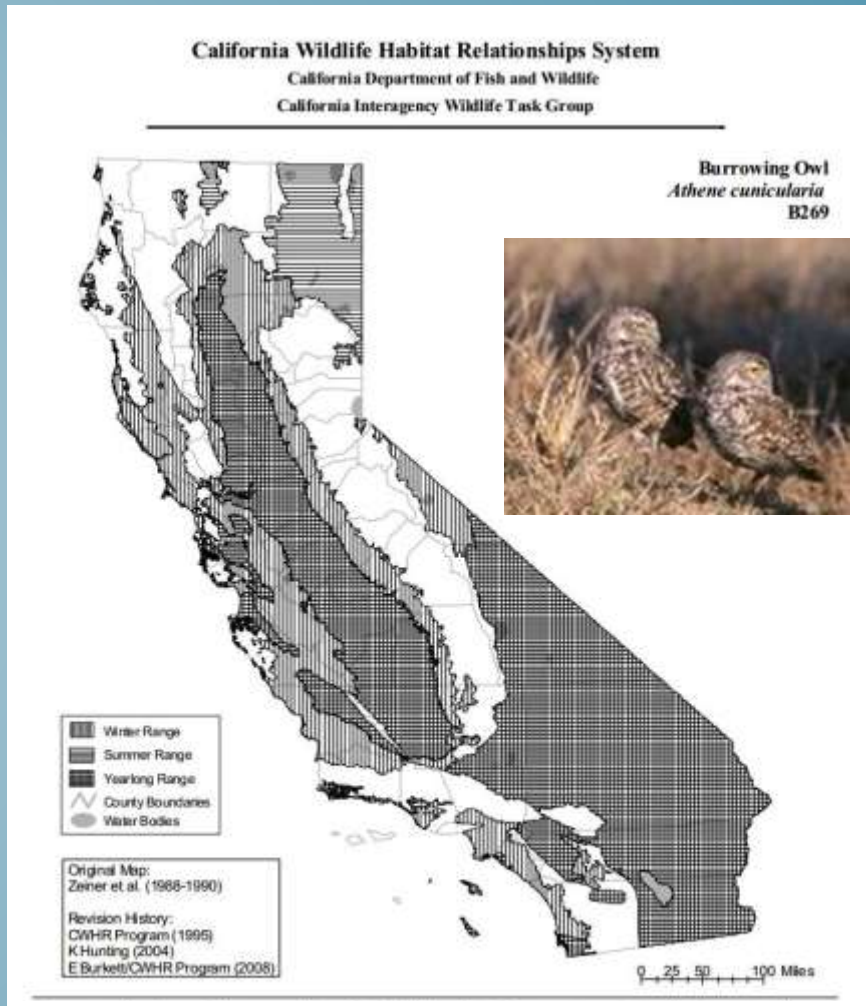
Fish
Inverts
Amphibians
Reptiles



Native Species Richness:
Species and habitat mapping

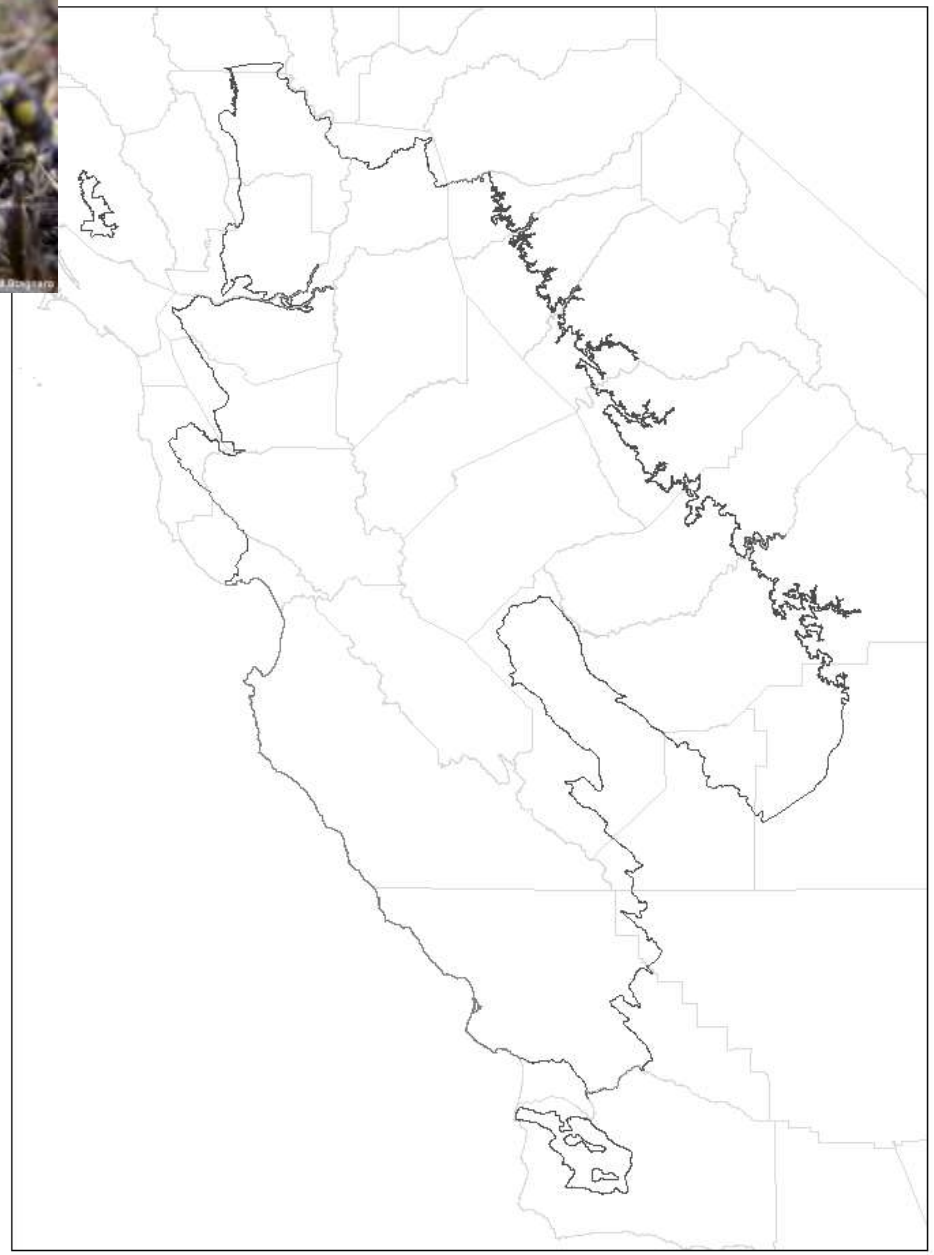


Common and rare full species



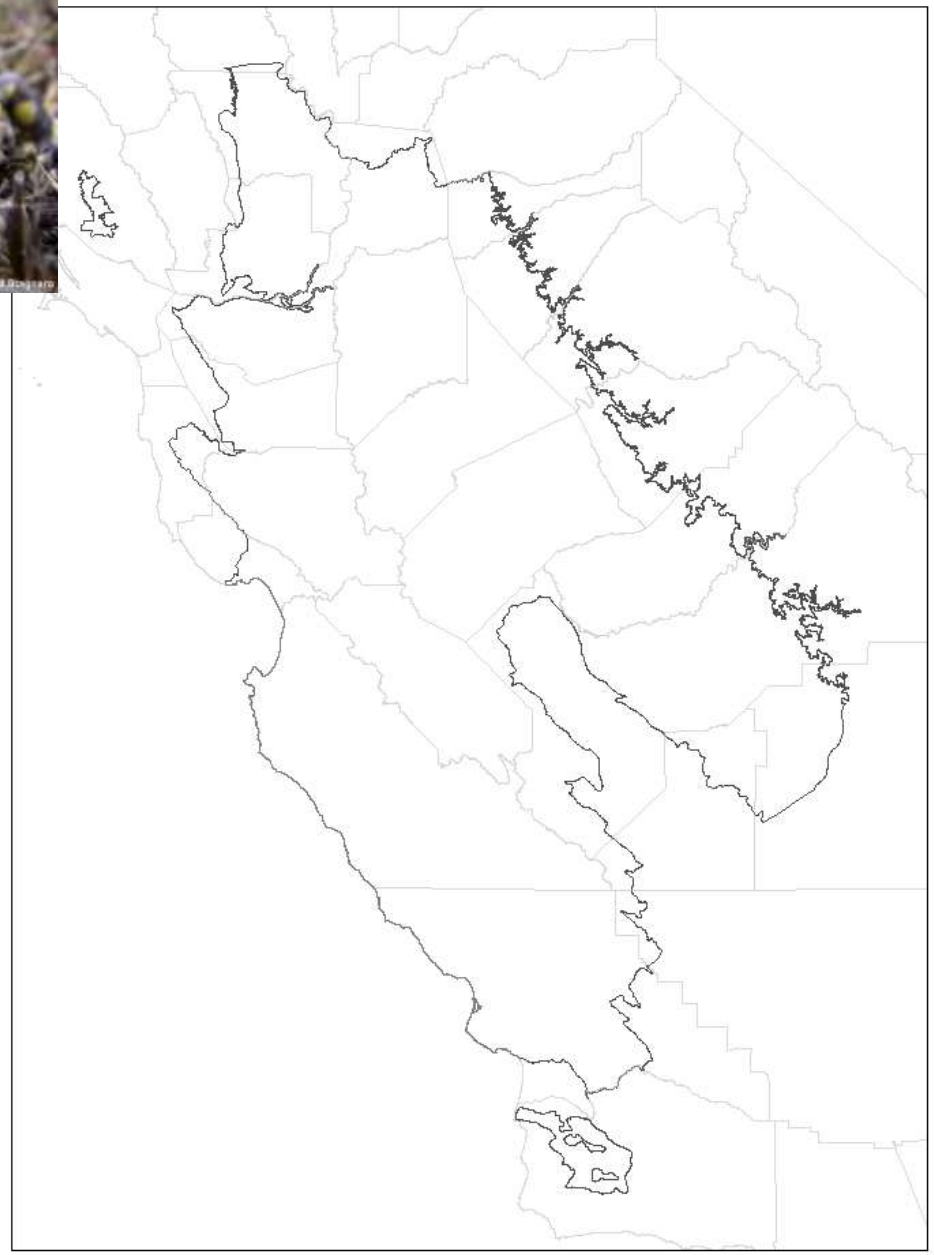
California Wildlife Habitat Relationship System

CALIFORNIA TIGER SALAMANDER

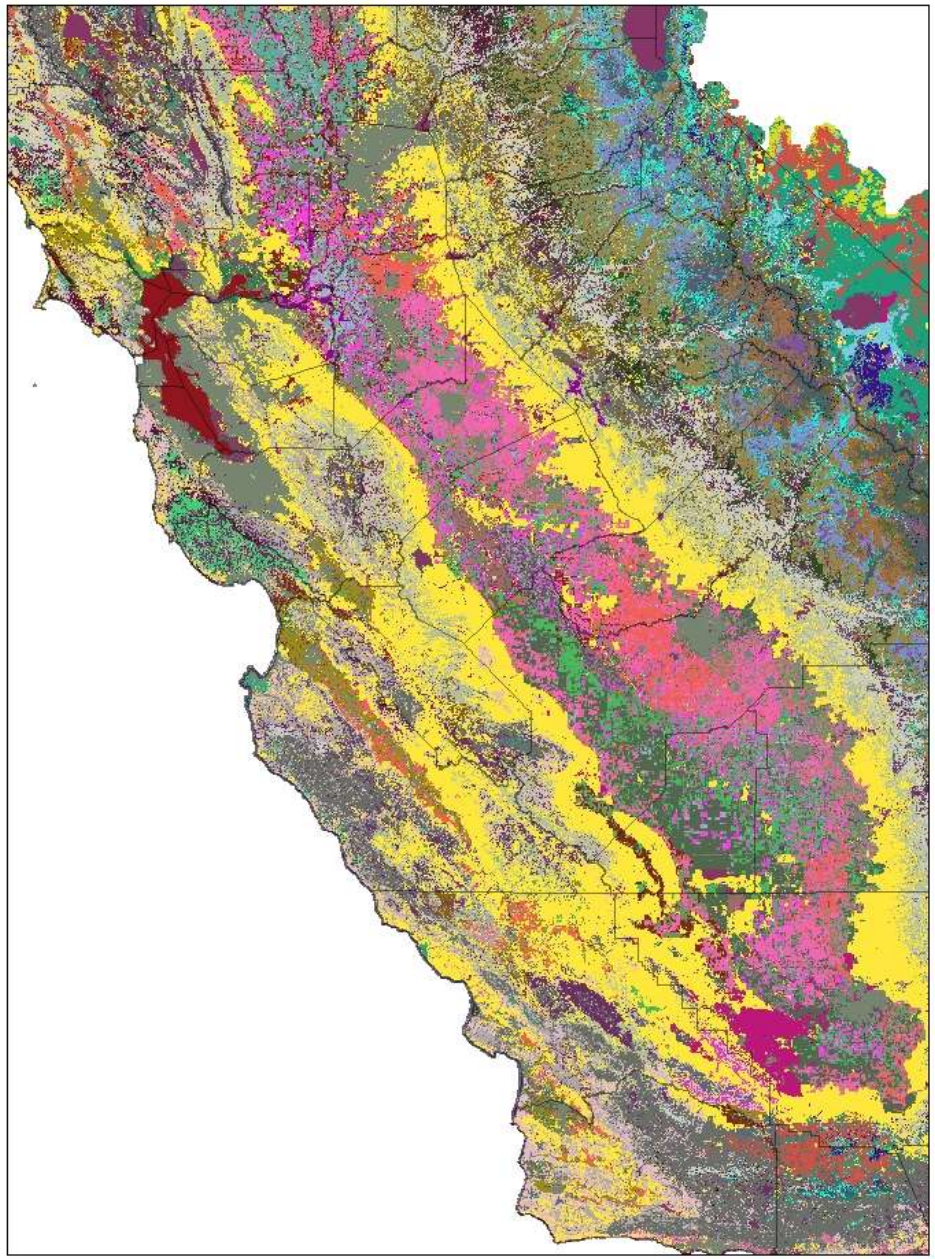


CWHR range map A001

CALIFORNIA TIGER SALAMANDER



CWHR range map A001

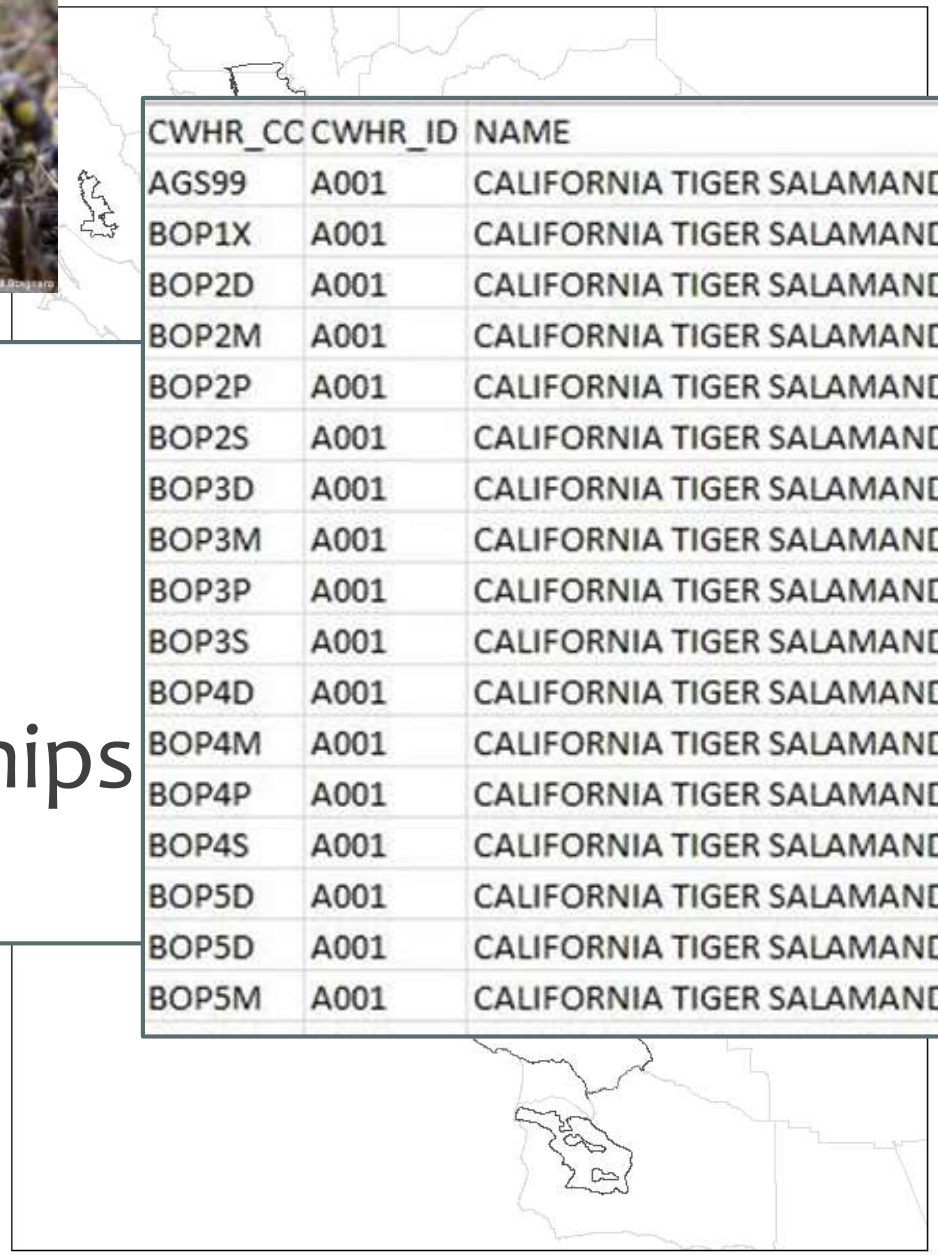


FVEG2015: "best veg"

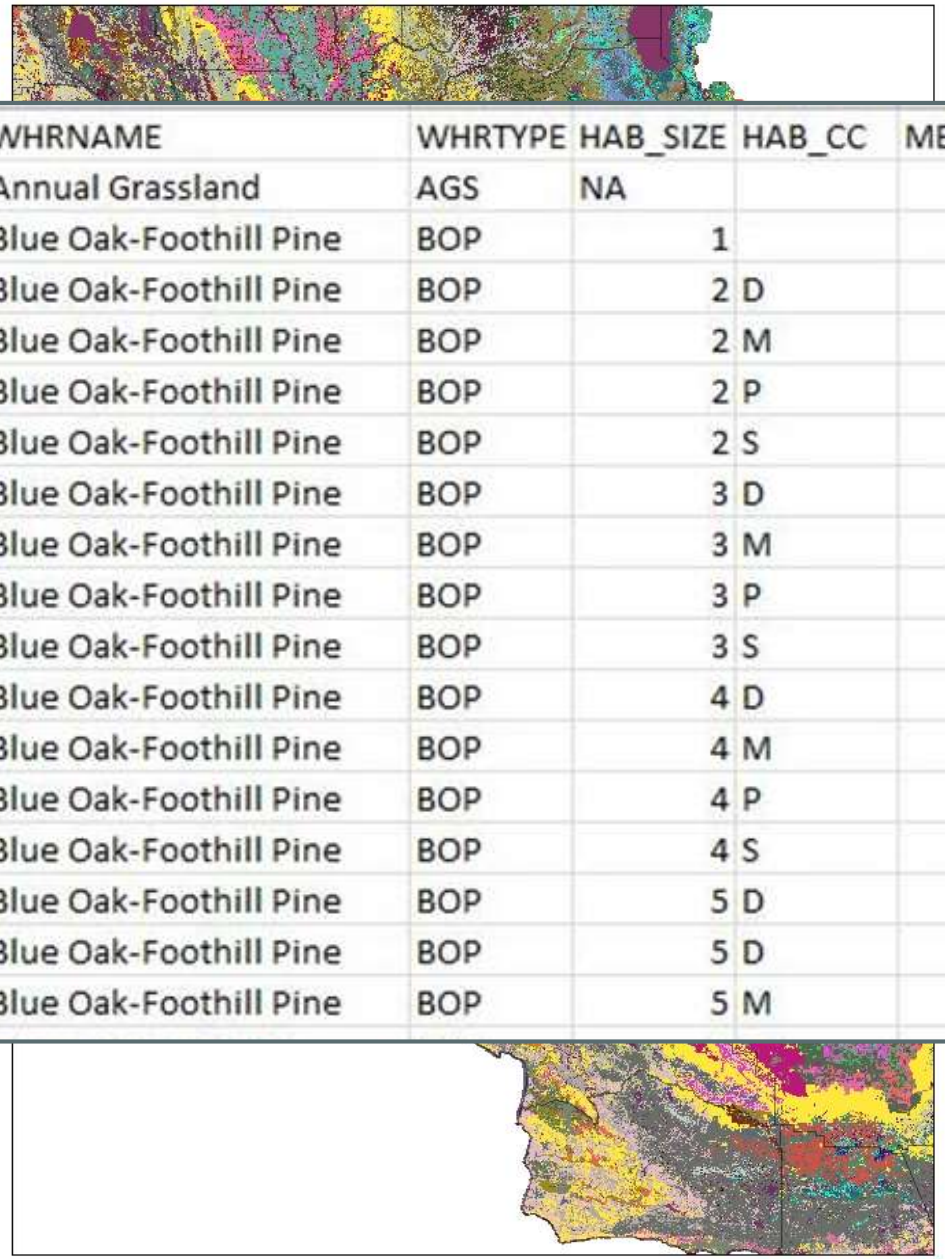
CALIFORNIA TIGER SALAMANDER

CWHR Species-Habitat Relationships table

CWHR_CC	CWHR_ID	NAME	WHRNAME	WHRTYPE	HAB_SIZE	HAB_CC	MEAN
AGS99	A001	CALIFORNIA TIGER SALAMANDER	Annual Grassland	AGS	NA		0.87
BOP1X	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	1		1
BOP2D	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	2	D	0.33
BOP2M	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	2	M	0.33
BOP2P	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	2	P	0.33
BOP2S	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	2	S	0.66
BOP3D	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	3	D	0.33
BOP3M	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	3	M	0.33
BOP3P	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	3	P	0.33
BOP3S	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	3	S	0.66
BOP4D	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	4	D	0.33
BOP4M	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	4	M	0.33
BOP4P	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	4	P	0.66
BOP4S	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	4	S	0.33
BOP5D	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	5	D	0.33
BOP5D	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	5	D	0.33
BOP5M	A001	CALIFORNIA TIGER SALAMANDER	Blue Oak-Foothill Pine	BOP	5	M	0.33

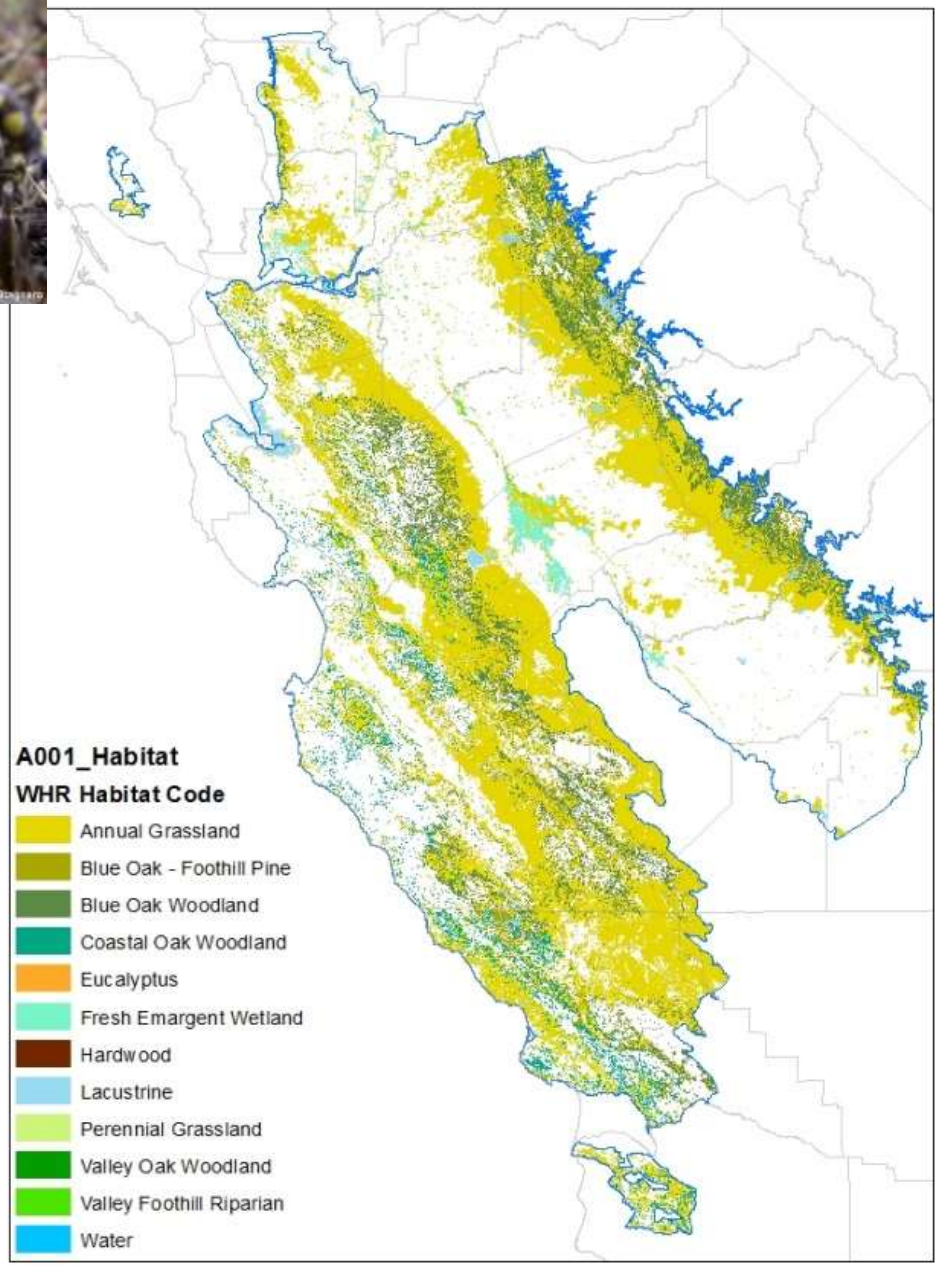


CWHR range map A001



FVEG2015: "best veg"

CALIFORNIA TIGER SALAMANDER



CWHR Predicted Habitat Suitability

CALIFORNIA TIGER SALAMANDER

Terrestrial

59 Amphibians

360 Birds

167 Mammals

78 Reptiles

Aquatic

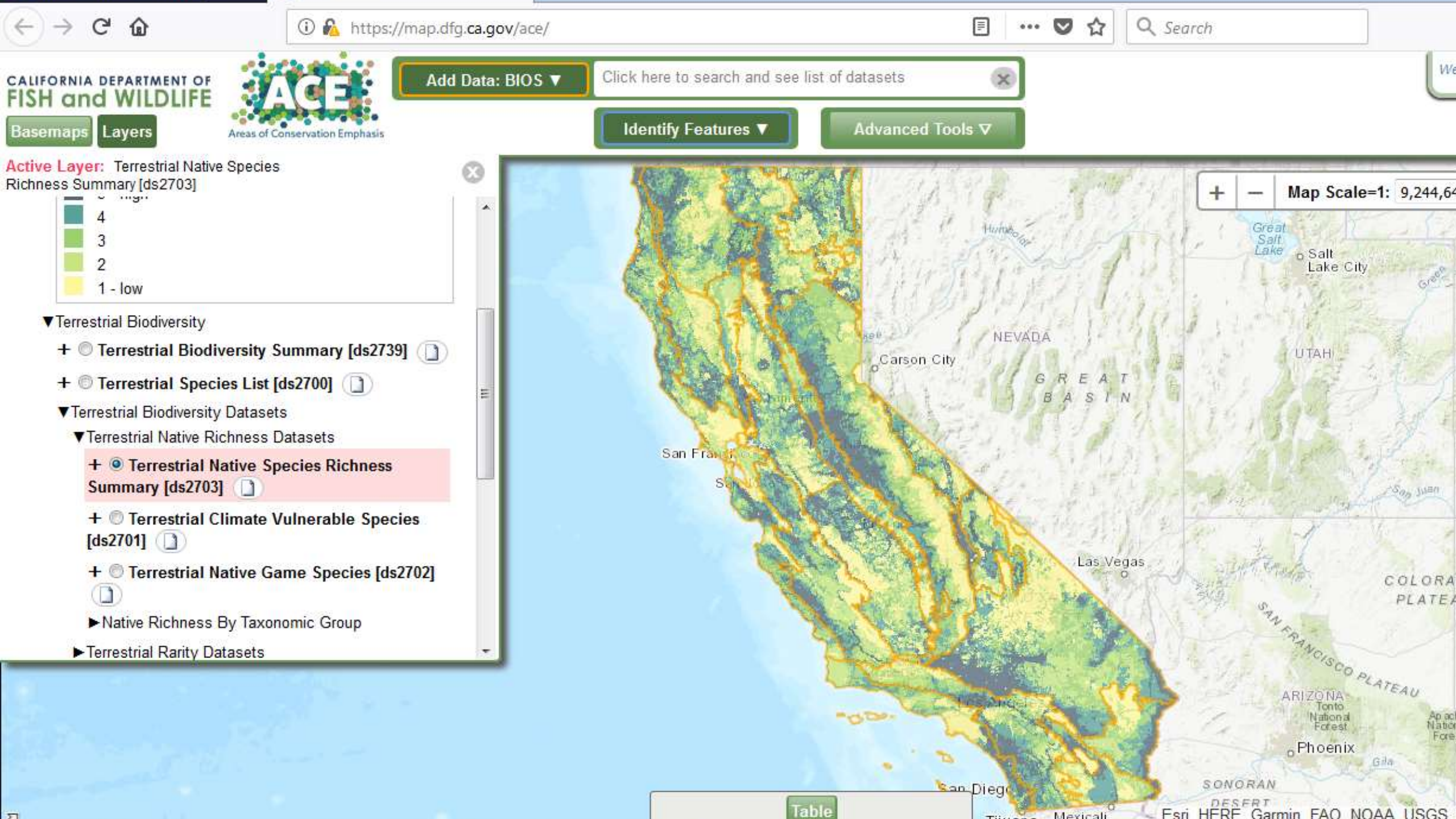
36 Aquatic amphibians

12 Aquatic reptiles

Ranges

127 Fish

Aquatic macroinverts (183 Families)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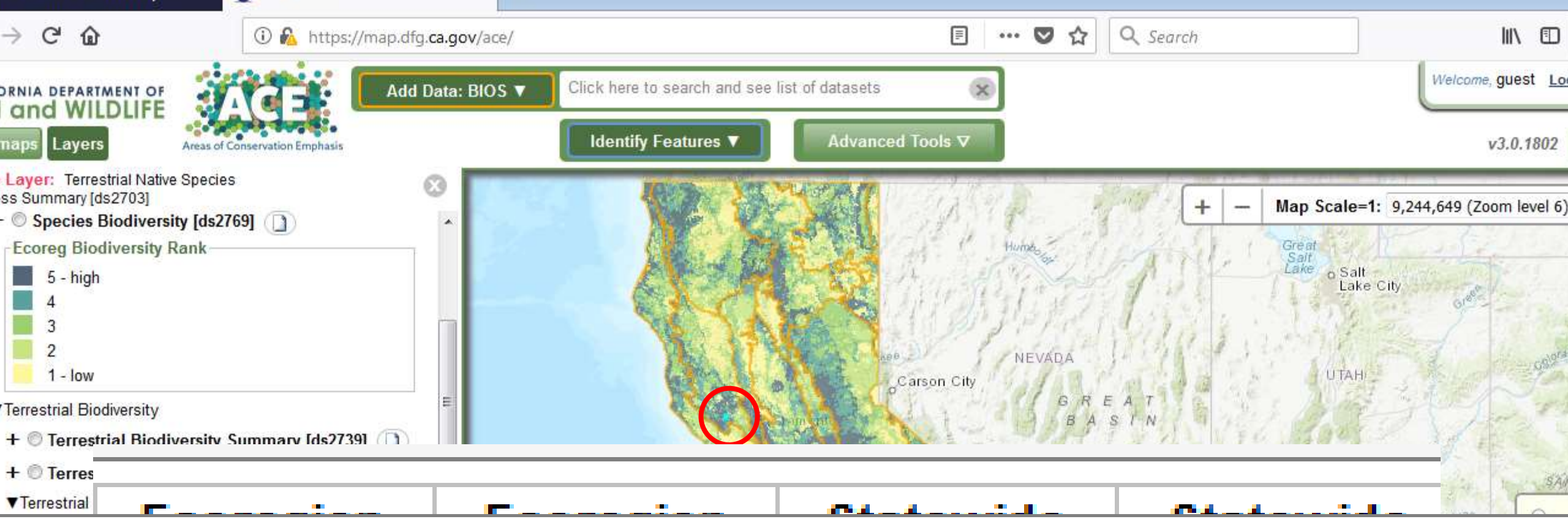
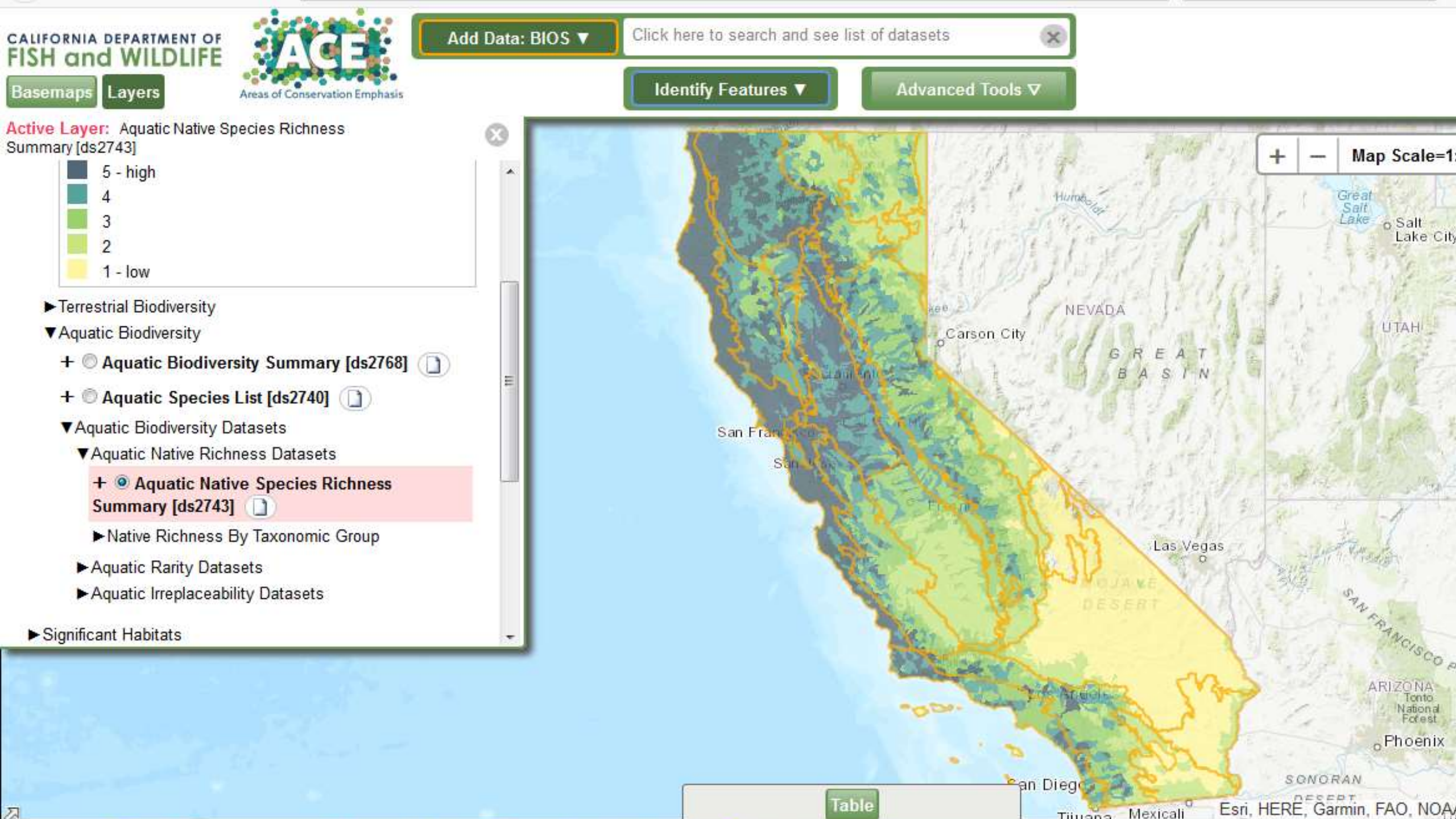
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Click here to search and see list of datasets
Identify Features ▼
Advanced Tools ▽
Active Layer: Terrestrial Native Species Richness Summary [ds2703]
4
3
2
1 - low
▼Terrestrial Biodiversity
+ Terrestrial Biodiversity Summary [ds2739]
+ Terrestrial Species List [ds2700]
▼Terrestrial Biodiversity Datasets
▼Terrestrial Native Richness Datasets
+ Terrestrial Native Species Richness Summary [ds2703]
+ Terrestrial Climate Vulnerable Species [ds2701]
+ Terrestrial Native Game Species [ds2702]
▶Native Richness By Taxonomic Group
▶Terrestrial Rarity Datasets
Map Scale=1: 9,244,64
Great Salt Lake
Salt Lake City
NEVADA
Carson City
GREAT BASIN
UTAH
San Francisco
Las Vegas
ARIZONA
Tonto National Forest
Phoenix
SONORAN DESERT
San Diego
Table
Esri, HERE, Garmin, FAO, NOAA, USGS



NativeCount	Native Amphibian Count	Native Reptile Count	Native Bird Count	Native Mammal Count	Native Plant Count	Game Species Count	Climate Vulnerable Species Count
214	11	19	136	48	1367	7	19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Basemaps
Layers
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Advanced Tools ▽
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3
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1 - low
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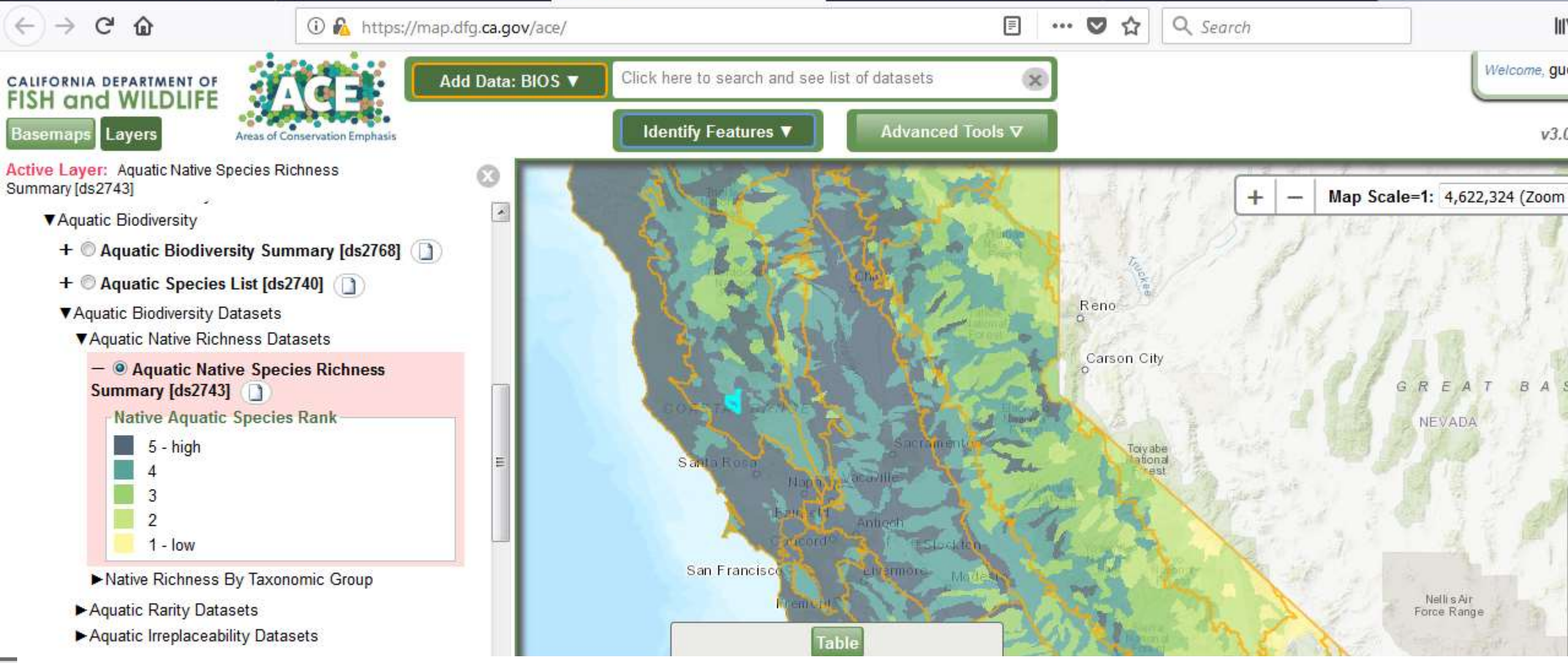
▼Aquatic Biodiversity
+ Aquatic Biodiversity Summary [ds2768]
+ Aquatic Species List [ds2740]
▼Aquatic Biodiversity Datasets
▼Aquatic Native Richness Datasets
+ Aquatic Native Species Richness Summary [ds2743]
▶Native Richness By Taxonomic Group
▶Aquatic Rarity Datasets
▶Aquatic Irreplaceability Datasets
▶Significant Habitats
Map Scale=1
Humboldt
Great Salt Lake
Salt Lake City
NEVADA
Carson City
GREAT BASIN
UTAH
San Francisco
Las Vegas
MOJAVE DESERT
SAN FRANCISCO
ARIZONA
Tonto National Forest
Phoenix
SONORAN
San Diego
Tijuana
Mexicali
Table
Esri, HERE, Garmin, FAO, NOA



Native Fish Count	Native Aquatic Invertebrate Count	Native Aquatic Amphibian Count	Native Aquatic Reptile Count
7	52	8	4

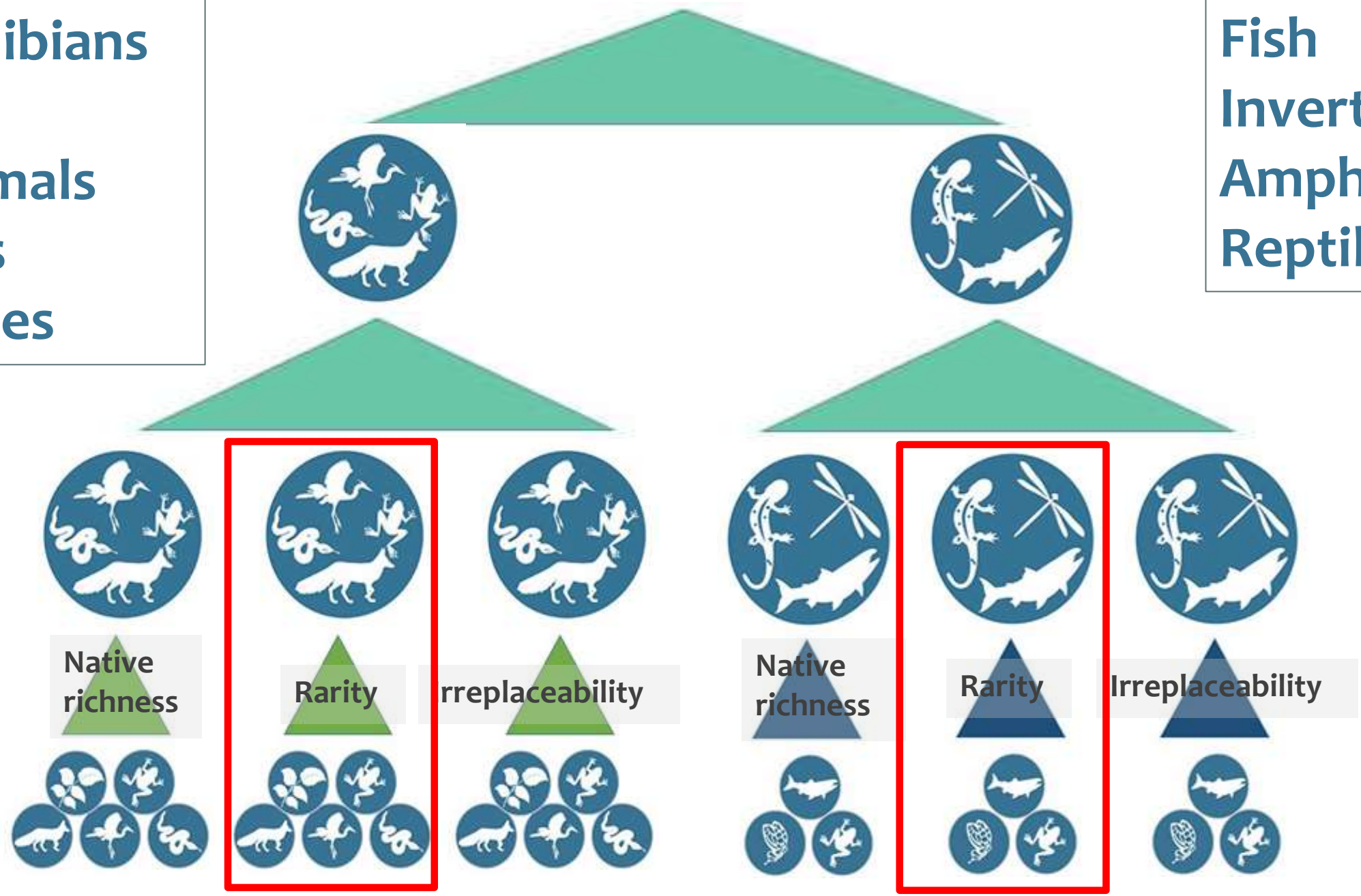
BIODIVERSITY

TERRESTRIAL

Amphibians
Birds
Mammals
Plants
Reptiles

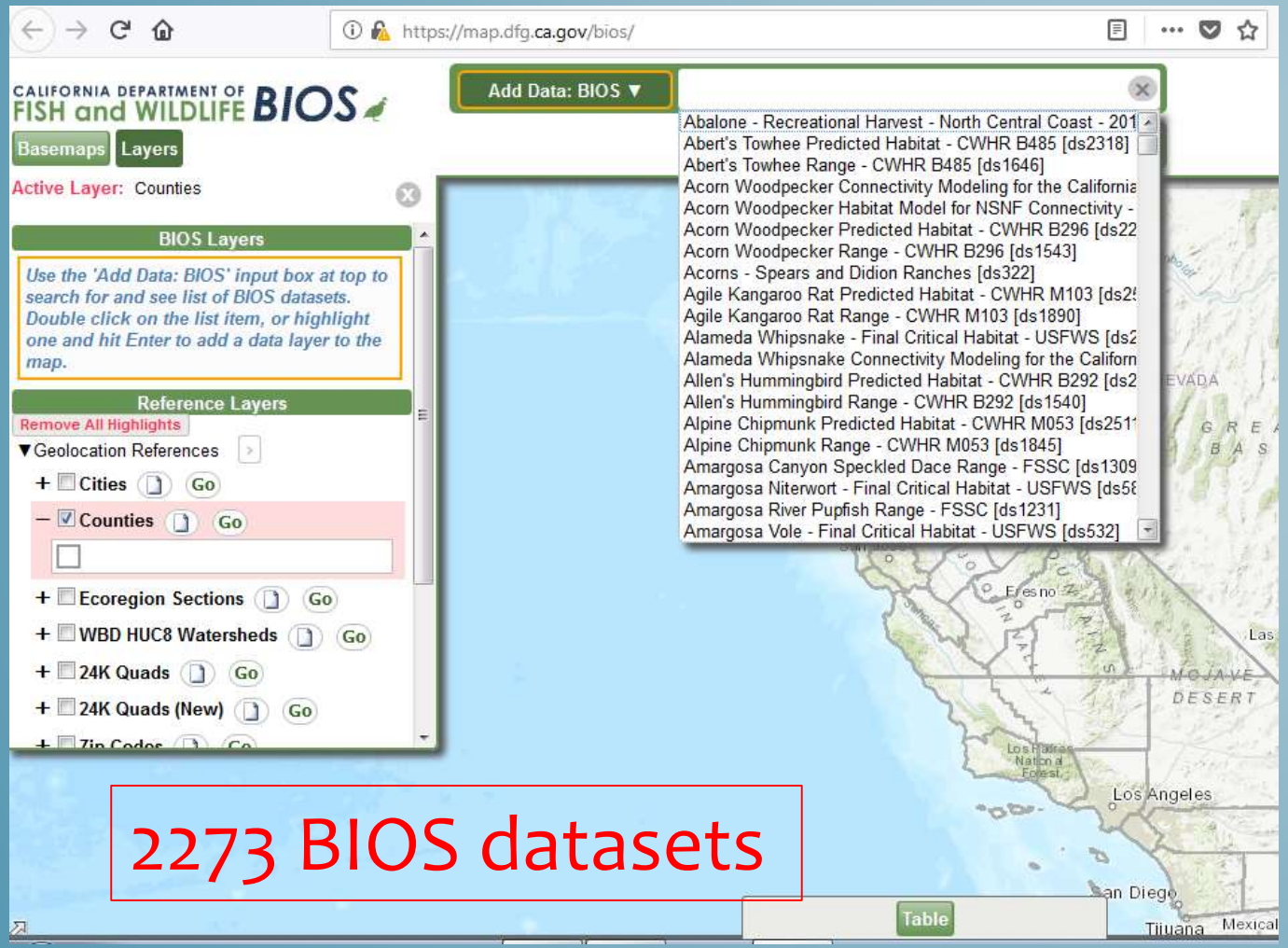
AQUATIC

Fish
Inverts
Amphibians
Reptiles



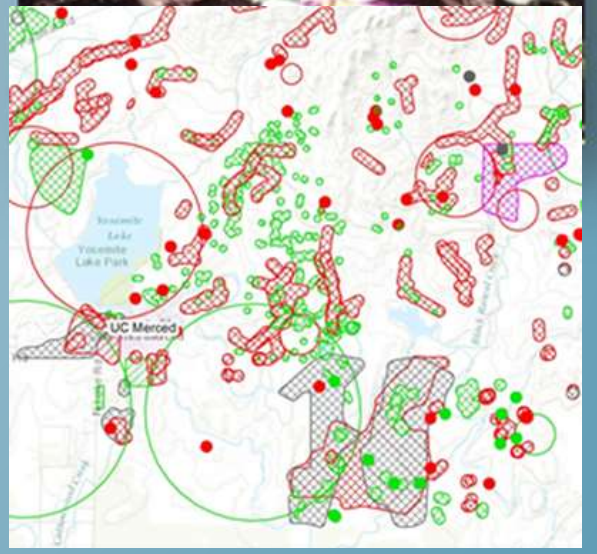
Rare Species Richness:

Documented Occurrences



2273 BIOS datasets

California Natural Diversity Database



Rare Species Richness:

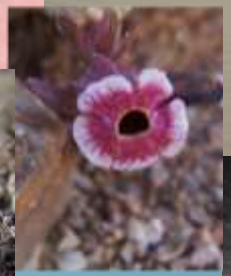
Documented Occurrences

Species or Subspecies

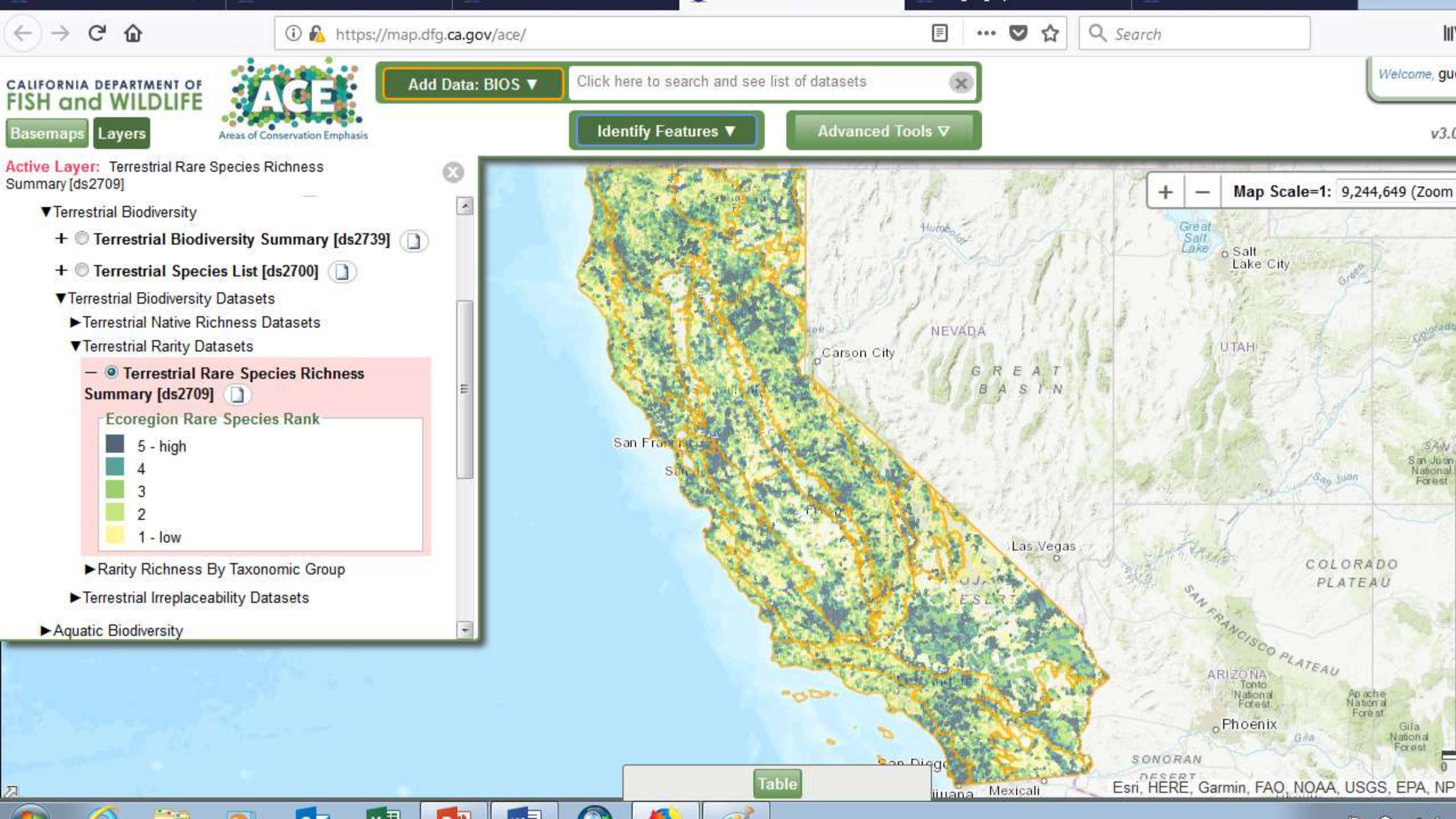
- 34 Amphibians
- 100 Birds
- 94 Mammals
- 36 Reptiles
- 1672 Plants
- 90 Fish

Species of Greatest Conservation Need (SGCN)

- **Listed**
- **Species of Special Concern**
- **Fully-protected**



Aquatic macroinvertebrates not included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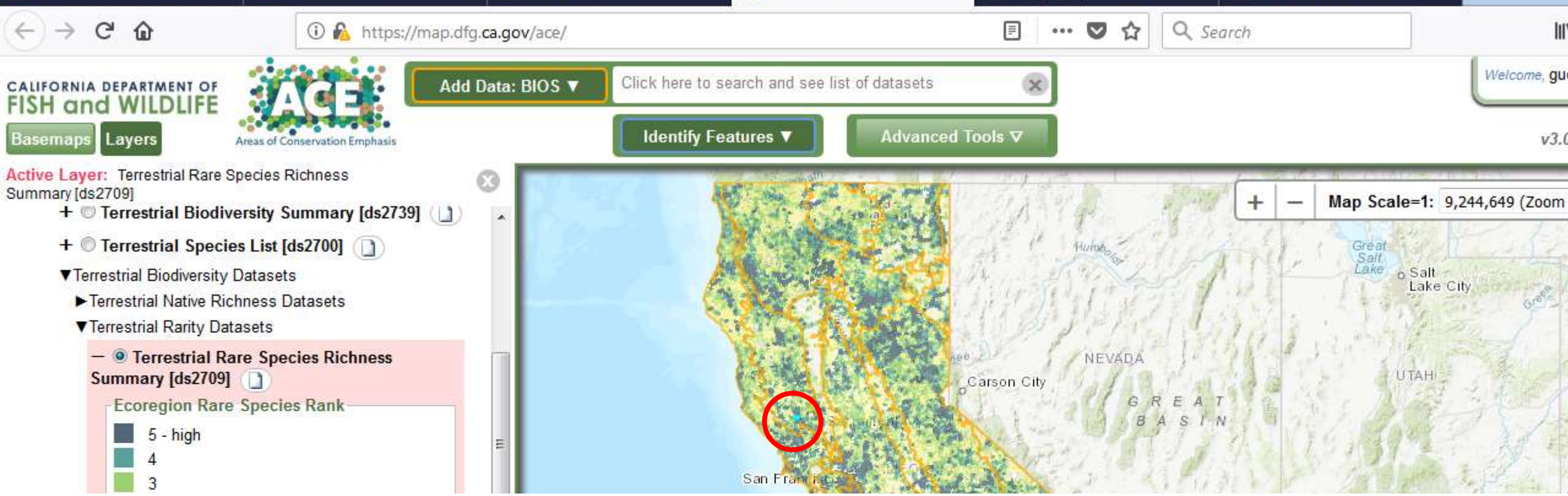
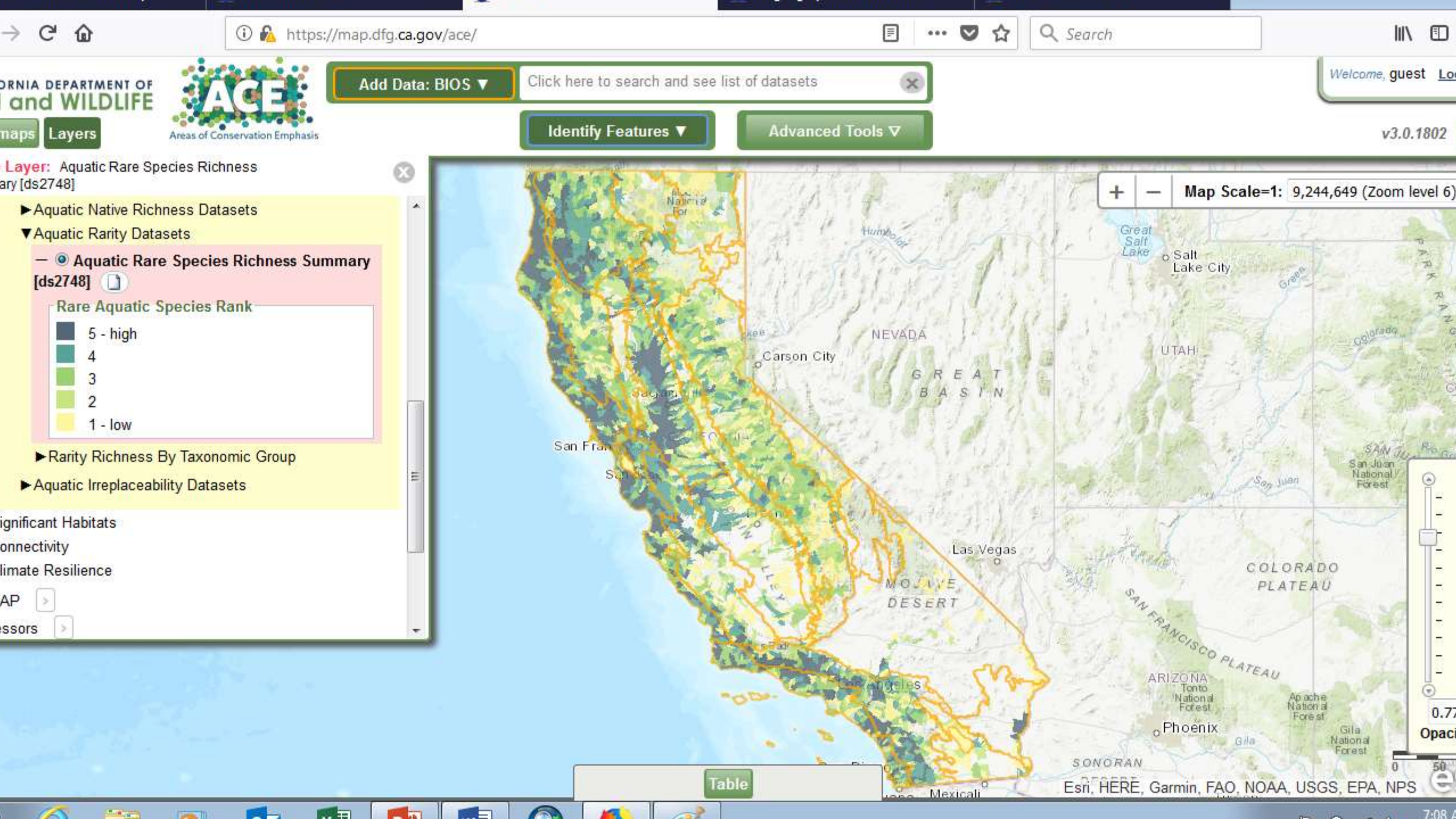
v3.0
Active Layer: Terrestrial Rare Species Richness Summary [ds2709]
▼Terrestrial Biodiversity
+ Terrestrial Biodiversity Summary [ds2739]
+ Terrestrial Species List [ds2700]
▼Terrestrial Biodiversity Datasets
►Terrestrial Native Richness Datasets
▼Terrestrial Rarity Datasets
– Terrestrial Rare Species Richness Summary [ds2709]
Ecoregion Rare Species Rank
5 - high
4
3
2
1 - low
►Rarity Richness By Taxonomic Group
►Terrestrial Irreplaceability Datasets
►Aquatic Biodiversity
+
–
Map Scale=1: 9,244,649 (Zoom
Great Salt Lake
Salt Lake City
NEVADA
Carson City
GREAT BASIN
UTAH
Las Vegas
COLORADO PLATEAU
SAN FRANCISCO PLATEAU
ARIZONA
Phoenix
SONORAN DESERT
Mexicali
Table
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NP



RareCount	Rare Amphibian Count	Rare Reptile Count	Rare Bird Count	Rare Mammal Count	Rare Plant Count
12	4	0	1	0	7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v3.0.1802
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Layers
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▼Aquatic Rarity Datasets
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▶Rarity Richness By Taxonomic Group
▶Aquatic Irreplaceability Datasets
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Great Salt Lake
Salt Lake City
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Carson City
GREAT BASIN
UTAH
Las Vegas
MOJAVE DESERT
COLORADO PLATEAU
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Phoenix
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San Juan National Forest
Apache National Forest
Gila National Forest
Tonto National Forest
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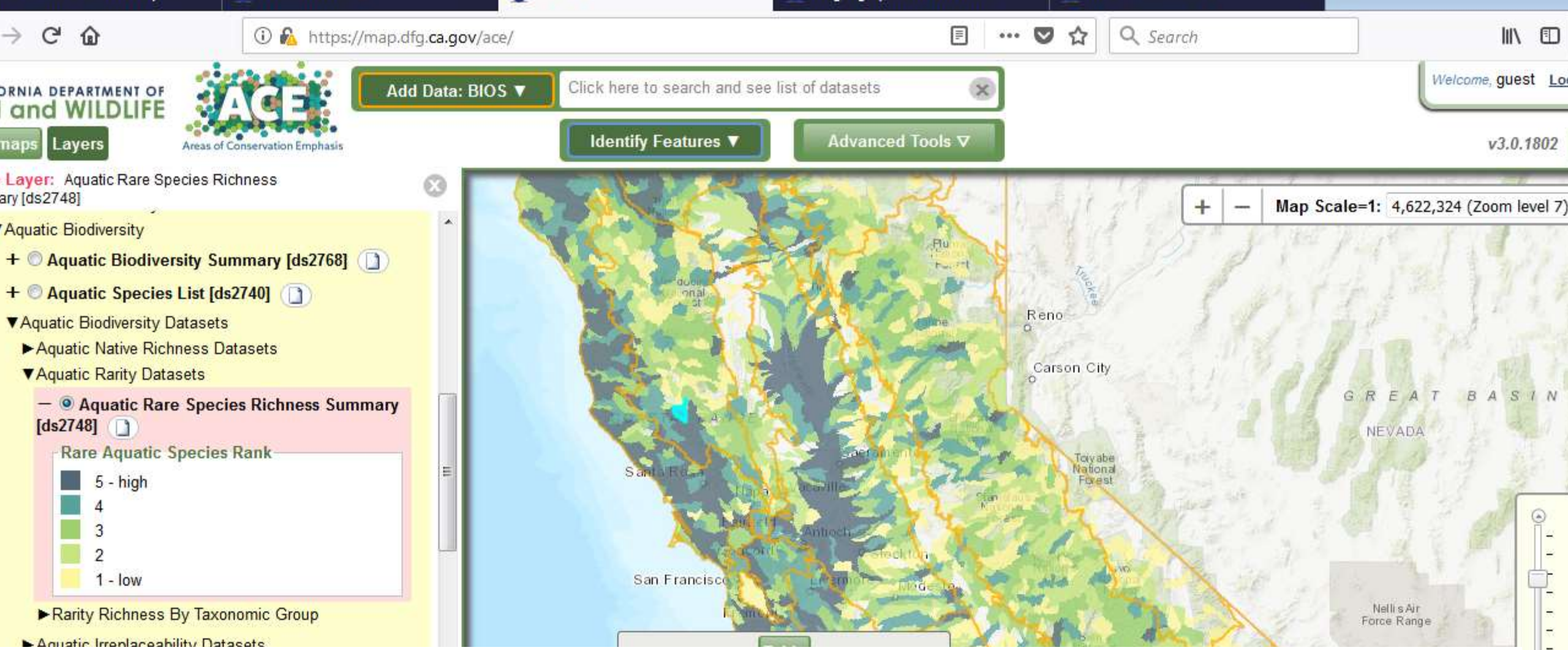
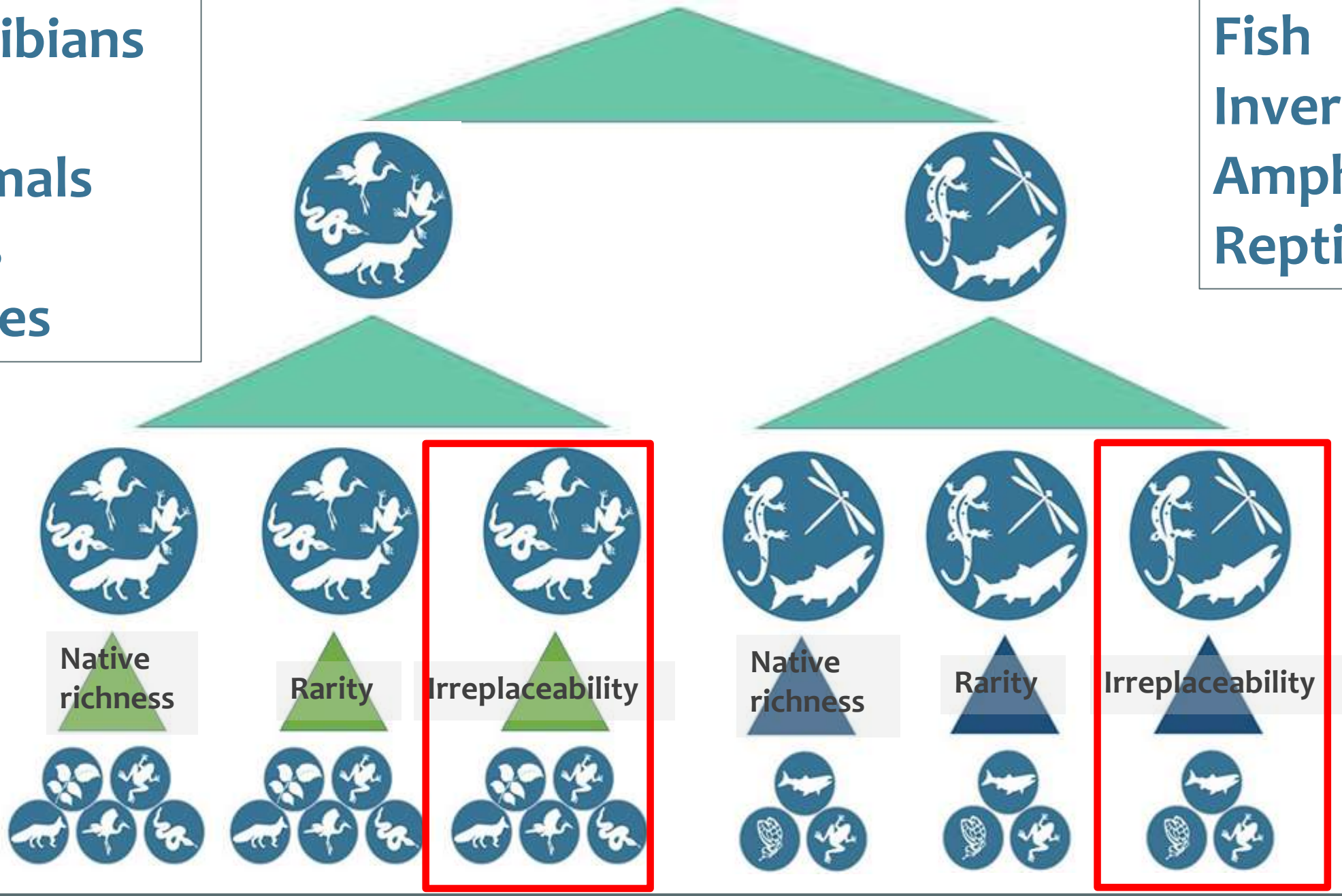


Rare Fish Count	Rare Aquatic Amphibian Count	Rare Aquatic Reptile Count
1	2	1

BIODIVERSITY

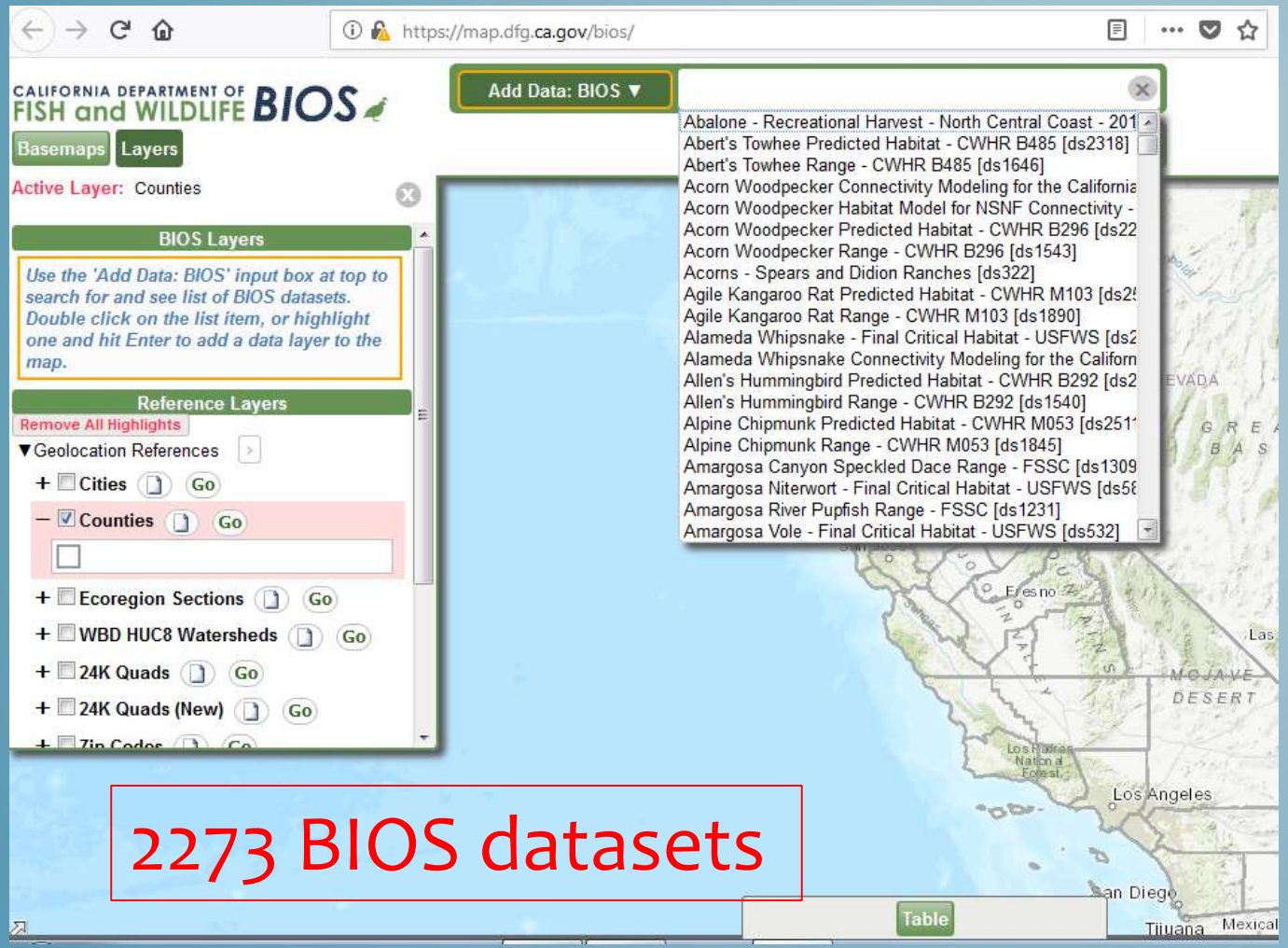
TERRESTRIAL
Amphibians
Birds
Mammals
Plants
Reptiles

AQUATIC
Fish
Inverts
Amphibians
Reptiles



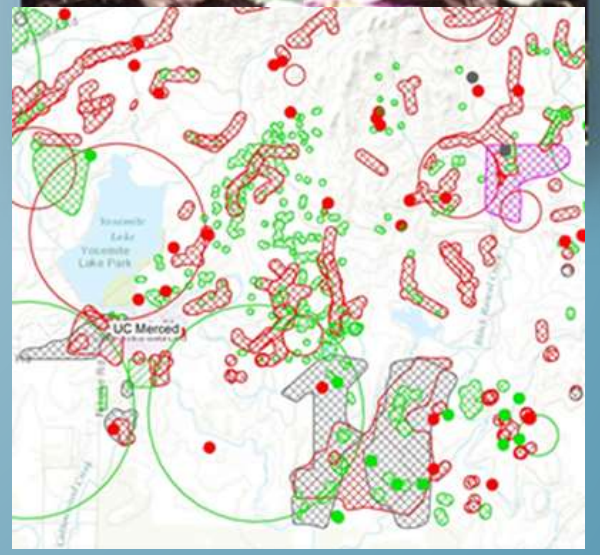
Irreplaceability:

Documented Occurrences



2273 BIOS datasets

California Natural Diversity Database



Irreplaceability:

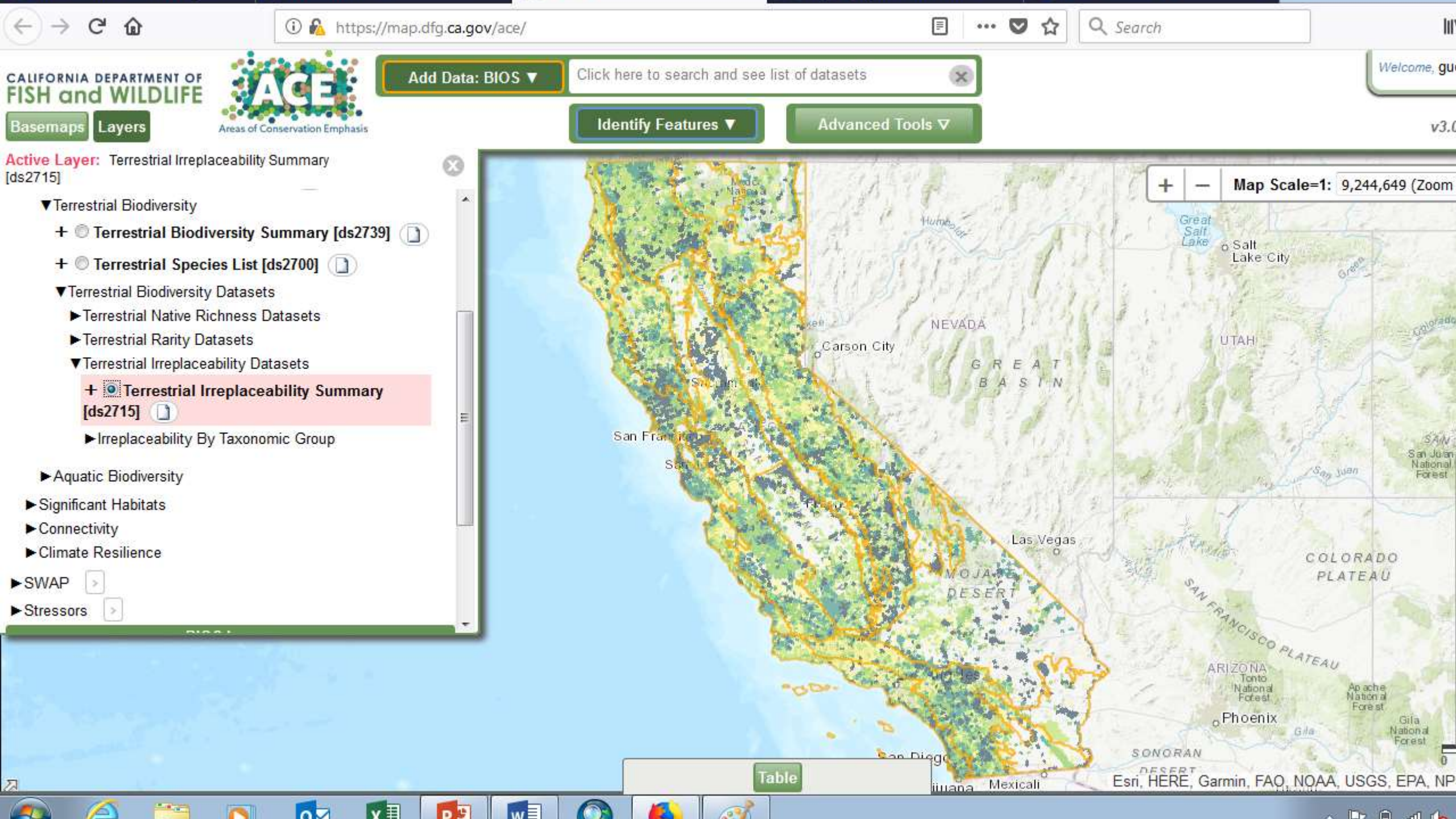
Documented Occurrences

California rare endemic and near-endemic species or subspecies

Rarity-weighted index (RWI)

RWI = Σ 1/(h)

where h = # occupied hexagons or watersheds per taxon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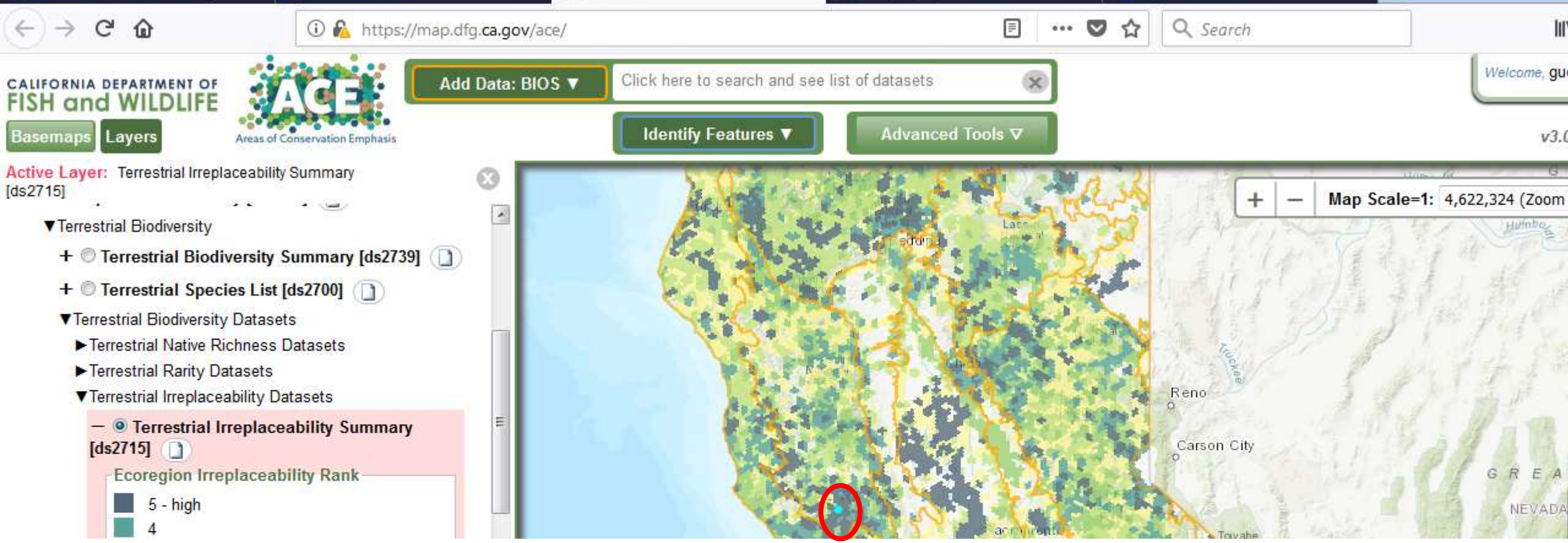
Search
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Click here to search and see list of datasets
Identify Features ▼
Advanced Tools ▽
Welcome, gu
v3.0
Active Layer: Terrestrial Irreplaceability Summary [ds2715]
▼Terrestrial Biodiversity
+ Terrestrial Biodiversity Summary [ds2739]
+ Terrestrial Species List [ds2700]
▼Terrestrial Biodiversity Datasets
►Terrestrial Native Richness Datasets
►Terrestrial Rarity Datasets
▼Terrestrial Irreplaceability Datasets
+ Terrestrial Irreplaceability Summary [ds2715]
►Irreplaceability By Taxonomic Group
►Aquatic Biodiversity
►Significant Habitats
►Connectivity
►Climate Resilience
►SWAP
►Stressors
Map Scale=1: 9,244,649 (Zoom
Great Salt Lake
Salt Lake City
NEVADA
Carson City
GREAT BASIN
UTAH
Las Vegas
COLORADO PLATEAU
MOJAVE DESERT
SAN FRANCISCO PLATEAU
ARIZONA
Phoenix
SONORAN DESERT
Mexicali
Table
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NP



AllTaxaEndem	Endemic Amphibian Count	Endemic Reptile Count	Endemic Bird Count	Endemic Mammal Count	Endemic Plant Count
6	2	0	0	0	4

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CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE
Areas of Conservation Emphasis

Basemaps | Layers

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Identify Features ▼ | Advanced Tools ▾

Active Layer: Aquatic Irreplaceability [ds2752]

+ Aquatic Species List [ds2740]

▼Aquatic Biodiversity Datasets

▶Aquatic Native Richness Datasets

▶Aquatic Rarity Datasets

▼Aquatic Irreplaceability Datasets

– **Aquatic Irreplaceability [ds2752]**

Aquatic Irreplaceability Rank

- 5 - high
- 4
- 3
- 2
- 1 - low

▼Aquatic Irreplaceability By Taxonomic Group

+ **Aquatic Amphibian Irreplaceability [ds2754]**

+ **Fish Irreplaceability [ds2753]**

+ **Aquatic Reptile Irreplaceability [ds2755]**

▶Significant Habitats

▶Connectivity

▶Climate Resilience

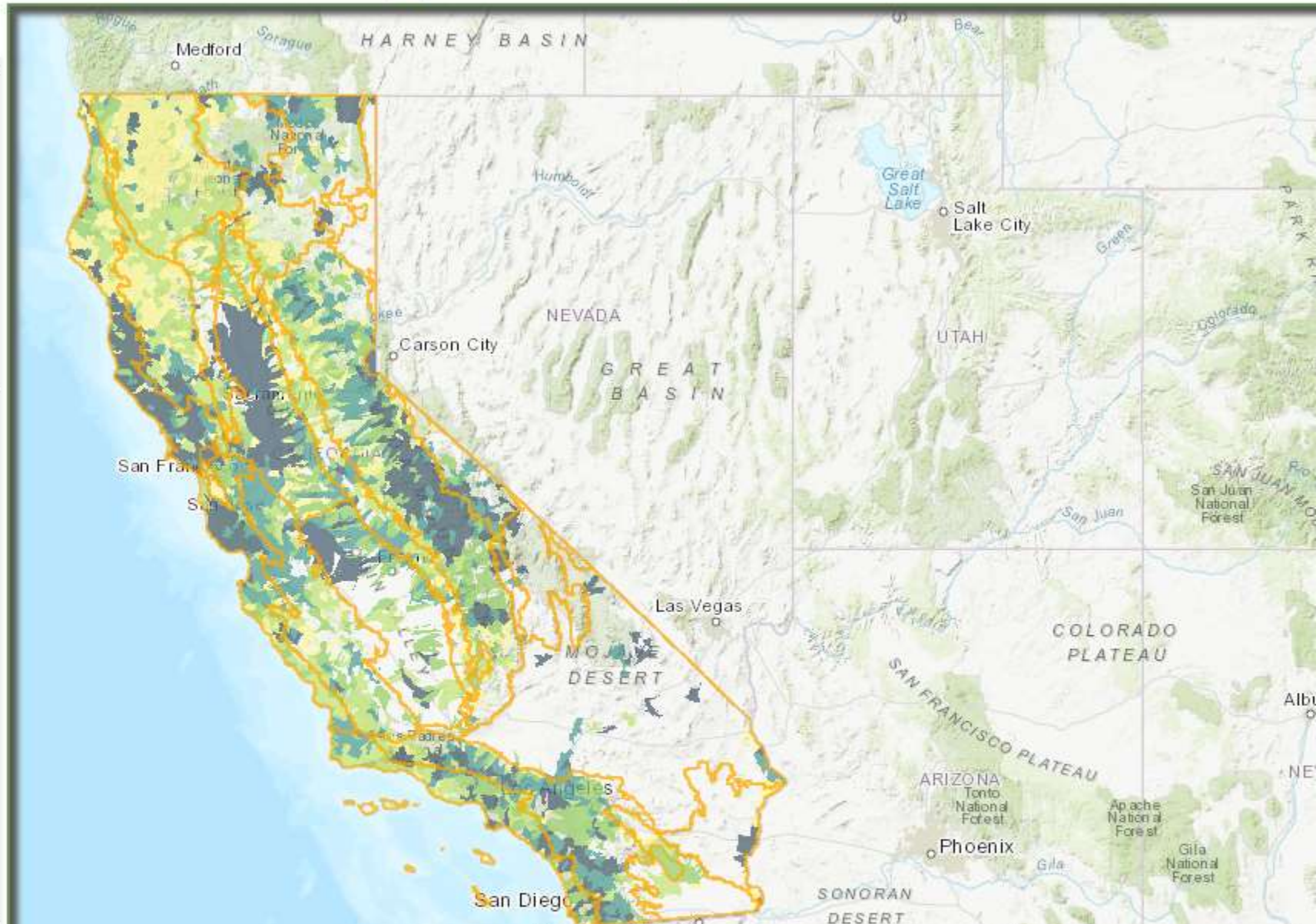
▶SWAP

▶Stressors

BIOS Layers

Reference Layers

Remove All Highlights



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CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE Areas of Conservation Emphasis

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Add Data: BIOS ▼ | Click here to search and see list of datasets

Identify Features ▼ | Advanced Tools ▼

Active Layer: Aquatic Irreplaceability [ds2752]

+ Aquatic Species List [ds2740]

▼ Aquatic Biodiversity Datasets

▶ Aquatic Native Richness Datasets

▶ Aquatic Rarity Datasets

▼ Aquatic Irreplaceability Datasets

– Aquatic Irreplaceability [ds2752]

Aquatic Irreplaceability Rank

- 5 - high
- 4
- 3
- 2
- 1 - low

▼ Aquatic Irreplaceability By Taxonomic Group

+ Aquatic Amphibian Irreplaceability [ds2754]

+ Fish Irreplaceability [ds2753]

+ Aquatic Reptile Irreplaceability [ds2755]

▶ Significant Habitats

▶ Connectivity

▶ Climate Resilience

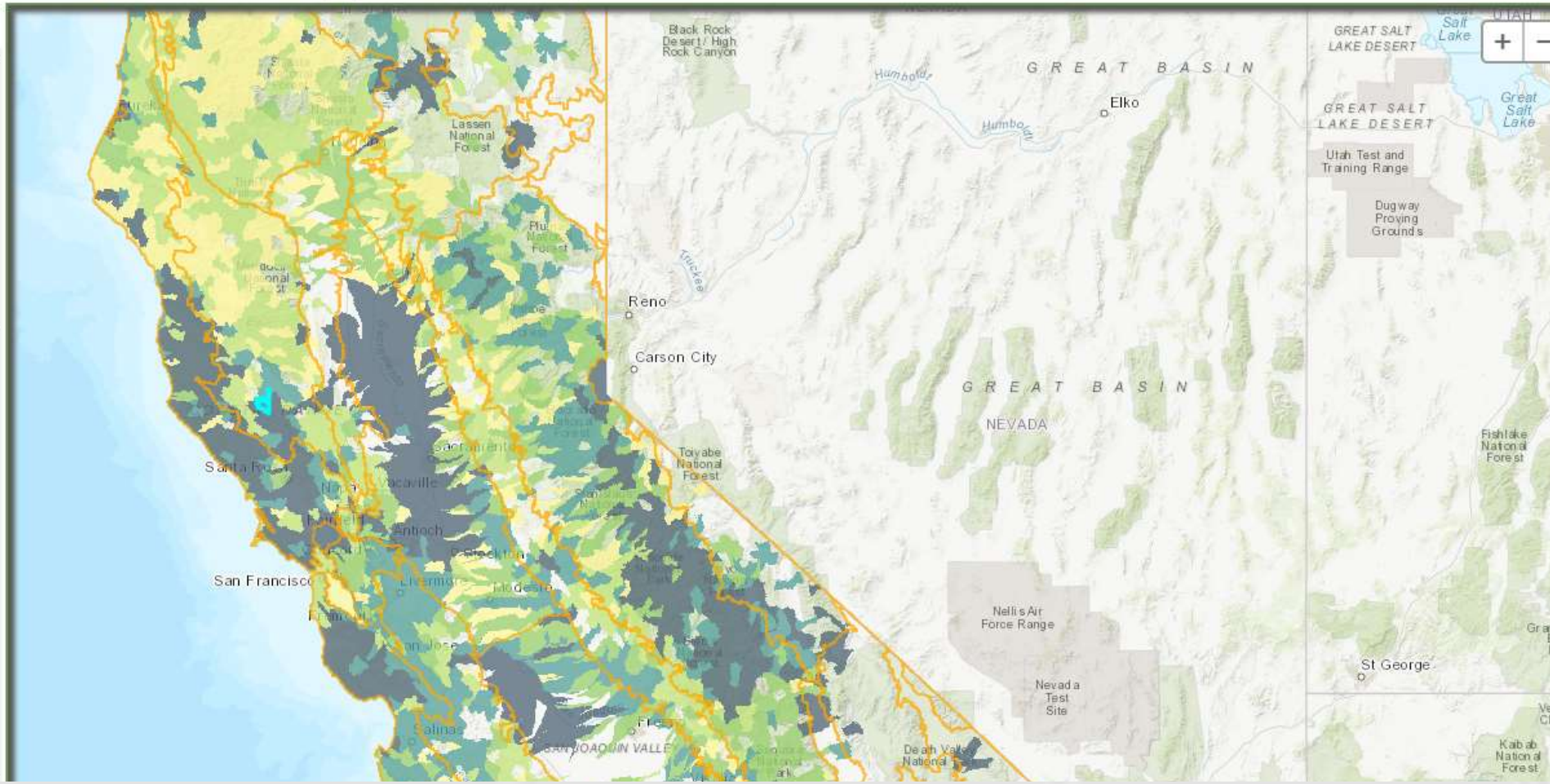
▶ SWAP

▶ Stressors

BIOS Layers

Reference Layers

Remove All Highlights

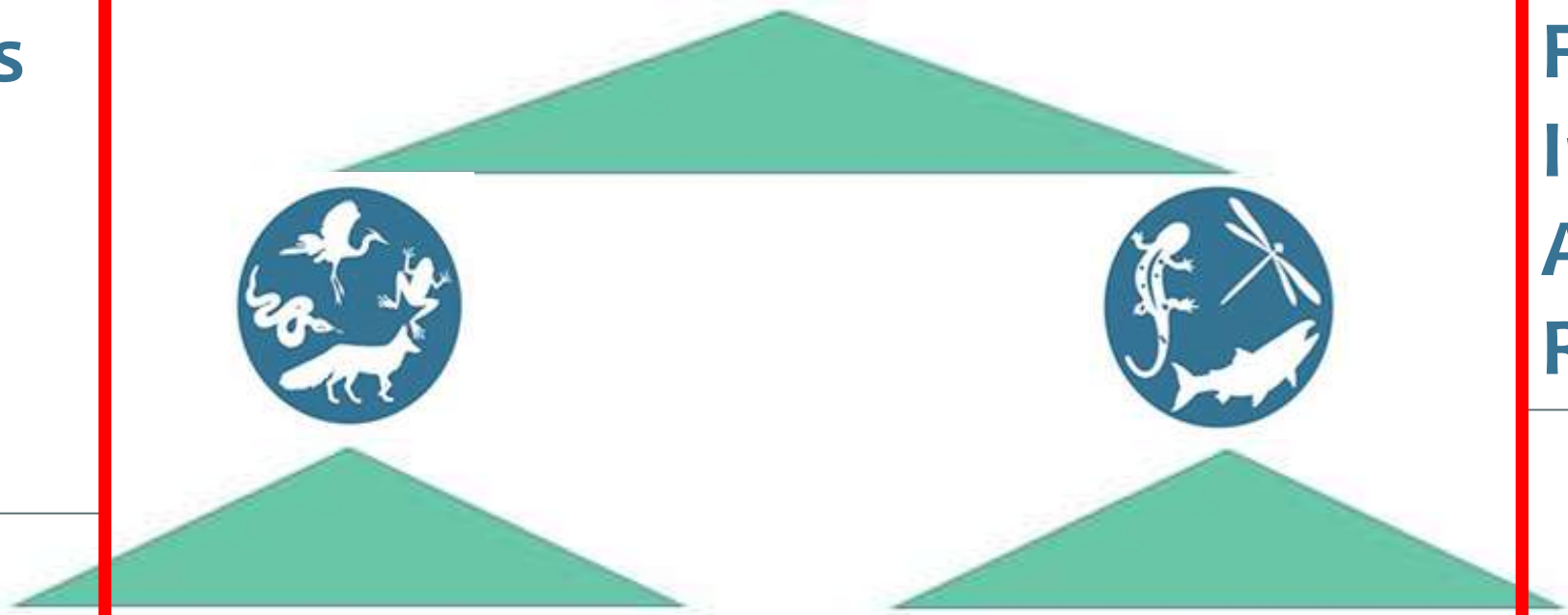


Name	Aquatic Irreplaceability Rank	Aquatic Irreplaceability	Fish Irreplaceability
Adobe Creek	5	0.091049	0.045455

TERRESTRIAL

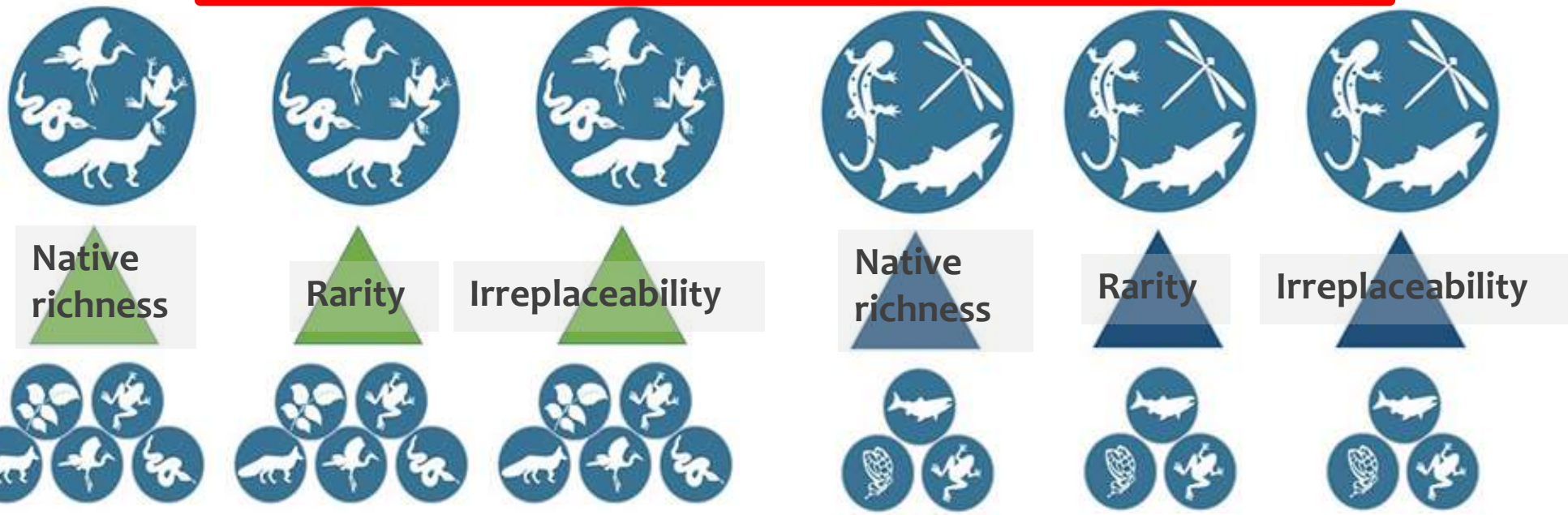
Amphibians
Birds
Mammals
Plants
Reptiles

BIODIVERSITY



AQUATIC

Fish
Inverts
Amphibians
Reptiles



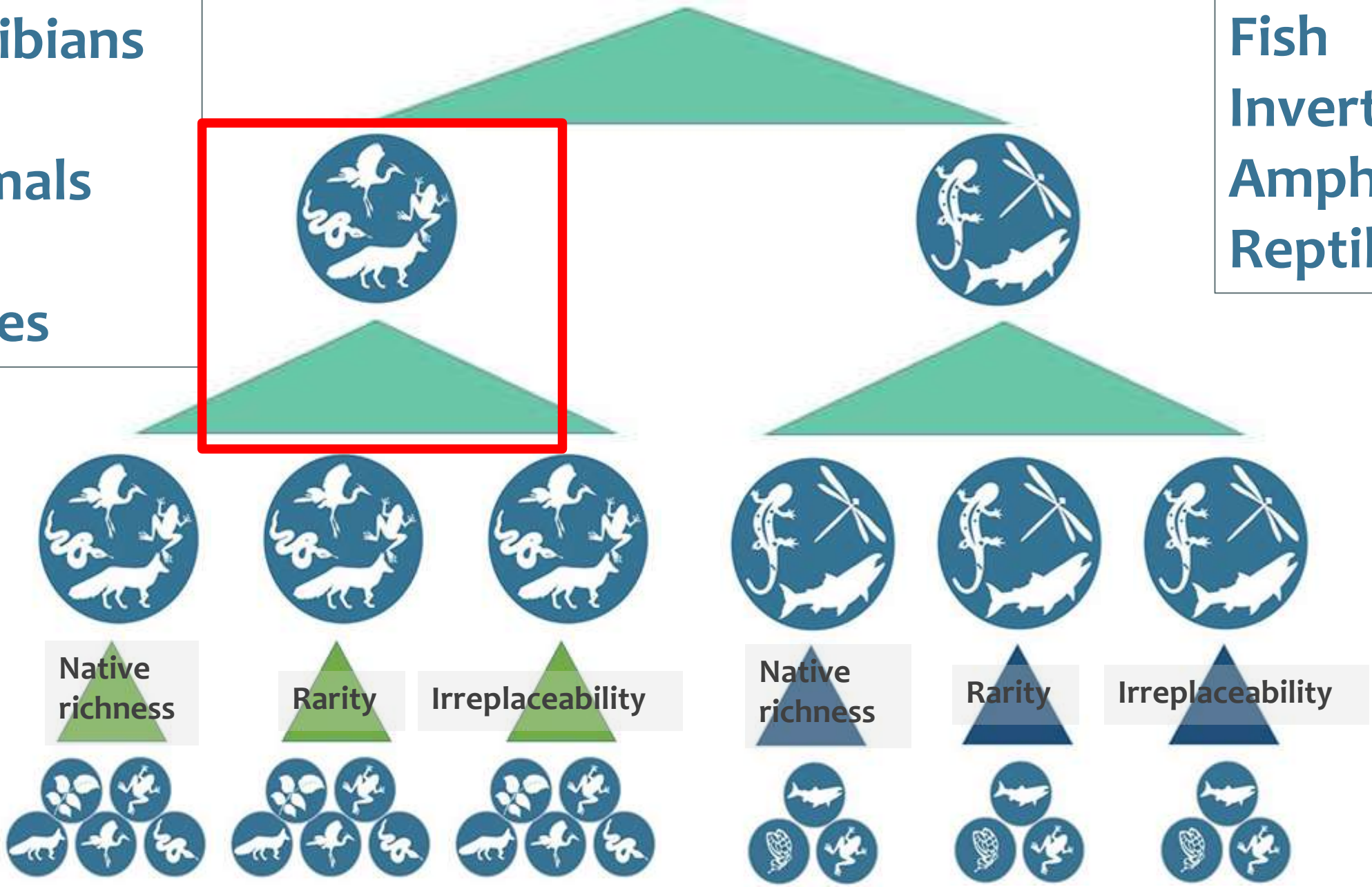
BIODIVERSITY

TERRESTRIAL

Amphibians
Birds
Mammals
Plants
Reptiles

AQUATIC

Fish
Inverts
Amphibians
Reptiles



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CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE Areas of Conservation Emphasis

Basemaps | Layers

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Active Layer: Terrestrial Biodiversity Summary [ds2739]

Graphics and Selections

ACE Layers

- Ecoregion Sections
- WBD HUC12 Watersheds
- ACE v3.0 Model
  - Species Biodiversity
    - Species Biodiversity [ds2769]

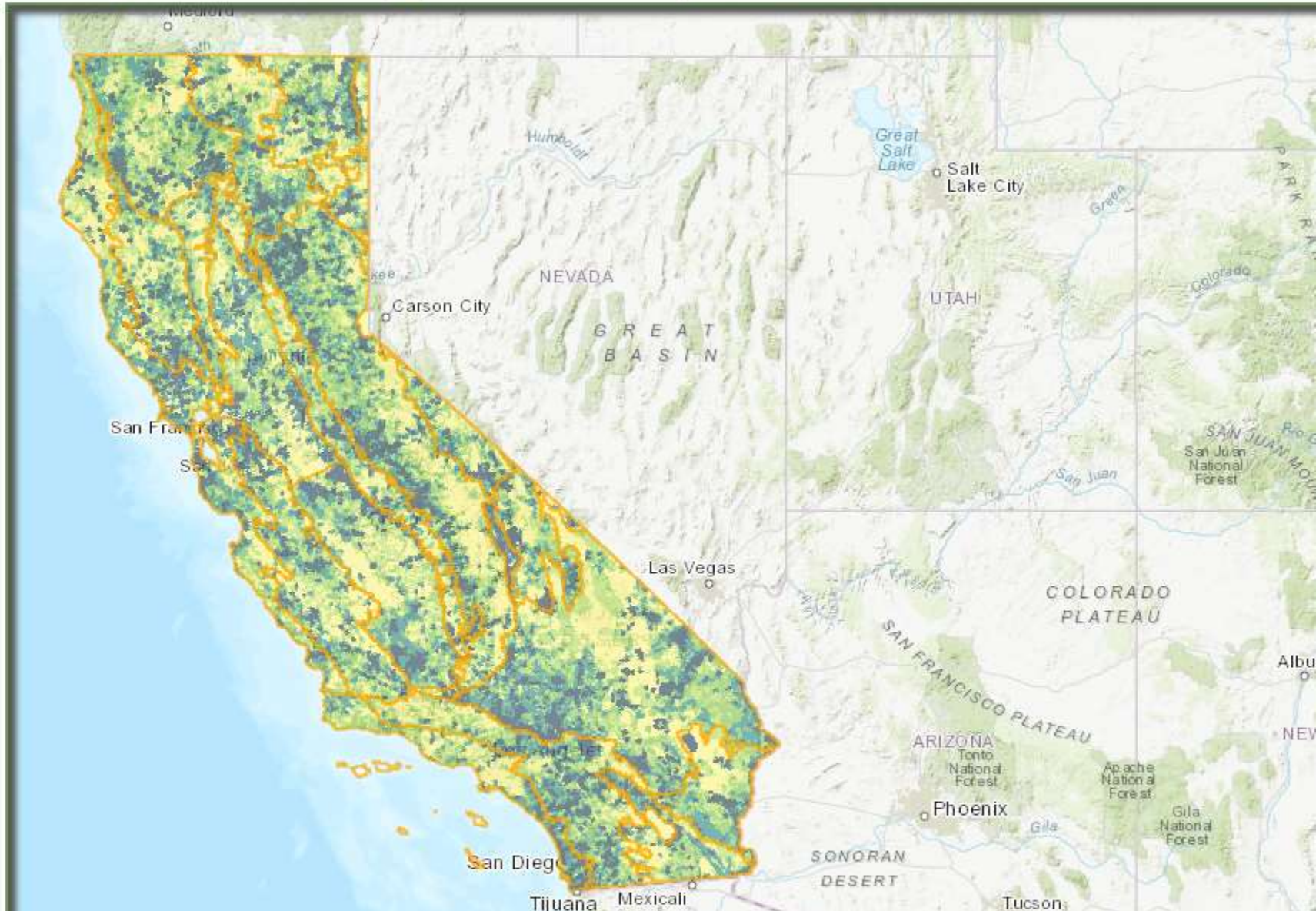
Ecoreg Biodiversity Rank

- 5 - high
- 4
- 3
- 2
- 1 - low

  - Terrestrial Biodiversity
    - Terrestrial Biodiversity Summary [ds2739]
    - Terrestrial Species List [ds2700]
    - Terrestrial Biodiversity Datasets
  - Aquatic Biodiversity
  - Significant Habitats
  - Connectivity
  - Climate Resilience
- SWAP
- Stressors

BIOS Layers

Reference Layers



https://map.dfg.ca.gov/ace/

ALIFORNIA DEPARTMENT OF
ISH and WILDLIFE
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ACE
Areas of Conservation Emphasis

Add Data: BIOS ▼ | Click here to search and see list of datasets

Identify Features ▼ | Advanced Tools ▼

Welcome, guest

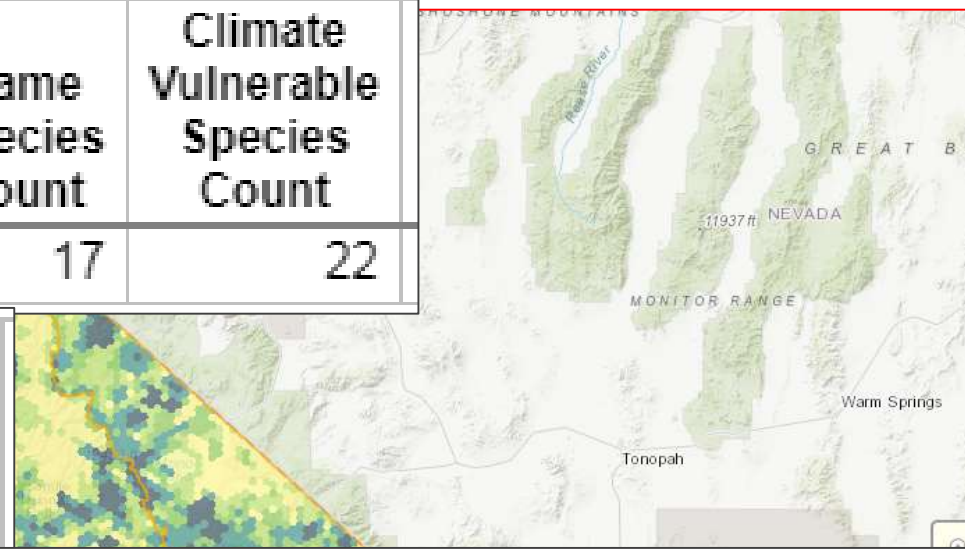
v3.0.18

ctive Layer: Terrestrial Biodiversity Summary

Ecoregion Biodiversity Rank	Ecoregion Biodiversity Weight	Statewide Biodiversity Rank	Statewide Biodiversity Weight	Ecoregion Native Species Rank	Ecoregion Native Species Weight	Statewide Native Species Rank	Statewide Native Species Weight	Ecoregion Rare Species Rank	Ecoreg Rar Spec Weig
5	0.60287	5	0.413723	5	0.904701	5	0.807961	3	0.243

Ecoregi
5 -
4
3
2
1 -
+ Terre
▶ Terrestria
▶ Aquatic Bio

NativeCount	Native Amphibian Count	Native Reptile Count	Native Bird Count	Native Mammal Count	Native Plant Count	Game Species Count	Climate Vulnerable Species Count
238	11	18	163	46	1367	17	22



RareCount	Rare Amphibian Count	Rare Reptile Coun	Rare Bird Count	Rare Mammal Count	Rare Plant Count
5	2				

AllTaxaEndem	Endemic Amphibian Count	Endemic Reptile Count	Endemic Bird Count	Endemic Mammal Count	Endemic Plant Count
4	2	0	0	0	2

3	0.238539	4	0.166125	5	0.563694	5	0.055

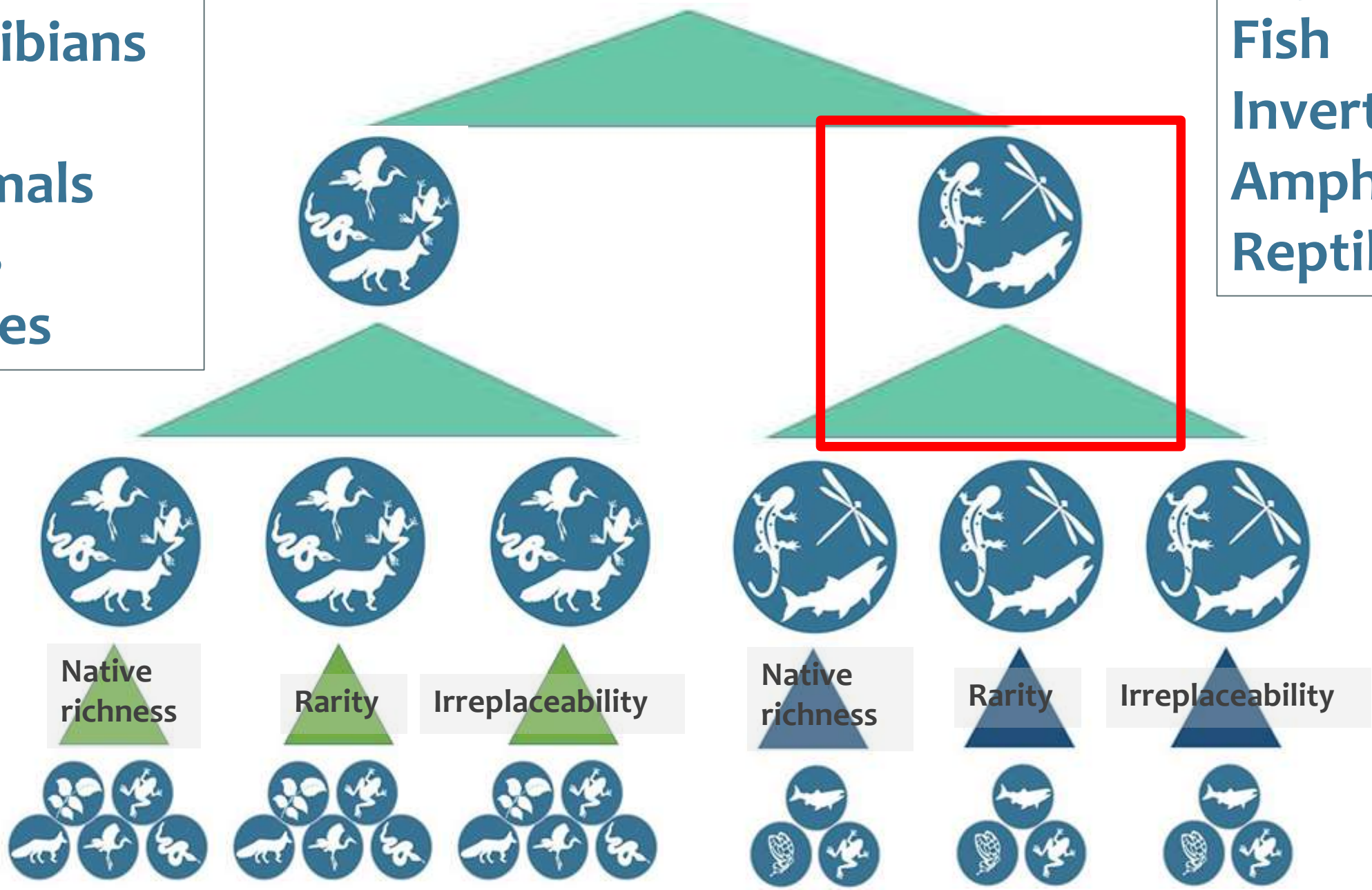
BIODIVERSITY

TERRESTRIAL

Amphibians
Birds
Mammals
Plants
Reptiles

AQUATIC

Fish
Inverts
Amphibians
Reptiles



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ACE Areas of Conservation Emphasis

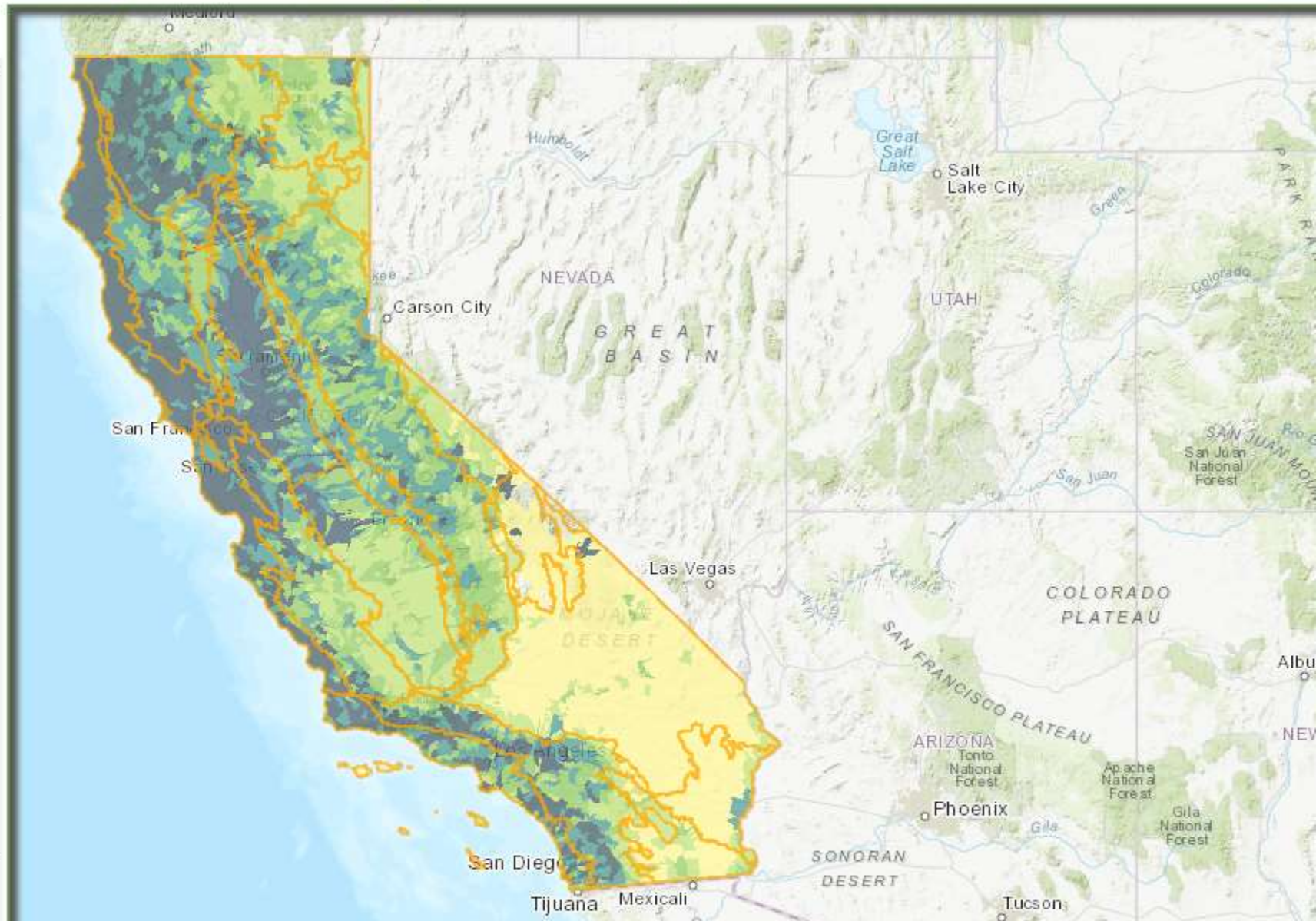
Basemaps | Layers

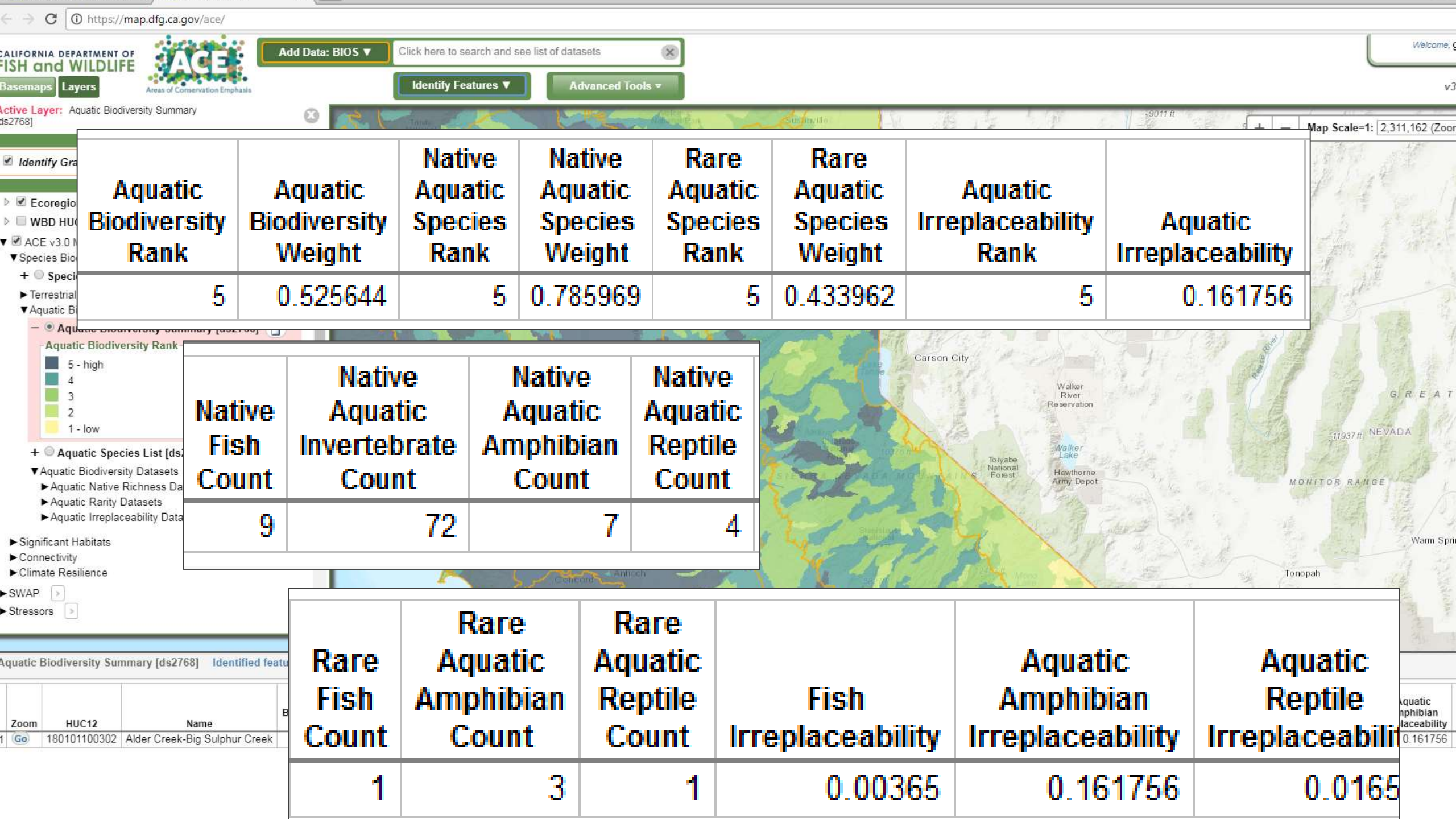
Add Data: BIOS ▼ | Click here to search and see list of datasets

Identify Features ▼ | Advanced Tools ▼

Active Layer: Aquatic Biodiversity Summary [ds2768]

- Species Biodiversity [ds2769]
  - Ecoreg Biodiversity Rank
    - 5 - high
    - 4
    - 3
    - 2
    - 1 - low
- ▶ Terrestrial Biodiversity
- ▼ Aquatic Biodiversity
  - Aquatic Biodiversity Summary [ds2768]
    - Aquatic Biodiversity Rank
      - 5 - high
      - 4
      - 3
      - 2
      - 1 - low
  - + Aquatic Species List [ds2740]
  - ▼ Aquatic Biodiversity Datasets
    - ▶ Aquatic Native Richness Datasets
    - ▶ Aquatic Rarity Datasets
    - ▶ Aquatic Irreplaceability Datasets
- ▶ Significant Habitats
- ▶ Connectivity
- ▶ Climate Resilience
- ▶ SWAP
- ▶ Stressors





Aquatic Biodiversity Rank	Aquatic Biodiversity Weight	Native Aquatic Species Rank	Native Aquatic Species Weight	Rare Aquatic Species Rank	Rare Aquatic Species Weight	Aquatic Irreplaceability Rank	Aquatic Irreplaceability
5	0.525644	5	0.785969	5	0.433962	5	0.161756

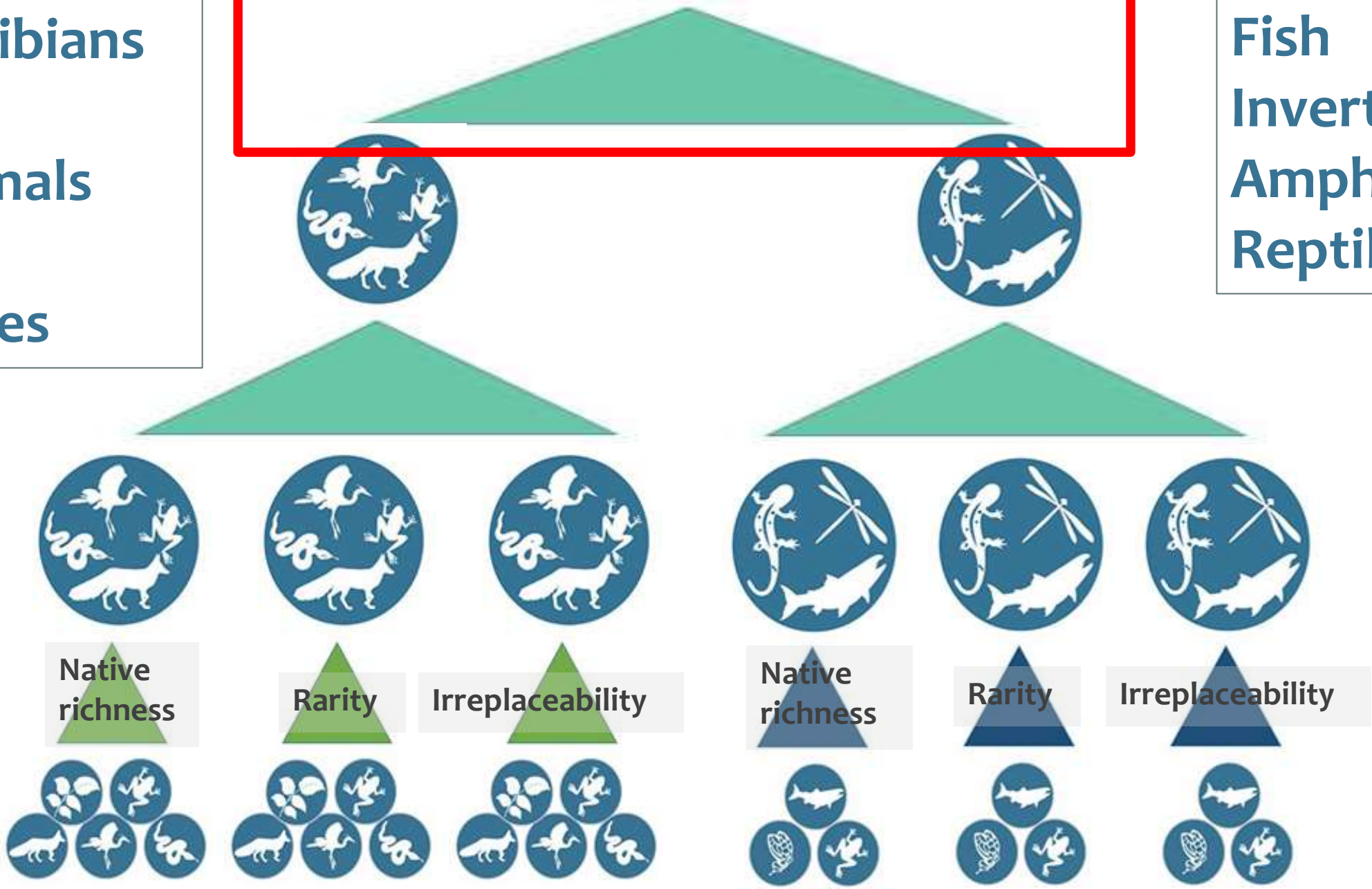
Native Fish Count	Native Aquatic Invertebrate Count	Native Aquatic Amphibian Count	Native Aquatic Reptile Count
9	72	7	4

Rare Fish Count	Rare Aquatic Amphibian Count	Rare Aquatic Reptile Count	Fish Irreplaceability	Aquatic Amphibian Irreplaceability	Aquatic Reptile Irreplaceabilit
1	3	1	0.00365	0.161756	0.0165

TERRESTRIAL

Amphibians
Birds
Mammals
Plants
Reptiles

BIODIVERSITY



AQUATIC

Fish
Inverts
Amphibians
Reptiles

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE Areas of Conservation Emphasis

Basemaps | Layers

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Identify Features ▼ | Advanced Tools ▼

Active Layer: Species Biodiversity [ds2769]

Graphics and Selections

ACE Layers

- Ecoregion Sections
- WBD HUC12 Watersheds
- ACE v3.0 Model
  - Species Biodiversity
    - Species Biodiversity [ds2769]

Ecoreg Biodiversity Rank

- 5 - high
- 4
- 3
- 2
- 1 - low

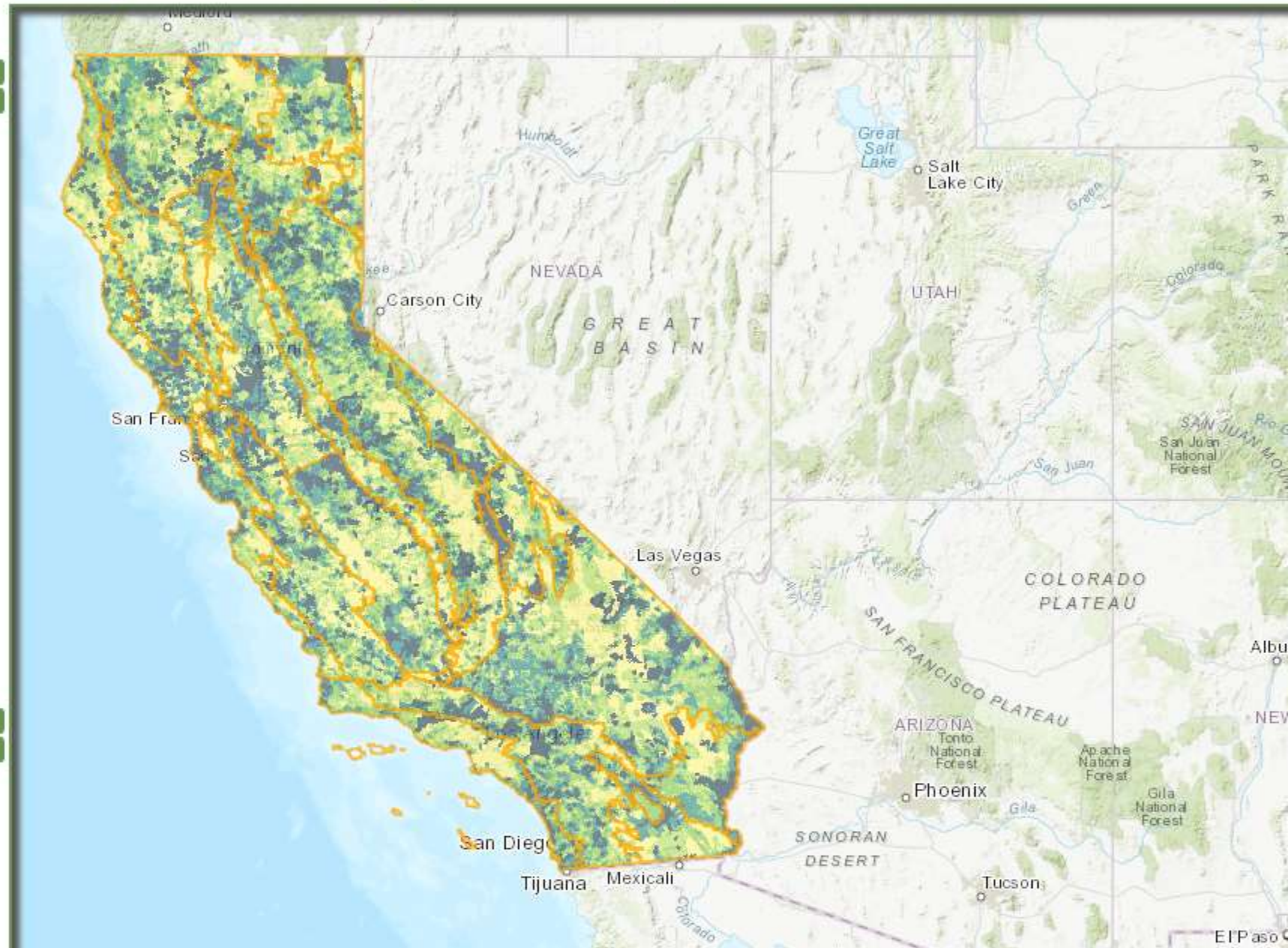
  - Terrestrial Biodiversity
  - Aquatic Biodiversity
  - Significant Habitats
  - Connectivity
  - Climate Resilience
- SWAP
- Stressors

BIOS Layers

Reference Layers

Remove All Highlights

- Geolocation References
- Hydrography
- Natural_Resources
- Land_Ownership



https://map.dfg.ca.gov/ace/

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE
Areas of Conservation Emphasis

Basemaps | Layers

Add Data: BIOS ▼ | Click here to search and see list of datasets

Identify Features ▼ | Advanced Tools ▼

Active Layer: Species Biodiversity [ds2769]

Graphics and Selections

ACE Layers

- ▷ ☑ Ecoregion Sections
- ▷ ☐ WBD HUC12 Watersheds
- ▼ ☑ ACE v3.0 Model
  - ▼ Species Biodiversity
    - — ◉ **Species Biodiversity [ds2769]**

Ecoreg Biodiversity Rank

- 5 - high
- 4
- 3
- 2
- 1 - low

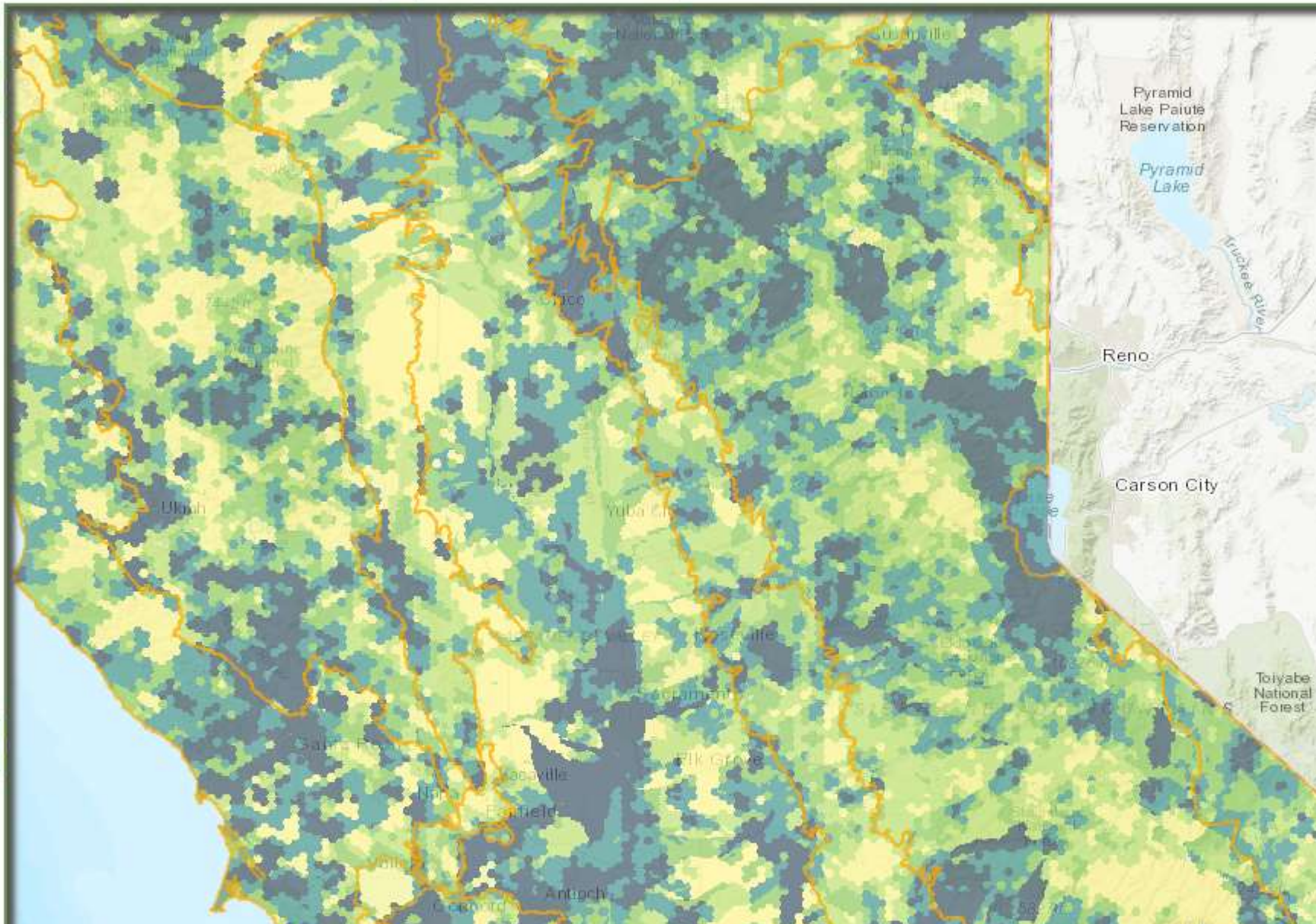
  - ▶ Terrestrial Biodiversity
  - ▶ Aquatic Biodiversity
  - ▶ Significant Habitats
  - ▶ Connectivity
  - ▶ Climate Resilience
- ▶ SWAP
- ▶ Stressors

BIOS Layers

Reference Layers

Remove All Highlights

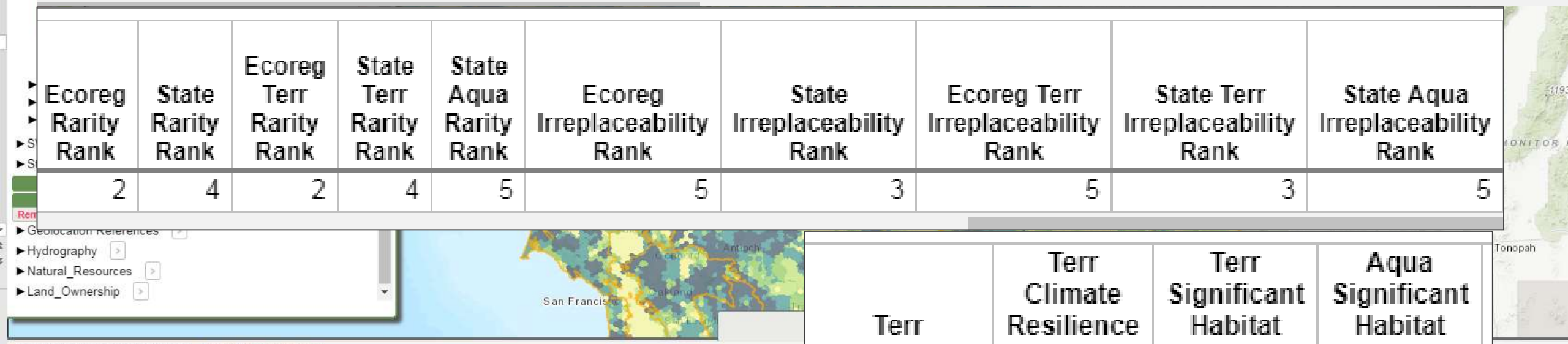
- ▶ Geolocation References
- ▶ Hydrography
- ▶ Natural_Resources
- ▶ Land_Ownership



Hex_ID	HUC12	Name
18972	180101100302	Alder Creek-Big Sulphur Creek

Ecoreg Biodiversity Rank	Ecoreg Biodiversity Weight	State Biodiversity Rank	Ecoreg Terr Biodiversity Rank	State Terr Biodiversity Rank	State Aqua Biodiversity Rank	Ecoreg Native Sp Rank	State Native Sp Rank	Ecoreg Terr Native Sp Rank	State Terr Native Sp Rank	State Aqua Native Sp Rank
5	0.569086	5	5	5	5	5	5	4	5	

Ecoreg Rarity Rank	State Rarity Rank	Ecoreg Terr Rarity Rank	State Terr Rarity Rank	State Aqua Rarity Rank	Ecoreg Irreplaceability Rank	State Irreplaceability Rank	Ecoreg Terr Irreplaceability Rank	State Terr Irreplaceability Rank	State Aqua Irreplaceability Rank
2	4	2	4	5	5	3	5	3	5

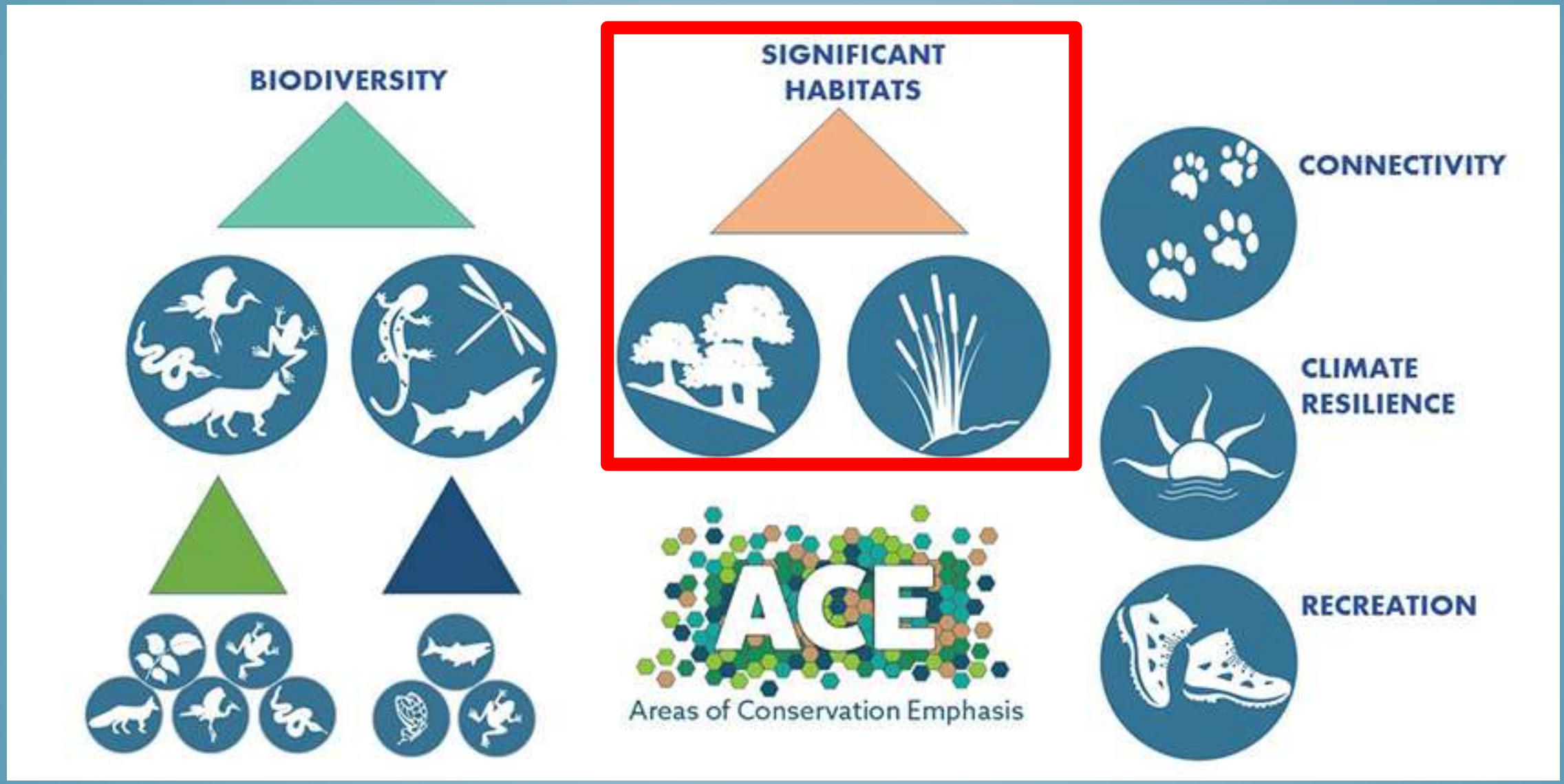


Terr Connectivity Rank SUPP	Terr Climate Resilience Rank SUPP	Terr Significant Habitat Rank SUPP	Aqua Significant Habitat Rank SUPP
4	3	3	3

Species Biodiversity [ds2769] Identified features: 1

Hex_ID	HUC12	Name	Ecoreg Biodiversity Rank	Ecoreg Biodiversity Weight	State Biodiversity Rank	Ecoreg Terr Biodiversity Rank	State Terr Biodiversity Rank	State Aqua Biodiversity Rank	Ecore Nativ Sp Rank	State Terr Irreplaceability Rank
19044	180101100302	Alder Creek-Big Sulphur Creek	5	0.596803	5	5	5	5		5

ACE: DATA STRUCTURE



SWAP • Stressors • Land conservation status

Significant Habitats

- Rare vegetation types
- Oak Woodlands
- Riparian
- Freshwater wetlands
  - Meadows and Emergent Wetlands
  - Ponds
  - Vernal Pools
  - Seeps and Springs
- Saline Wetlands
- Lakes
- Significant Habitat Areas for focal species
  - Anadromous fish
  - *additional species in Phase 2*

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

Basemaps | Layers

ACE Areas of Conservation Emphasis

Add Data: BIOS ▼ | Click here to search and see list of datasets

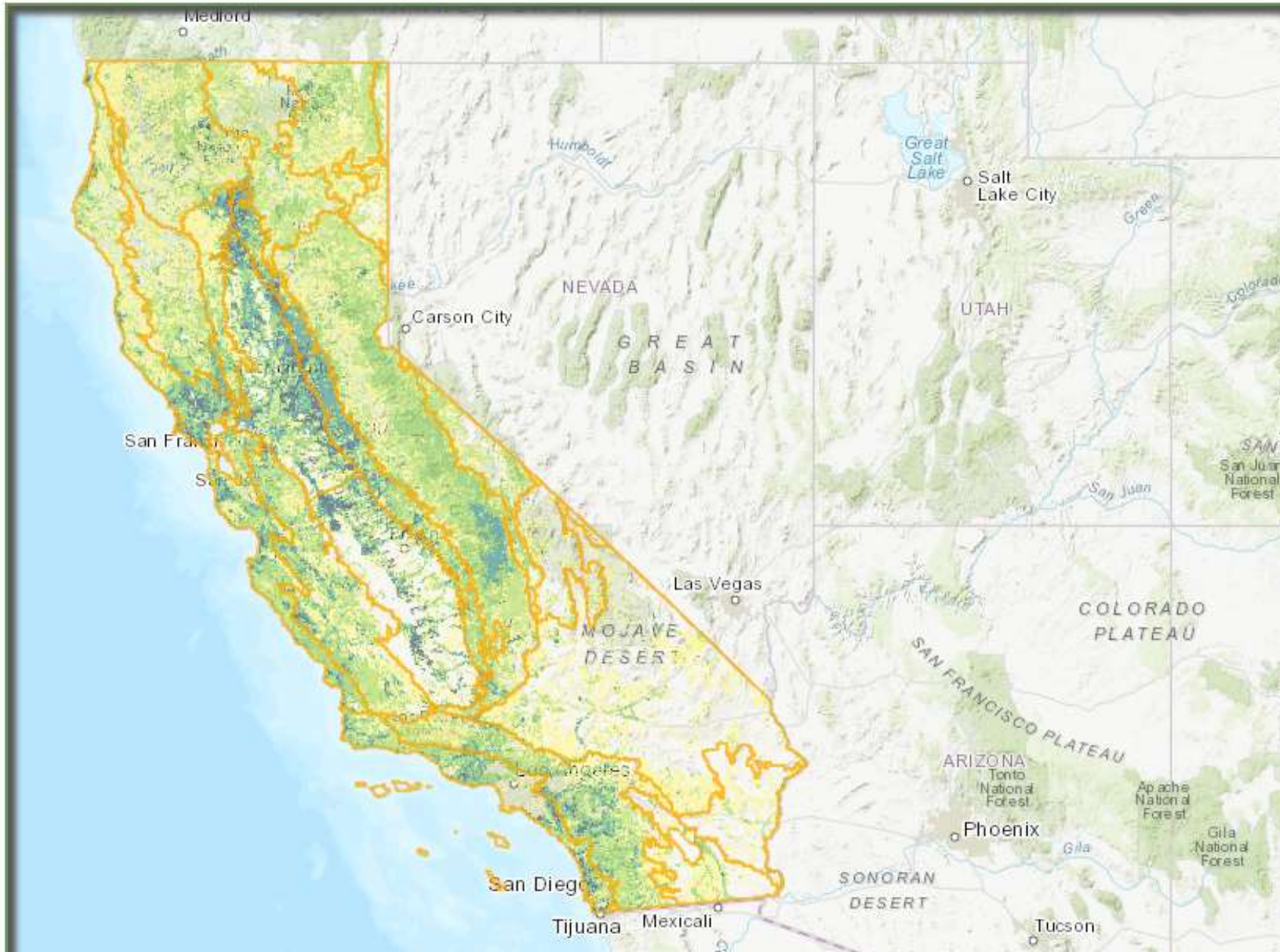
Identify Features ▼ | Advanced Tools ▼

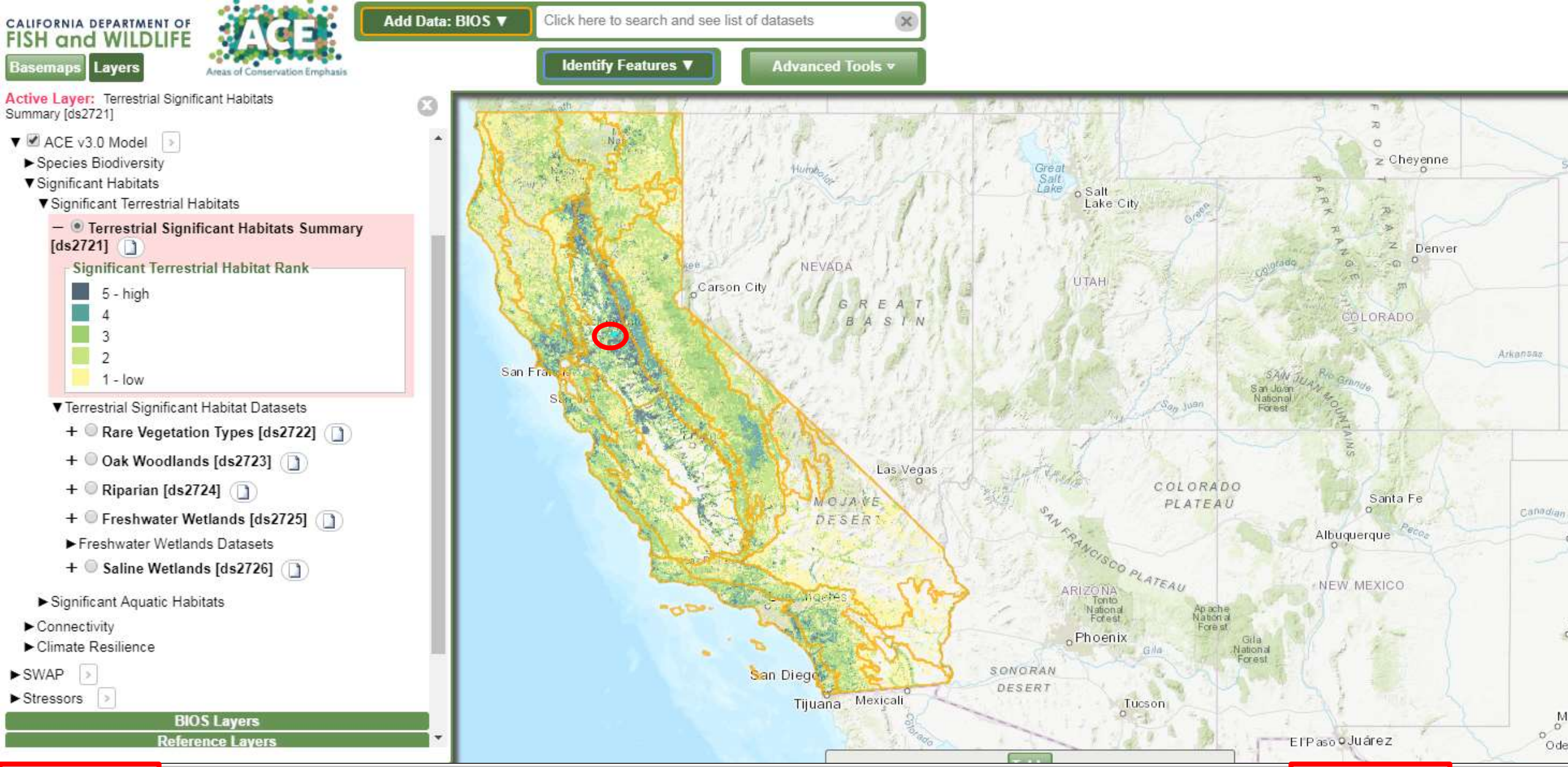
Active Layer: Terrestrial Significant Habitats Summary [ds2721]

- ▼ ACE v3.0 Model
  - ▶ Species Biodiversity
  - ▼ Significant Habitats
    - ▼ Significant Terrestrial Habitats
      - — **Terrestrial Significant Habitats Summary [ds2721]**

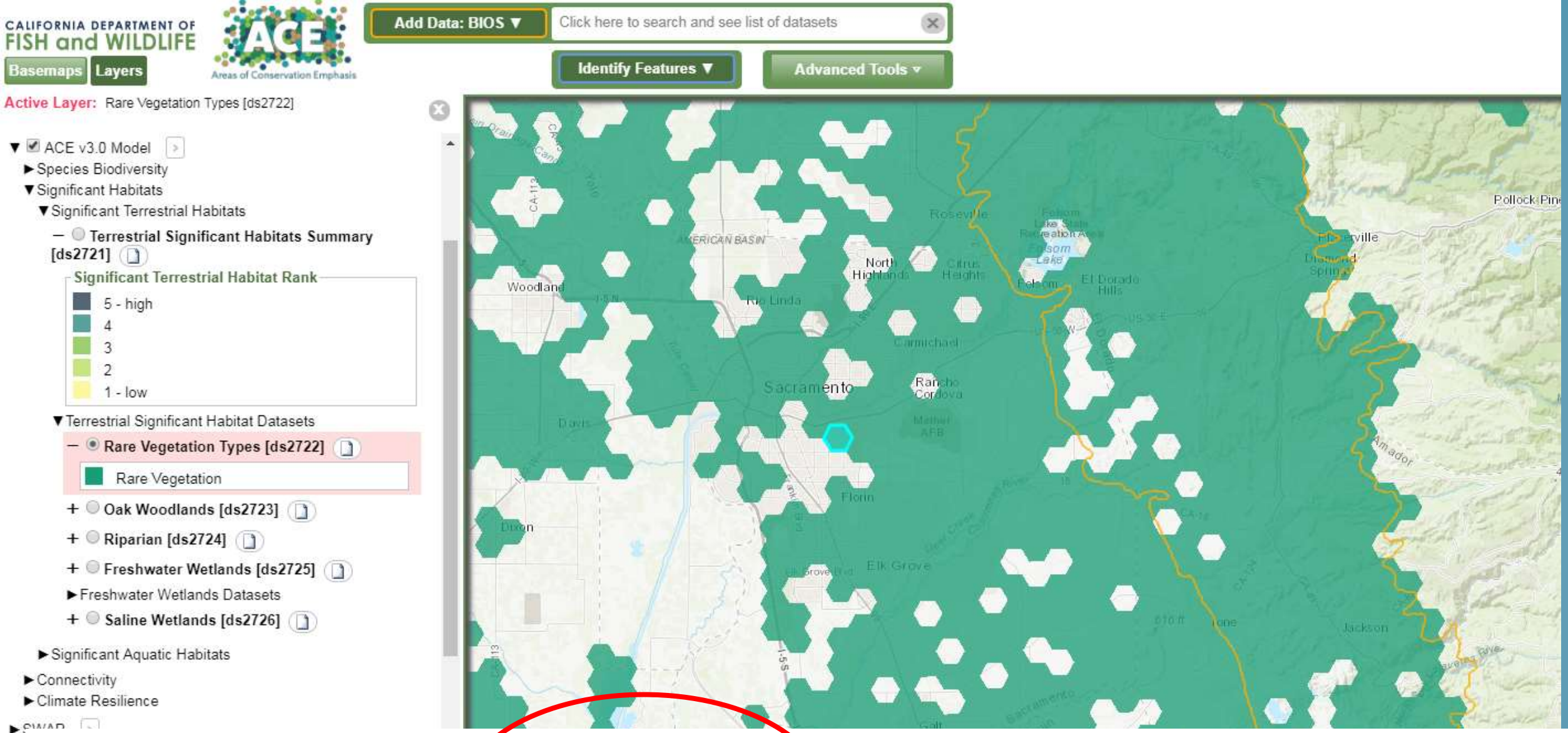
        Significant Terrestrial Habitat Rank
        - 5 - high
        - 4
        - 3
        - 2
        - 1 - low
      - ▼ Terrestrial Significant Habitat Datasets
        - + **Rare Vegetation Types [ds2722]**
        - + **Oak Woodlands [ds2723]**
        - + **Riparian [ds2724]**
        - + **Freshwater Wetlands [ds2725]**
          - ▶ Freshwater Wetlands Datasets
        - + **Saline Wetlands [ds2726]**
    - ▶ Significant Aquatic Habitats
  - ▶ Connectivity
  - ▶ Climate Resilience
- ▶ SWAP
- ▶ Stressors

BIOS Layers



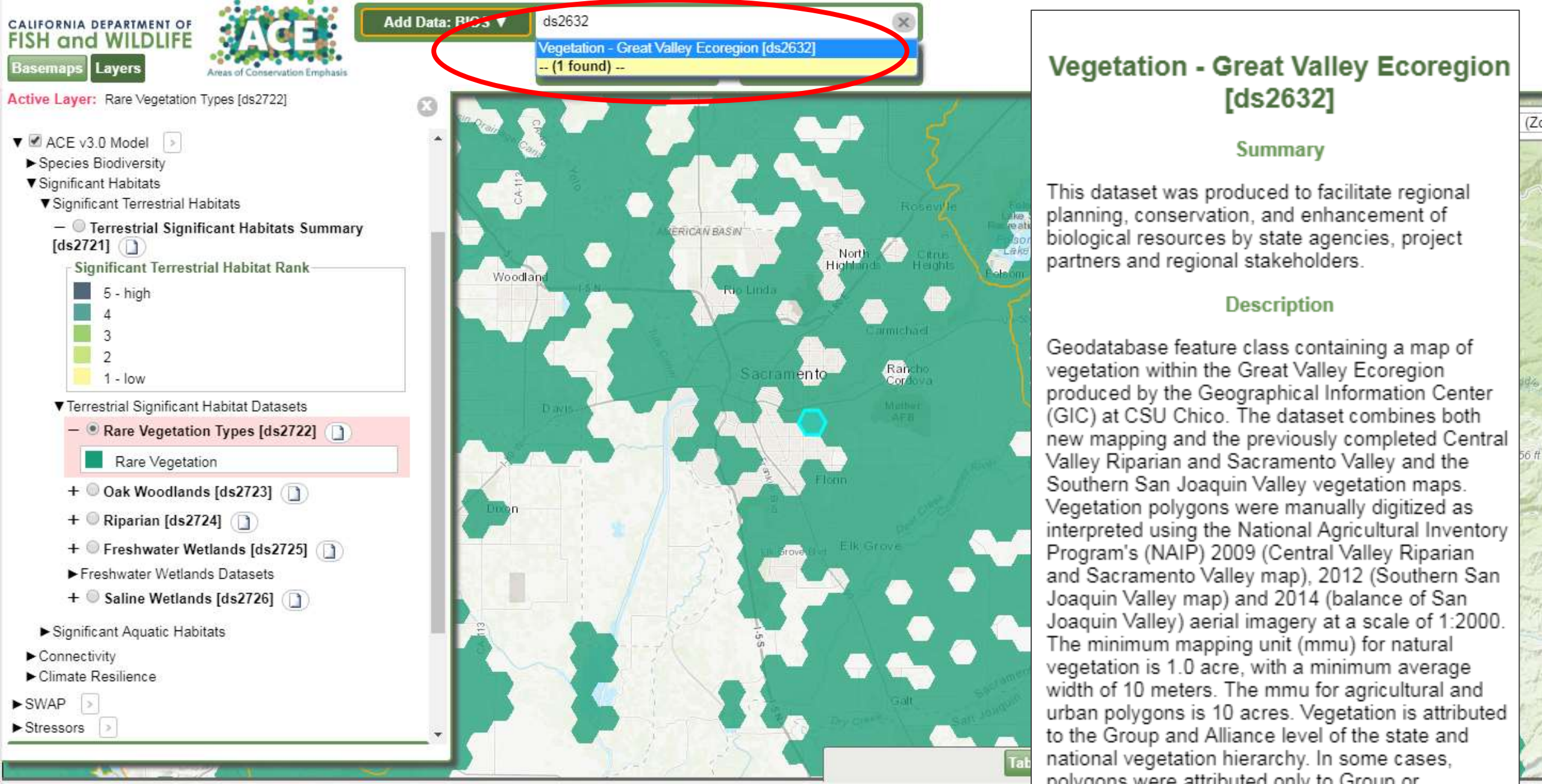


Rare Vegetation	Oak Woodland	Riparian	Freshwater Wetlands	Meadow and Emergent Wetlands	Ponds	Seeps and Springs	Vernal Pools	Saline Wetland
Y	N	Y	2	Y	N	N	Y	N



Hex_ID	Rare Vegetation	RareVeg_datasets	Eco_Sect	Eco_Name	Jepson_Eco
20855	Y	ds2632;	262A	Great Valley (north)	ScV

1 GO 20855 Y ds2632; 262A Great Valley (north) ScV SACRAMENTO



Rare Vegetation Types [ds2722] Identified features: 1

	Zoom	Hex_ID	Rare Vegetation	RareVeg_datasets	Eco_Sect	Eco_Name	Jepson_Eco	County
1	Go	20855	Y	ds2632;	262A	Great Valley (north)	ScV	SACRAMENTO

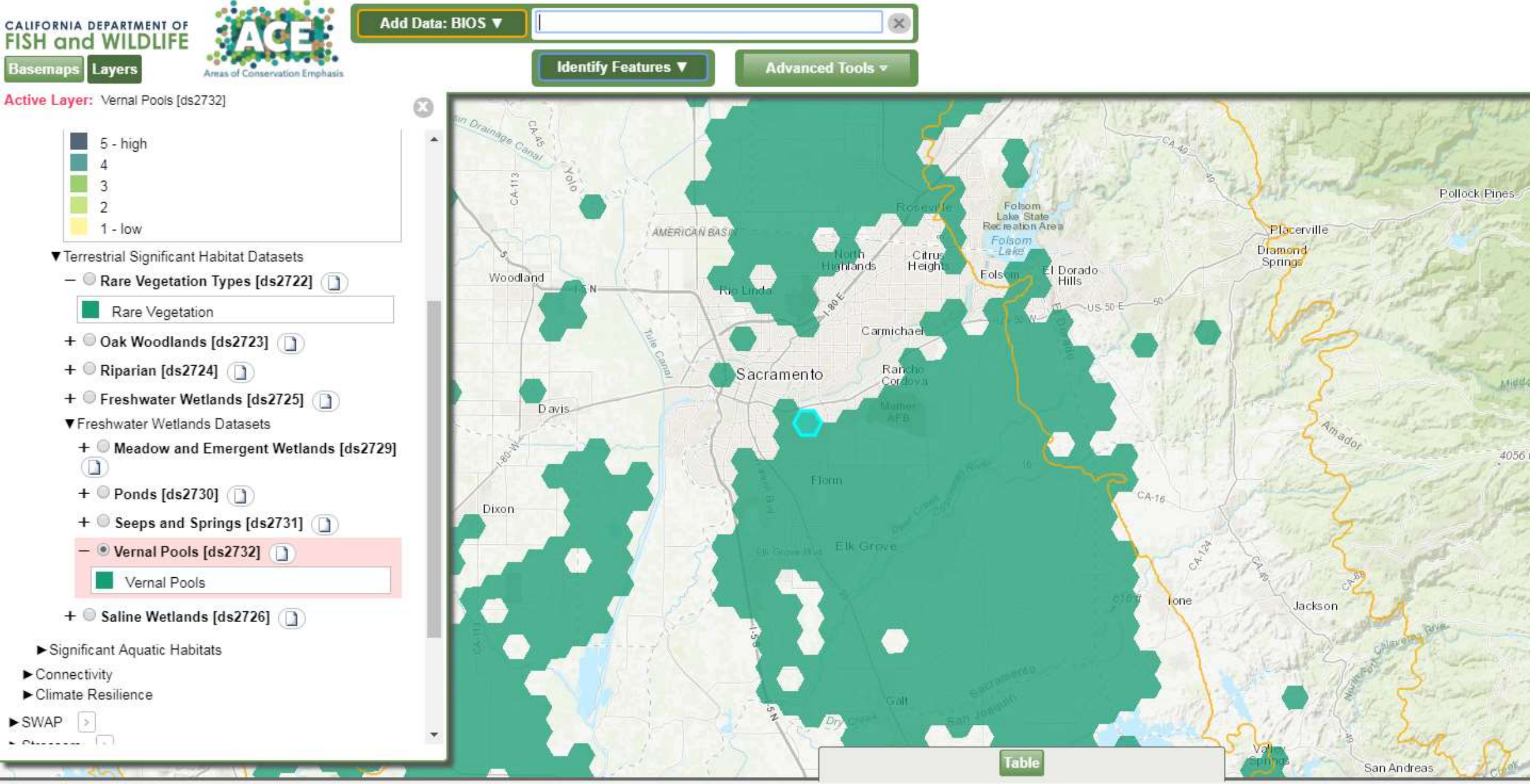
Vegetation - Great Valley Ecoregion [ds2632]

Summary

This dataset was produced to facilitate regional planning, conservation, and enhancement of biological resources by state agencies, project partners and regional stakeholders.

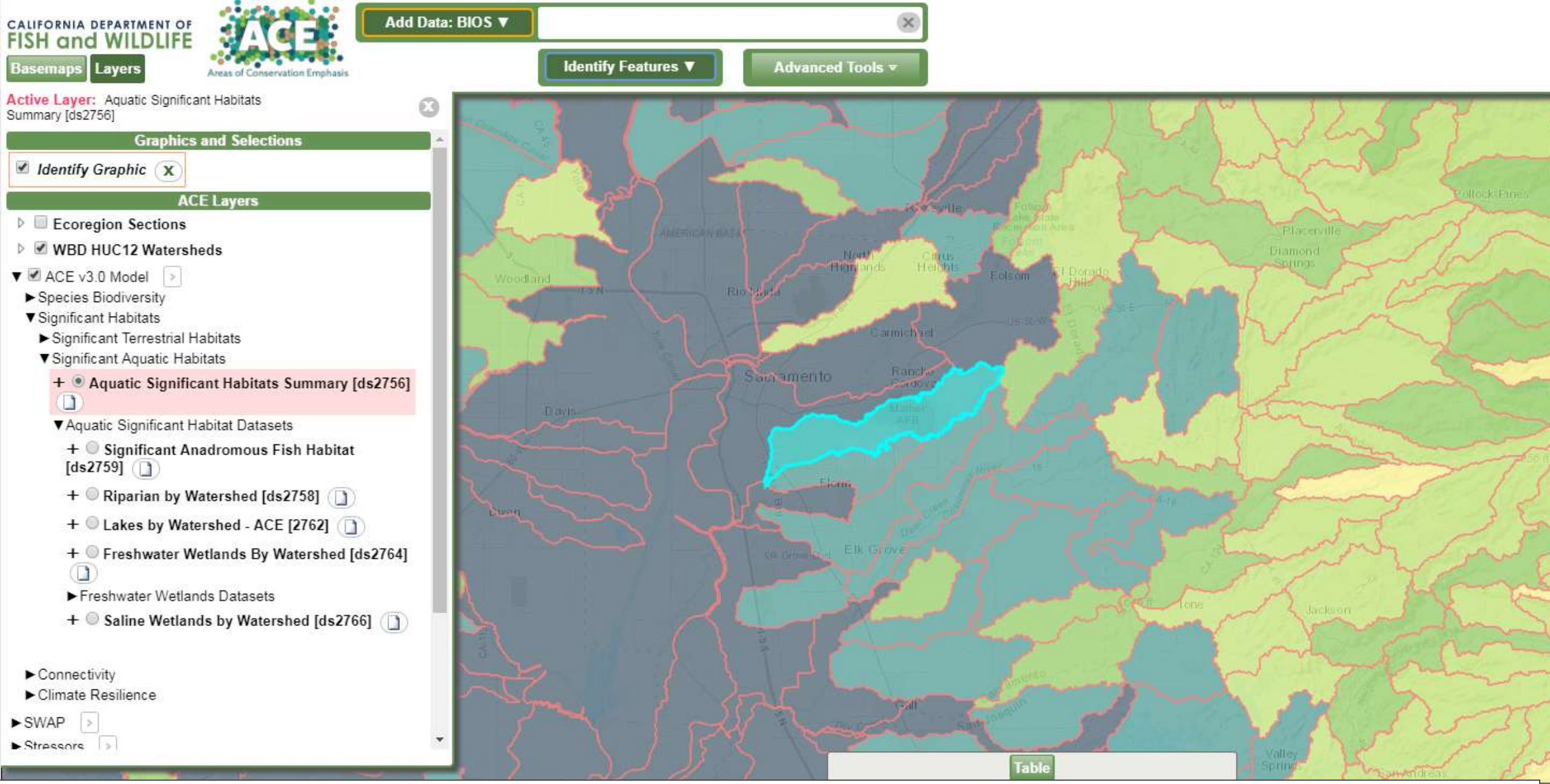
Description

Geodatabase feature class containing a map of vegetation within the Great Valley Ecoregion produced by the Geographical Information Center (GIC) at CSU Chico. The dataset combines both new mapping and the previously completed Central Valley Riparian and Sacramento Valley and the Southern San Joaquin Valley vegetation maps. Vegetation polygons were manually digitized as interpreted using the National Agricultural Inventory Program's (NAIP) 2009 (Central Valley Riparian and Sacramento Valley map), 2012 (Southern San Joaquin Valley map) and 2014 (balance of San Joaquin Valley) aerial imagery at a scale of 1:2000. The minimum mapping unit (mmu) for natural vegetation is 1.0 acre, with a minimum average width of 10 meters. The mmu for agricultural and urban polygons is 10 acres. Vegetation is attributed to the Group and Alliance level of the state and national vegetation hierarchy. In some cases, polygons were attributed only to Group or Macrogroup level when the Alliance could not be determined from photointerpretation. The map classification is based on the key to vegetation



Vernal Pools [ds2732] Identified features: 1

	Zoom	Hex_ID	Vernal Pools	VernalPool_datasets	Eco_Sect	Eco_Name	Jepson_Eco	County
1	Go	20855	Y	ds45;	262A	Great Valley (north)	ScV	SACRAMENTO



Anadromous Habitat	Riparian	Lakes	Freshwater Wetlands	Meadow and Emergent Wetlands	Ponds	Seeps and Springs	Vernal Pools	Saline Wetlands
0	Y	Y	3	Y	Y	N	Y	N

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE Areas of Conservation Emphasis

Basemaps | Layers

Add Data: BIOS ▼

Identify Features ▼

Advanced Tools ▼

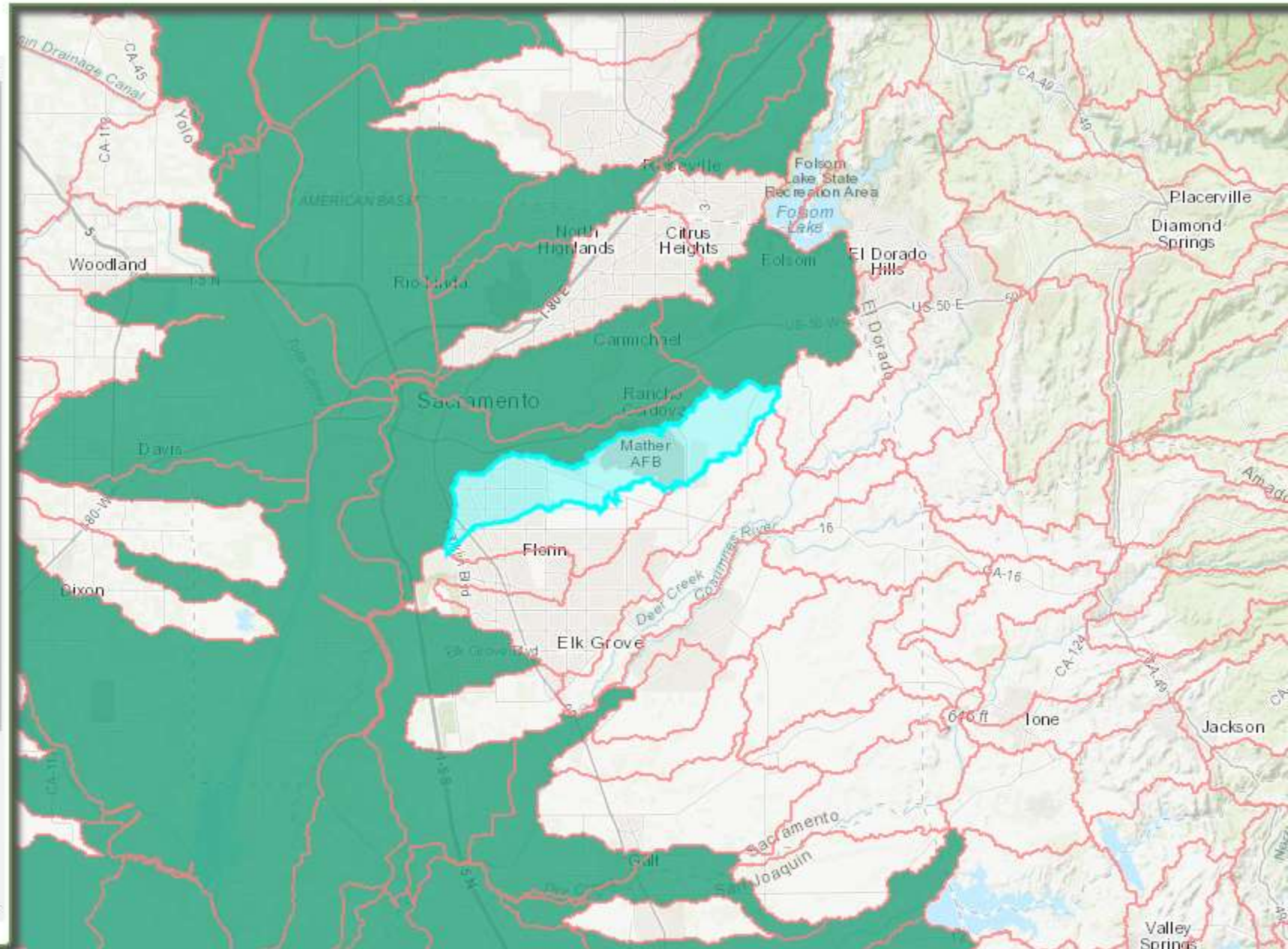
Active Layer: Significant Anadromous Fish Habitat [ds2759]

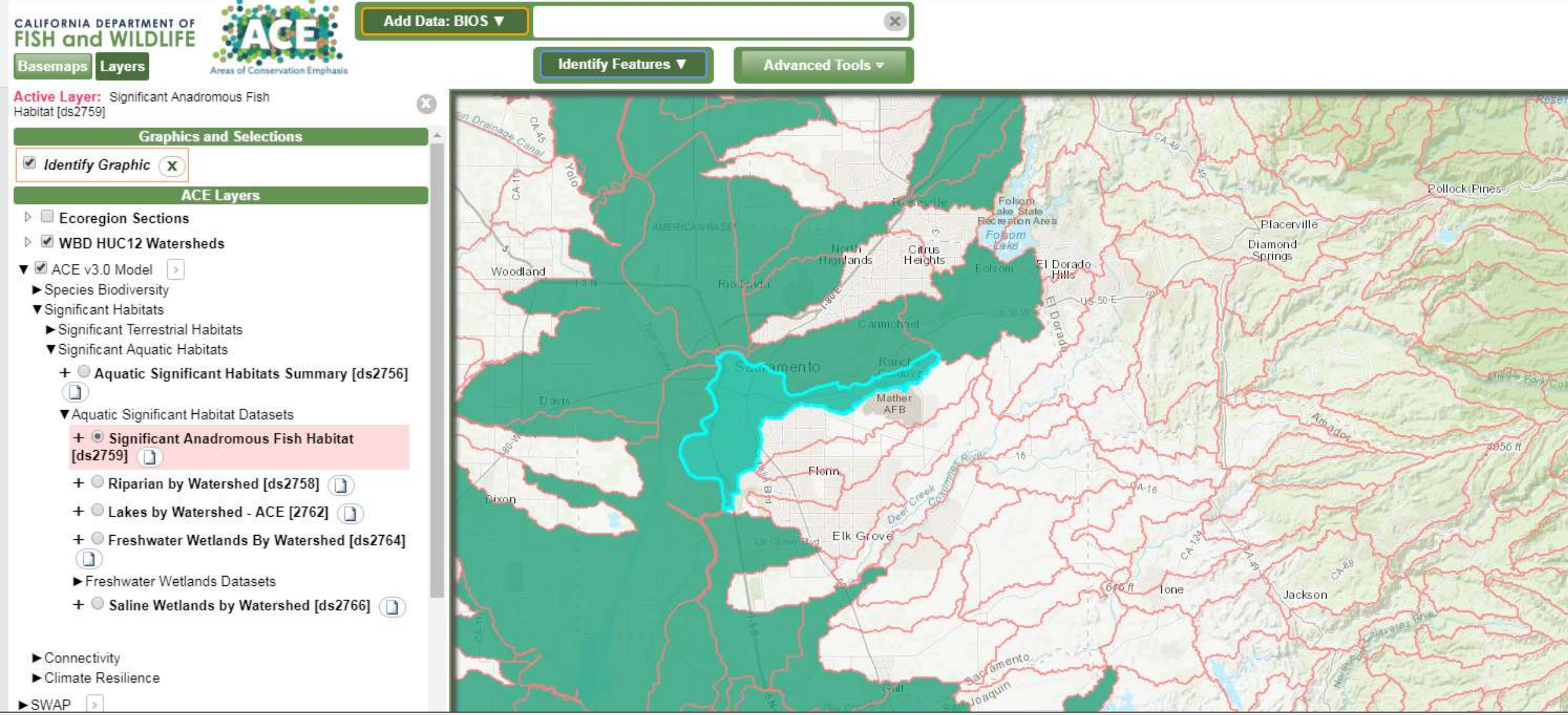
Graphics and Selections

- ☑ *Identify Graphic* X

ACE Layers

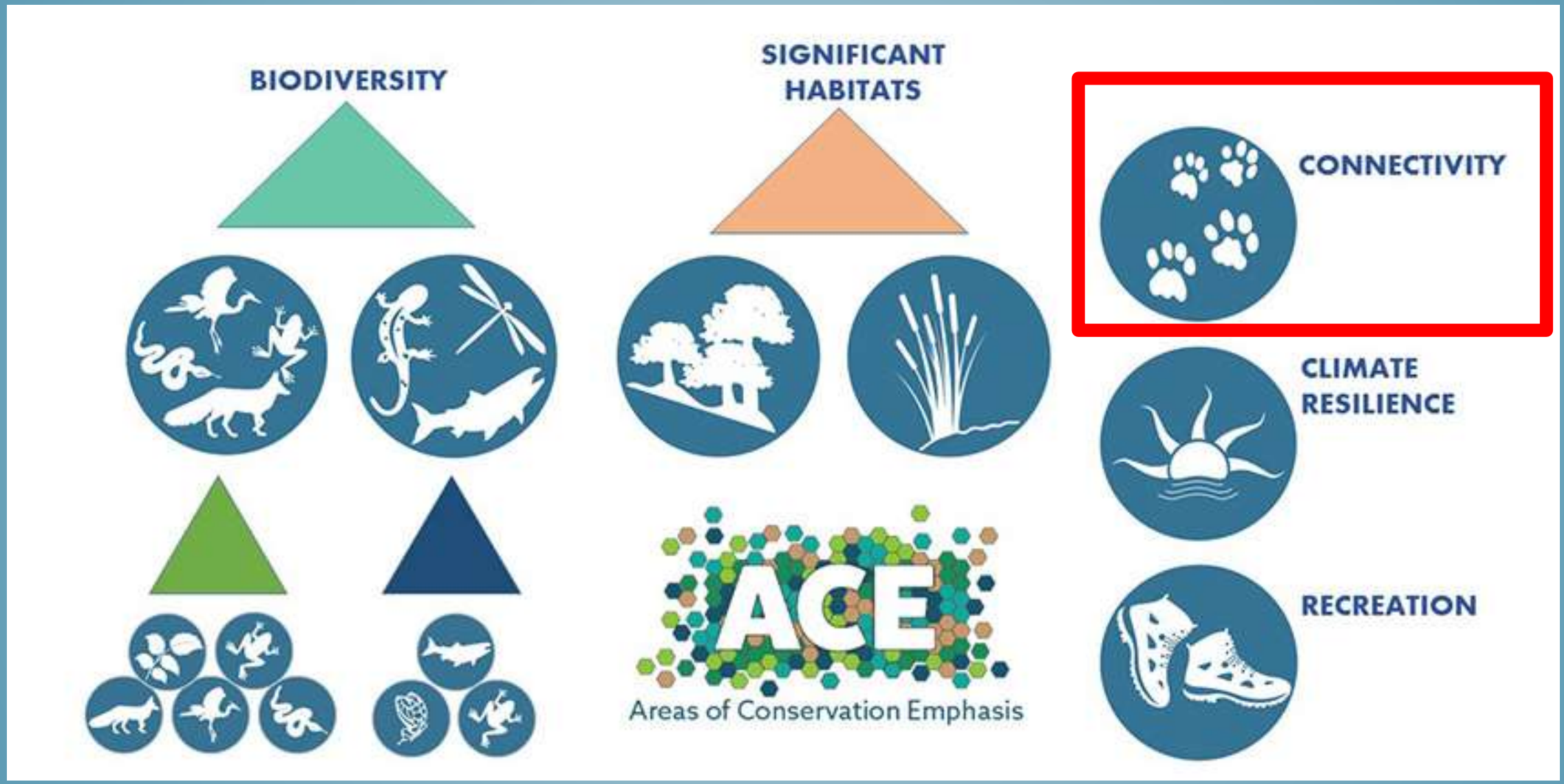
- ▷ ☐ Ecoregion Sections
- ▷ ☑ WBD HUC12 Watersheds
- ▼ ☑ ACE v3.0 Model
  - ▶ Species Biodiversity
  - ▼ Significant Habitats
    - ▶ Significant Terrestrial Habitats
    - ▼ Significant Aquatic Habitats
      - + ○ **Aquatic Significant Habitats Summary [ds2756]**
      - ▼ Aquatic Significant Habitat Datasets
        - + ◉ **Significant Anadromous Fish Habitat [ds2759]**
        - + ○ **Riparian by Watershed [ds2758]**
        - + ○ **Lakes by Watershed - ACE [2762]**
        - + ○ **Freshwater Wetlands By Watershed [ds2764]**
        - ▶ Freshwater Wetlands Datasets
        - + ○ **Saline Wetlands by Watershed [ds2766]**
  - ▶ Connectivity
  - ▶ Climate Resilience
- ▶ SWAP
- ▶ Stressors





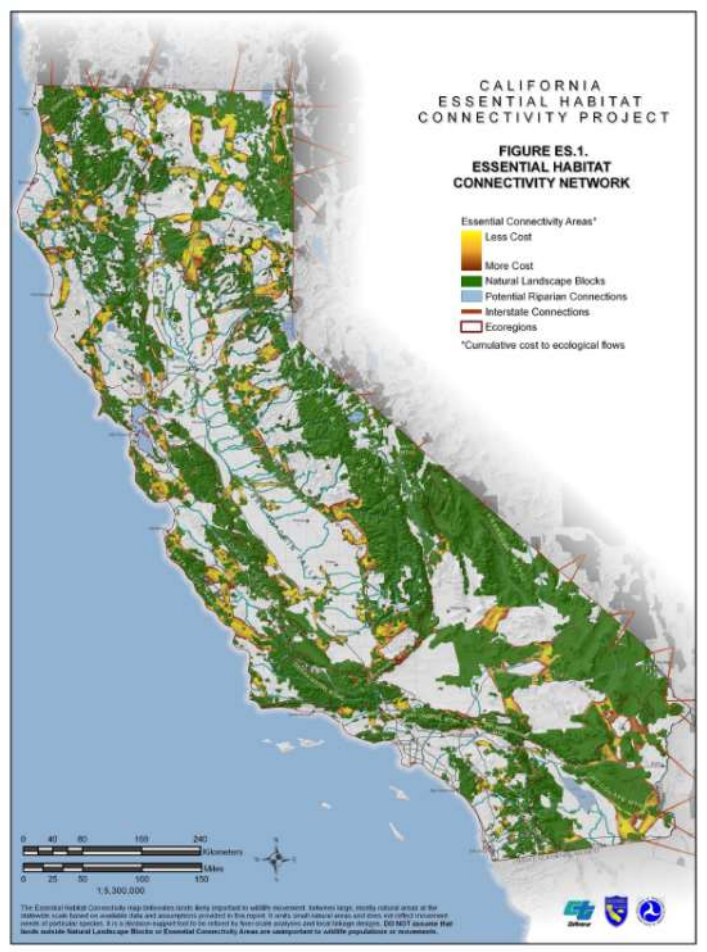
AnadHab_datasets
ChinookCentValleySpringrun-ds125; GreenSturgeon-dsXX; SteelheadCentralValley-ds123; ChinookSacRiverWinterrunRiverine-dsX

ACE: DATA STRUCTURE

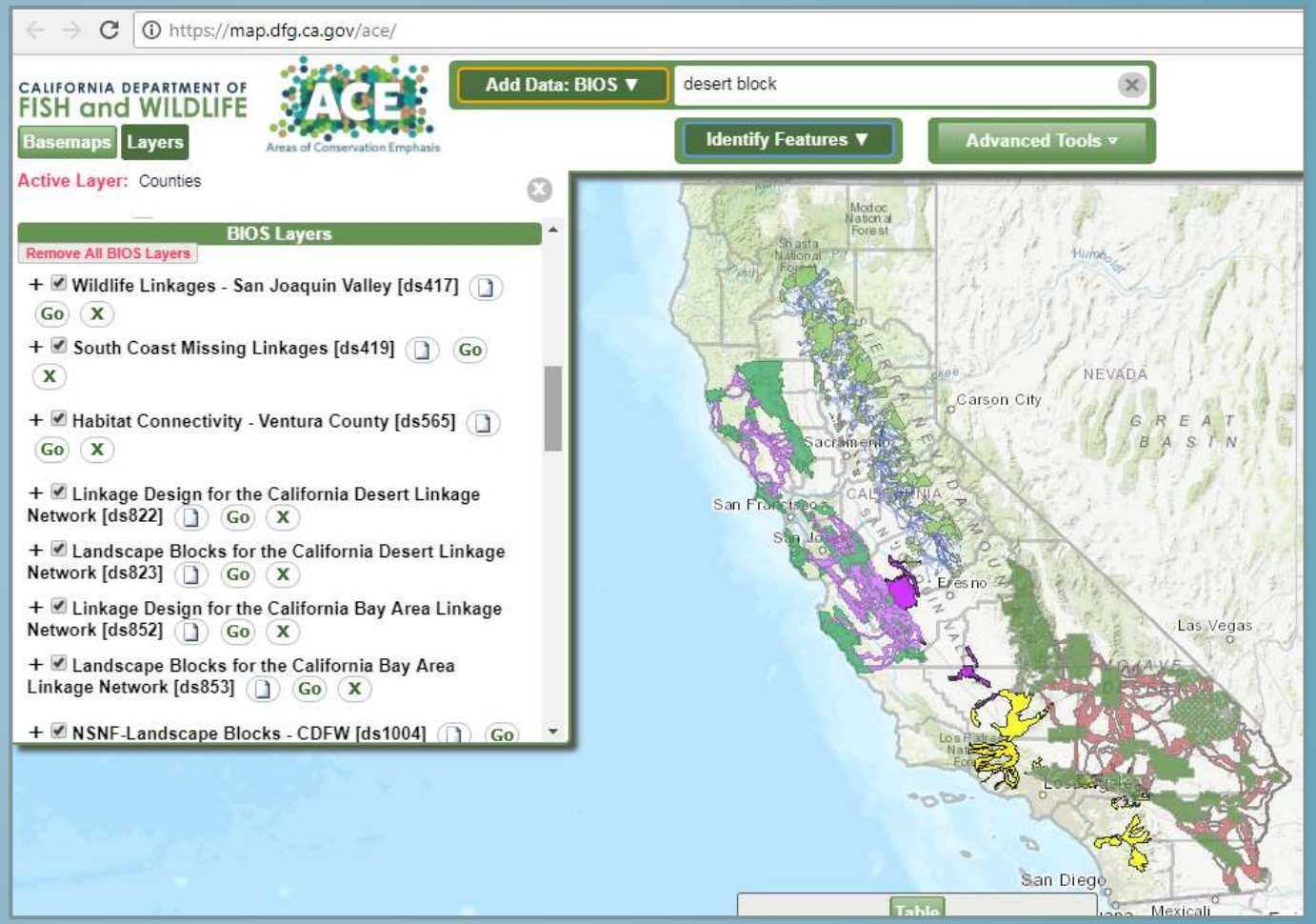


SWAP • Stressors • Land conservation status

California Essential Habitat Connectivity

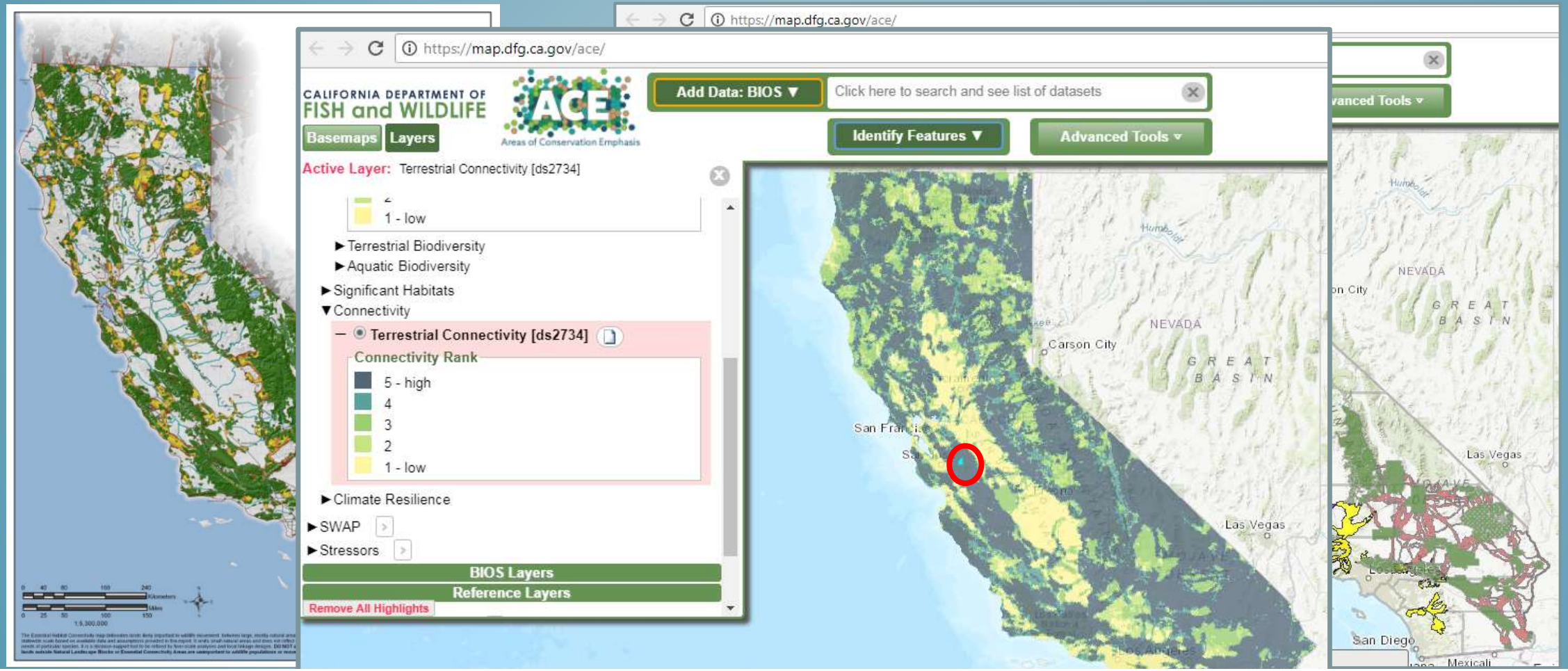


Regional Connectivity Analyses (11)



California Essential Habitat Connectivity

Regional Connectivity Analyses (11)



Rank	Linkage Rank	Linkage datasets	Natural Landscape Block Rank	Natural Landscape Block Percent	S
5	4	ds852.shp; DS623;	2	0.268461	

www.wildlife.ca.gov/data/BIOS

MarineBIOS Map Viewer

An interactive map for accessing California statewide marine spatial planning data. News Release (1/18/2012)

More information about MarineBIOS.

California Habitat Connectivity Projects

Data from the California Essential Habitat Connectivity project (download the GIS Data (Esri .zip)):

BIOS Habitat Connectivity Viewer — Open to the public - all connectivity layers are included

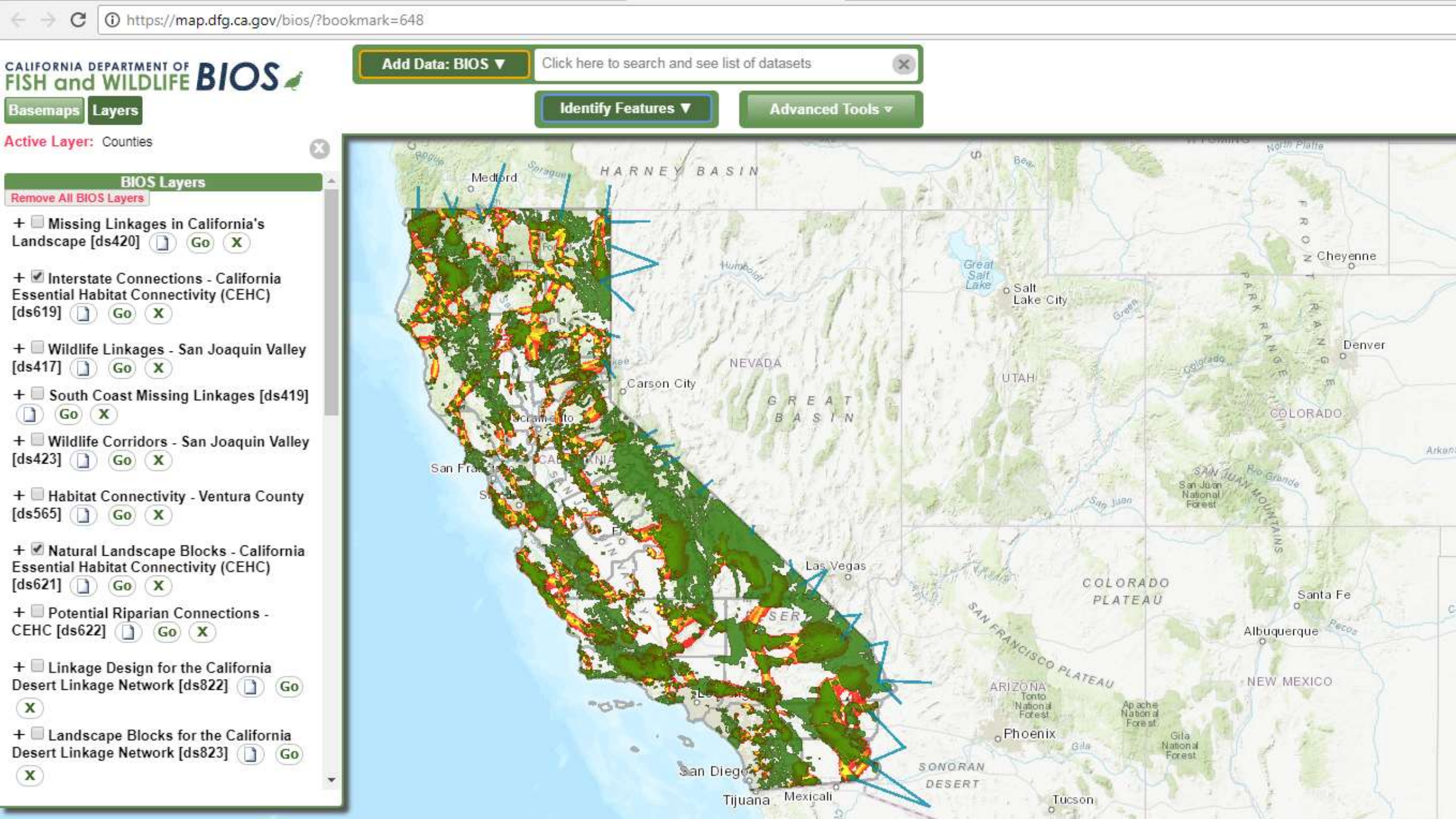
Data from the Northern Sierra Nevada Foothills (NSNF) Habitat Connectivity project:

NSNF Habitat Connectivity Viewer — Open to the public - all available NSNF connectivity layers are included

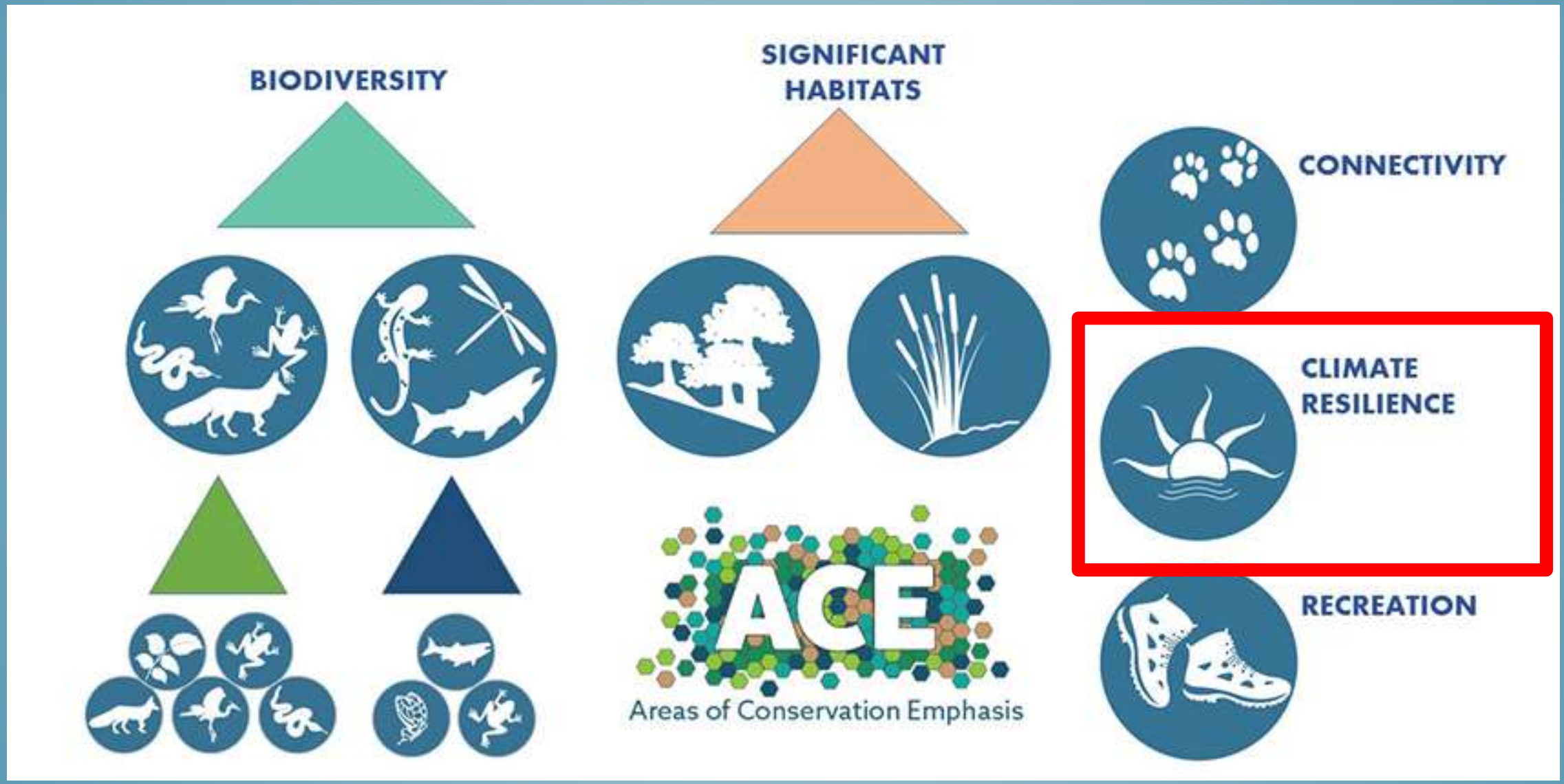
Desert Renewable Energy Conservation Plan

BIOS Renewable Energy Viewer — Open to the public

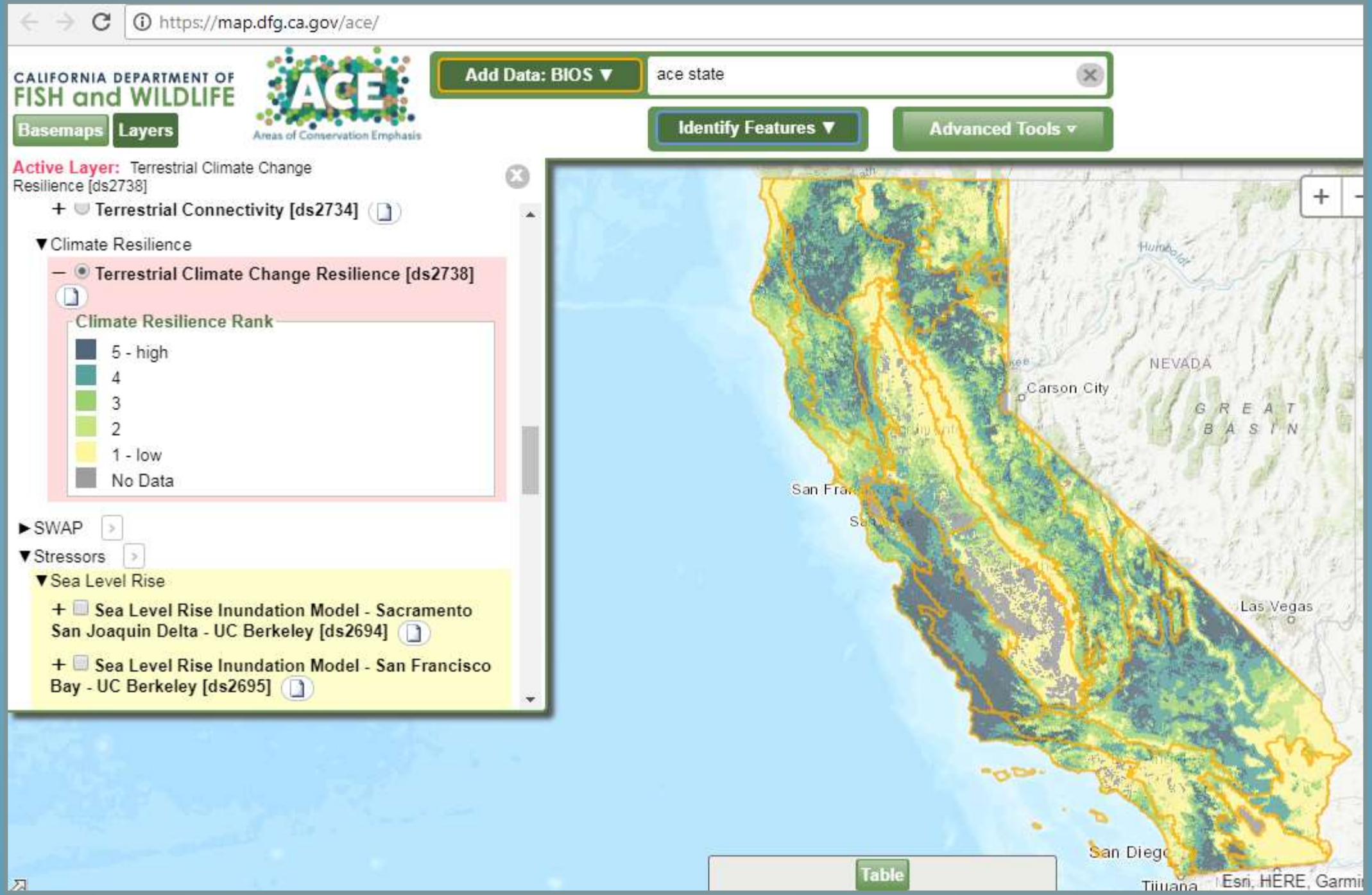
BIOS Renewable Energy Viewer — **Password required** - additional secured layers are included


https://map.dfg.ca.gov/bios/?bookmark=648
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE BIOS
Basemaps
Layers
Active Layer: Counties
Add Data: BIOS ▼
Click here to search and see list of datasets
Identify Features ▼
Advanced Tools ▼
BIOS Layers
Remove All BIOS Layers
+ Missing Linkages in California's Landscape [ds420] Go X
+ Interstate Connections - California Essential Habitat Connectivity (CEHC) [ds619] Go X
+ Wildlife Linkages - San Joaquin Valley [ds417] Go X
+ South Coast Missing Linkages [ds419] Go X
+ Wildlife Corridors - San Joaquin Valley [ds423] Go X
+ Habitat Connectivity - Ventura County [ds565] Go X
+ Natural Landscape Blocks - California Essential Habitat Connectivity (CEHC) [ds621] Go X
+ Potential Riparian Connections - CEHC [ds622] Go X
+ Linkage Design for the California Desert Linkage Network [ds822] Go X
+ Landscape Blocks for the California Desert Linkage Network [ds823] Go X
HARNEY BASIN
Medford
NEVADA
Carson City
GREAT BASIN
Sacramento
San Francisco
Las Vegas
Salt Lake City
UTAH
Great Salt Lake
Cheyenne
Denver
COLORADO
COLORADO PLATEAU
SAN FRANCISCO PLATEAU
Santa Fe
Albuquerque
NEW MEXICO
ARIZONA
Phoenix
Tucson
SONORAN DESERT
San Diego
Tijuana
Mexicali

ACE: DATA STRUCTURE



SWAP • Stressors • Land conservation status


https://map.dfg.ca.gov/ace/
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
ace state
Identify Features ▼
Advanced Tools ▼
Active Layer: Terrestrial Climate Change Resilience [ds2738]
+ Terrestrial Connectivity [ds2734]
▼Climate Resilience
— Terrestrial Climate Change Resilience [ds2738]
Climate Resilience Rank
5 - high
4
3
2
1 - low
No Data
►SWAP
▼Stressors
▼Sea Level Rise
+ Sea Level Rise Inundation Model - Sacramento San Joaquin Delta - UC Berkeley [ds2694]
+ Sea Level Rise Inundation Model - San Francisco Bay - UC Berkeley [ds2695]
NEVADA
Carson City
GREAT BASIN
Las Vegas
Table
Esri, HERE, Garmin

https://map.dfg.ca.gov/ace/

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE Areas of Conservation Emphasis

Basemaps | Layers

Add Data: BIOS ▼ | Click here to search and see list of datasets

Identify Features ▼ | Advanced Tools ▼

Active Layer: Terrestrial Climate Change Resilience [ds2738]

Graphics and Selections

- Identify Graphic

ACE Layers

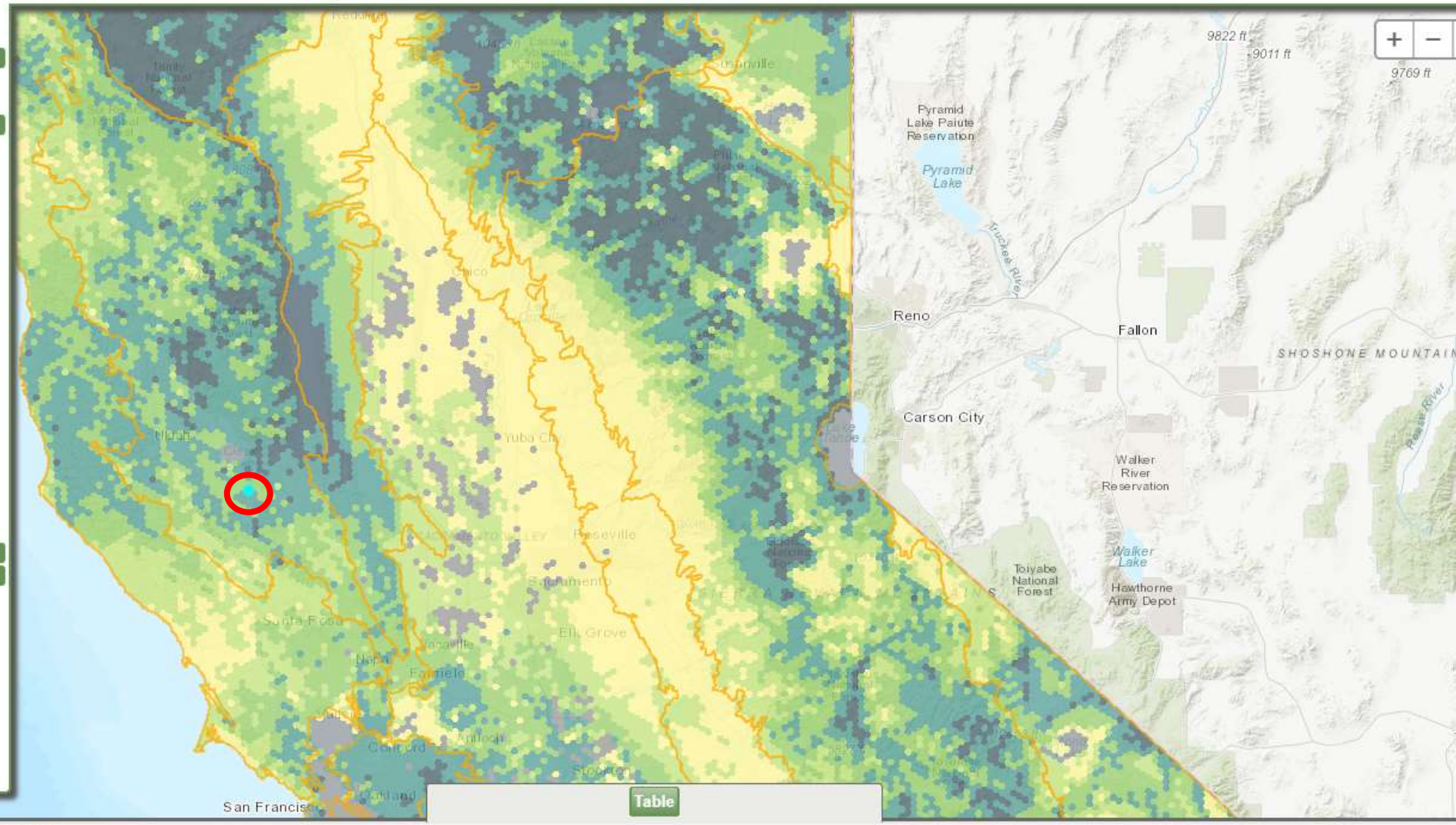
- Ecoregion Sections
- WBD HUC12 Watersheds
- ACE v3.0 Model
  - Species Biodiversity
    - Species Biodiversity [ds2769]
    - Terrestrial Biodiversity
    - Aquatic Biodiversity
  - Significant Habitats
    - Significant Terrestrial Habitats
    - Significant Aquatic Habitats
  - Connectivity
  - Climate Resilience
    - Terrestrial Climate Change Resilience [ds2738]
- SWAP
- Stressors

BIOS Layers

Reference Layers

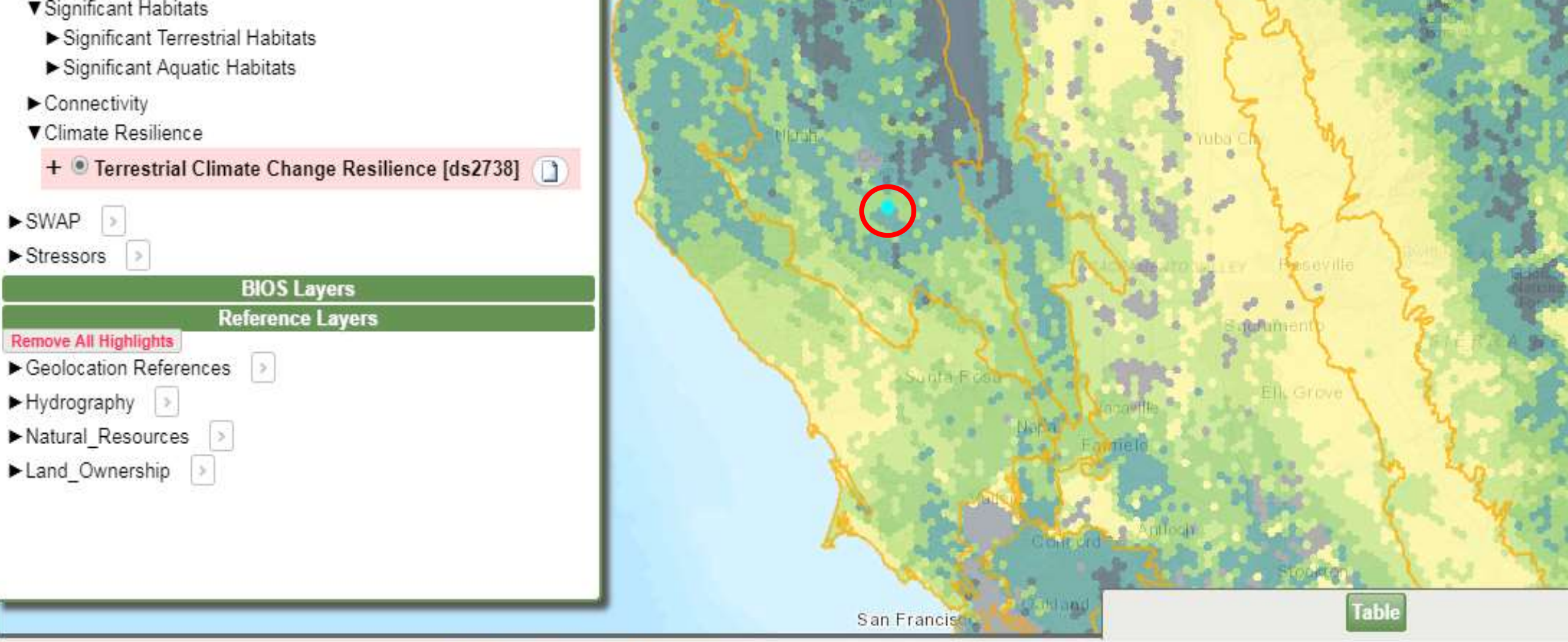
Remove All Highlights

- Geolocation References
- Hydrography
- Natural_Resources
- Land_Ownership



Terrestrial Climate Change Resilience [ds2738] Identified features: 1

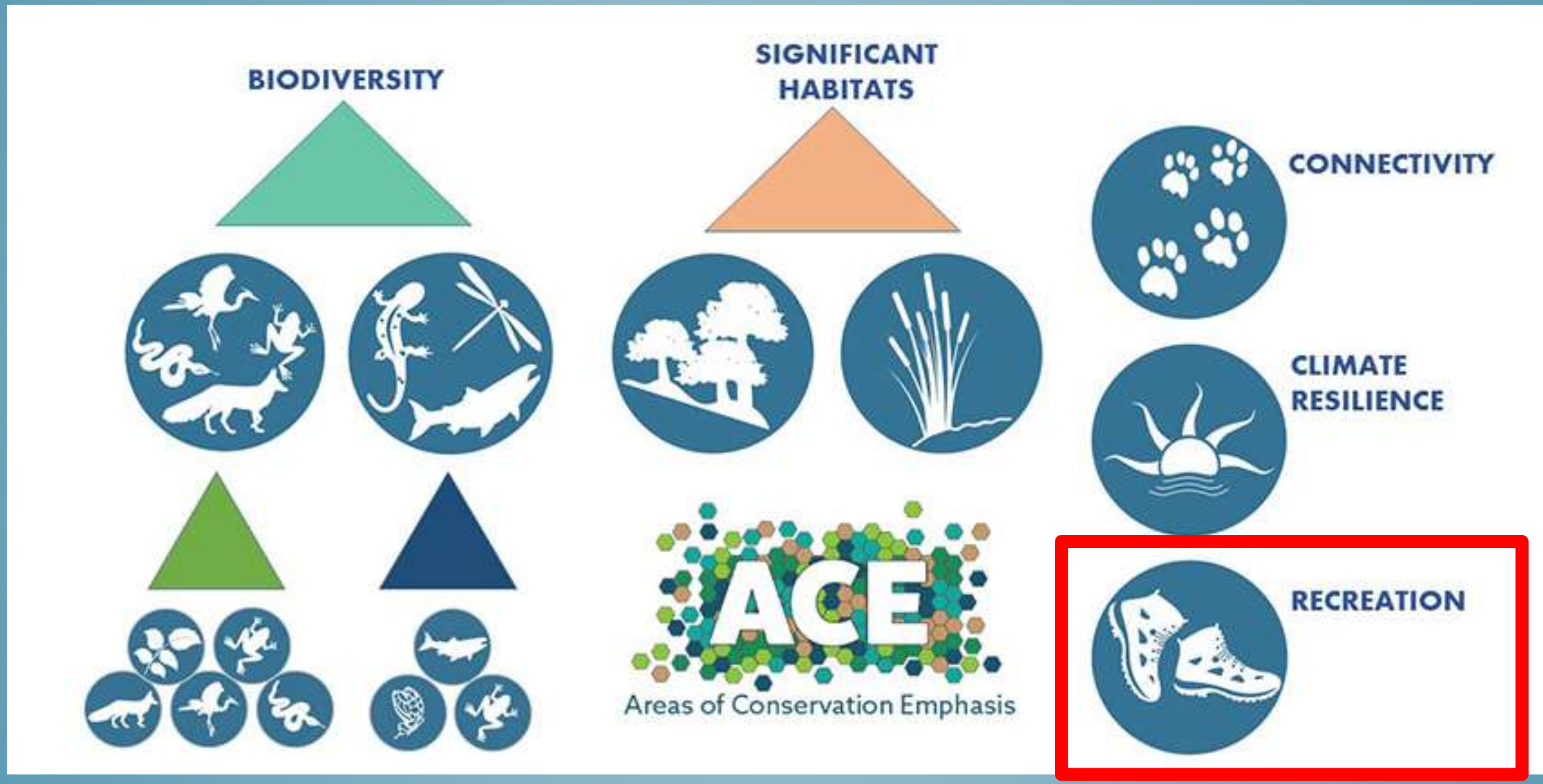
	Zoom	Hex_ID	Climate Resilience Rank	Veg Refugia Score	Percent of Hex Assessed	Eco_Sect	Eco_Name	County
1	Go	18413	4	0.633013	0.876404	M261B	Northern California Coast Ranges	LAKE



Terrestrial Climate Change Resilience [ds2738] Identified features: 1

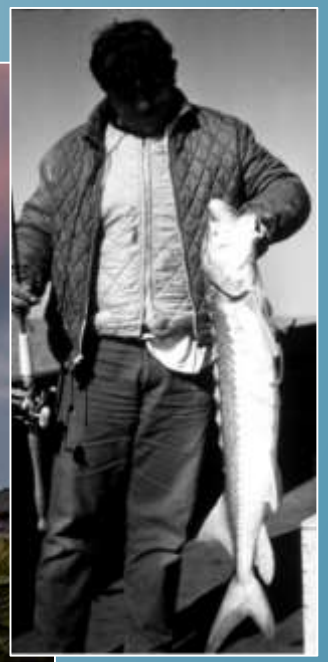
	Zoom	Hex_ID	Climate Resilience Rank	Veg Refugia Score	Percent of Hex Assessed	Eco_Sect	Eco_Name	County
1	Go	18413	4	0.633013	0.876404	M261B	Northern California Coast Ranges	LAKE

ACE: DATA STRUCTURE



SWAP • Stressors • Land conservation status

Recreation



https://www.wildlife.ca.gov/Data/Analysis/Ace#523731774-recreation

- Overview
- Species Biodiversity
- Significant Habitats
- Connectivity
- Climate Resilience
- **Recreation**

CDFW's mission includes providing Californians with high quality recreational opportunities that involve fish and wildlife. The goal of this component is to provide fish and wildlife recreational use and need information to support the Wildlife Conservation Board and other public access programs. At present, the currently available recreation-related information in BIOS is "bookmarked" for such use. Future work will focus on developing additional relevant datasets based on specific needs for incorporation into ACE.

Disadvantaged communities in California are specifically targeted for investments aimed at improving public health, quality of life and economic opportunity in California's most burdened communities. Several mapping tools are already available on-line. One such tool is the DAC Mapping Tool, developed by the Department of Water Resources to assist local agencies and other interested parties in evaluating disadvantaged community status throughout the State, using the definition provided by Proposition 84 IRWM Guidelines (2015).

https://www.wildlife.ca.gov/Data/Analysis/Ace#523731774-recreation

Overview

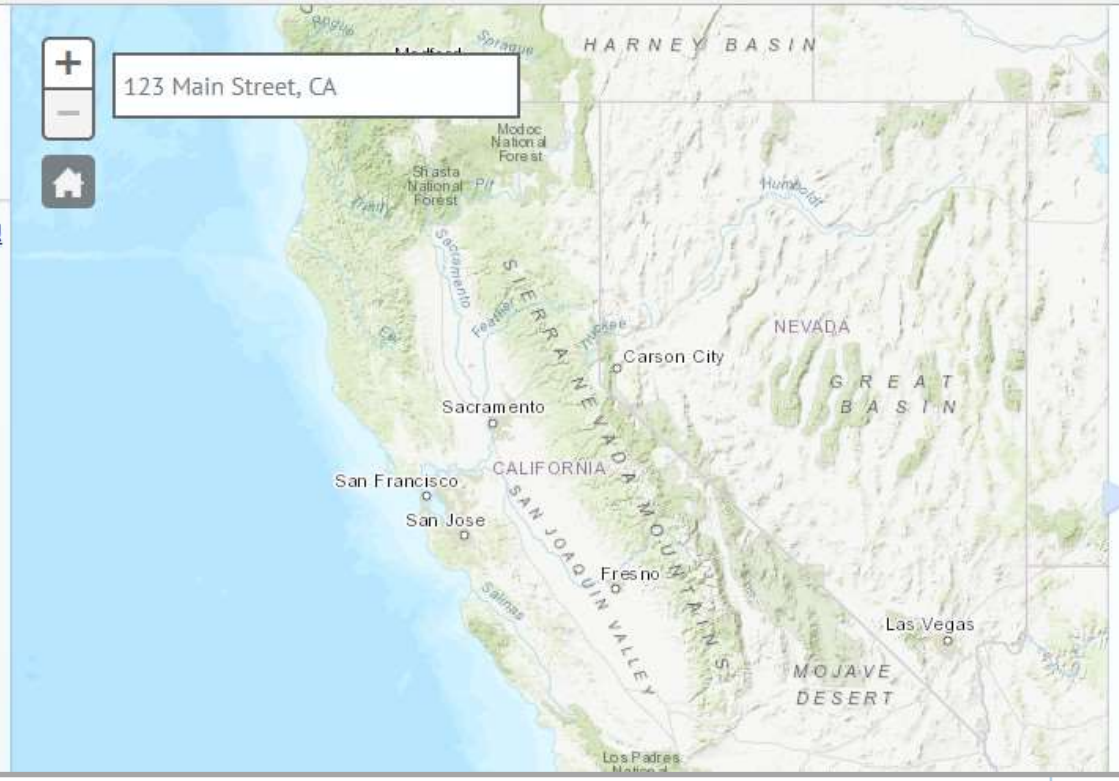
Secure | https://gis.water.ca.gov/app/dacs/

Disadvantaged Communities Mapping Tool

Clear all Help!

Disadvantaged Communities Map

- County Boundaries
- Prop 1 Funding Areas
- Prop 84 Funding Areas
- IRWM Regions
- Disadvantaged Community Block Groups
- Disadvantaged Community Tracts
- Disadvantaged Community Places



Disadvantaged Communities Map

This application shows disadvantaged communities throughout the state, pursuant to Proposition 1 and Proposition 84.

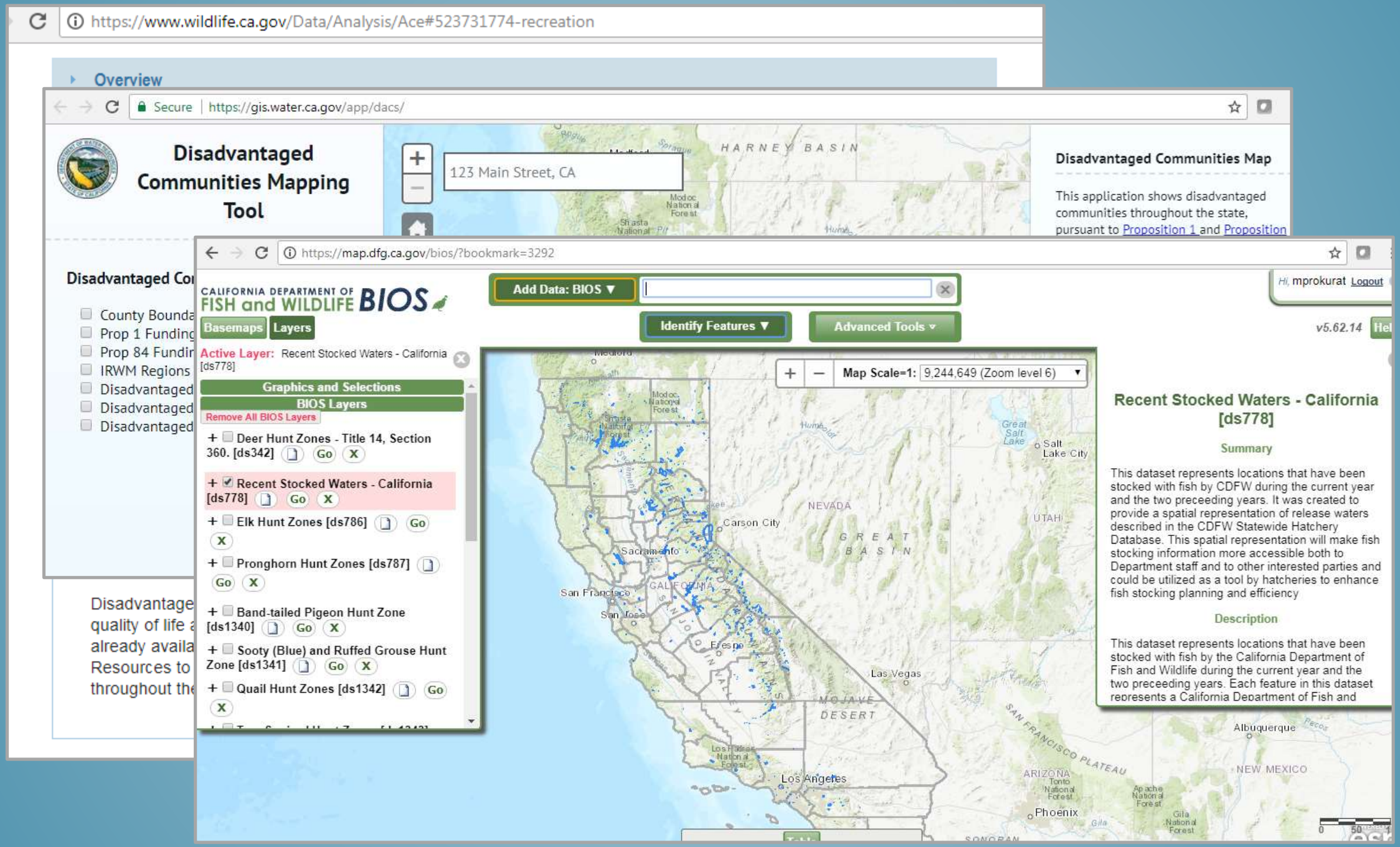
Click on features in the map or see below for more information:

DATA DISCLAIMER

All information provided by the Department of Water Resources on its Web pages and Internet sites, is made available to provide immediate access for the convenience of interested persons. While the Department believes the information to be reliable, human or mechanical error remains a possibility. Therefore, the Department does not guarantee the accuracy, completeness, timeliness, or correct sequencing of the information. Neither the Department of Water Resources nor any of the sources of the information shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information.

The following layers are contained in the map (scroll down for brief descriptions):

Disadvantaged communities in California are specifically targeted for investments aimed at improving public health, quality of life and economic opportunity in California's most burdened communities. Several mapping tools are already available on-line. One such tool is the DAC Mapping Tool, developed by the Department of Water Resources to assist local agencies and other interested parties in evaluating disadvantaged community status throughout the State, using the definition provided by Proposition 84 IRWM Guidelines (2015).


https://www.wildlife.ca.gov/Data/Analysis/Ace#523731774-recreation
Overview
Secure | https://gis.water.ca.gov/app/dacs/
Disadvantaged Communities Mapping Tool
123 Main Street, CA
HARNEY BASIN
Disadvantaged Communities Map
This application shows disadvantaged communities throughout the state, pursuant to Proposition 1 and Proposition
Disadvantaged Co
County Bounda
Prop 1 Funding
Prop 84 Fundir
IRWM Regions
Disadvantaged
Disadvantaged
Disadvantaged
Disadvantage
quality of life a
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Resources to
throughout the
https://map.dfg.ca.gov/bios/?bookmark=3292
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE BIOS
Add Data: BIOS
Identify Features
Advanced Tools
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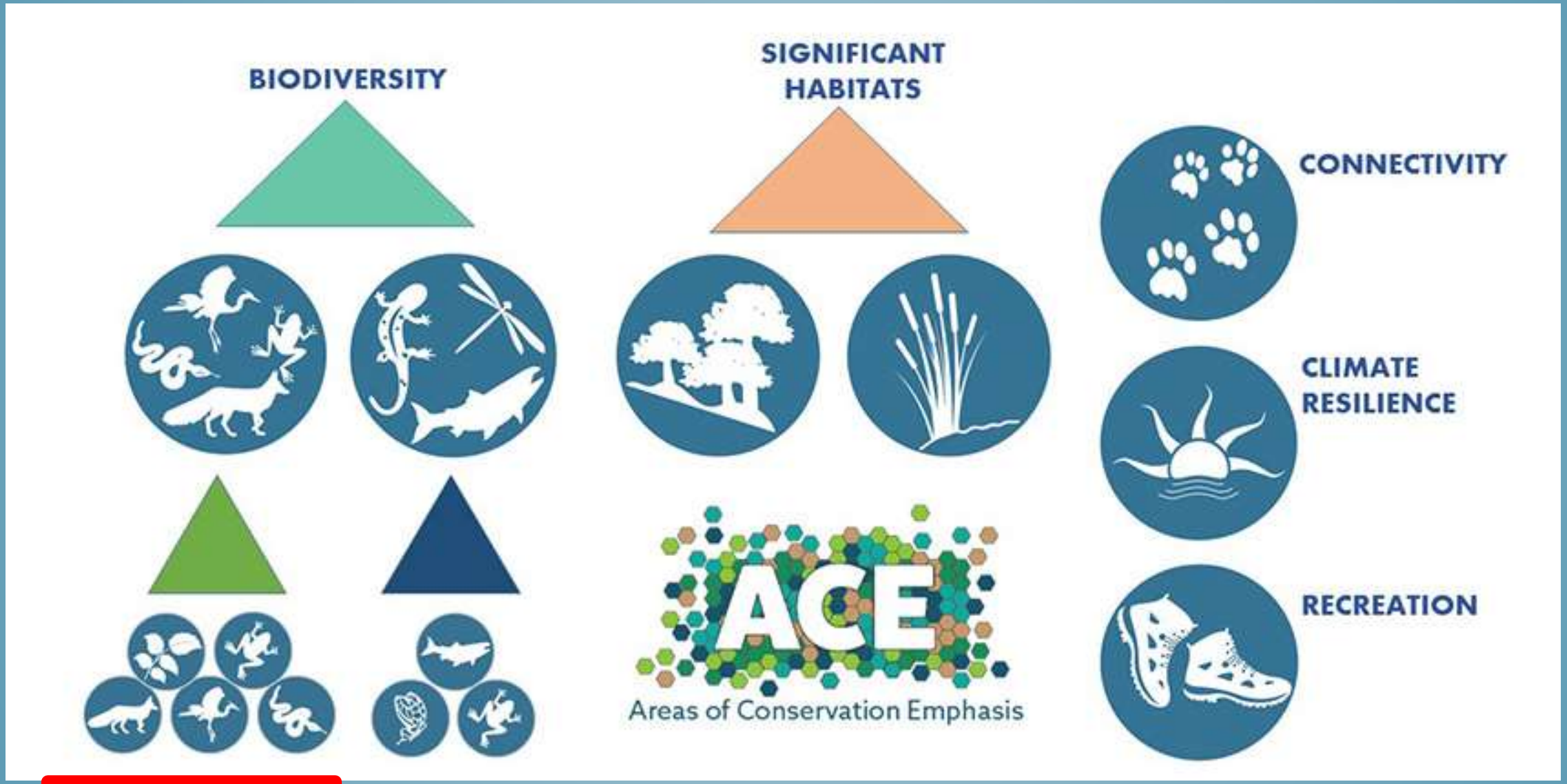
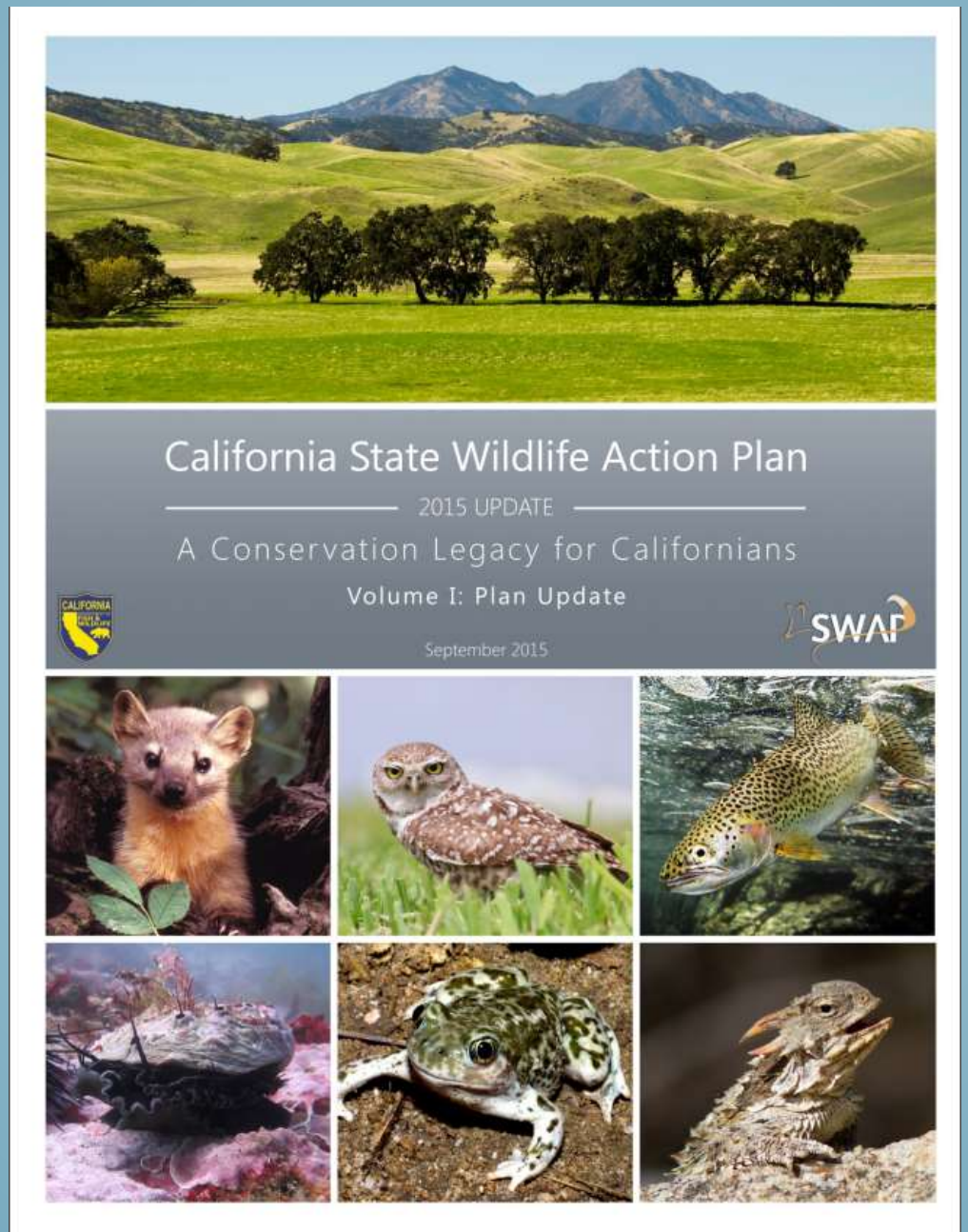
v5.62.14
Basemaps
Layers
Active Layer: Recent Stocked Waters - California [ds778]
Graphics and Selections
BIOS Layers
Remove All BIOS Layers
Deer Hunt Zones - Title 14, Section 360. [ds342]
Recent Stocked Waters - California [ds778]
Elk Hunt Zones [ds786]
Pronghorn Hunt Zones [ds787]
Band-tailed Pigeon Hunt Zone [ds1340]
Sooty (Blue) and Ruffed Grouse Hunt Zone [ds1341]
Quail Hunt Zones [ds1342]
Map Scale=1: 9,244,649 (Zoom level 6)
Recent Stocked Waters - California [ds778]
Summary
This dataset represents locations that have been stocked with fish by CDFW during the current year and the two preceeding years. It was created to provide a spatial representation of release waters described in the CDFW Statewide Hatchery Database. This spatial representation will make fish stocking information more accessible both to Department staff and to other interested parties and could be utilized as a tool by hatcheries to enhance fish stocking planning and efficiency
Description
This dataset represents locations that have been stocked with fish by the California Department of Fish and Wildlife during the current year and the two preceeding years. Each feature in this dataset represents a California Department of Fish and
Carson City
Sacramento
San Francisco
San Jose
Fresno
Las Vegas
Los Angeles
Phoenix
Albuquerque
Salt Lake City
NEVADA
UTAH
ARIZONA
NEW MEXICO
GREAT BASIN
MOJAVE DESERT
SAN FRANCISCO PLATEAU

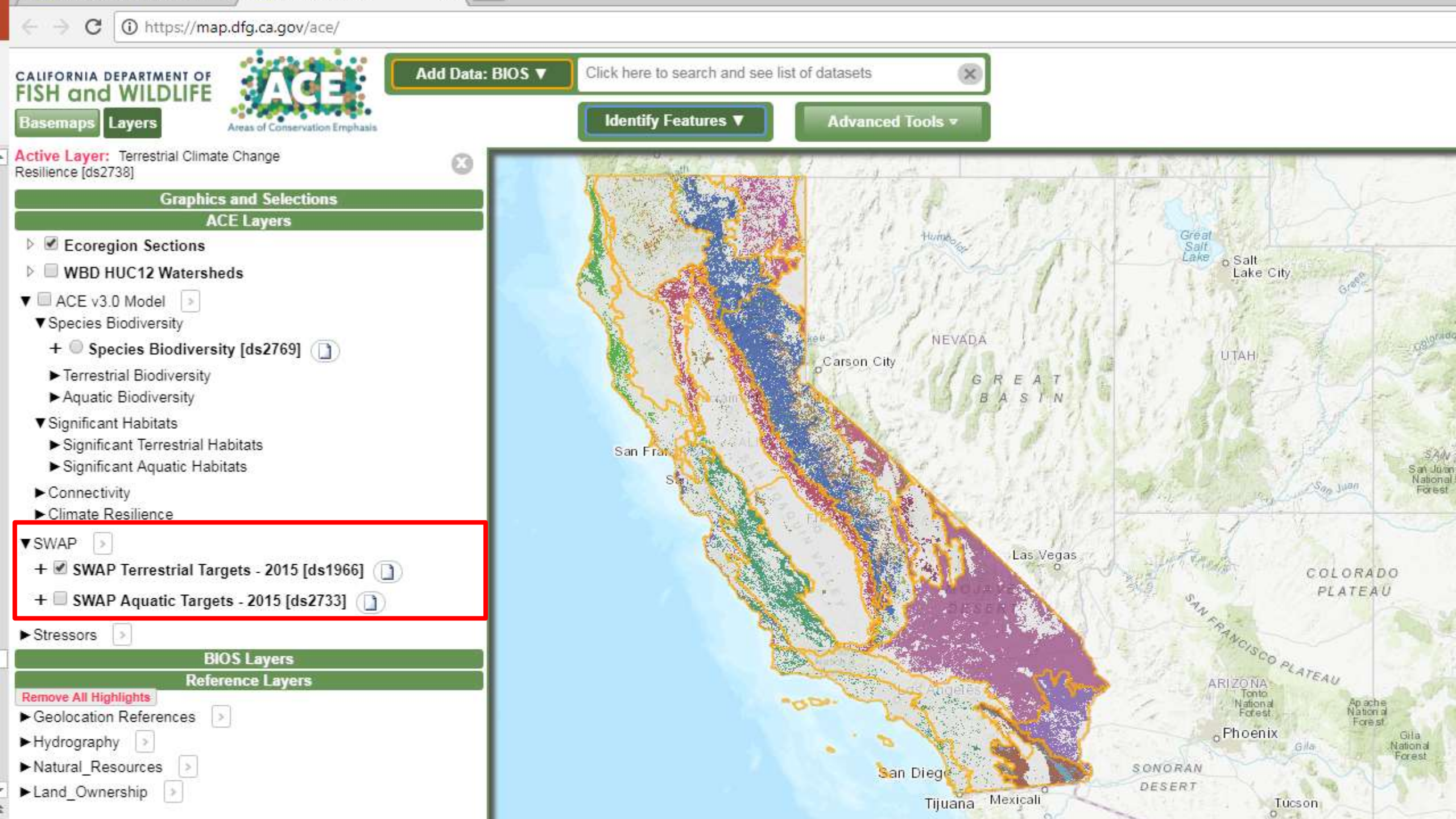
ACE: DATA STRUCTURE

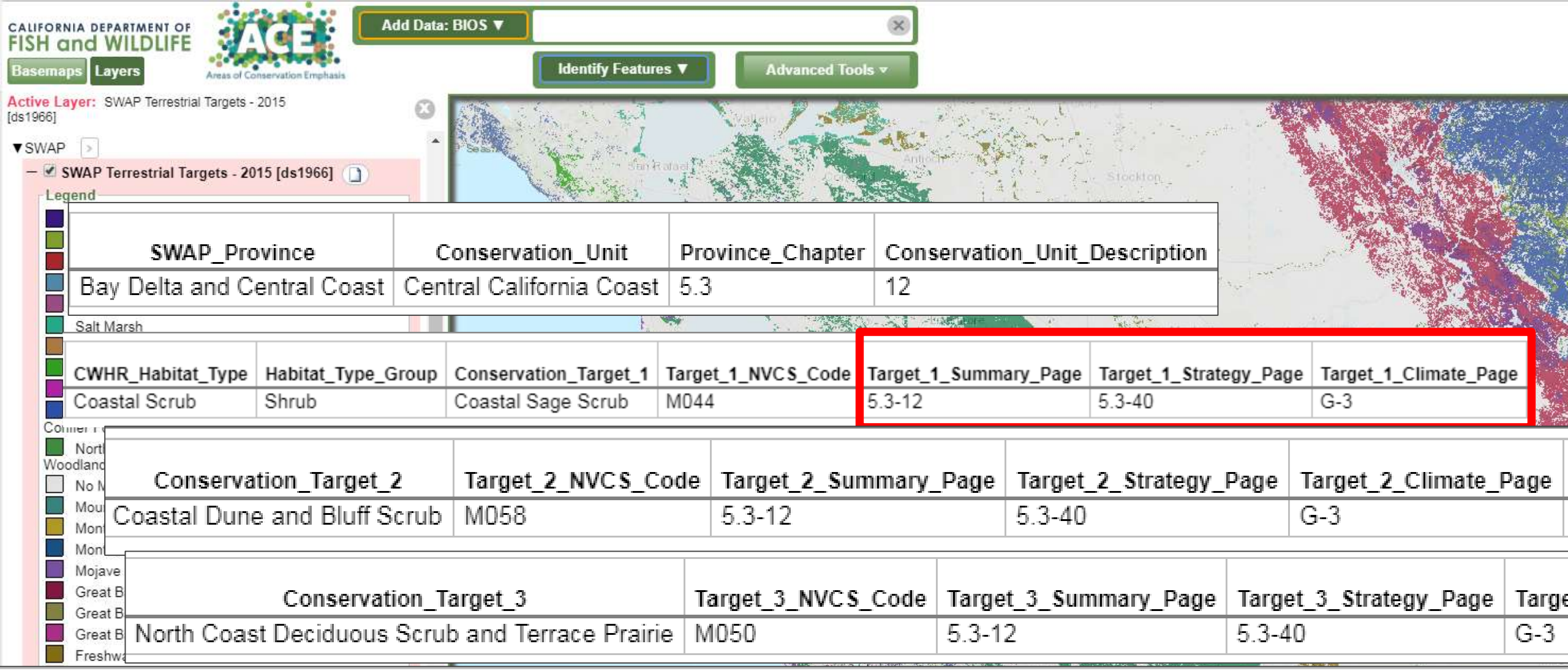


SWAP • Stressors • Land conservation status

https://www.wildlife.ca.gov/SWAP




https://map.dfg.ca.gov/ace/
CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Click here to search and see list of datasets
Identify Features ▼
Advanced Tools ▼
Active Layer: Terrestrial Climate Change Resilience [ds2738]
Graphics and Selections
ACE Layers
Ecoregion Sections
WBD HUC12 Watersheds
ACE v3.0 Model
Species Biodiversity
Species Biodiversity [ds2769]
Terrestrial Biodiversity
Aquatic Biodiversity
Significant Habitats
Significant Terrestrial Habitats
Significant Aquatic Habitats
Connectivity
Climate Resilience
SWAP
SWAP Terrestrial Targets - 2015 [ds1966]
SWAP Aquatic Targets - 2015 [ds2733]
Stressors
BIOS Layers
Reference Layers
Remove All Highlights
Geolocation References
Hydrography
Natural_Resources
Land_Ownership
Great Salt Lake
Salt Lake City
NEVADA
Carson City
GREAT BASIN
UTAH
Las Vegas
COLORADO PLATEAU
SAN FRANCISCO PLATEAU
ARIZONA
Phoenix
SONORAN DESERT
Tijuana
Mexicali
Tucson



SWAP_Province	Conservation_Unit	Province_Chapter	Conservation_Unit_Description
Bay Delta and Central Coast	Central California Coast	5.3	12

CWHR_Habitat_Type	Habitat_Type_Group	Conservation_Target_1	Target_1_NVCS_Code	Target_1_Summary_Page	Target_1_Strategy_Page	Target_1_Climate_Page
Coastal Scrub	Shrub	Coastal Sage Scrub	M044	5.3-12	5.3-40	G-3

Conservation_Target_2	Target_2_NVCS_Code	Target_2_Summary_Page	Target_2_Strategy_Page	Target_2_Climate_Page
Coastal Dune and Bluff Scrub	M058	5.3-12	5.3-40	G-3

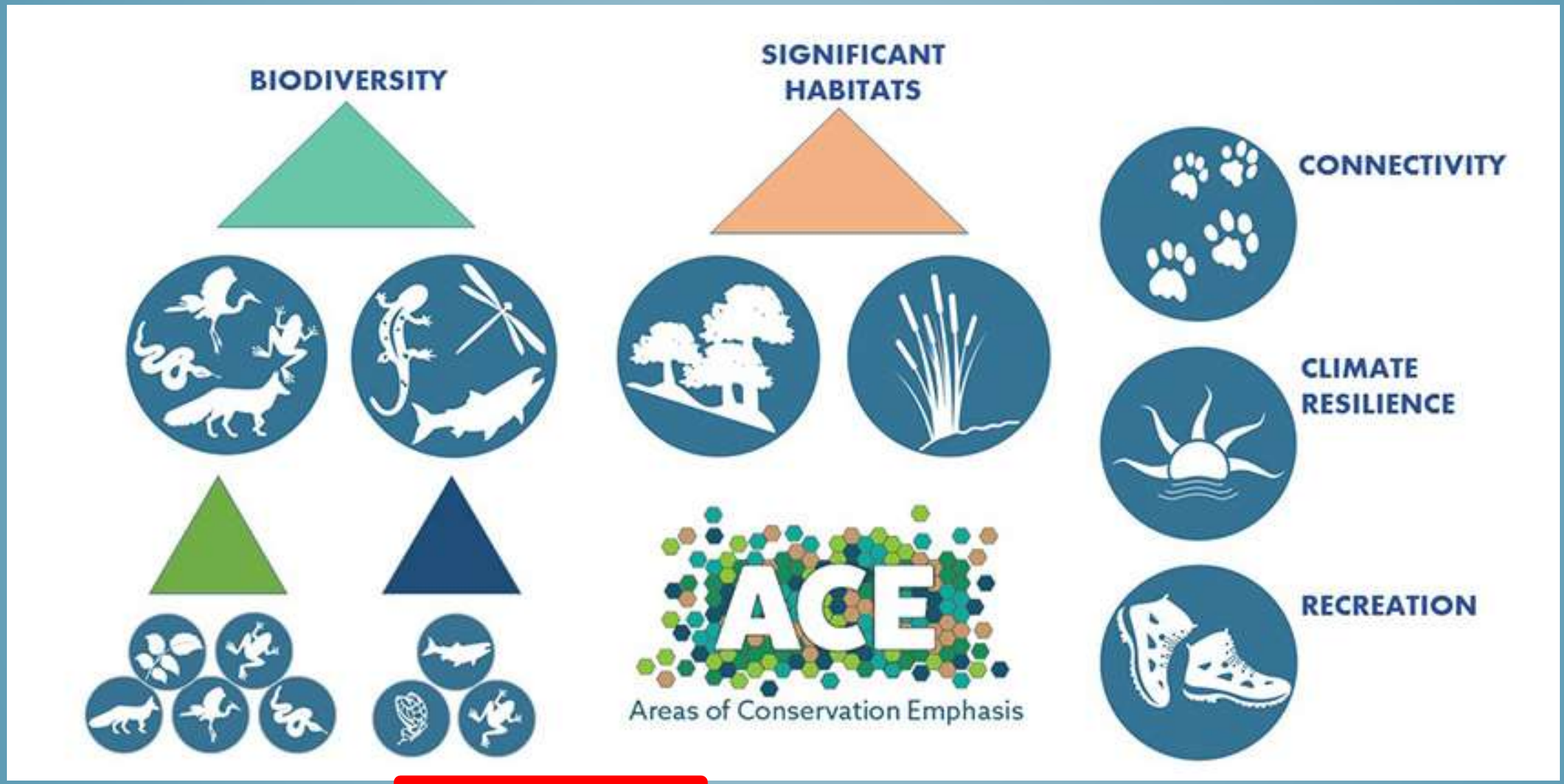
Conservation_Target_3	Target_3_NVCS_Code	Target_3_Summary_Page	Target_3_Strategy_Page	Targe
North Coast Deciduous Scrub and Terrace Prairie	M050	5.3-12	5.3-40	G-3

All_Possible_Targets

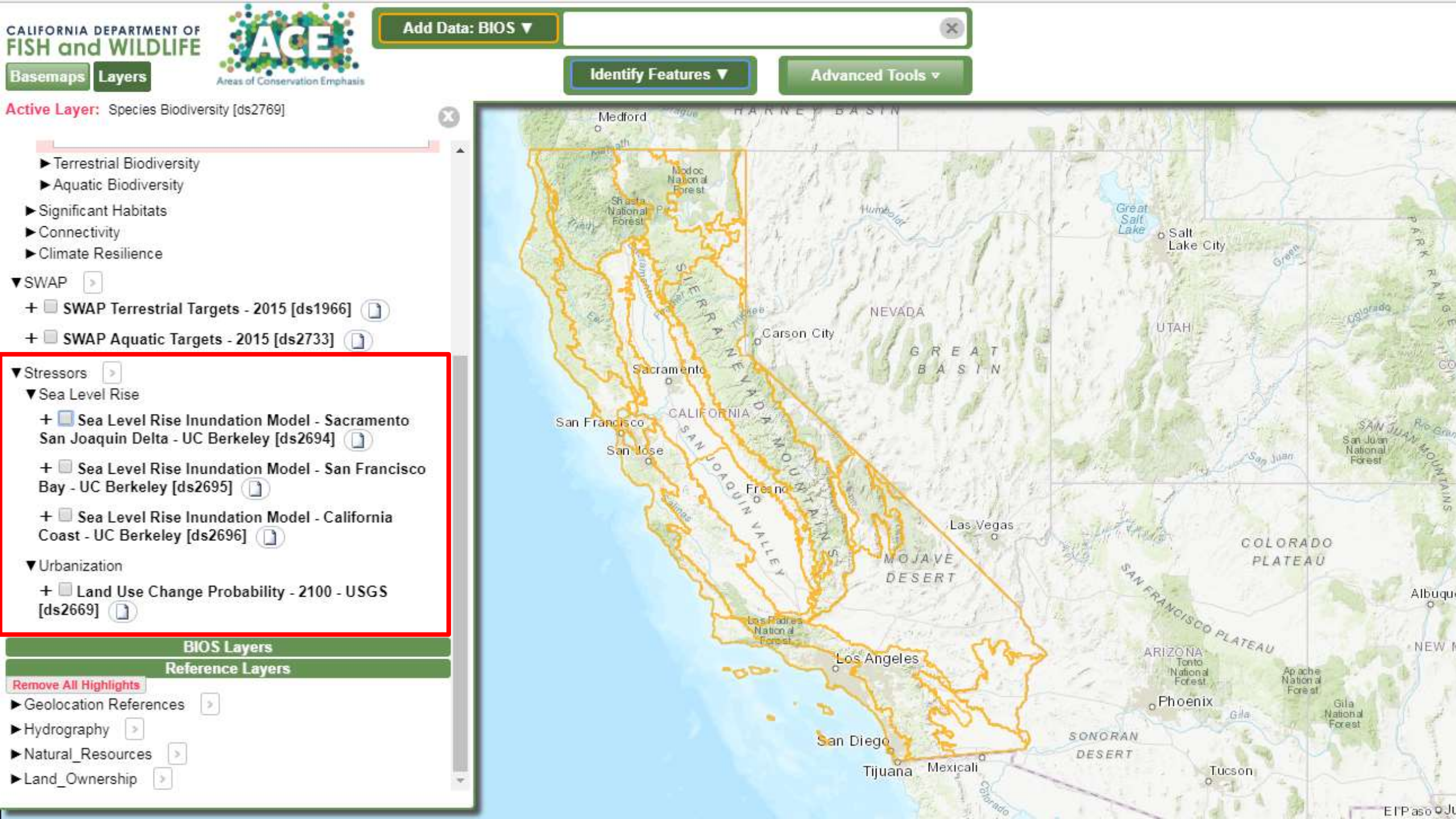
3-12, 5.3-37, G-2), Coastal Dune and Bluff Scrub (M058, 5.3-12, 5.3-40, G-3), Coastal Sage Scrub (M044, 5.3-12, 5.3-40

	Zoom	Pixel Value	Count_	SWAP_Province	Conservation_Unit	Province_Chapter	Conservation_Unit_Description	CWHR_Habitat_Type	Habitat_Type_Group	Conservation_Target_1	Target_1_NVCS_Code	Target_1_Summary_Pa
1	Go	12585	51442	Bay Delta and Central Coast	Central California Coast	5.3	12	Coastal Scrub	Shrub	Coastal Sage Scrub	M044	5.3-12

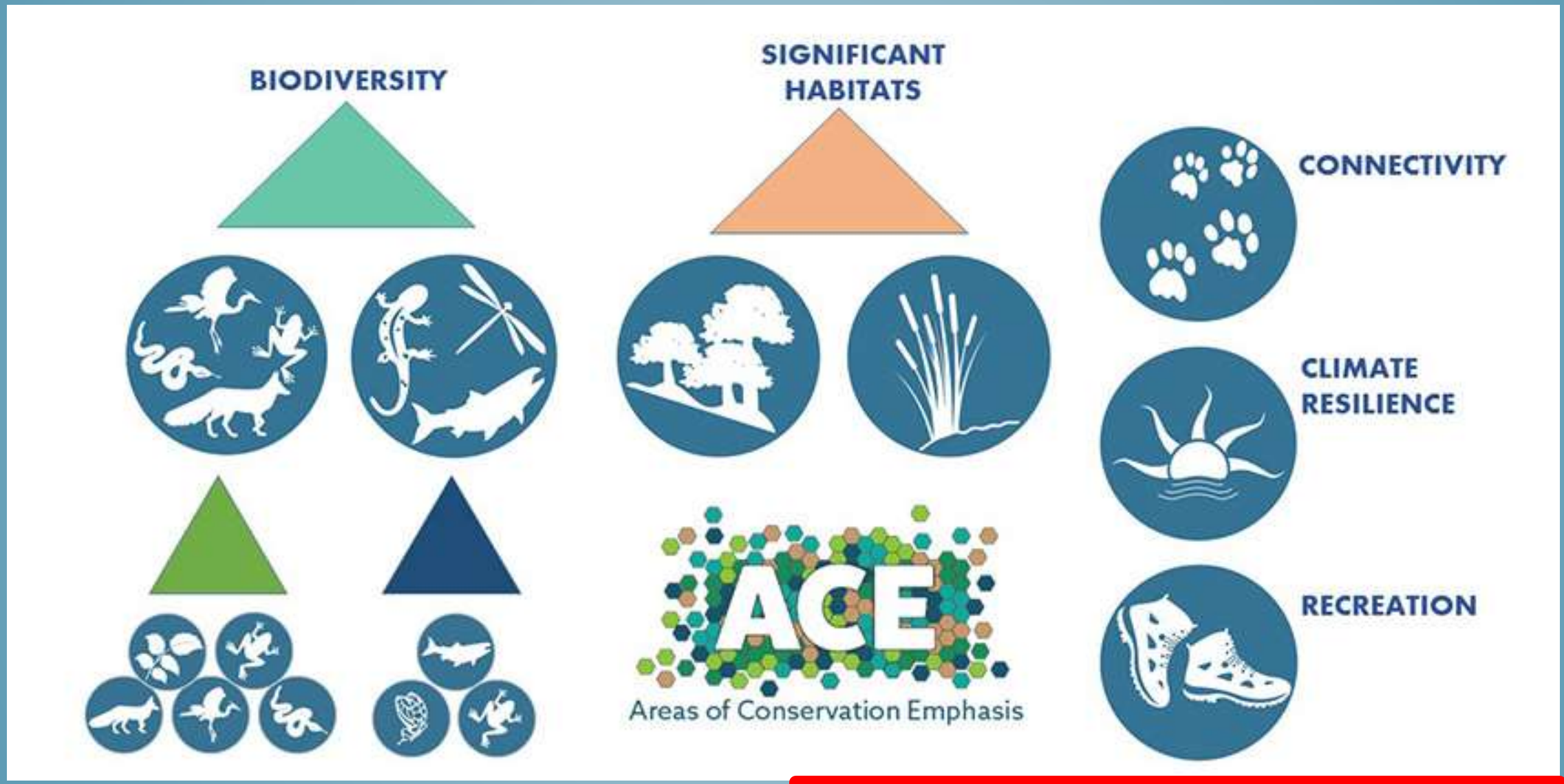
ACE: DATA STRUCTURE



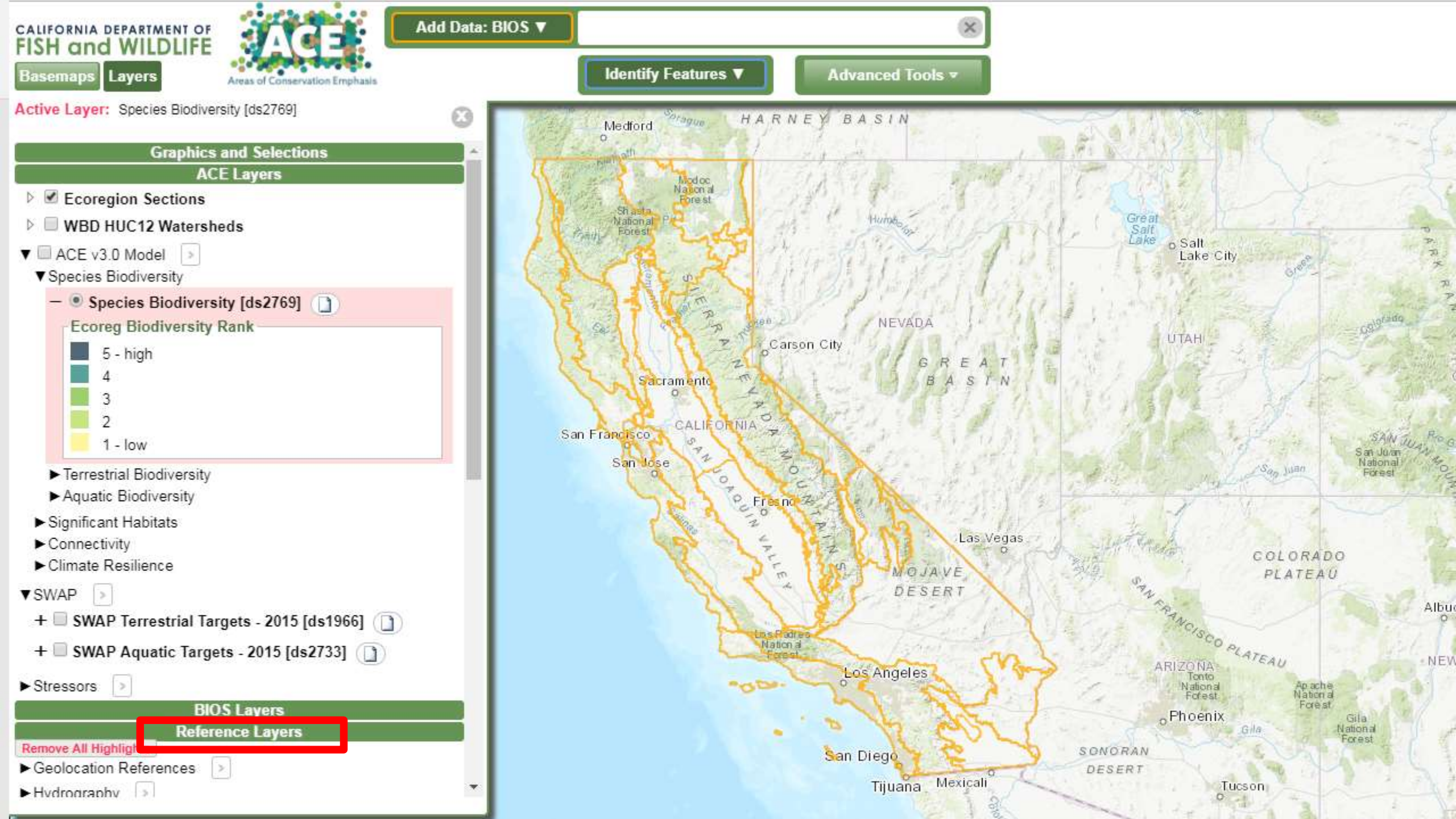
SWAP • Stressors • Land conservation status


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Identify Features ▼
Advanced Tools ▼
Active Layer: Species Biodiversity [ds2769]
▶ Terrestrial Biodiversity
▶ Aquatic Biodiversity
▶ Significant Habitats
▶ Connectivity
▶ Climate Resilience
▼ SWAP
+ SWAP Terrestrial Targets - 2015 [ds1966]
+ SWAP Aquatic Targets - 2015 [ds2733]
▼ Stressors
▼ Sea Level Rise
+ Sea Level Rise Inundation Model - Sacramento San Joaquin Delta - UC Berkeley [ds2694]
+ Sea Level Rise Inundation Model - San Francisco Bay - UC Berkeley [ds2695]
+ Sea Level Rise Inundation Model - California Coast - UC Berkeley [ds2696]
▼ Urbanization
+ Land Use Change Probability - 2100 - USGS [ds2669]
BIOS Layers
Reference Layers
Remove All Highlights
▶ Geolocation References
▶ Hydrography
▶ Natural_Resources
▶ Land_Ownership
Medford
Modoc National Forest
Shasta National Forest
Great Salt Lake
Salt Lake City
NEVADA
Carson City
UTAH
GREAT BASIN
Sacramento
San Francisco
San Jose
CALIFORNIA
SIERRA NEVADA MOUNTAINS
SAN JOAQUIN VALLEY
Fresno
Las Vegas
MOJAVE DESERT
COLORADO PLATEAU
SAN FRANCISCO PLATEAU
Los Padres National Forest
Los Angeles
ARIZONA
Tonto National Forest
Phoenix
Apache National Forest
Gila National Forest
San Diego
Tijuana
Mexicali
SONORAN DESERT
Tucson
San Juan National Forest

ACE: DATA STRUCTURE



SWAP • Stressors • Land conservation status


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
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Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Identify Features ▼
Advanced Tools ▼
Active Layer: Species Biodiversity [ds2769]
Graphics and Selections
ACE Layers
Ecoregion Sections
WBD HUC12 Watersheds
ACE v3.0 Model
Species Biodiversity
Species Biodiversity [ds2769]
Ecoreg Biodiversity Rank
5 - high
4
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2
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Terrestrial Biodiversity
Aquatic Biodiversity
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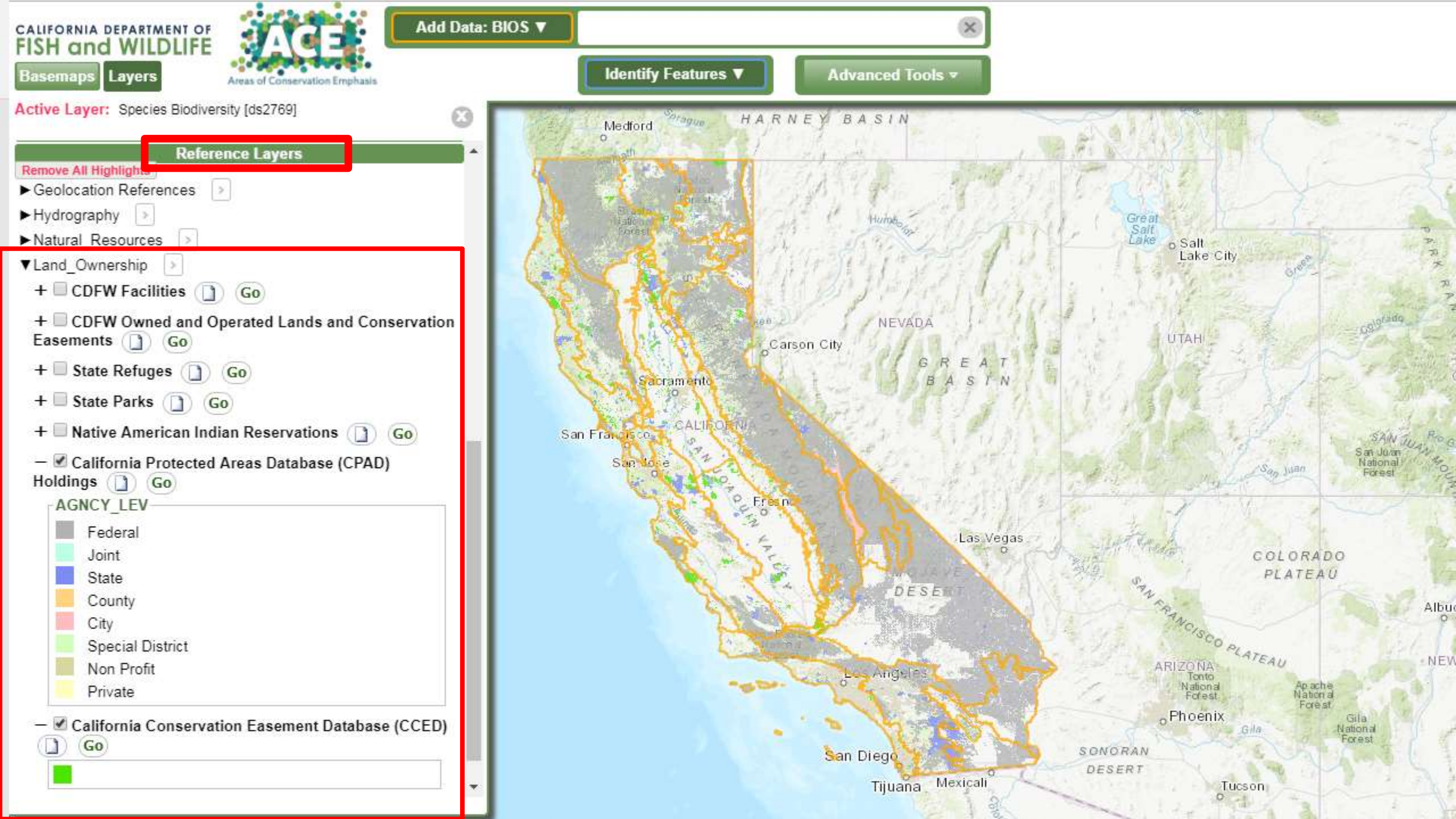
Climate Resilience
SWAP
SWAP Terrestrial Targets - 2015 [ds1966]
SWAP Aquatic Targets - 2015 [ds2733]
Stressors
BIOS Layers
Reference Layers
Remove All Highlights
Geolocation References
Hydrography
HARNEY BASIN
Medford
Modoc National Forest
Shasta National Forest
Great Salt Lake
Salt Lake City
NEVADA
UTAH
Carson City
GREAT BASIN
Sacramento
CALIFORNIA
SIERRA NEVADA MOUNTAINS
San Francisco
San Jose
SAN JOAQUIN VALLEY
Fresno
Las Vegas
MOJAVE DESERT
COLORADO PLATEAU
SAN FRANCISCO PLATEAU
Los Padres National Forest
Los Angeles
ARIZONA
Tonto National Forest
Phoenix
Apache National Forest
Gila National Forest
San Diego
Tijuana
Mexicali
SONORAN DESERT
Tucson
San Juan National Forest


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Identify Features ▼
Advanced Tools ▼
Active Layer: Species Biodiversity [ds2769]
Reference Layers
Remove All Highlights
▶ Geolocation References
▶ Hydrography
▶ Natural_Resources
▼ Land_Ownership
+ CDFW Facilities Go
+ CDFW Owned and Operated Lands and Conservation Easements Go
+ State Refuges Go
+ State Parks Go
+ Native American Indian Reservations Go
– California Protected Areas Database (CPAD) Holdings Go
AGNCY_LEV
Federal
Joint
State
County
City
Special District
Non Profit
Private
– California Conservation Easement Database (CCED) Go
HARNEY BASIN
Medford
Salt Lake City
NEVADA
UTAH
Carson City
GREAT BASIN
Sacramento
CALIFORNIA
San Francisco
San Jose
Fresno
Las Vegas
COLORADO PLATEAU
MOJAVE DESERT
SAN FRANCISCO PLATEAU
ARIZONA
Phoenix
Los Angeles
San Diego
Tijuana
Mexicali
SONORAN DESERT
Tucson

ACE: TALK OVERVIEW

1. Introduction: Goals and Purpose

2. Navigating ACE: Where to find the information

3. ACE Model: Datasets, data sources, attributes, caveats

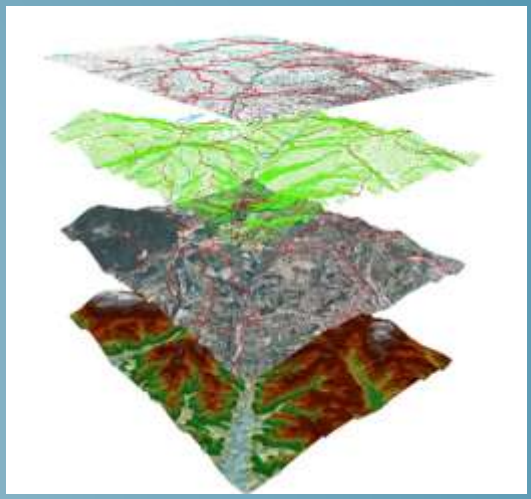
4. Example scenarios: How the data and viewer can be used

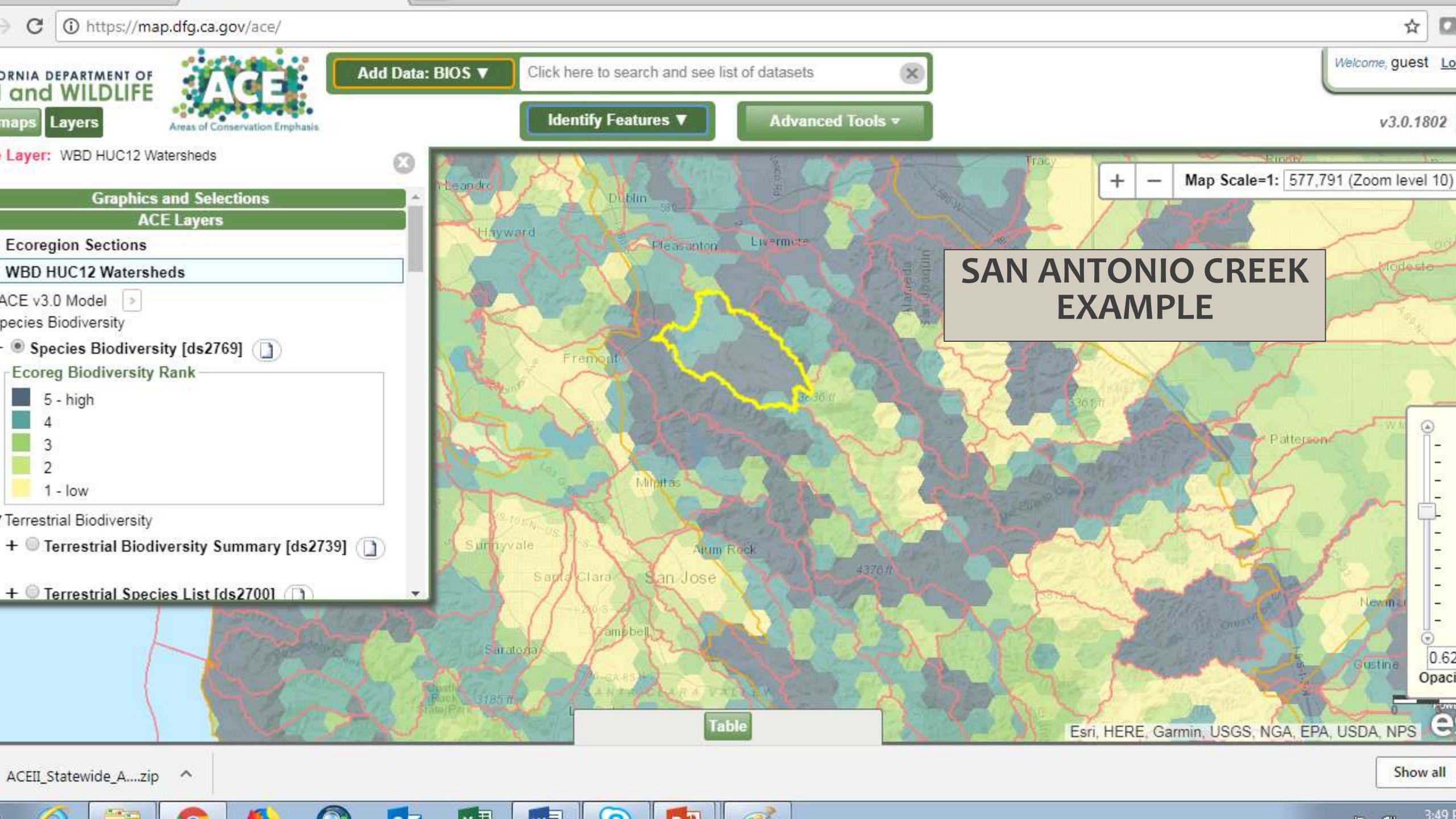
5. Future updates

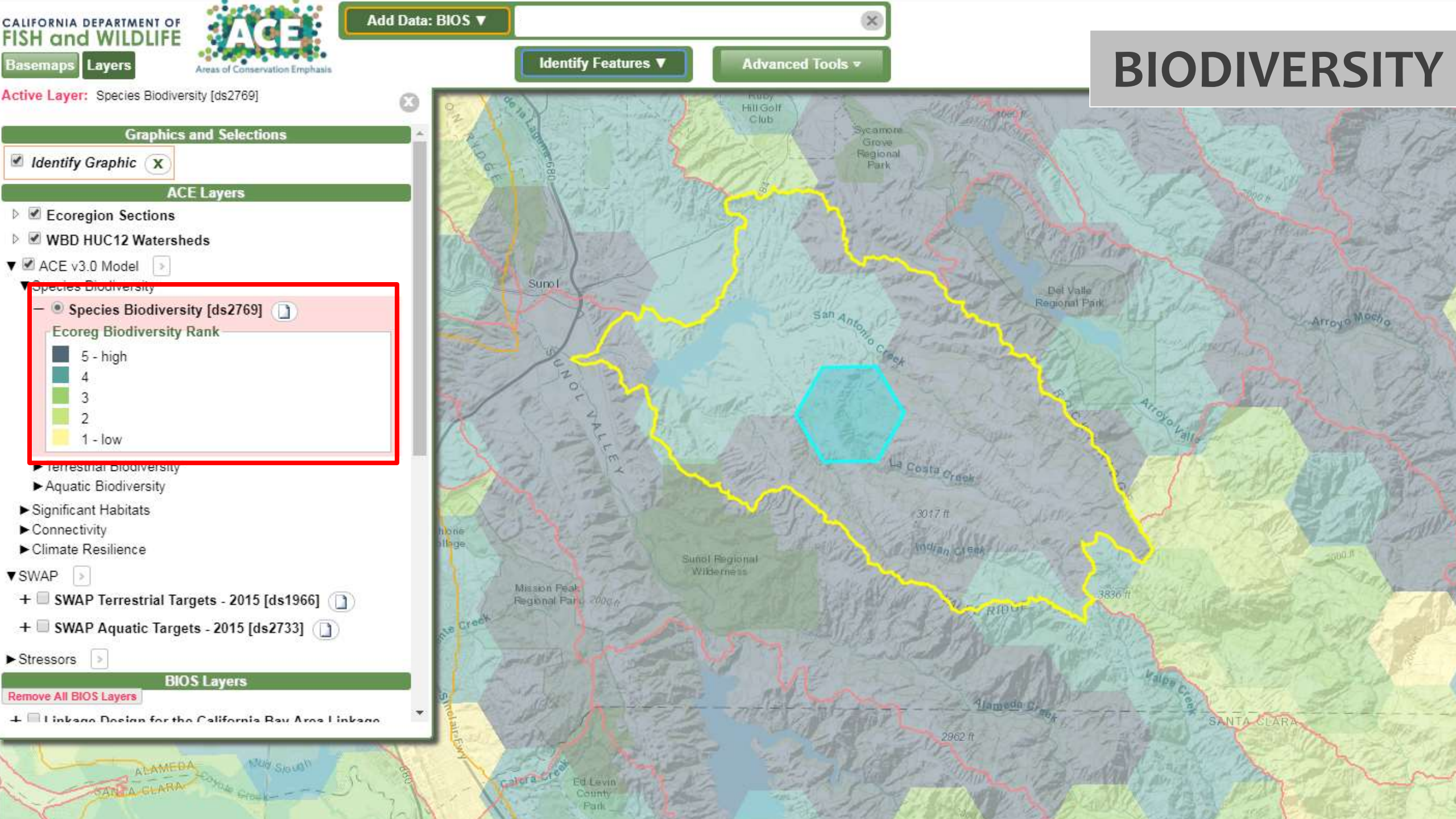
ACE
Areas of Conservation Emphasis

ACE: USES

- Identify conservation elements present at a site
- Compare relative value between sites
- Evaluate location and relative juxtaposition of conservation elements, land ownership, stressors, etc.




https://map.dfg.ca.gov/ace/
ORNIA DEPARTMENT OF
and WILDLIFE
ACE
Areas of Conservation Emphasis
maps
Layers
Add Data: BIOS
Click here to search and see list of datasets
Identify Features
Advanced Tools
Welcome, guest
v3.0.1802
Layer: WBD HUC12 Watersheds
Graphics and Selections
ACE Layers
Ecoregion Sections
WBD HUC12 Watersheds
ACE v3.0 Model
pecies Biodiversity
Species Biodiversity [ds2769]
Ecoreg Biodiversity Rank
5 - high
4
3
2
1 - low
Terrestrial Biodiversity
Terrestrial Biodiversity Summary [ds2739]
Terrestrial Species List [ds2700]
Map Scale=1: 577,791 (Zoom level 10)
SAN ANTONIO CREEK
EXAMPLE
Tracy
Dublin
Hayward
Pleasanton
Livermore
Fremont
Milpitas
Sunnyvale
Santa Clara
San Jose
Alum Rock
Campbell
Saratoga
Patterson
Modesto
Table
Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS
ACEII_Statewide_A....zip
Show all


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Identify Features ▼
Advanced Tools ▾
BIODIVERSITY
Active Layer: Species Biodiversity [ds2769]
Graphics and Selections
Identify Graphic
ACE Layers
Ecoregion Sections
WBD HUC12 Watersheds
ACE v3.0 Model
Species Biodiversity
Species Biodiversity [ds2769]
Ecoreg Biodiversity Rank
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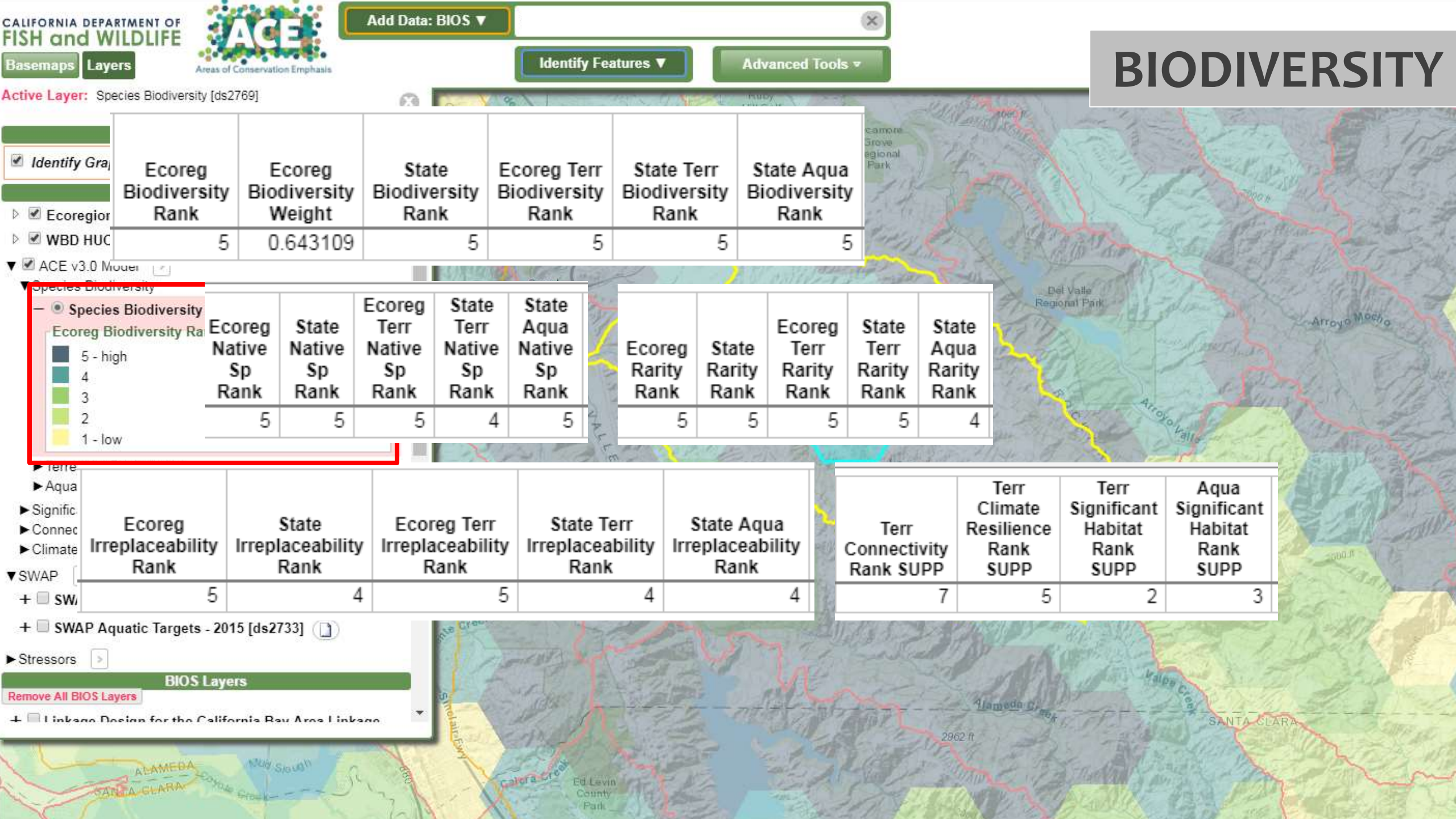
Terrestrial Biodiversity
Aquatic Biodiversity
Significant Habitats
Connectivity
Climate Resilience
SWAP
SWAP Terrestrial Targets - 2015 [ds1966]
SWAP Aquatic Targets - 2015 [ds2733]
Stressors
BIOS Layers
Remove All BIOS Layers
Sunol
San Antonio Creek
La Costa Creek
Indian Creek
Sunol Regional Wilderness
Mission Peak Regional Park
Del Valle Regional Park
Sycamore Grove Regional Park
Ruby Hill Golf Club
Arroyo Mocho
Arroyo Valle
Alameda Creek
Calera Creek
Ed Levin County Park
Coyote Creek
Mud Slough
ALAMEDA
SANTA CLARA
3017 ft
3836 ft
2962 ft

BIODIVERSITY



Ecoreg Biodiversity Rank	Ecoreg Biodiversity Weight	State Biodiversity Rank	Ecoreg Terr Biodiversity Rank	State Terr Biodiversity Rank	State Aqua Biodiversity Rank
5	0.643109	5	5	5	5

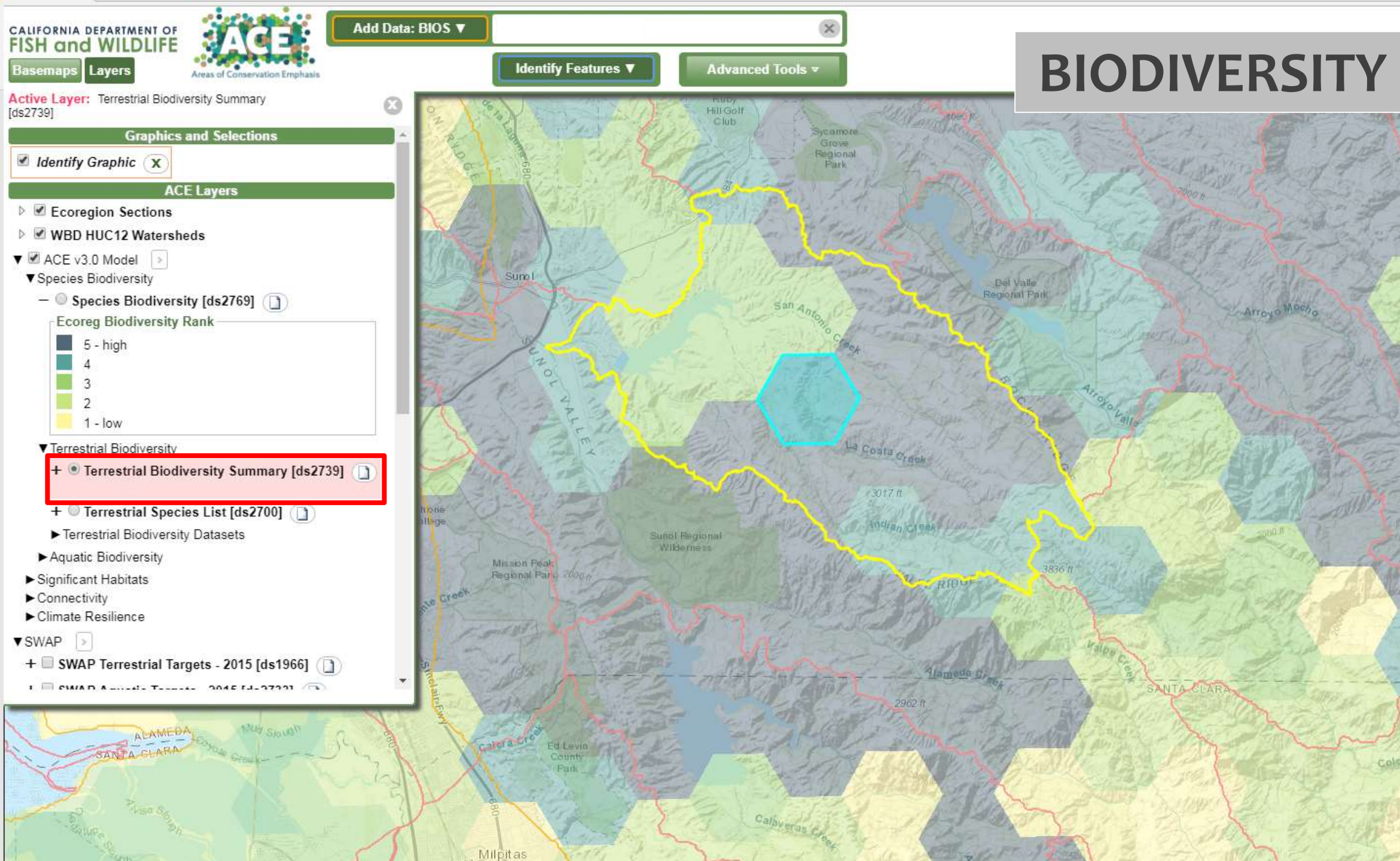
Ecoreg Native Sp Rank	State Native Sp Rank	Ecoreg Terr Native Sp Rank	State Terr Native Sp Rank	State Aqua Native Sp Rank
5	5	5	4	5

Ecoreg Rarity Rank	State Rarity Rank	Ecoreg Terr Rarity Rank	State Terr Rarity Rank	State Aqua Rarity Rank
5	5	5	5	4

Ecoreg Irreplaceability Rank	State Irreplaceability Rank	Ecoreg Terr Irreplaceability Rank	State Terr Irreplaceability Rank	State Aqua Irreplaceability Rank
5	4	5	4	4

Terr Connectivity Rank SUPP	Terr Climate Resilience Rank SUPP	Terr Significant Habitat Rank SUPP	Aqua Significant Habitat Rank SUPP
7	5	2	3

BIODIVERSITY



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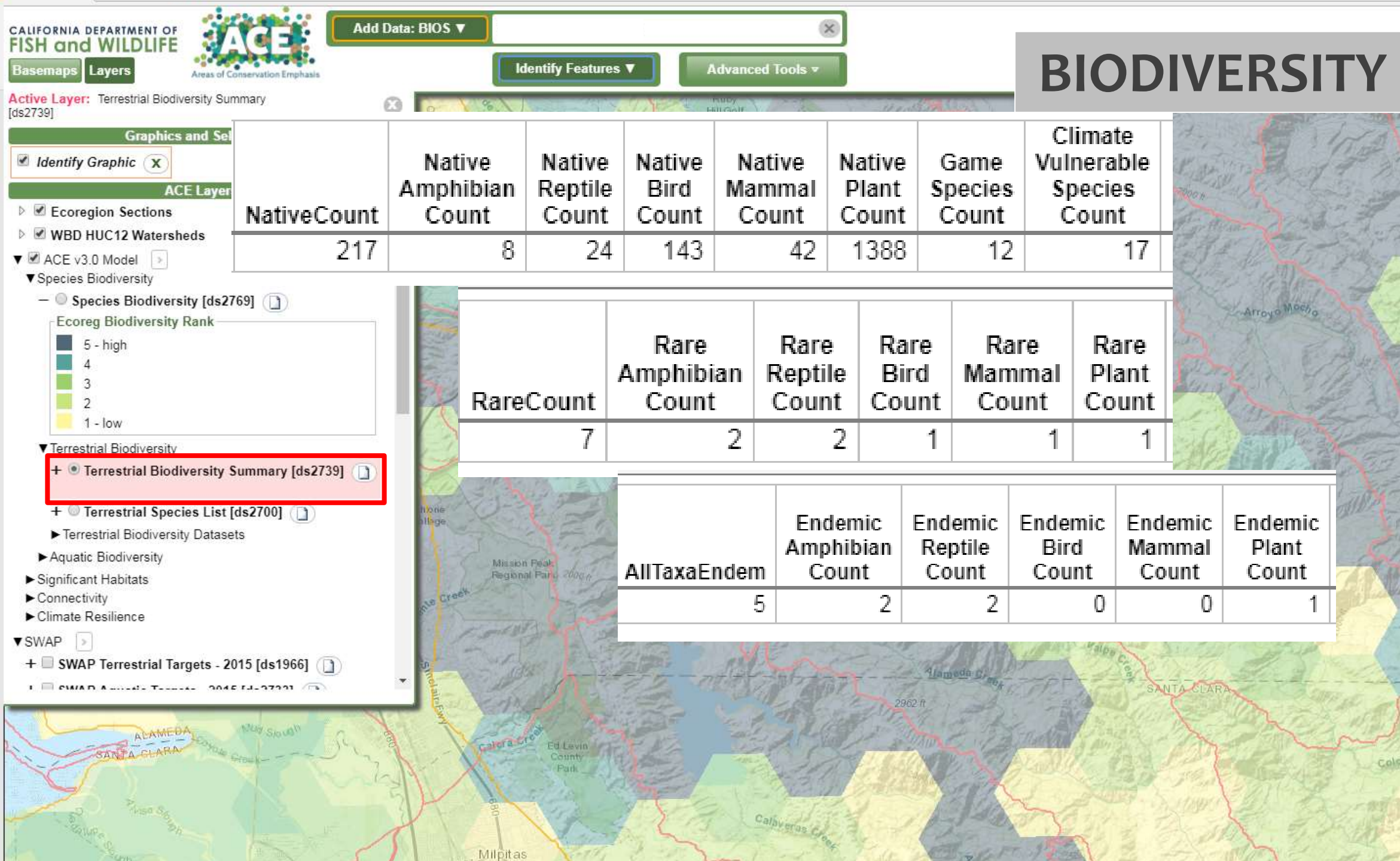
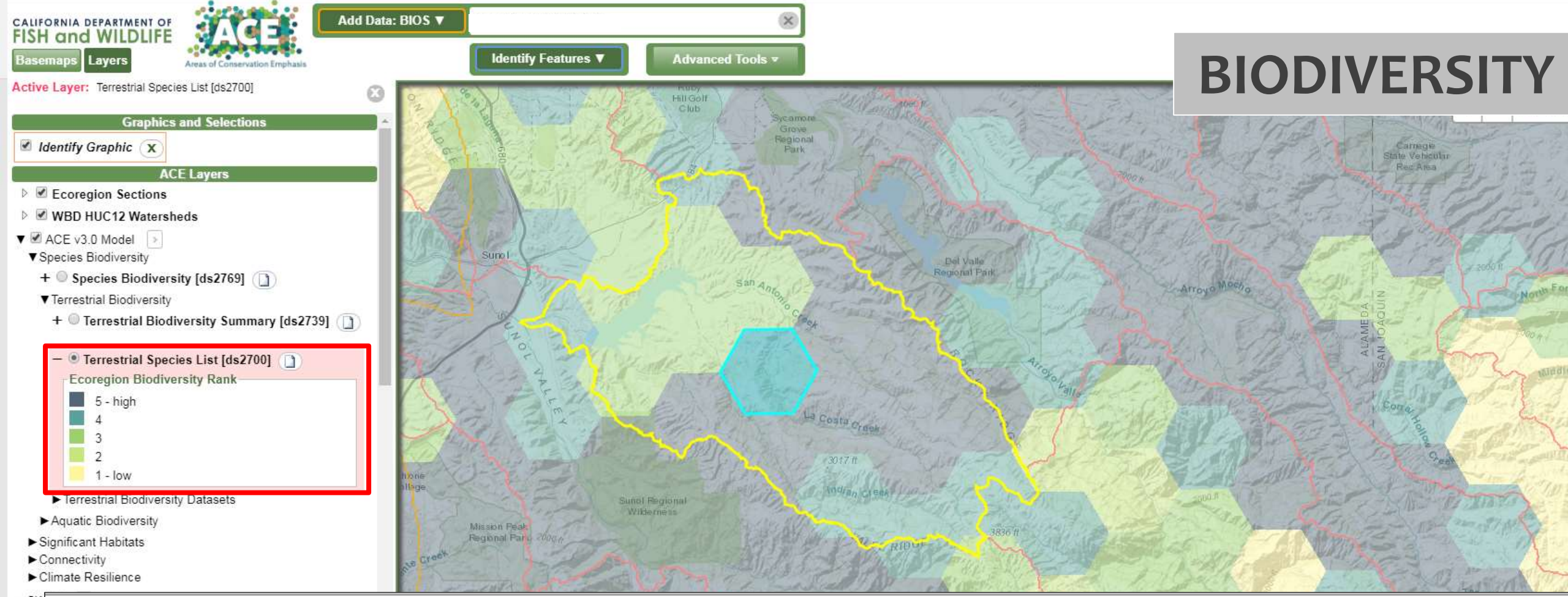


NativeCount	Native Amphibian Count	Native Reptile Count	Native Bird Count	Native Mammal Count	Native Plant Count	Game Species Count	Climate Vulnerable Species Count
217	8	24	143	42	1388	12	17

RareCount	Rare Amphibian Count	Rare Reptile Count	Rare Bird Count	Rare Mammal Count	Rare Plant Count
7	2	2	1	1	1

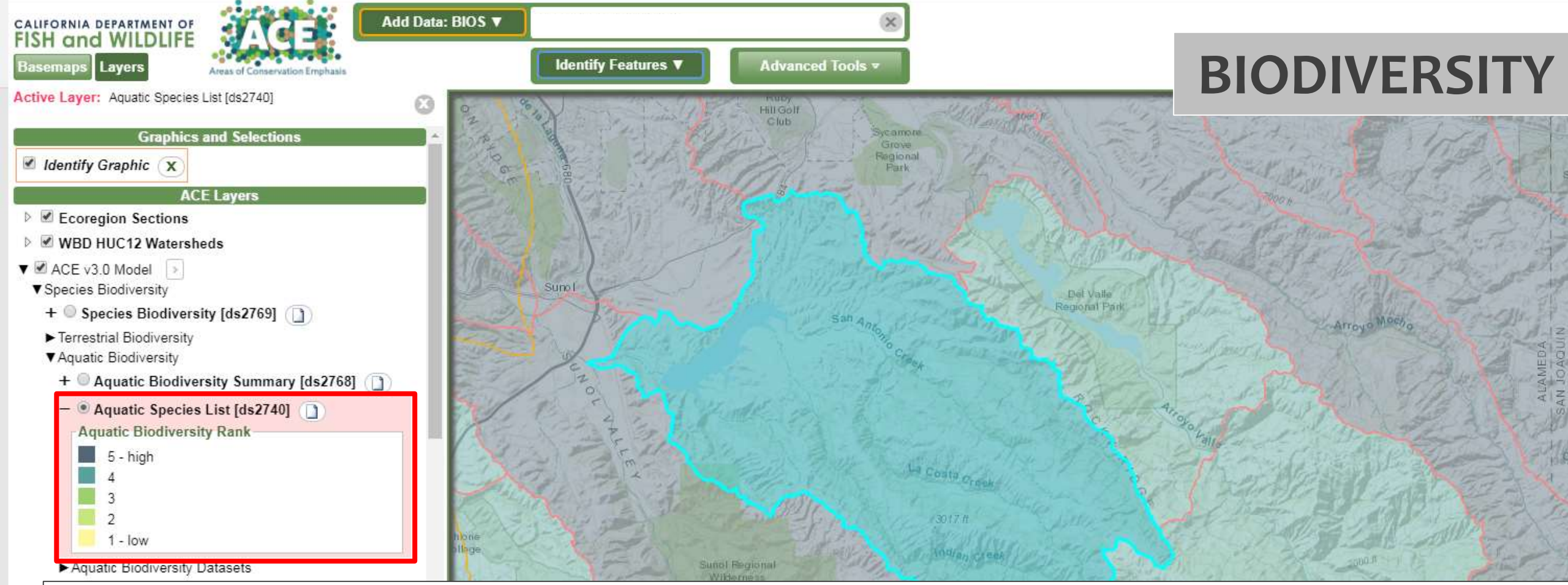
AllTaxaEndem	Endemic Amphibian Count	Endemic Reptile Count	Endemic Bird Count	Endemic Mammal Count	Endemic Plant Count
5	2	2	0	0	1

BIODIVERSITY



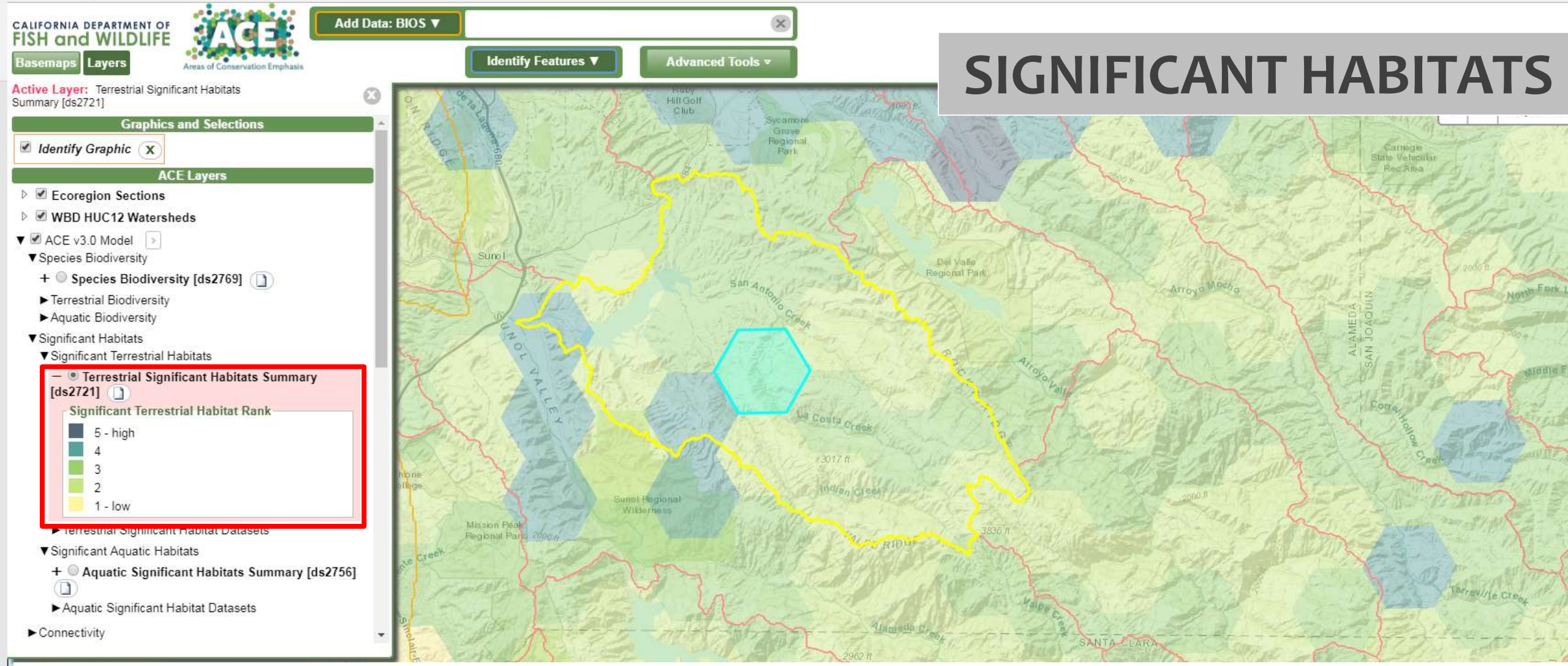
Hex_ID	BioRankEco	Sci_Name	Com_Name	Observation	Model	Rare	Endemic	Climate_Vulnerable	Game	ELMCODE	CWHR_c
27024	5	Accipiter cooperii	cooper's hawk	N	Y			N	N	ABNKC12040	B116
27024	5	Accipiter striatus	sharp-shinned hawk	N	Y			N	N	ABNKC12020	B115
27024	5	Actinemys marmorata	western pond turtle	Y	Y	Y	Y	Y	N	ARAAD02030	R004
27024	5	Actitis macularius	spotted sandpiper	N	Y			N	N	ABNNF04020	B170
27024	5	Aegolius acadicus	northern saw-whet owl	N	Y			Y	N	ABNSB15020	B274
27024	5	Aeronautes saxatalis	white-throated swift	N	Y			N	N	ABNUA06010	B282
27024	5	Agelaius phoeniceus	red-winged blackbird	N	Y			N	N	ABPBXB0010	B519
27024	5	Agelaius tricolor	tricolored blackbird	N	Y	Y	Y	N	N	ABPBXB0020	B520

BIODIVERSITY



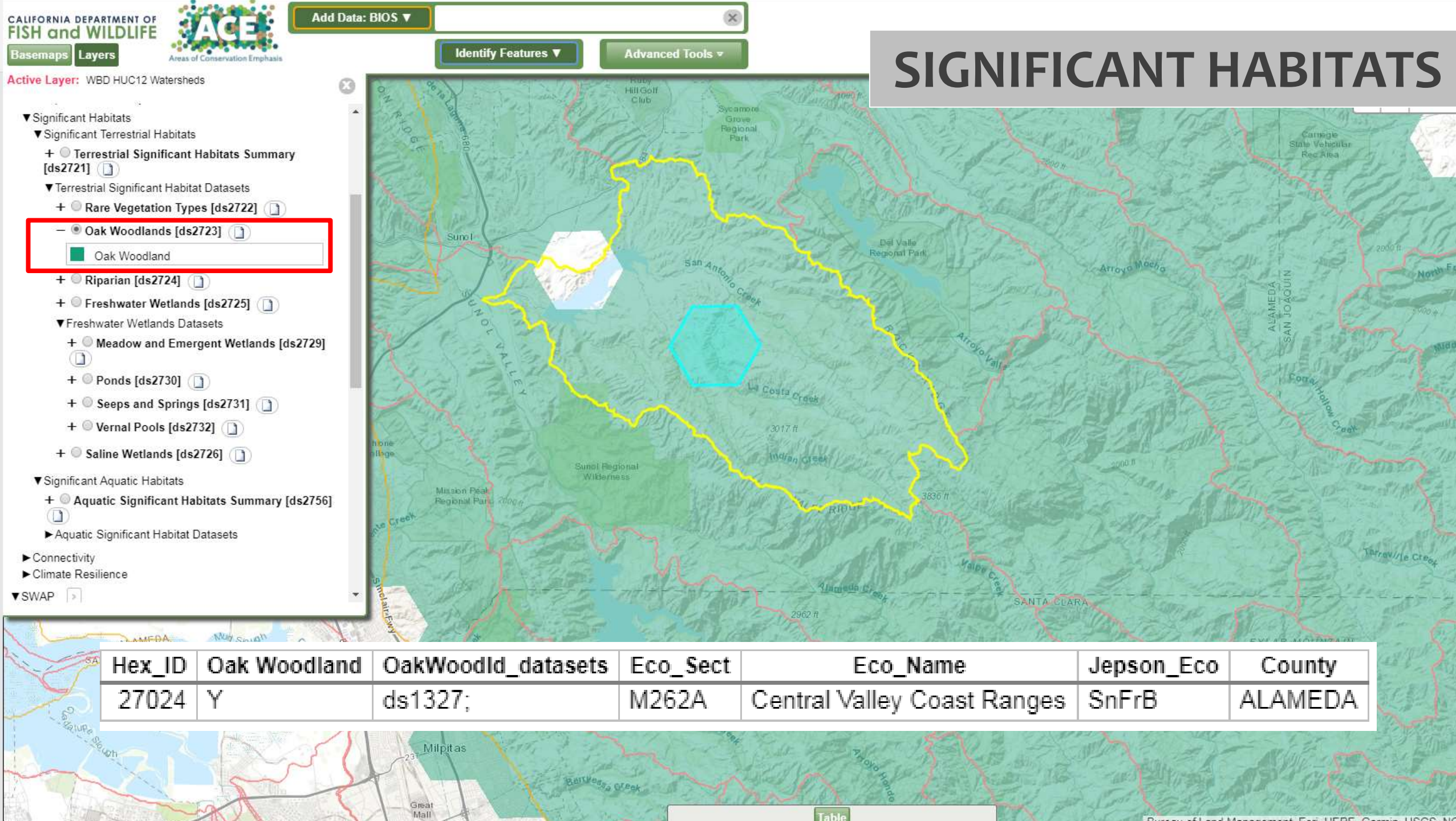
HUC12	BioAqRankSW	Sci_Name	Com_Name	Model	Observation	Rare	ELMCODE	CWHR_co
180500040601		Actinemys marmorata	western pond turtle	Y	Y		ARAAD02030	R004
180500040601		Ambystoma californiense	california tiger salamander	Y	Y	Y	AAAAA01180	A001
180500040601		Ameletidae		Y	N			
180500040601		Anaxyrus boreas	western toad	Y	N		AAABB01030	A032
180500040601		Apataniidae		Y	N			
180500040601		Baetidae		Y	N			
180500040601		Blephariceridae		Y	N			
180500040601		Brachycentridae		Y	N			

SIGNIFICANT HABITATS



Rare Vegetation	Oak Woodland	Riparian	Freshwater Wetlands	Meadow and Emergent Wetlands	Ponds	Seeps and Springs	Vernal Pools	Saline Wetland
N	Y	Y	0	N	N	N	N	N

SIGNIFICANT HABITATS



Hex_ID	Oak Woodland	OakWoodId_datasets	Eco_Sect	Eco_Name	Jepson_Eco	County
27024	Y	ds1327;	M262A	Central Valley Coast Ranges	SnFrB	ALAMEDA

SIGNIFICANT HABITATS

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

ACE Areas of Conservation Emphasis

Basemaps | Layers

Add Data: BIOS ▼

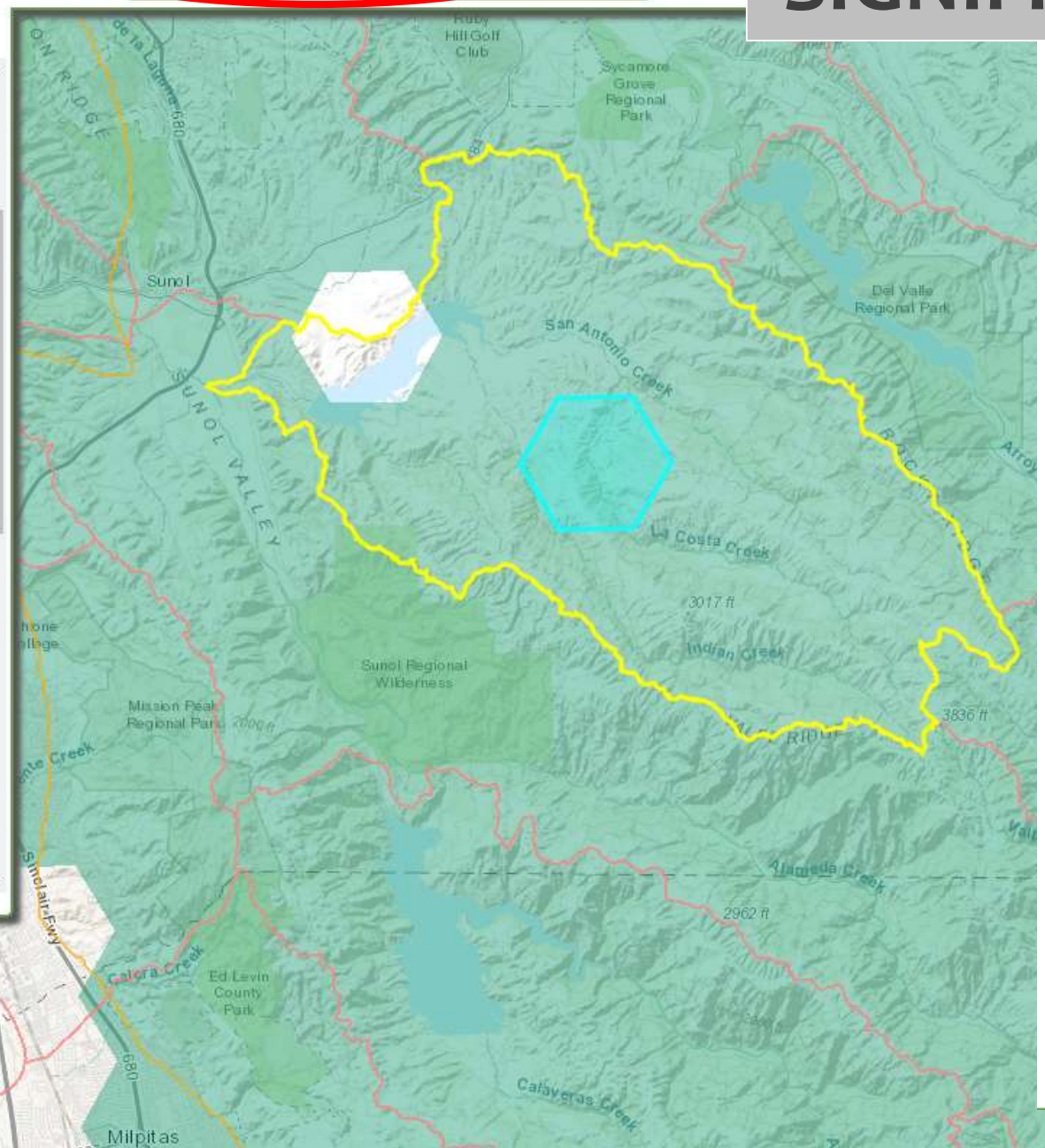
ds1327

Vegetation (fveg) - CALFIRE FRAP [ds1327]

-- (1 found) --

Active Layer: WBD HUC12 Watersheds

- ▼Significant Habitats
  - ▼Significant Terrestrial Habitats
    - + **Terrestrial Significant Habitats Summary [ds2721]**
    - ▼Terrestrial Significant Habitat Datasets
      - + **Rare Vegetation Types [ds2722]**
      - − **Oak Woodlands [ds2723]**
        - Oak Woodland
      - + **Riparian [ds2724]**
      - + **Freshwater Wetlands [ds2725]**
      - ▼Freshwater Wetlands Datasets
        - + **Meadow and Emergent Wetlands [ds2729]**
        - + **Ponds [ds2730]**
        - + **Seeps and Springs [ds2731]**
        - + **Vernal Pools [ds2732]**
      - + **Saline Wetlands [ds2726]**
  - ▼Significant Aquatic Habitats
    - + **Aquatic Significant Habitats Summary [ds2756]**
    - ►Aquatic Significant Habitat Datasets
- ►Connectivity
- ►Climate Resilience
- ▼SWAP



Vegetation (fveg) - CALFIRE FRAP [ds1327]

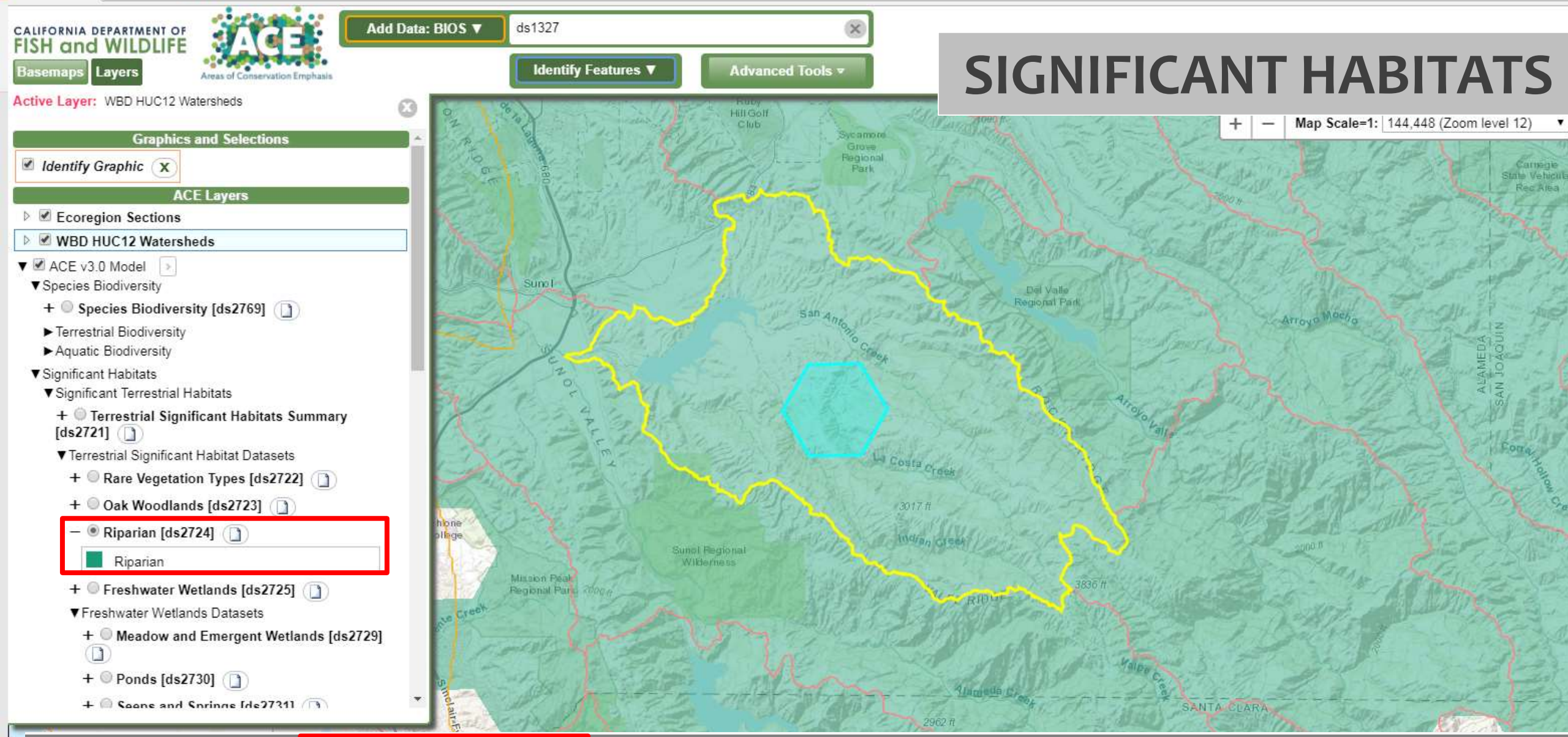
Summary

Initially, CALFIRE-FRAP compiled the "best available" land cover data into a single data layer, to support the various analyses required for the Forest and Rangeland Assessment, a legislatively mandated function. These data are being updated to support on-going analyses and to prepare for the next FRAP assessment in 2015.

Description

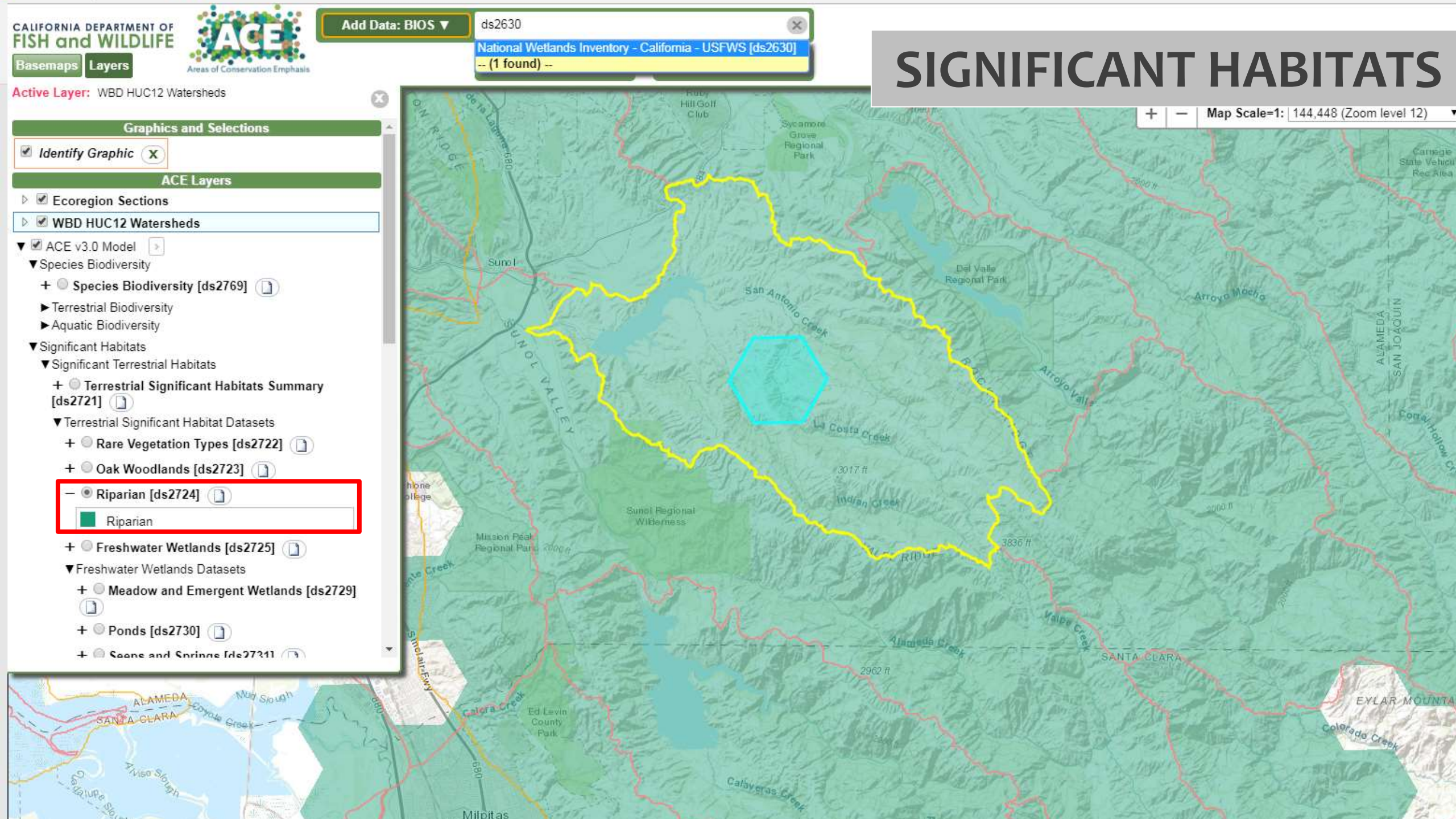
An accurate depiction of the spatial distribution of habitat types within California is required for a variety of legislatively-mandated government functions. The California Department of Forestry and Fire Protection's CALFIRE Fire and Resource Assessment Program (FRAP), in cooperation with California Department of Fish and Wildlife VegCamp program and extensive use of USDA Forest Service Region 5 Remote Sensing Laboratory (RSL) data, has compiled the "best available" land cover data available for California into a single comprehensive statewide data set. The data span a period from approximately 1990 to 2014. Typically the most current, detailed and consistent data were collected for various regions of the state. Decision rules were developed that controlled which layers were given priority in areas of overlap. Cross-walks were used to compile the various sources into the common classification scheme, the California Wildlife Habitat

SIGNIFICANT HABITATS

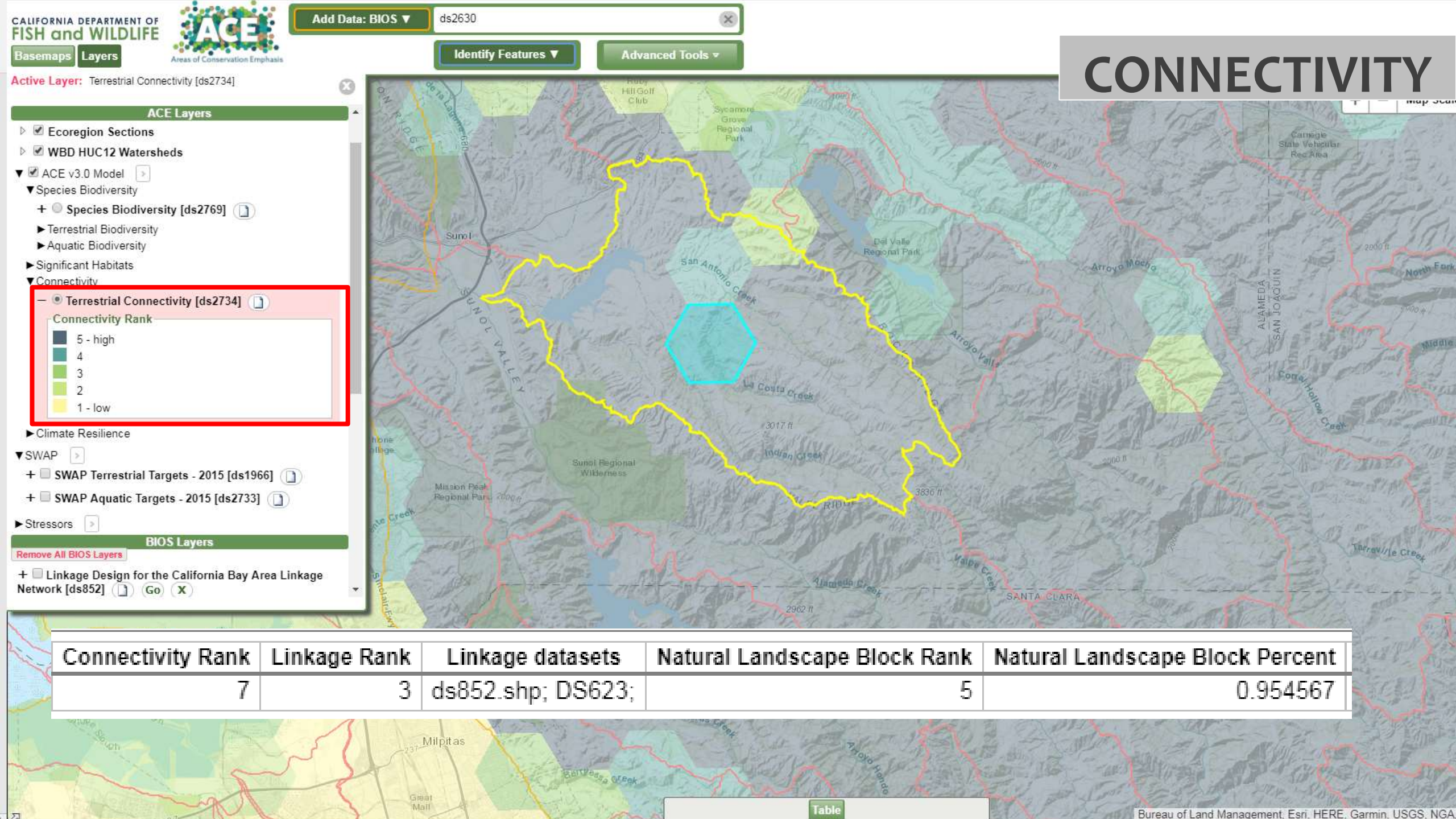


Hex_ID	Riparian	Riparian_datasets	Eco_Sect	Eco_Name	Jepson_Eco	County
27024	Y	ds1327; ds2630;	M262A	Central Valley Coast Ranges	SnFrB	ALAMEDA

SIGNIFICANT HABITATS

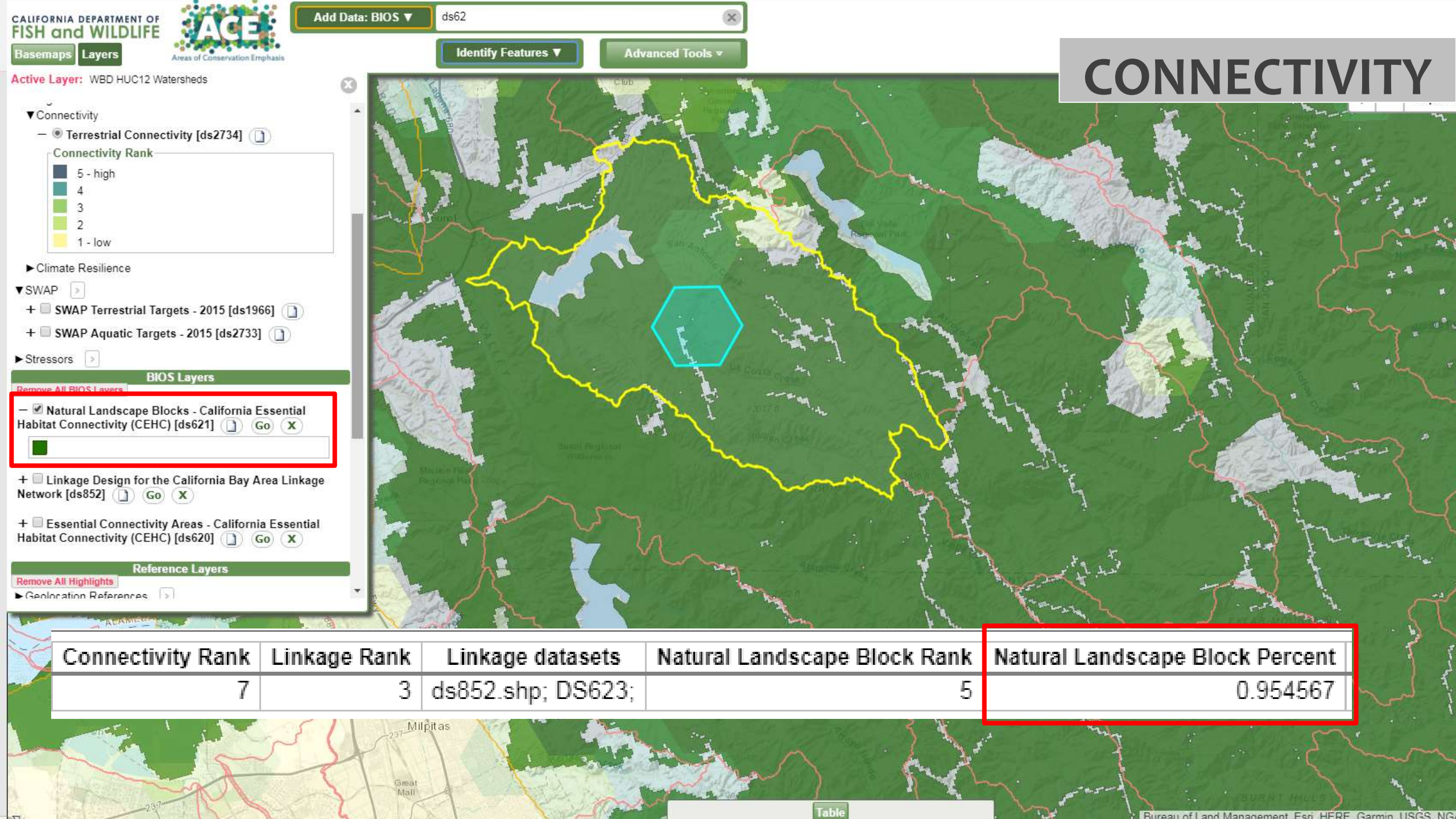


CONNECTIVITY

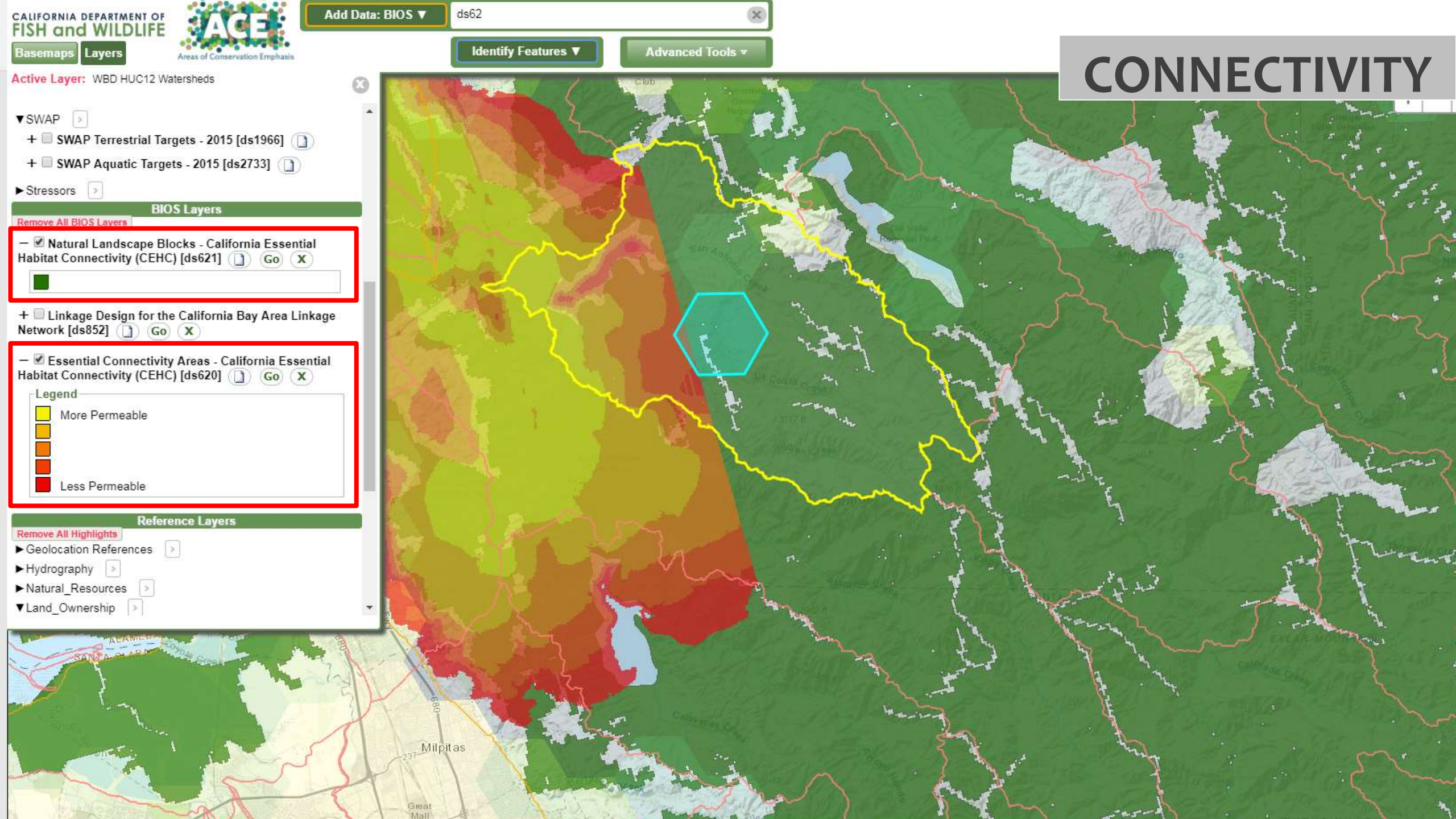


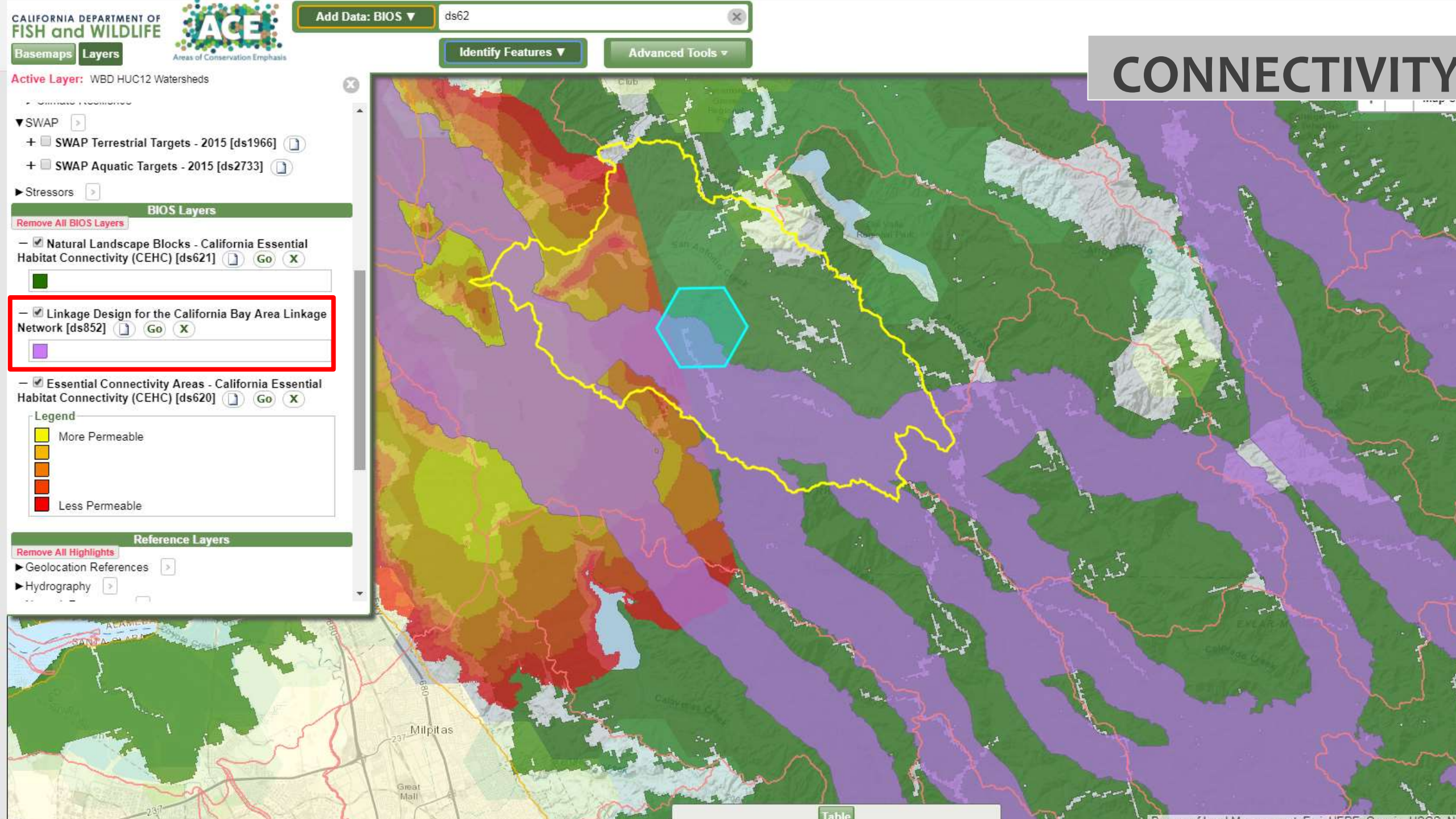
Connectivity Rank	Linkage Rank	Linkage datasets	Natural Landscape Block Rank	Natural Landscape Block Percent
7	3	ds852.shp; DS623;	5	0.954567

CONNECTIVITY



Connectivity Rank	Linkage Rank	Linkage datasets	Natural Landscape Block Rank	Natural Landscape Block Percent
7	3	ds852.shp; DS623;	5	0.954567


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
Basemaps
Layers
ACE
Areas of Conservation Emphasis
Add Data: BIOS ▼
ds62
Identify Features ▼
Advanced Tools
CONNECTIVITY
Active Layer: WBD HUC12 Watersheds
▼SWAP
+ SWAP Terrestrial Targets - 2015 [ds1966]
+ SWAP Aquatic Targets - 2015 [ds2733]
►Stressors
BIOS Layers
Remove All BIOS Layers
– Natural Landscape Blocks - California Essential Habitat Connectivity (CEHC) [ds621] Go X
+ Linkage Design for the California Bay Area Linkage Network [ds852] Go X
– Essential Connectivity Areas - California Essential Habitat Connectivity (CEHC) [ds620] Go X
Legend
More Permeable
Less Permeable
Reference Layers
Remove All Highlights
►Geolocation References
►Hydrography
►Natural_Resources
▼Land_Ownership
Milpitas


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
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ds62
Identify Features ▼
Advanced Tools
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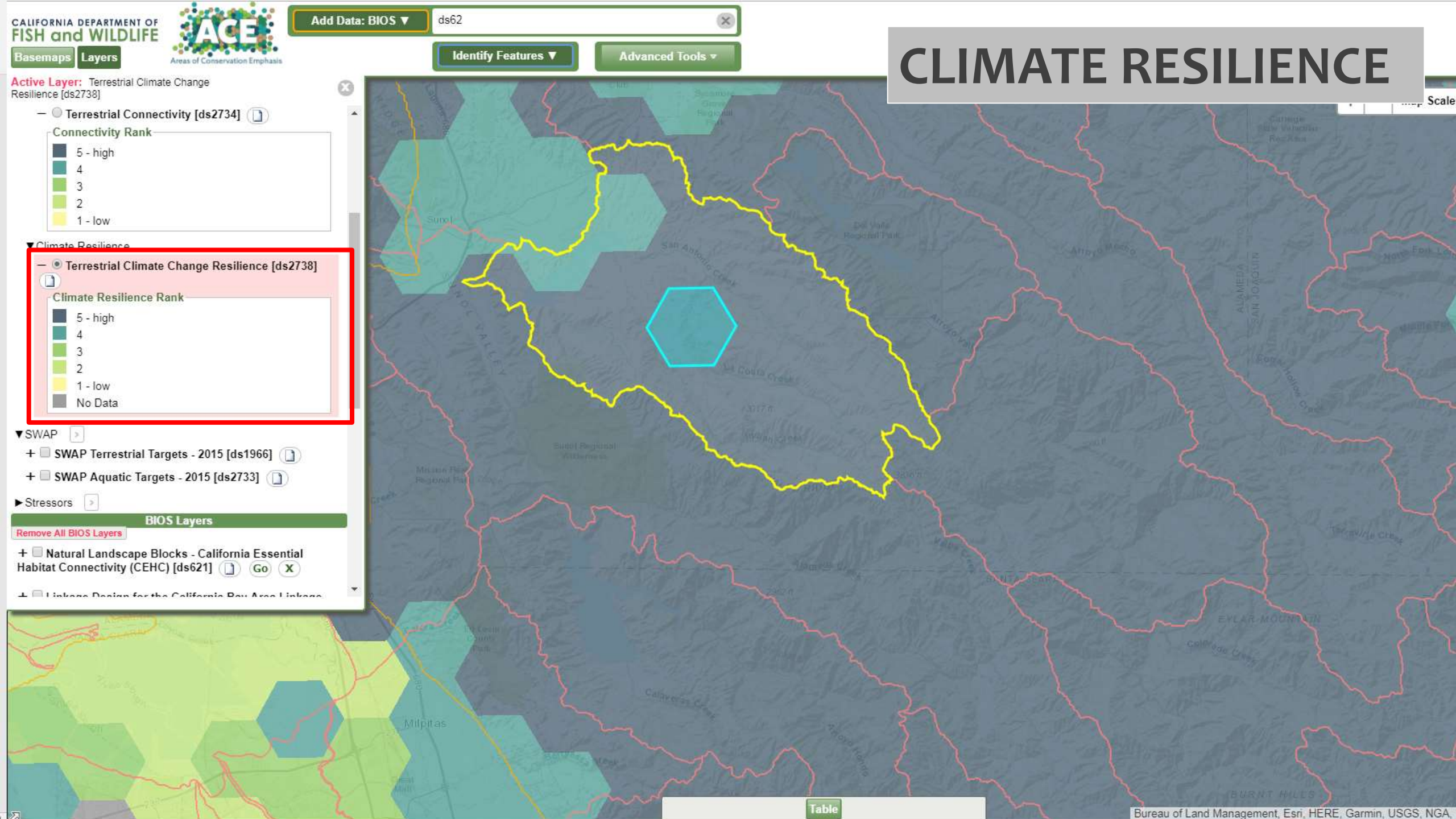
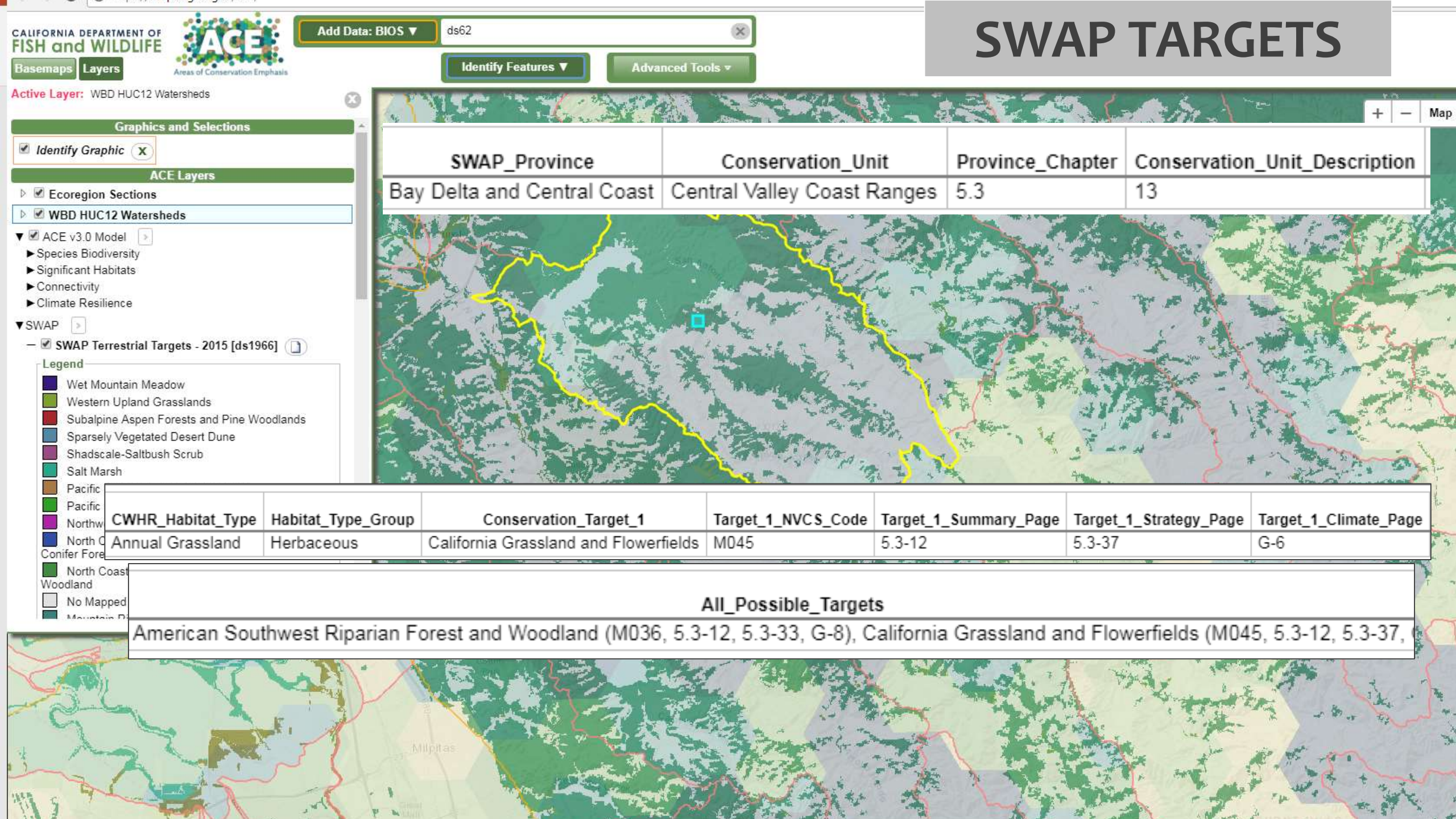
+ SWAP Aquatic Targets - 2015 [ds2733]
►Stressors
BIOS Layers
Remove All BIOS Layers
– Natural Landscape Blocks - California Essential Habitat Connectivity (CEHC) [ds621] Go X
– Linkage Design for the California Bay Area Linkage Network [ds852] Go X
– Essential Connectivity Areas - California Essential Habitat Connectivity (CEHC) [ds620] Go X
Legend
More Permeable
Less Permeable
Reference Layers
Remove All Highlights
►Geolocation References
►Hydrography
Milpitas
Great Mall
Table


CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
ds62
Identify Features ▼
Advanced Tools ▼
CLIMATE RESILIENCE
Active Layer: Terrestrial Climate Change Resilience [ds2738]
Terrestrial Connectivity [ds2734]
Connectivity Rank
5 - high
4
3
2
1 - low
▼Climate Resilience
Terrestrial Climate Change Resilience [ds2738]
Climate Resilience Rank
5 - high
4
3
2
1 - low
No Data
▼SWAP
SWAP Terrestrial Targets - 2015 [ds1966]
SWAP Aquatic Targets - 2015 [ds2733]
►Stressors
BIOS Layers
Remove All BIOS Layers
Natural Landscape Blocks - California Essential Habitat Connectivity (CEHC) [ds621]
Go
X
Milpitas
Table
Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA

SWAP TARGETS



SWAP_Province	Conservation_Unit	Province_Chapter	Conservation_Unit_Description
Bay Delta and Central Coast	Central Valley Coast Ranges	5.3	13

CWHR_Habitat_Type	Habitat_Type_Group	Conservation_Target_1	Target_1_NVCS_Code	Target_1_Summary_Page	Target_1_Strategy_Page	Target_1_Climate_Page
Annual Grassland	Herbaceous	California Grassland and Flowerfields	M045	5.3-12	5.3-37	G-6

All_Possible_Targets
American Southwest Riparian Forest and Woodland (M036, 5.3-12, 5.3-33, G-8), California Grassland and Flowerfields (M045, 5.3-12, 5.3-37,

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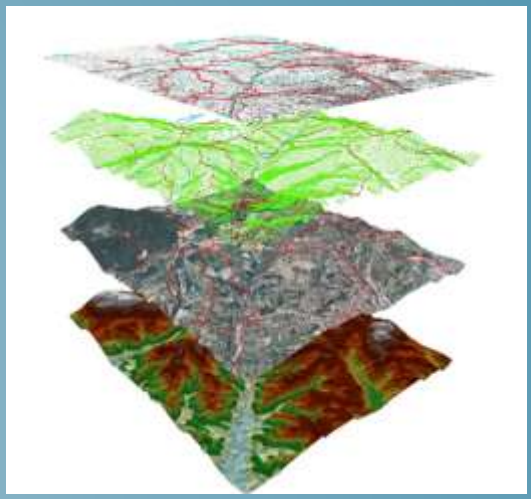

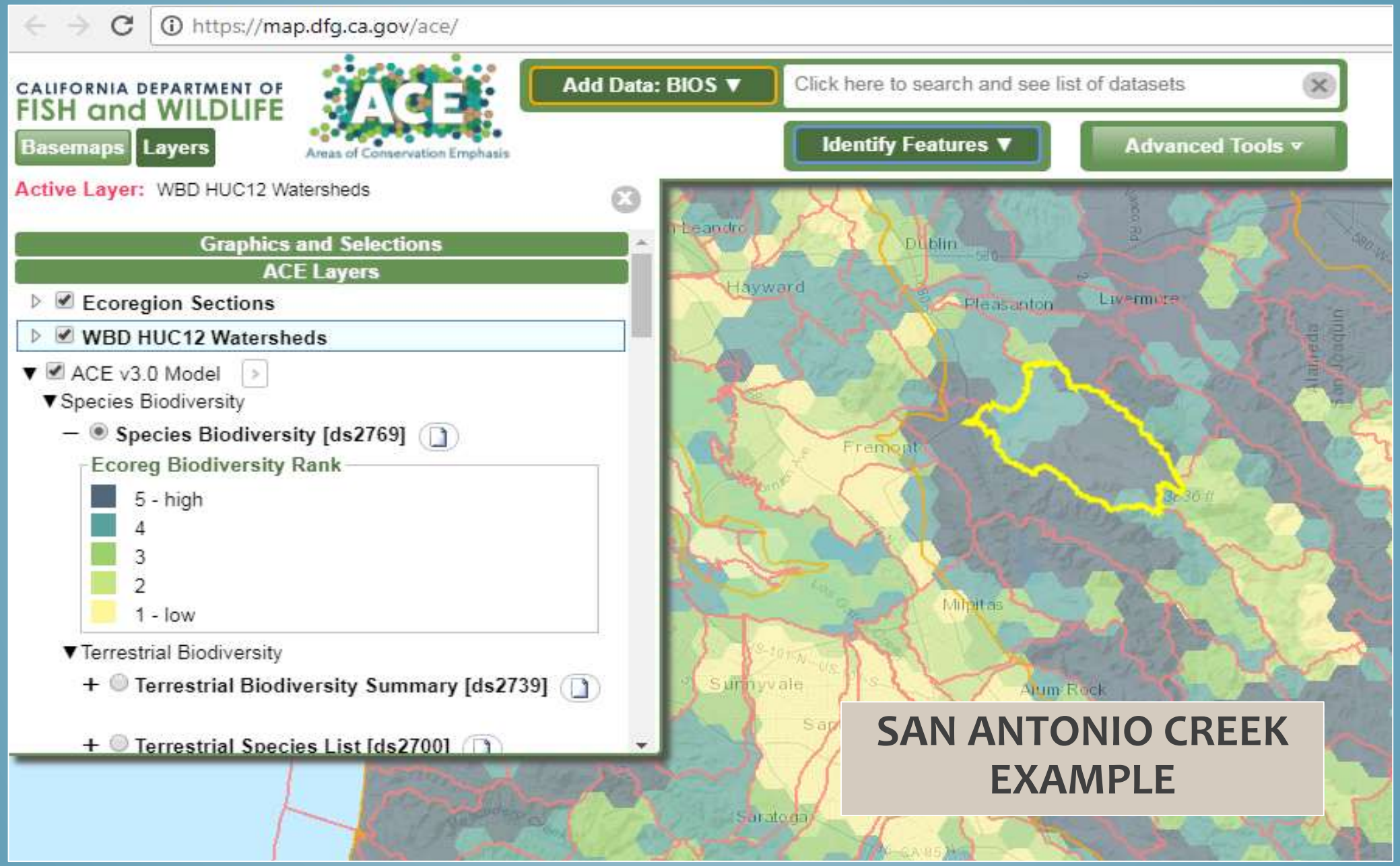
https://map.dfg.ca.gov/ace/
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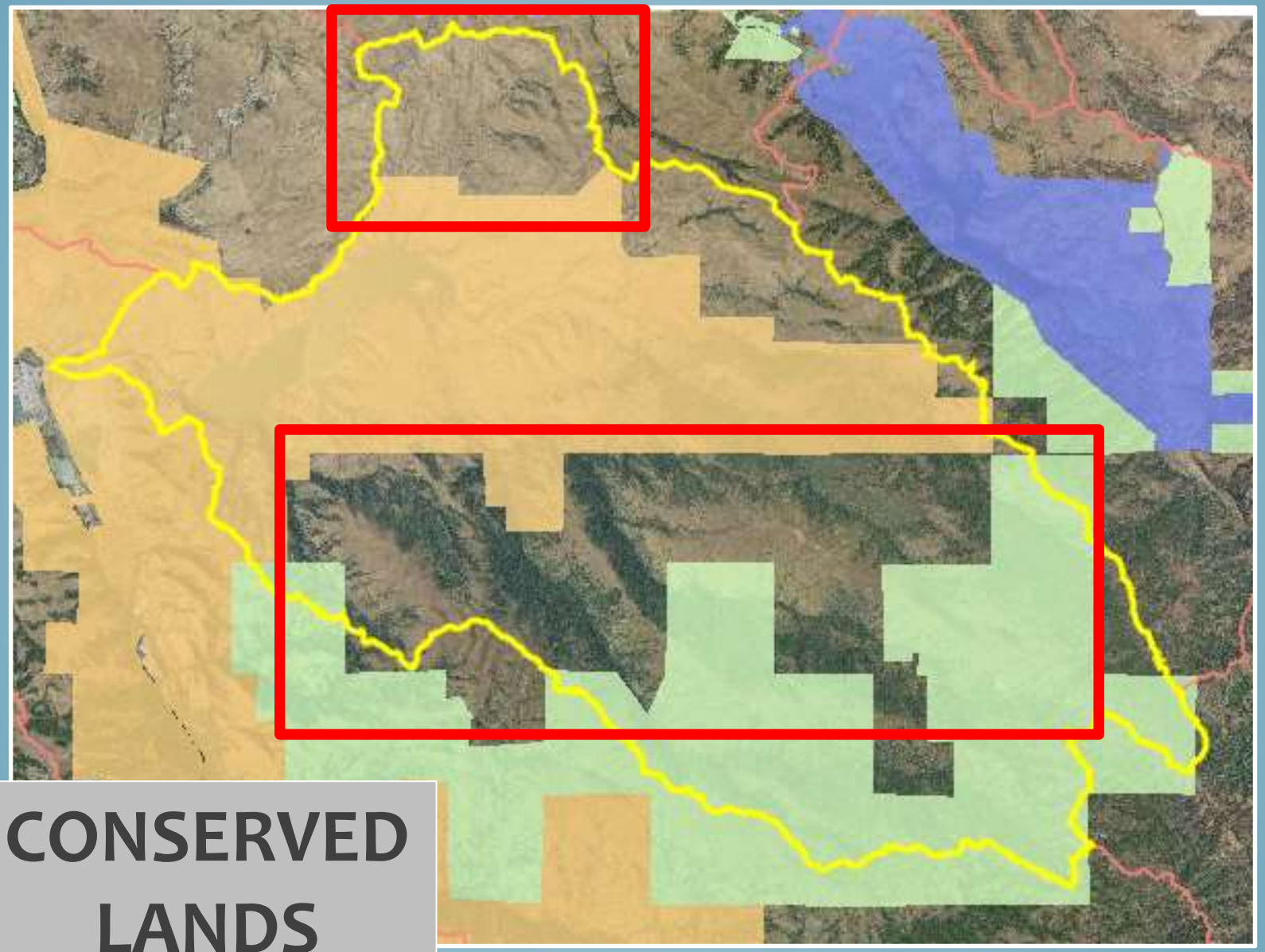
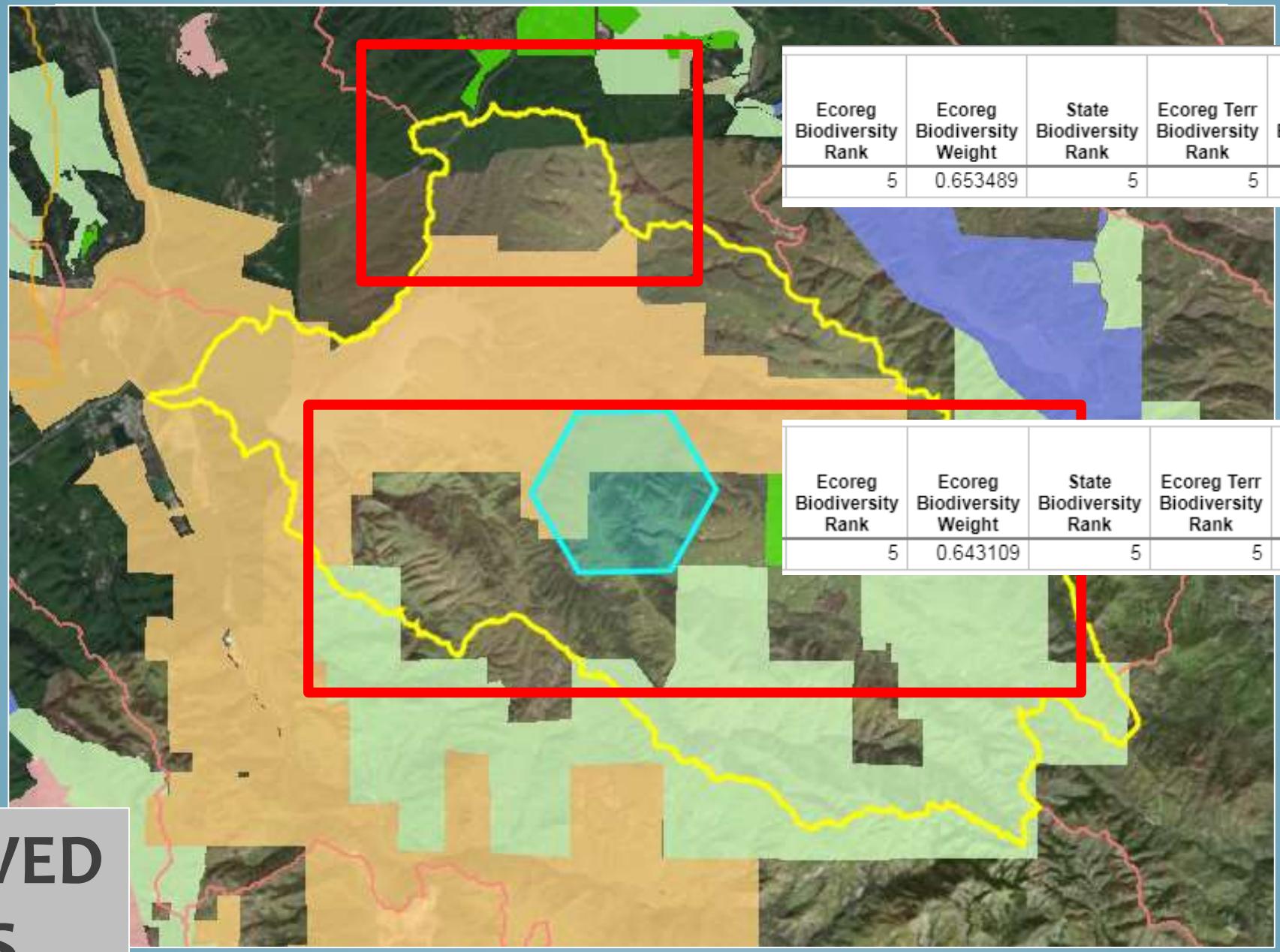
Dublin
Hayward
Pleasanton
Livermore
Fremont
Milpitas
Sunnyvale
Alum Rock
Saratoga
SAN ANTONIO CREEK EXAMPLE



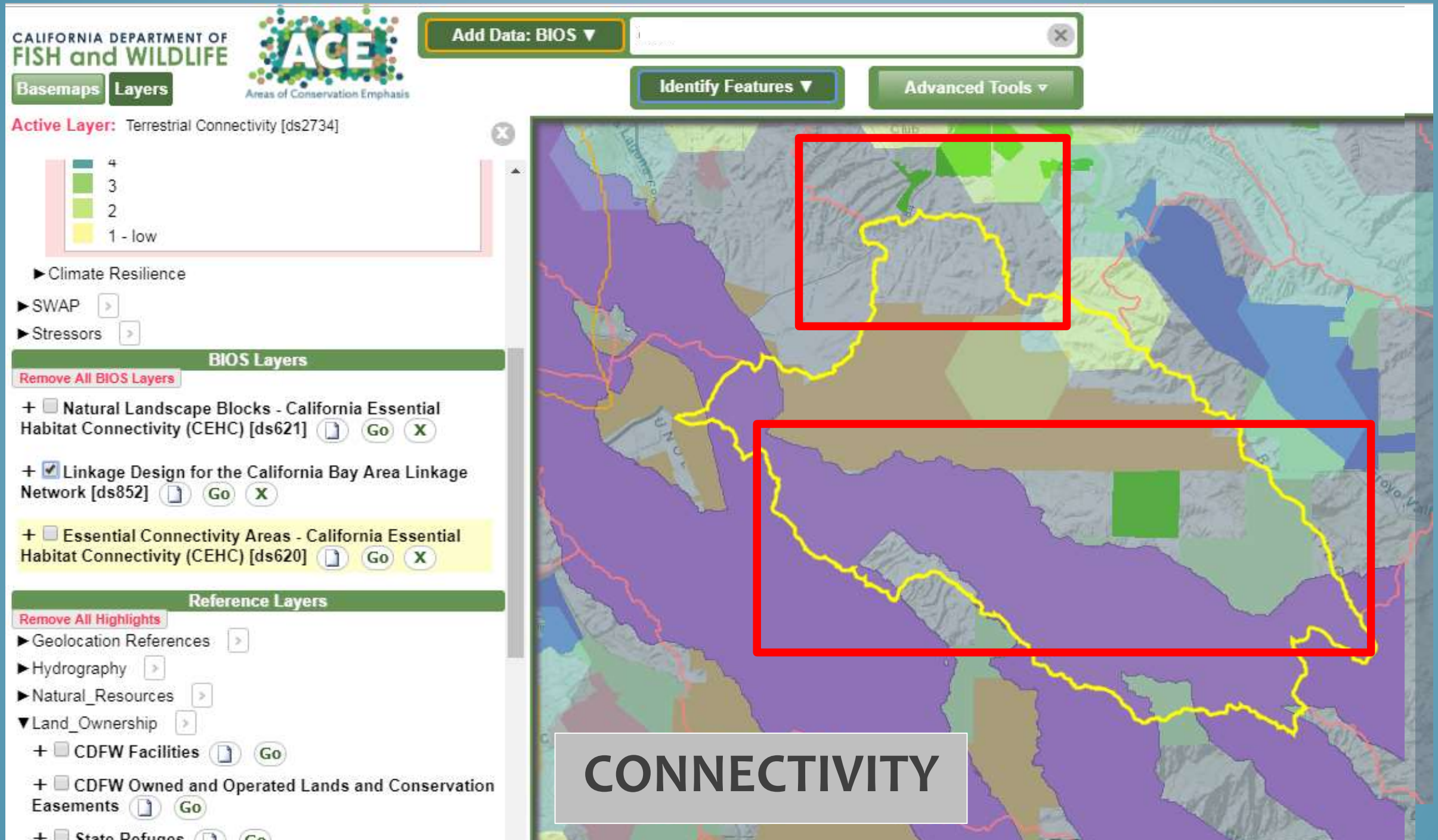
CONSERVED LANDS

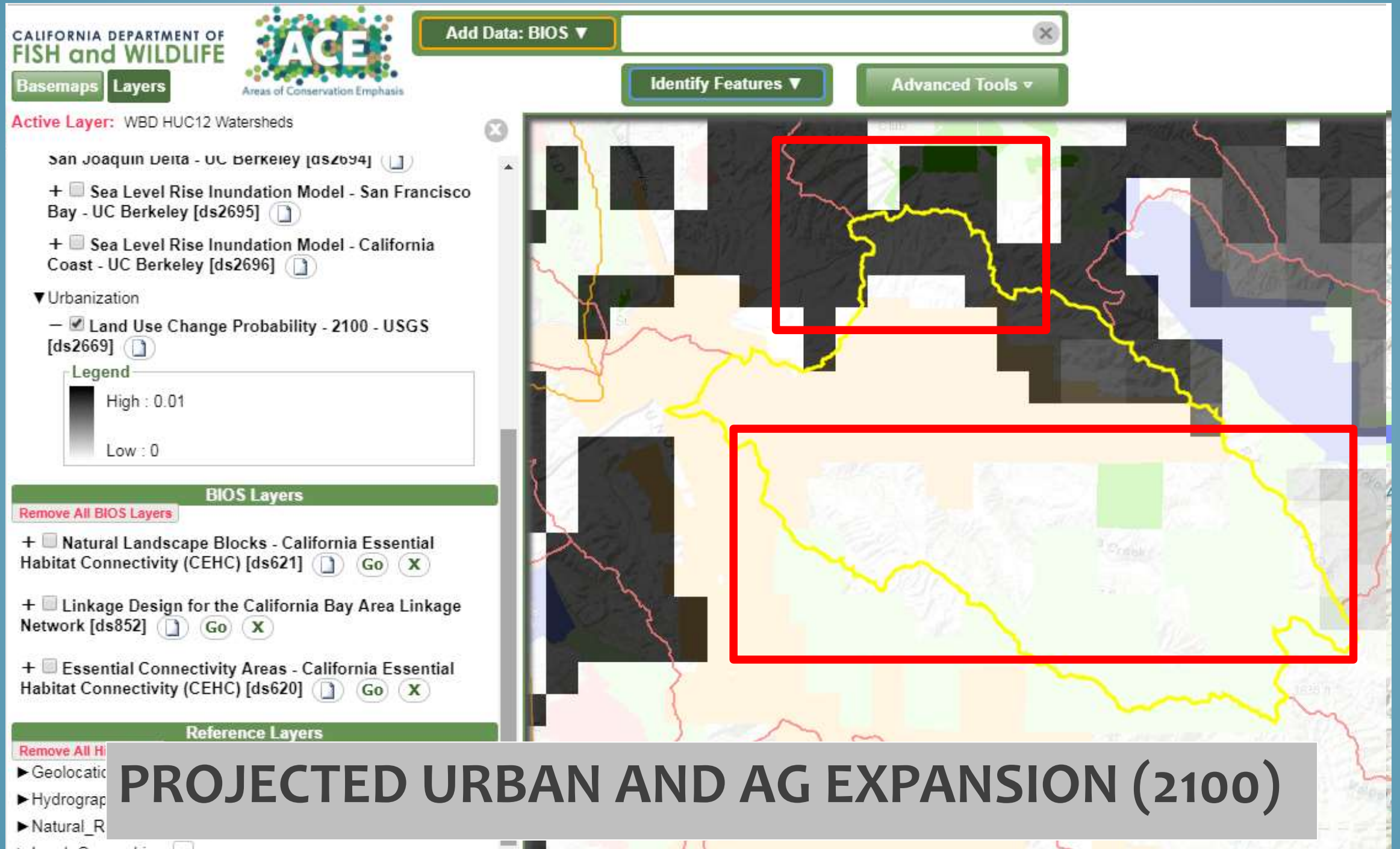


Ecoreg Biodiversity Rank	Ecoreg Biodiversity Weight	State Biodiversity Rank	Ecoreg Terr Biodiversity Rank	State Terr Biodiversity Rank	State Aqua Biodiversity Rank
5	0.653489	5	5	5	5

Ecoreg Biodiversity Rank	Ecoreg Biodiversity Weight	State Biodiversity Rank	Ecoreg Terr Biodiversity Rank	State Terr Biodiversity Rank	State Aqua Biodiversity Rank
5	0.643109	5	5	5	5

CONSERVED LANDS

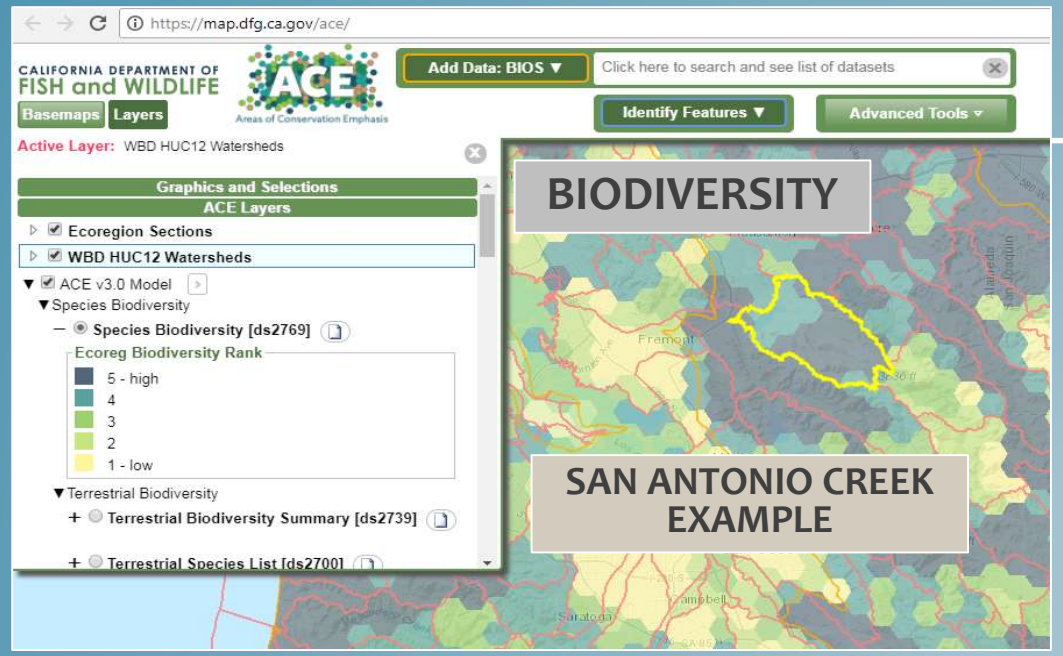

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
ACE
Areas of Conservation Emphasis
Basemaps
Layers
Add Data: BIOS ▼
Identify Features ▼
Advanced Tools ▼
Active Layer: Terrestrial Connectivity [ds2734]
4
3
2
1 - low
▶Climate Resilience
▶SWAP
▶Stressors
BIOS Layers
Remove All BIOS Layers
+ Natural Landscape Blocks - California Essential Habitat Connectivity (CEHC) [ds621] Go X
+ Linkage Design for the California Bay Area Linkage Network [ds852] Go X
+ Essential Connectivity Areas - California Essential Habitat Connectivity (CEHC) [ds620] Go X
Reference Layers
Remove All Highlights
▶Geolocation References
▶Hydrography
▶Natural_Resources
▼Land_Ownership
+ CDFW Facilities Go
+ CDFW Owned and Operated Lands and Conservation Easements Go
CONNECTIVITY

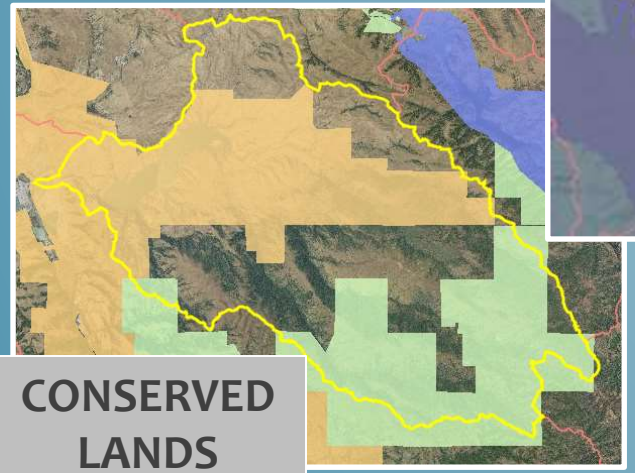


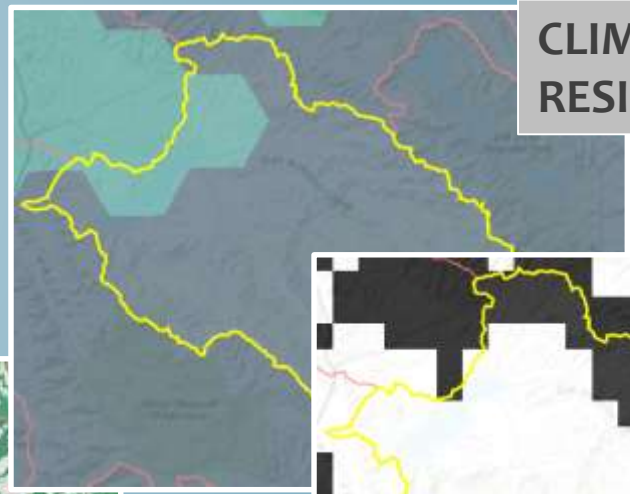
PROJECTED URBAN AND AG EXPANSION (2100)

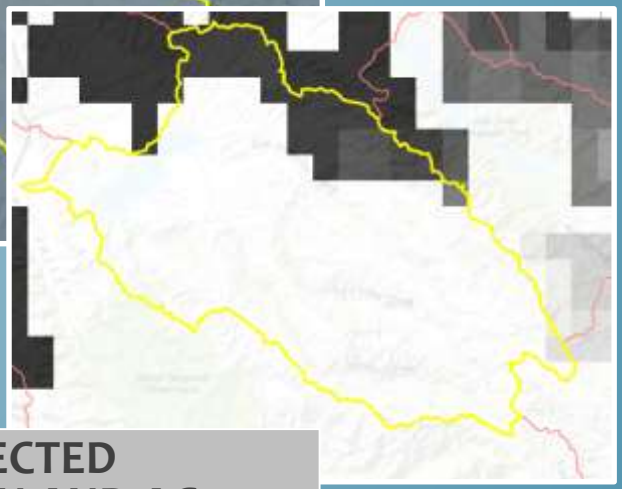
ACE: USES

- Identify conservation elements present at a site
- Compare relative value between sites
- Evaluate location and relative juxtaposition of conservation elements, land ownership, stressors, etc.









ACE: TALK OVERVIEW

1. Introduction: Goals and Purpose

2. Navigating ACE: Where to find the information

3. ACE Model: Datasets, data sources, attributes, caveats

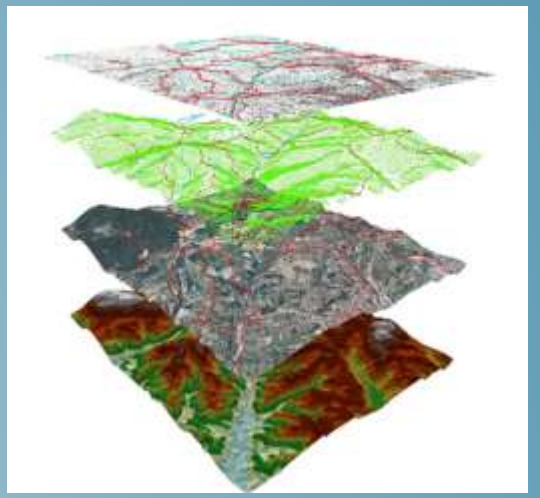
4. Example scenarios: How the data and viewer can be used

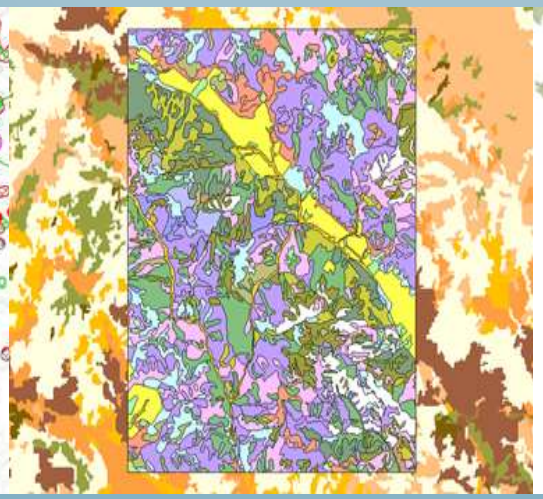
5. **Future updates**

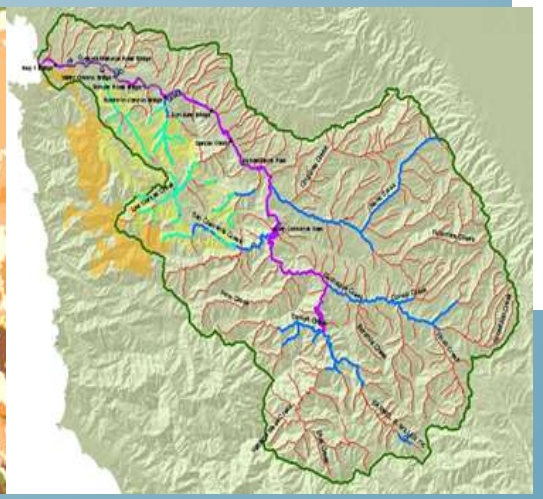
ACE
Areas of Conservation Emphasis

ACE: FUTURE UPDATES

- Version 3, Phase 2
  - Connectivity
  - Climate resilience
  - Recreation
  - Aquatic Data
- Regular updates (annual)



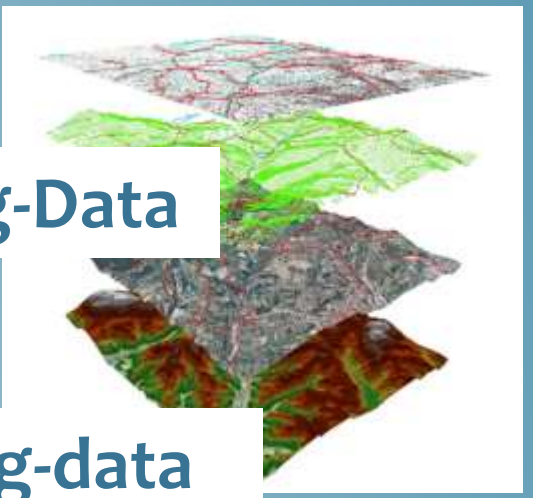




ACE: HOW TO SUBMIT YOUR DATA

- Submit datasets to BIOS

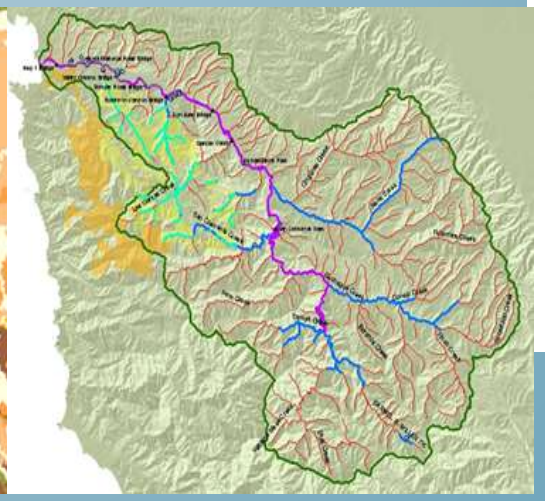
https://www.wildlife.ca.gov/Data/BIOS/Submitting-Data



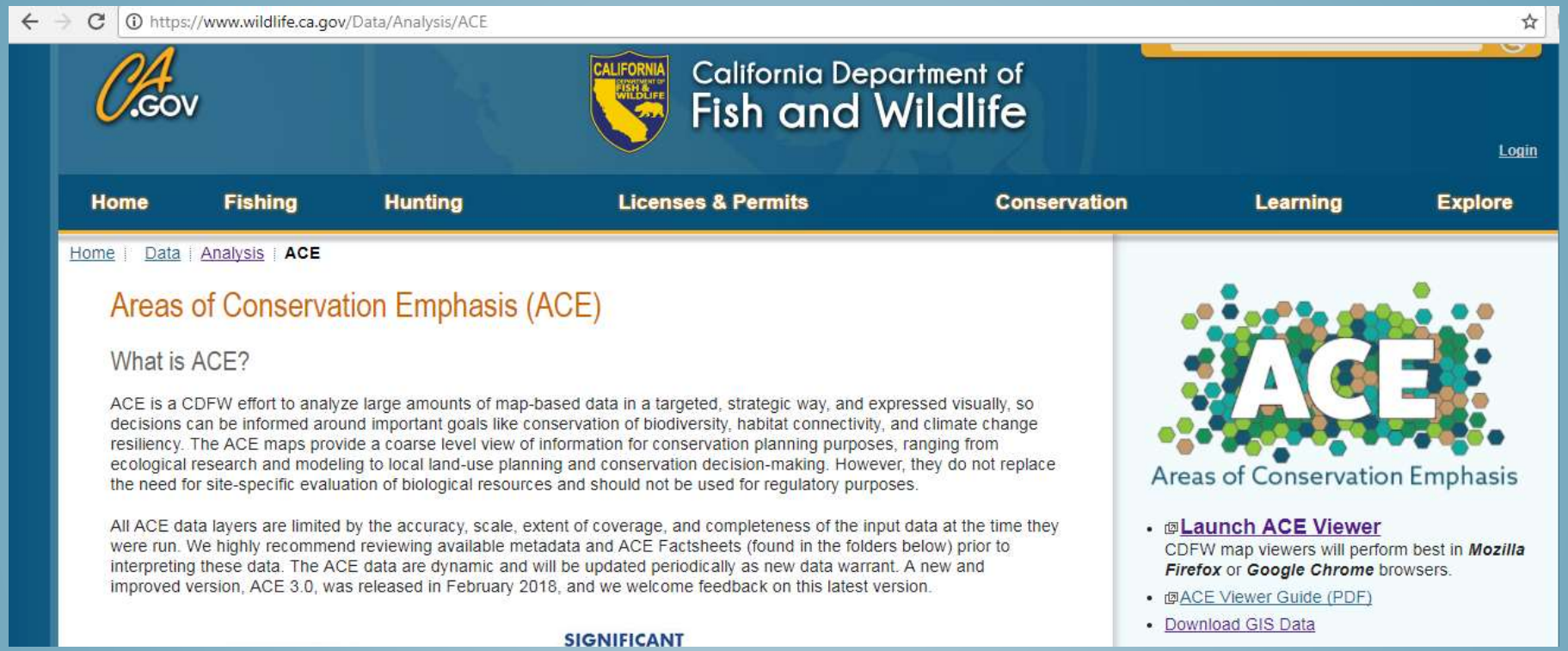
- CNDDB field survey forms

https://www.wildlife.ca.gov/data/CNDDB/submitting-data

- Contact us



https://www.wildlife.ca.gov/Data/Analysis/ACE



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