

DOCKETED

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Project Title:	Renewable Energy Transmission Initiative 2.0
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Description:	Presentation
Filer:	clare Laufenberg
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Submitter Role:	Commission Staff
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Goal

Using existing data, produce maps of conservation value (environment and agriculture) to be used to help inform and evaluate PUC scenarios

(The ability to report out on specific features is an important component.)

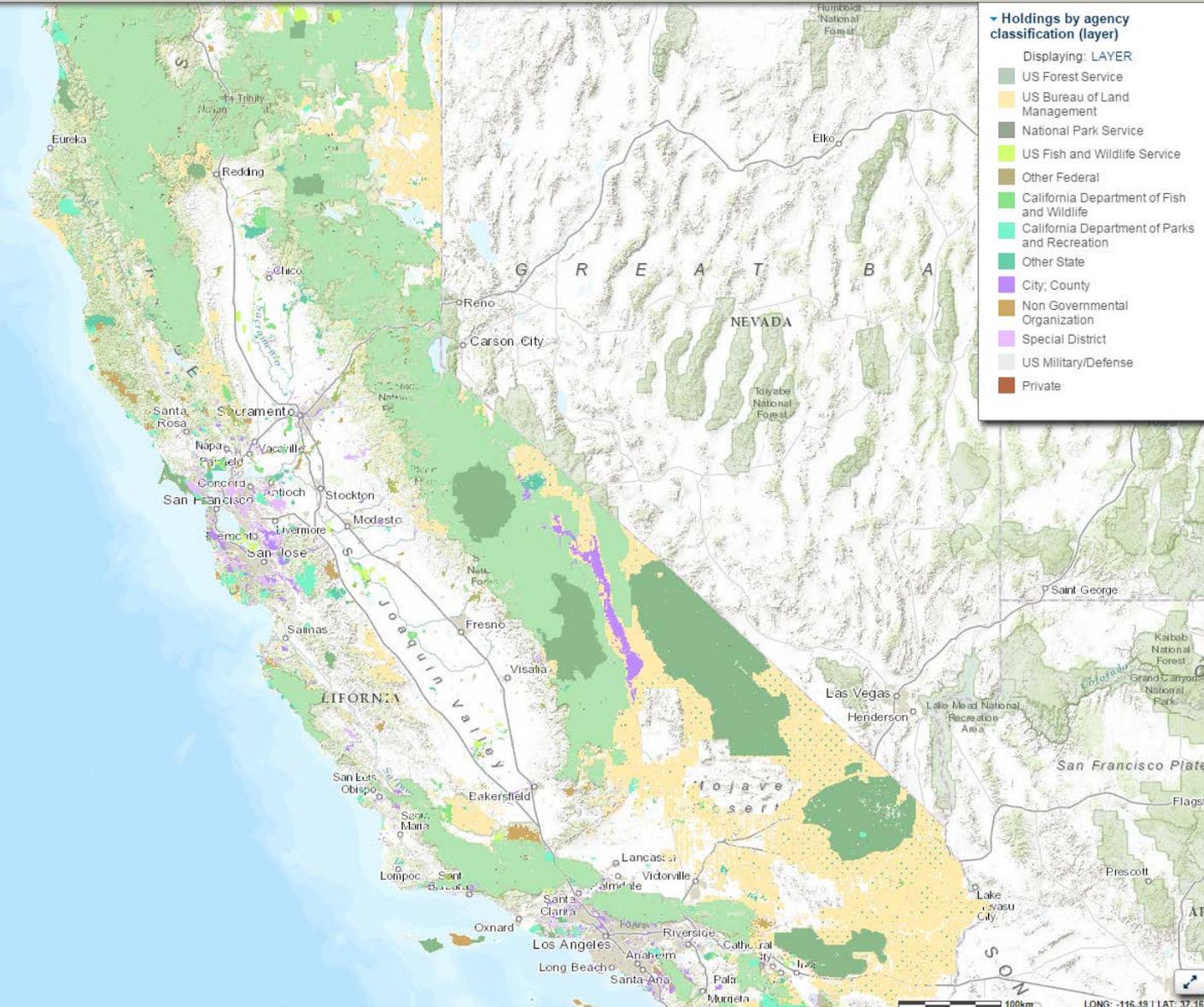
Tasks

1. Integrate protected areas data (including fee lands and easements)
2. Account for other inputs and update exclusion categories
3. Model landscape intactness for the entire state
4. Combine corridor data with terrestrial landscape intactness
5. Produce conservation value models for key focal areas (environment and agriculture)

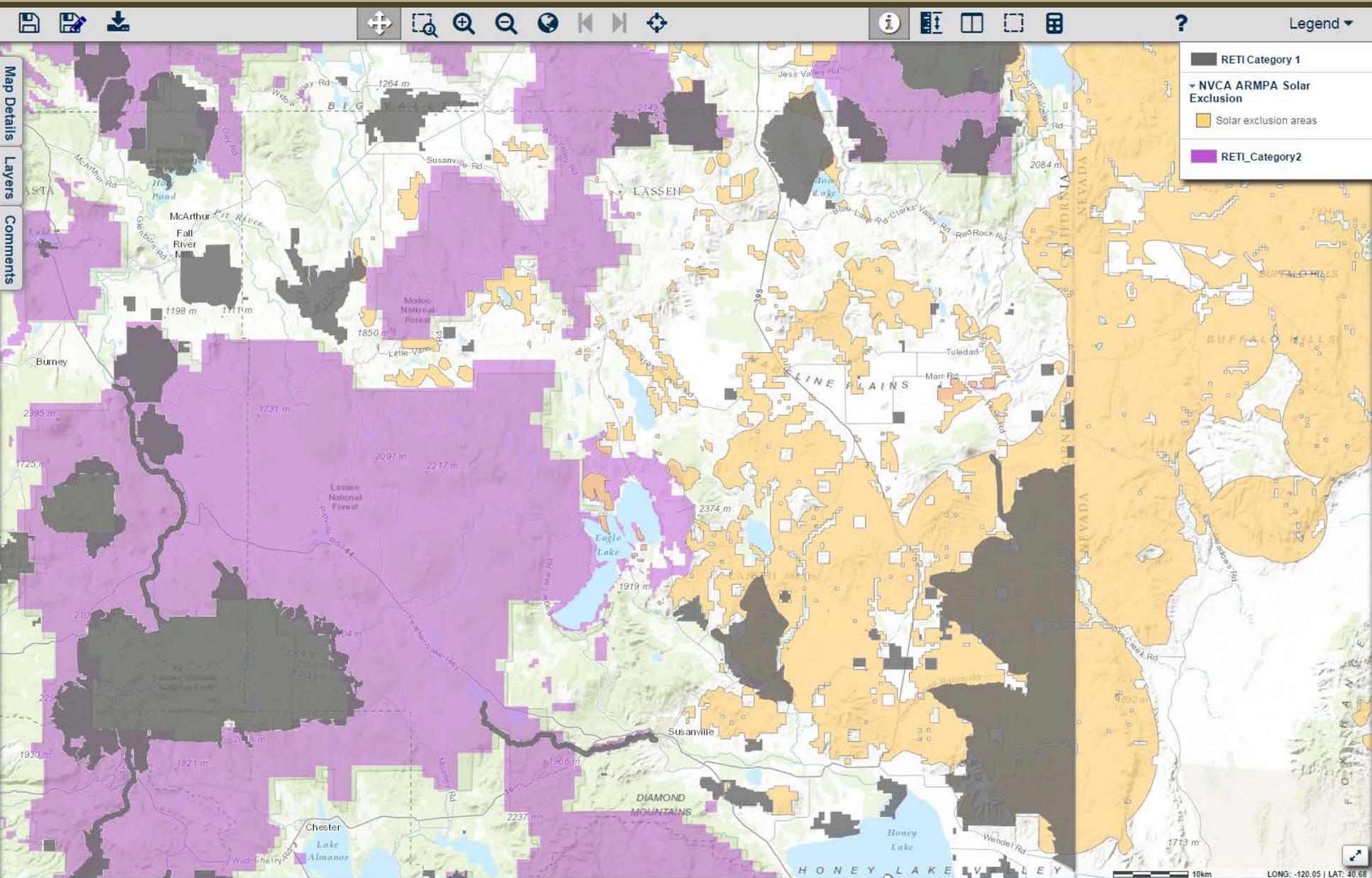
Task #1 - Integrate protected areas data

PAD-US (CBI Edition) 2012

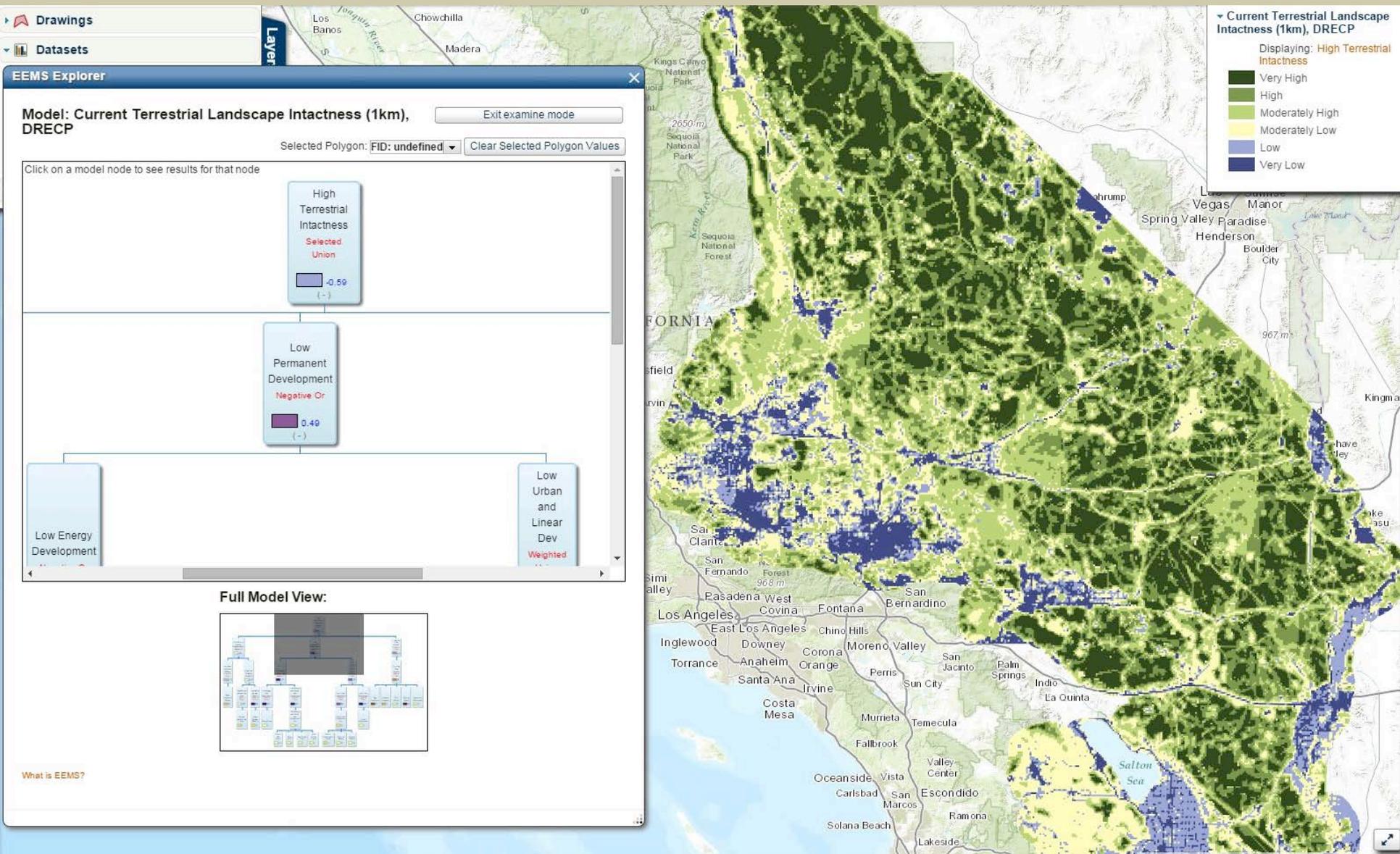
CPAD (2015)



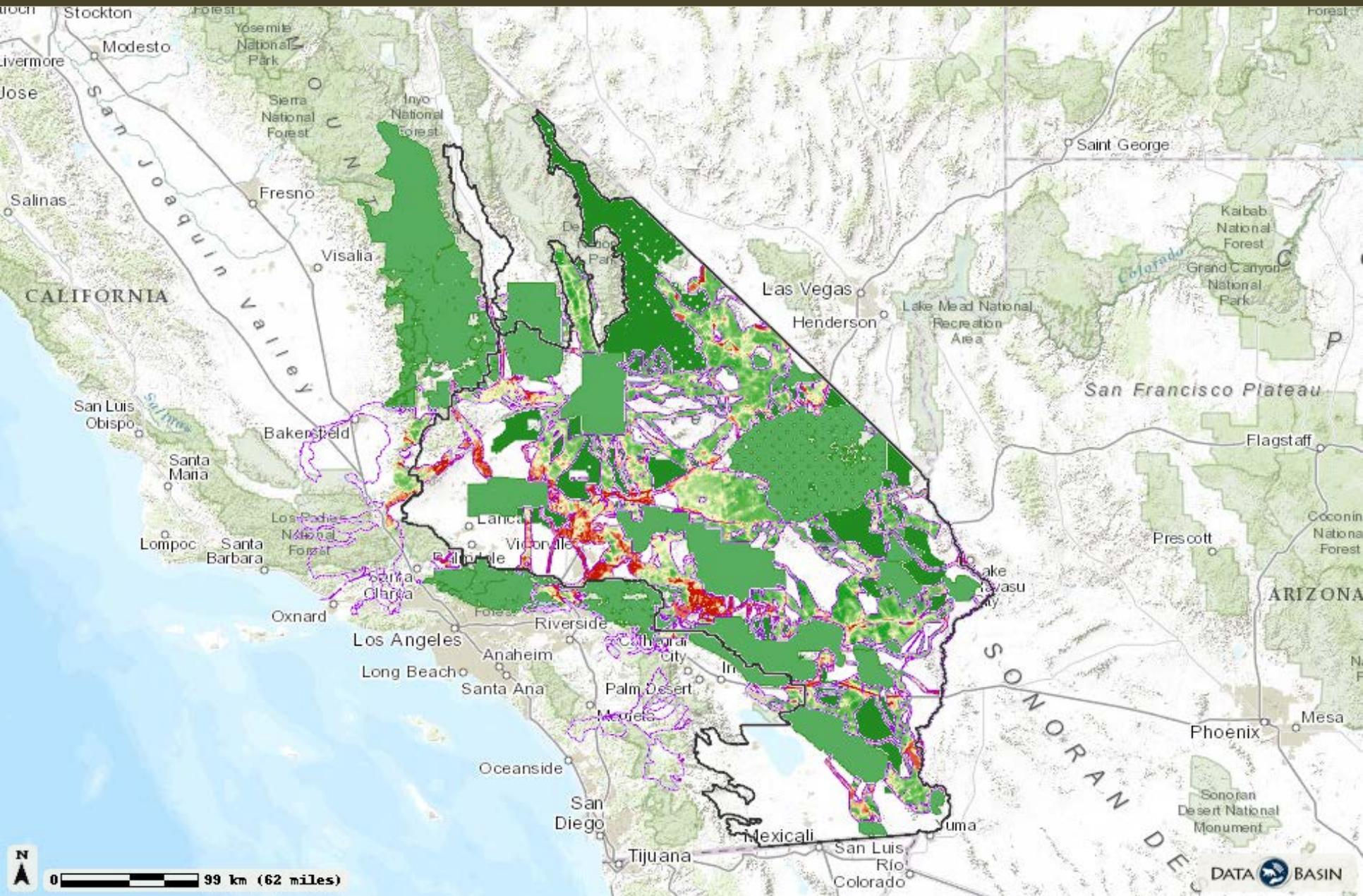
Task #2- Include other inputs and update exclusions



Task #3- Model landscape intactness for the state



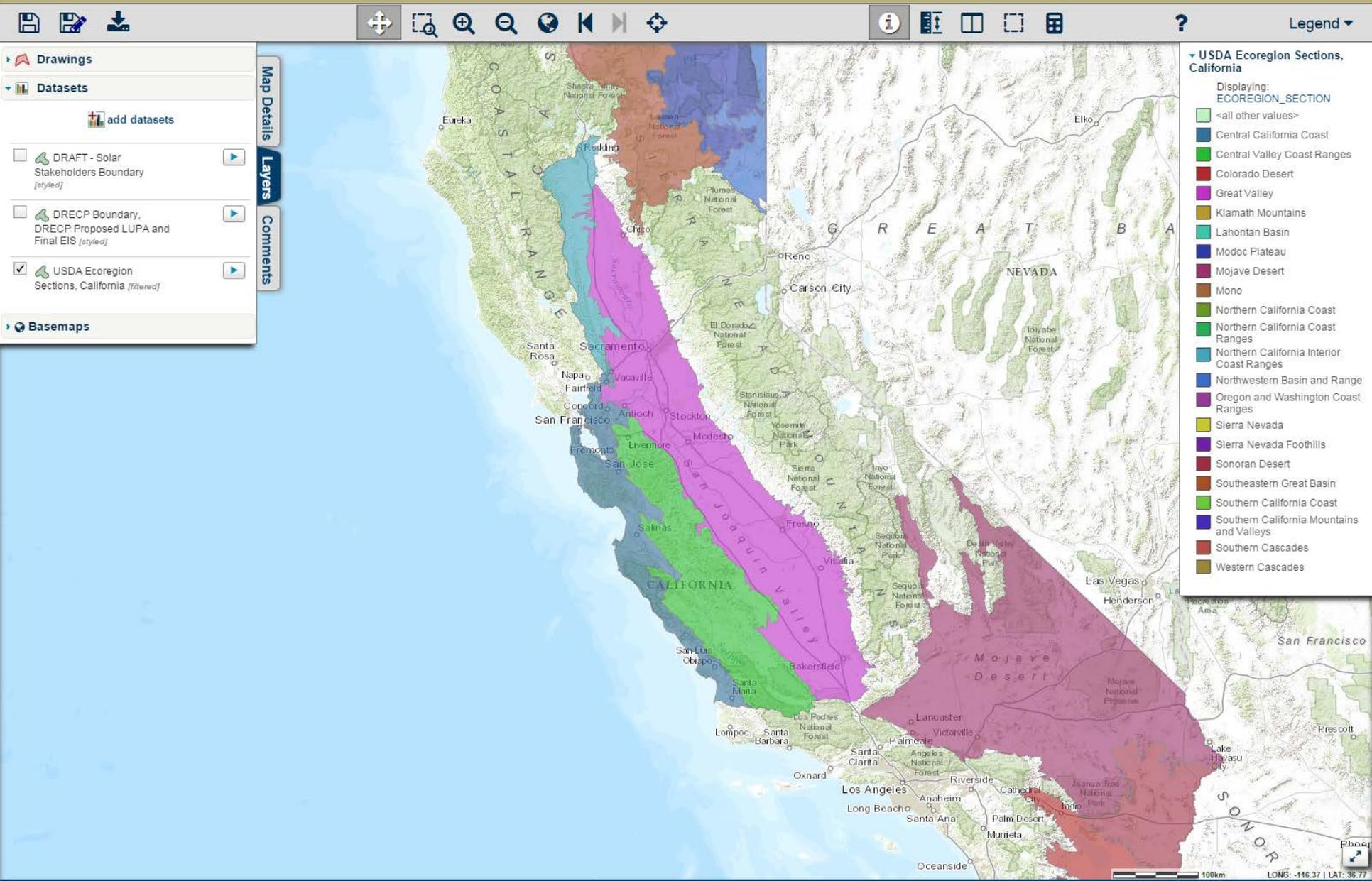
Task #4- Combine corridor data with landscape intactness



Task #5- Produce conservation value models

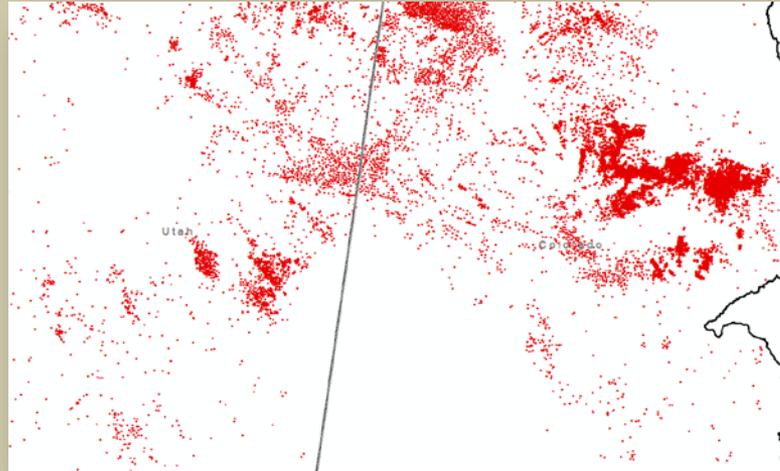
1. Geographic Extents
2. Reporting Unit
3. Modeling Approach
4. Existing Model Results
5. Data Sources
6. Process

Geographic Extents

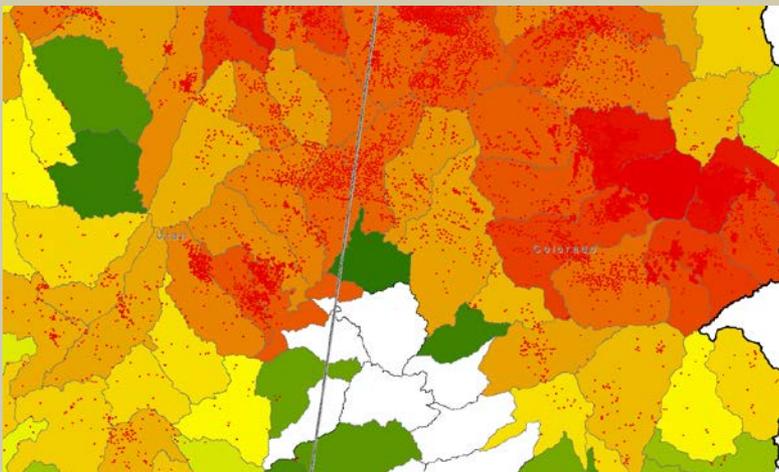


Reporting Unit

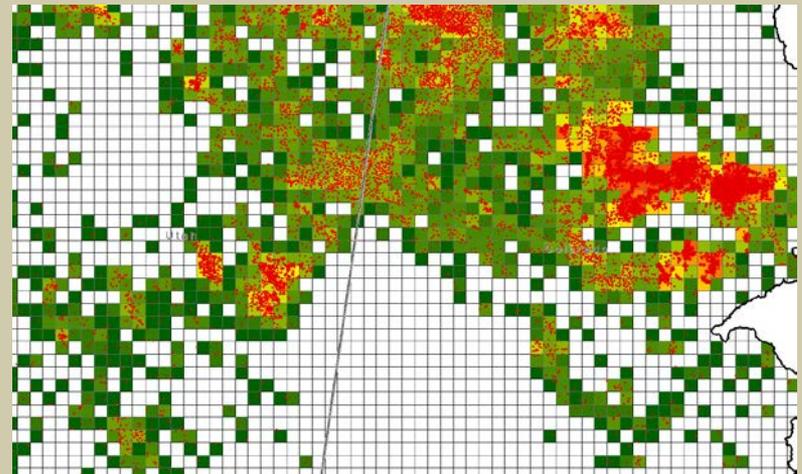
Raw Data



Watershed



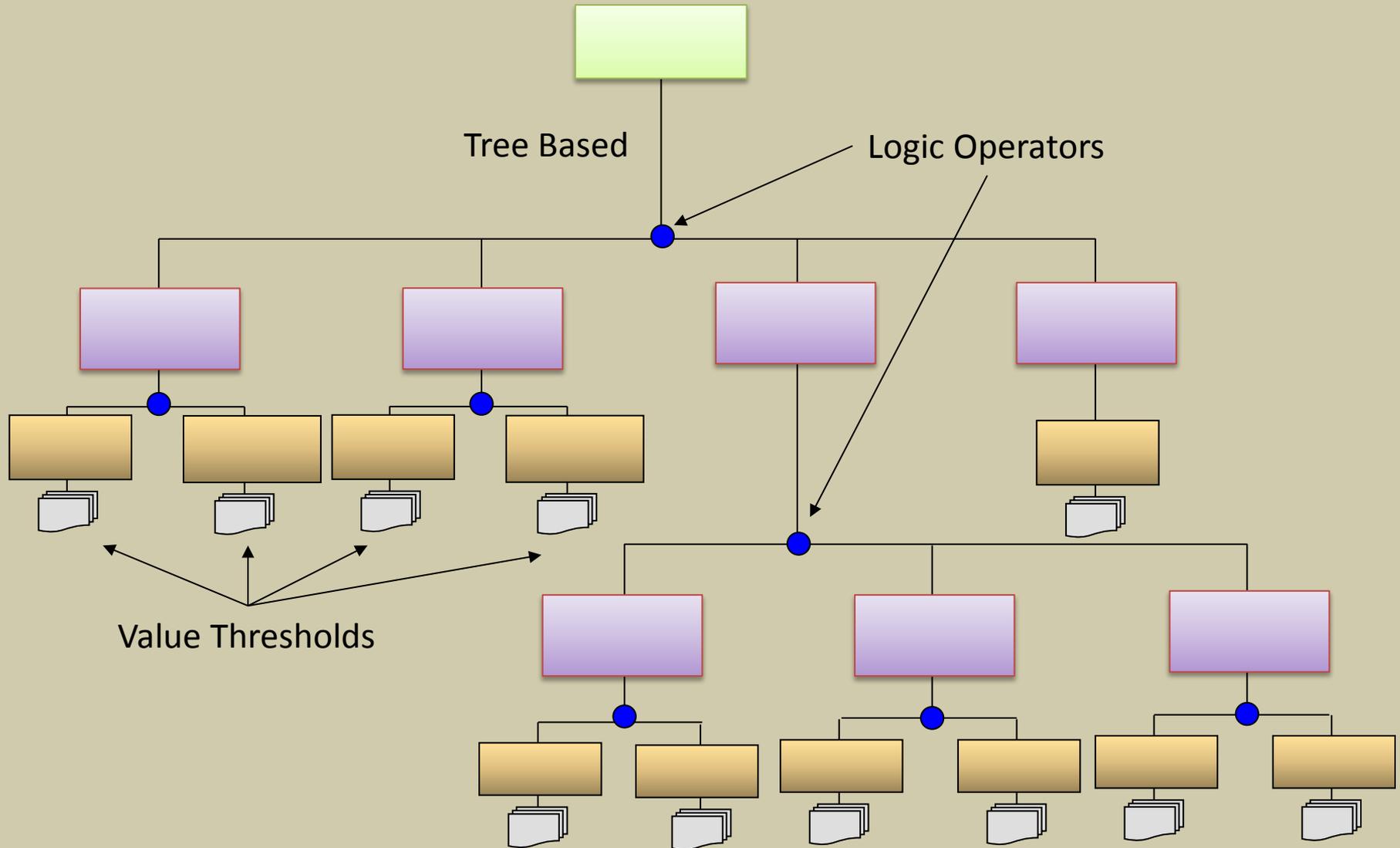
Grid Cells



Modeling Approach – Logic Models

1. Provides continuous results
2. Can factor in all spatial data of interest
3. Highly transparent
4. Allows for more sophisticated treatment of factors
5. Highly flexible
6. Easy to test different assumptions
7. Supports user participation
8. Relatively easy to update

Modeling Approach - Logic Models



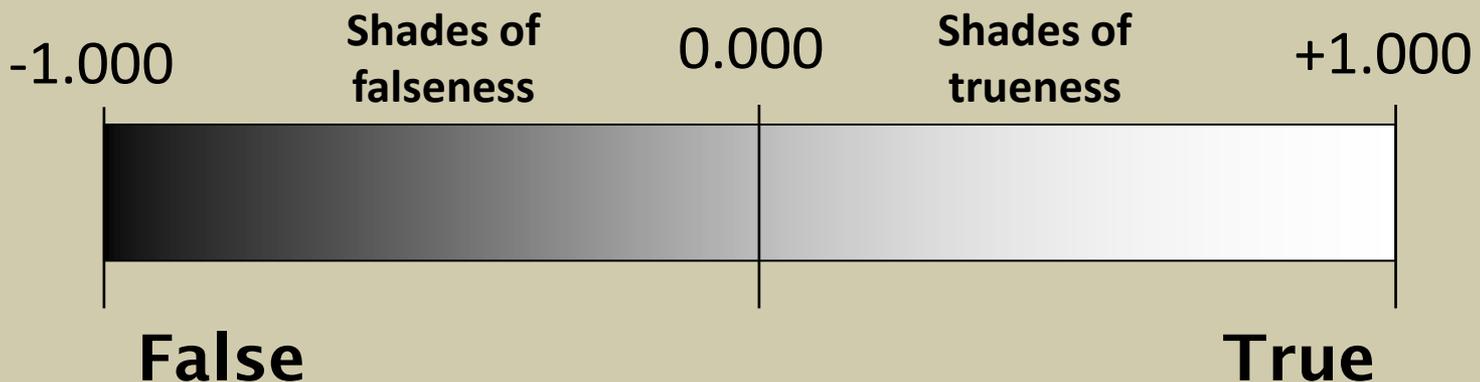
Multiple factors combined to address a question

Modeling Approach – Logic Models

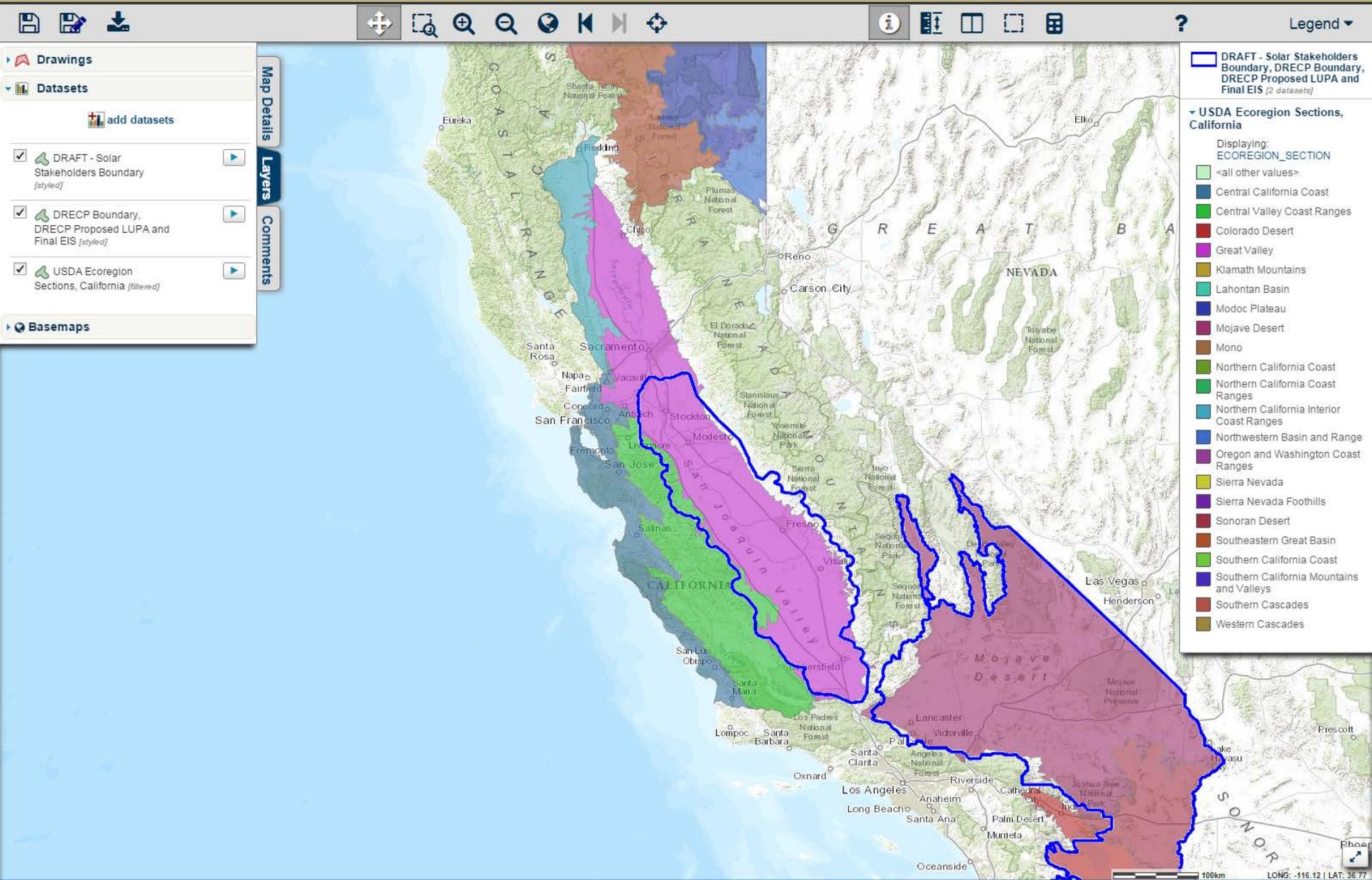
Normalize different types of data into a common range of values (“fuzzy values”).

e.g. High Intactness might take into account:

- Oil wells (sum or density)
- Roads (linear density)
- Invasive species extent (percent area)

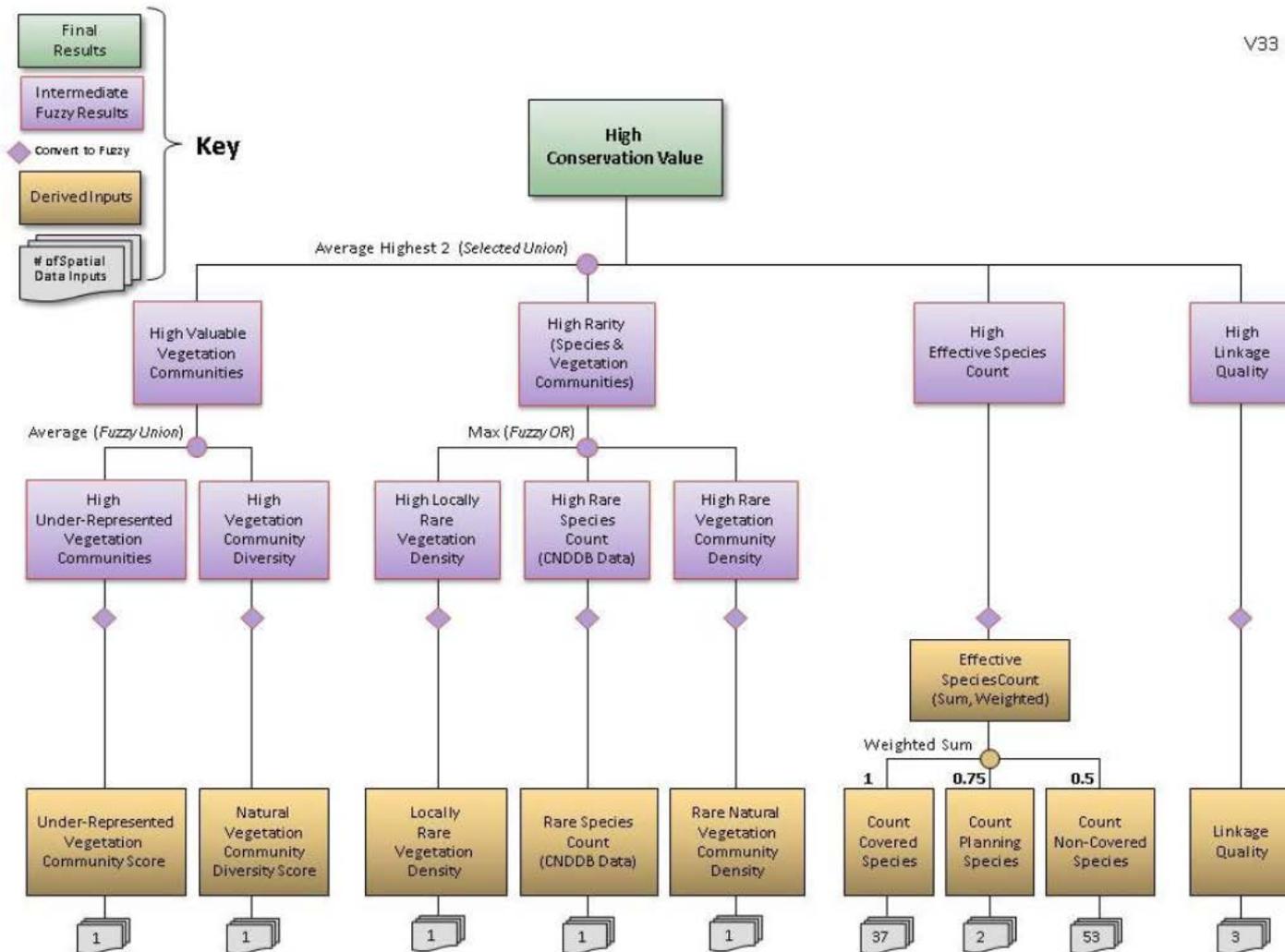


Existing Model Results

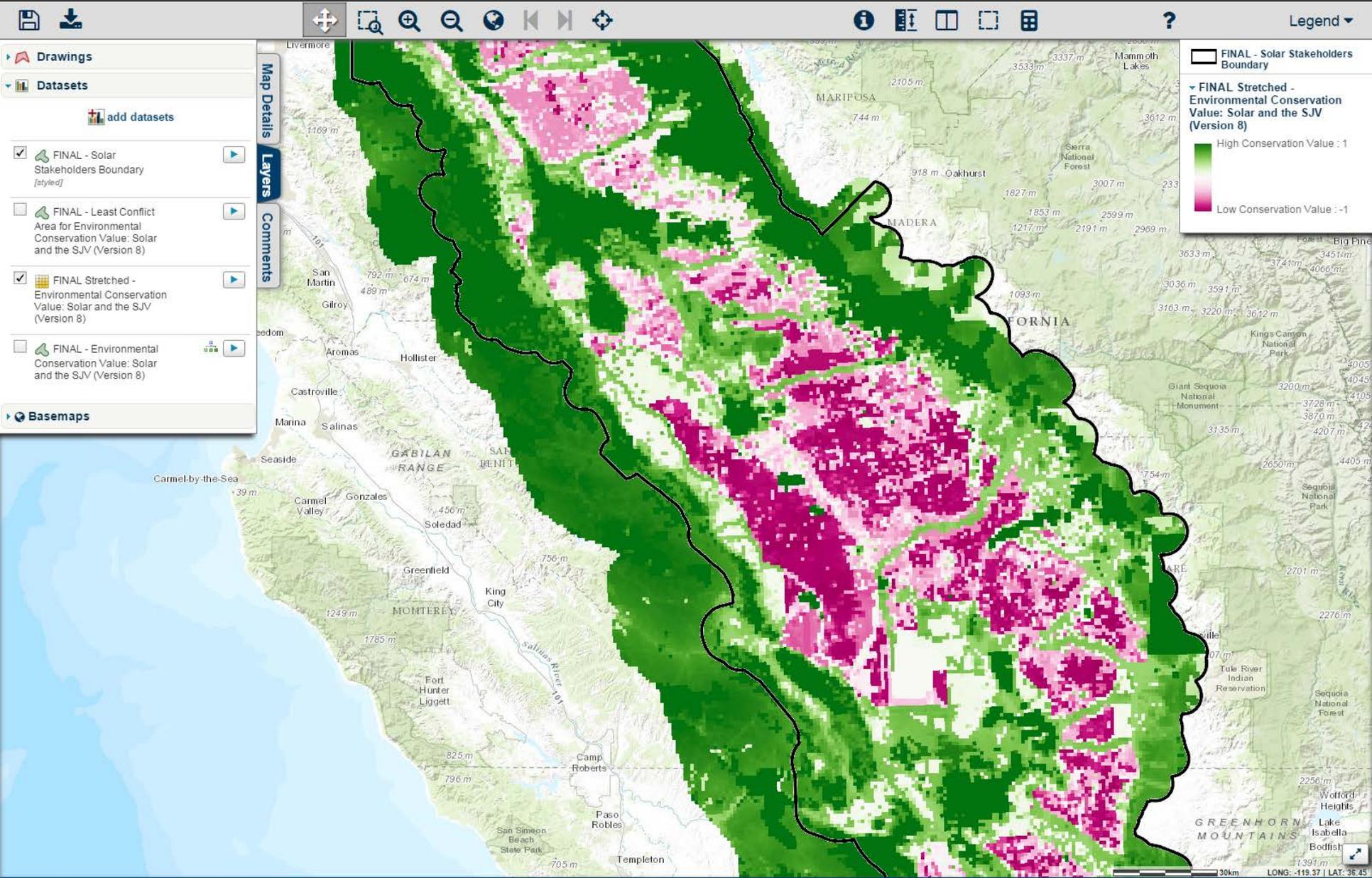


DRECP - Conservation Value

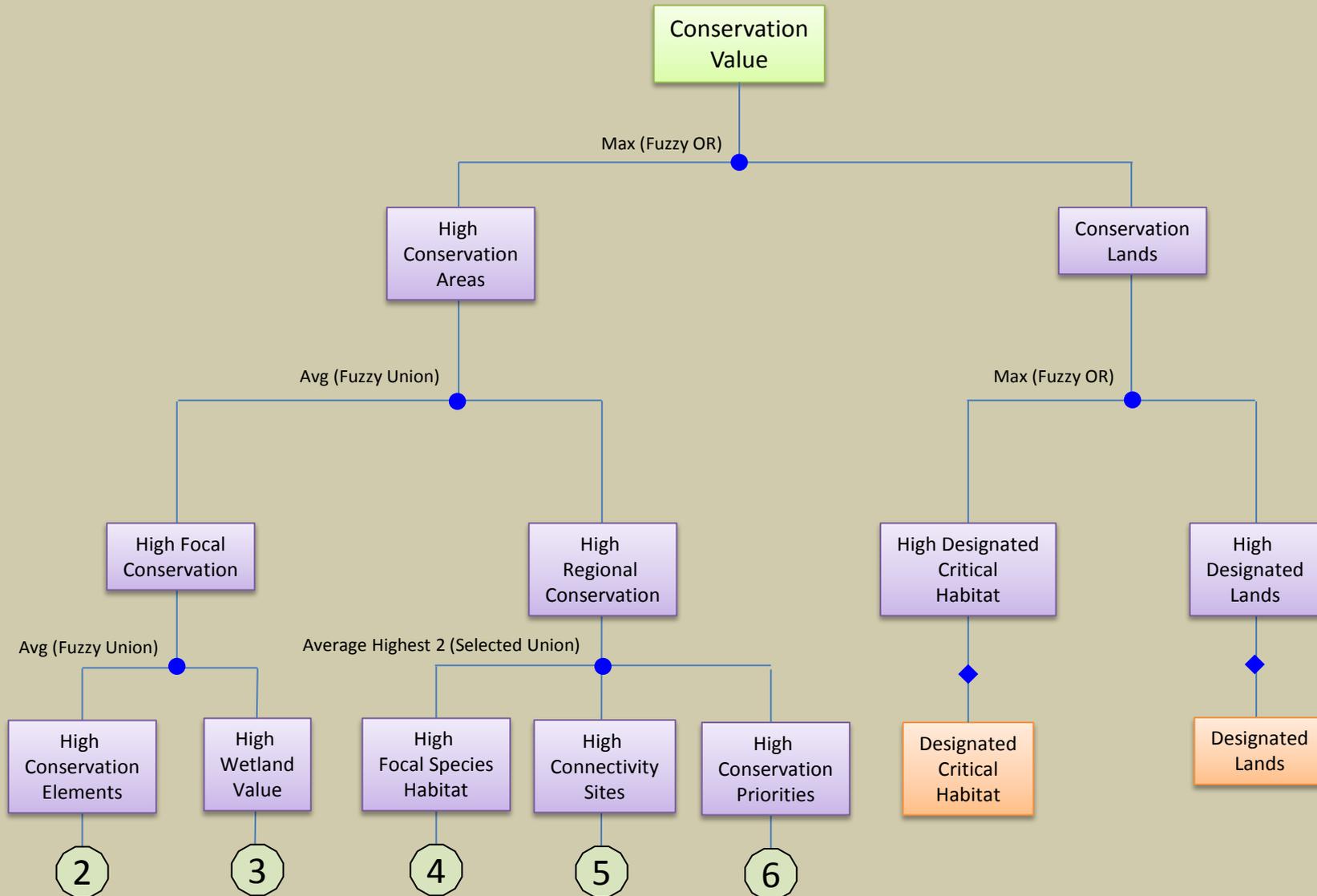
V33



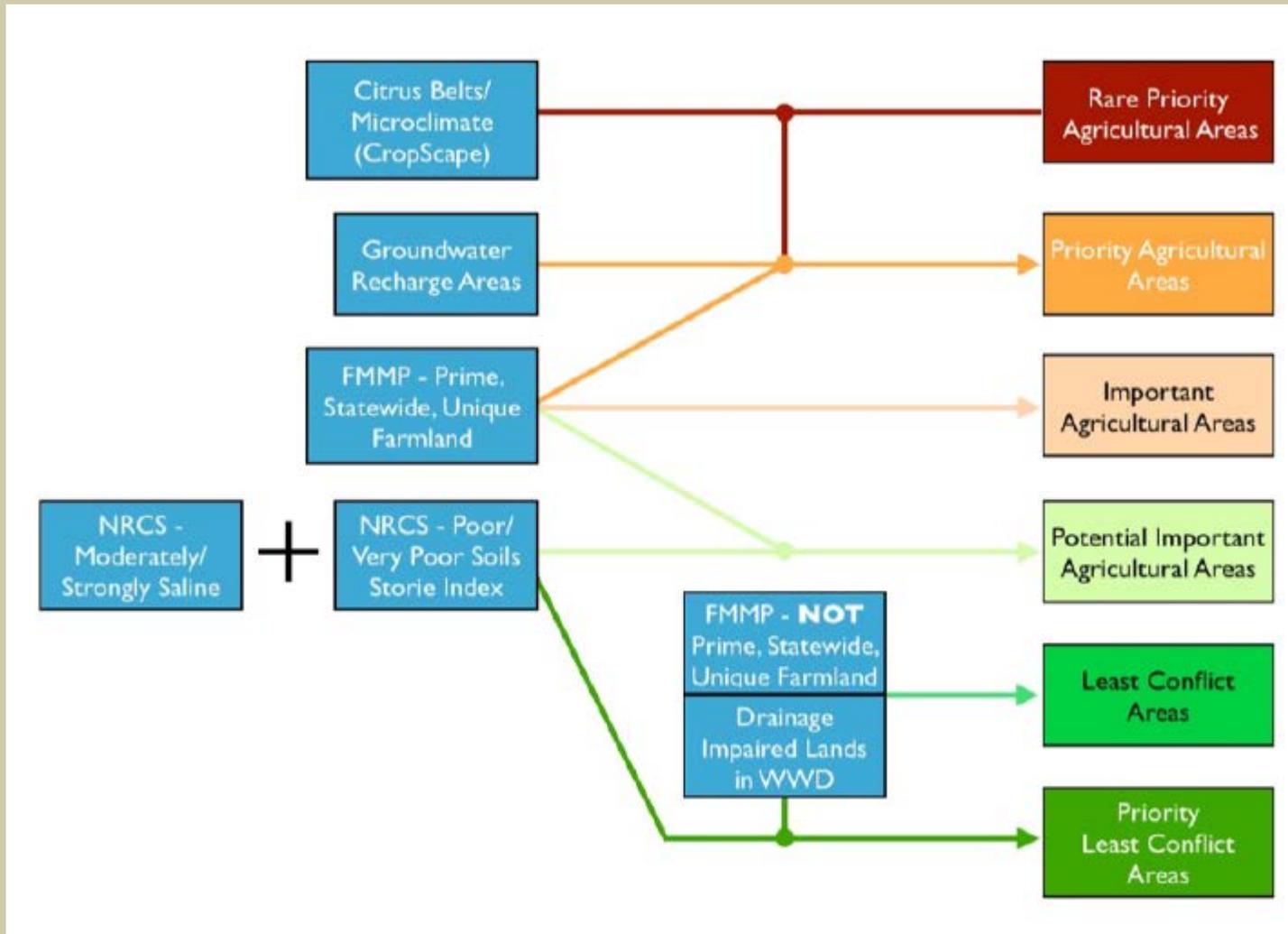
San Joaquin - Conservation Value



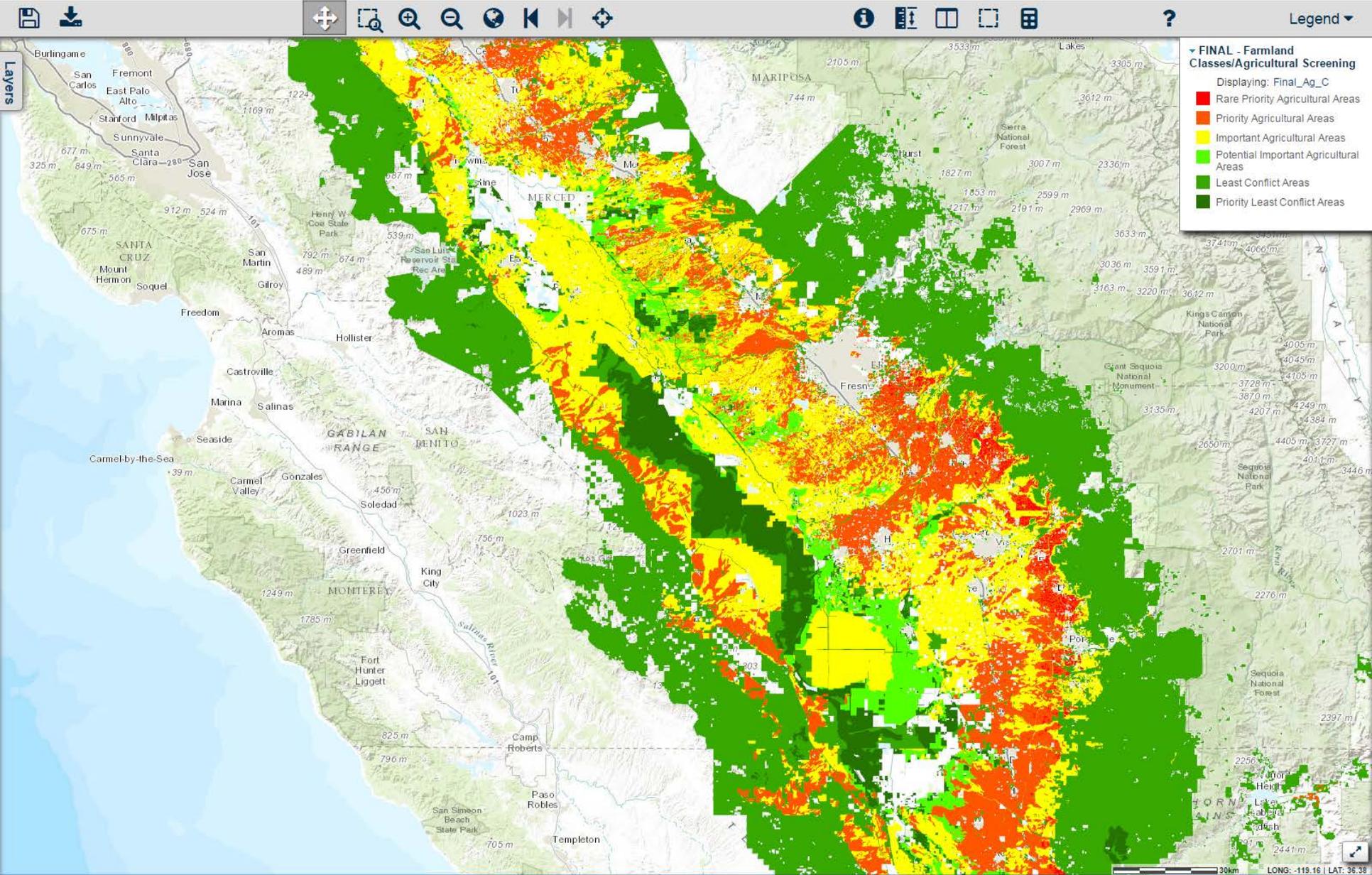
San Joaquin – Conservation Value



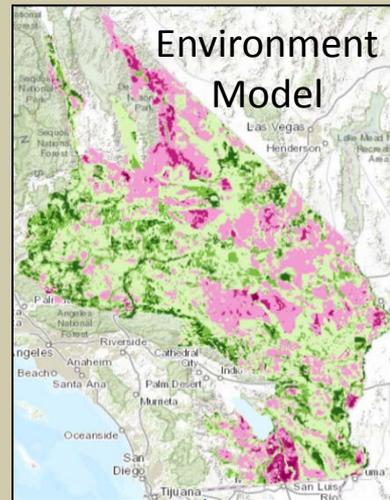
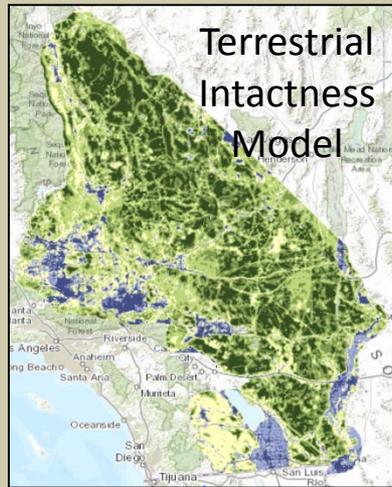
San Joaquin – Farmland Conservation Value



San Joaquin – Farmland Conservation Value



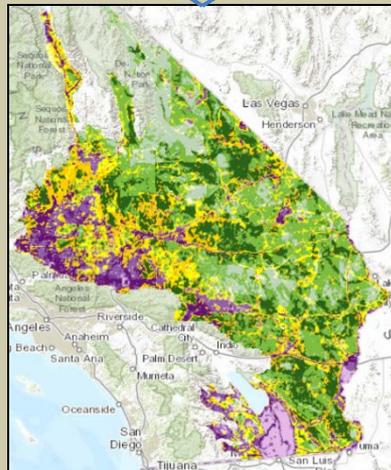
Keeping Models Separate – DRECP Example



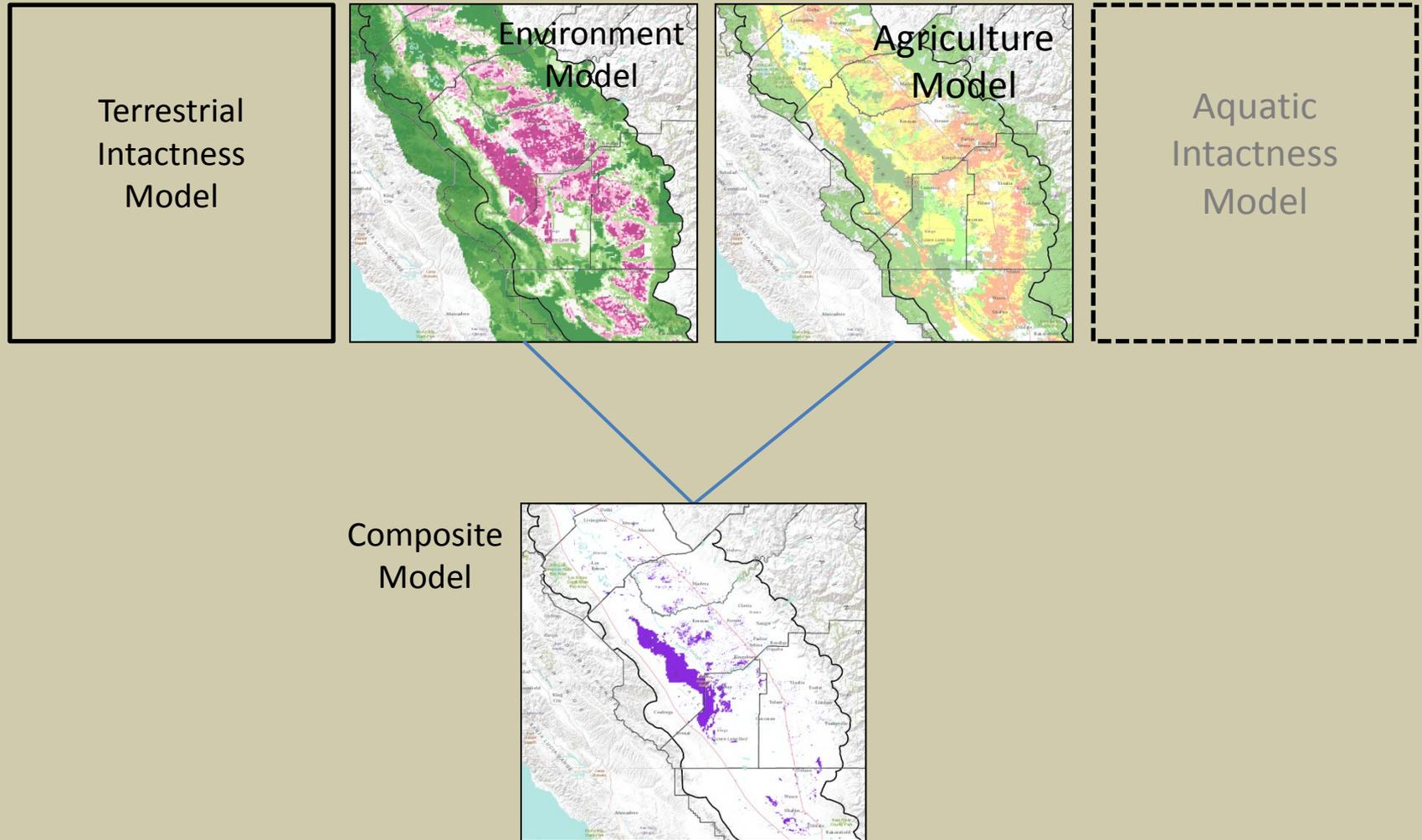
Agriculture Model

Aquatic Intactness Model

Composite Model



Keeping Models Separate – SJ Example



Data Sources

California Biological Data

Created by Conservation Biology Institute

Jan 18, 2016

Manage...

Add to...



About

This gallery contains datasets pertaining to biological content in the State of California, including species, natural communities, and some model aggregation results.

Tags

biological, values, california

This gallery is visible to everyone

Gallery contains

14 Folders

39 Datasets

6 Galleries

Usage

bookmarked by 1 member

Gallery Contents

Gallery Credits

Attachments

Comments (0)

Sort by: Default

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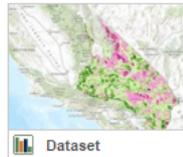
Conservation Model Results (3 folders)

DRECP (5 items)



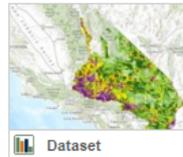
Dataset

Current Terrestrial Landscape Intactness (1km), DRECP



Dataset

Conservation Value (1km), DRECP



Dataset

Terrestrial Intactness - Conservation Value Combination (1km), DRECP



Dataset

Covered Species Stack - The Combined Distribution of 37 Covered Species ...



Dataset

Other Species Stack - The Combined Distribution of 55 Non-Covered ...

San JoaquinValley (2 items)

Statewide (1 item)

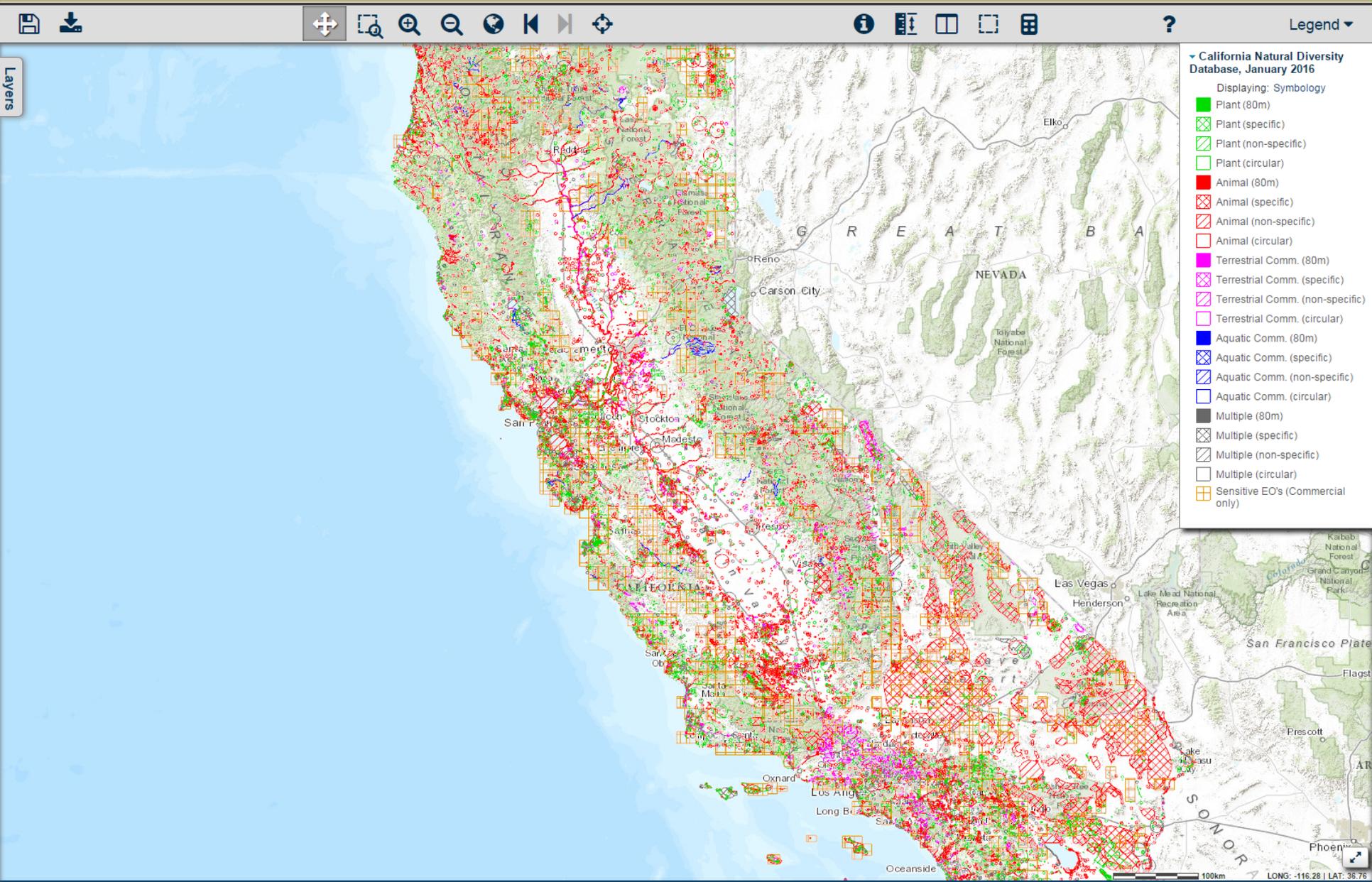
Natural Communities (4 folders)

Species (4 folders)

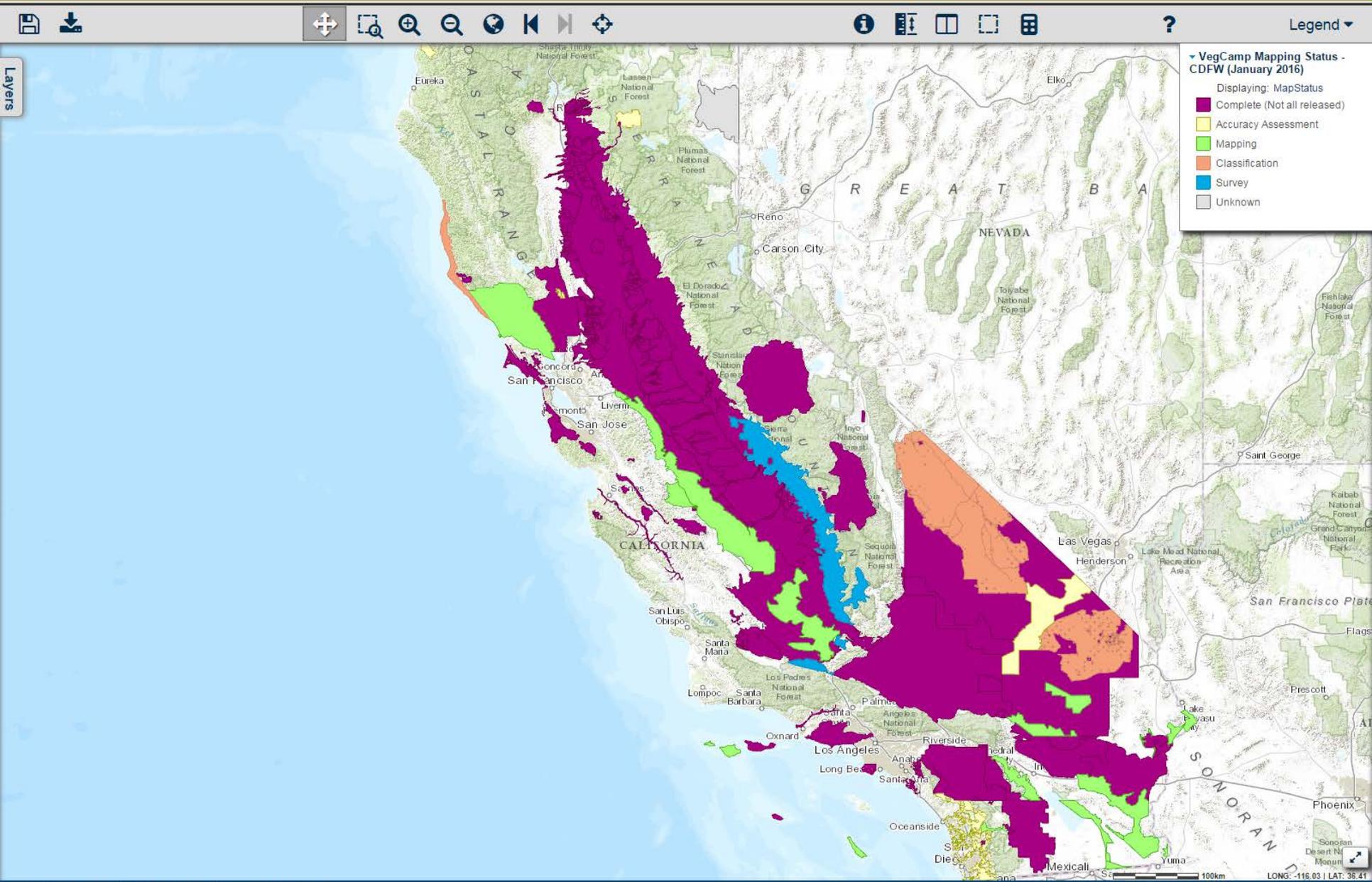
Data Categories – Environmental Conservation

- Conservation Lands
- Conservation Elements
 - Species occurrences
 - Natural communities occurrences
- Land Cover – GAP Analysis/Special Communities
- Focal Species Distributions
- Connectivity – Corridors/Landscape Permeability
- Landscape Condition – Terrestrial and Aquatic Intactness
- High Conservation Priorities

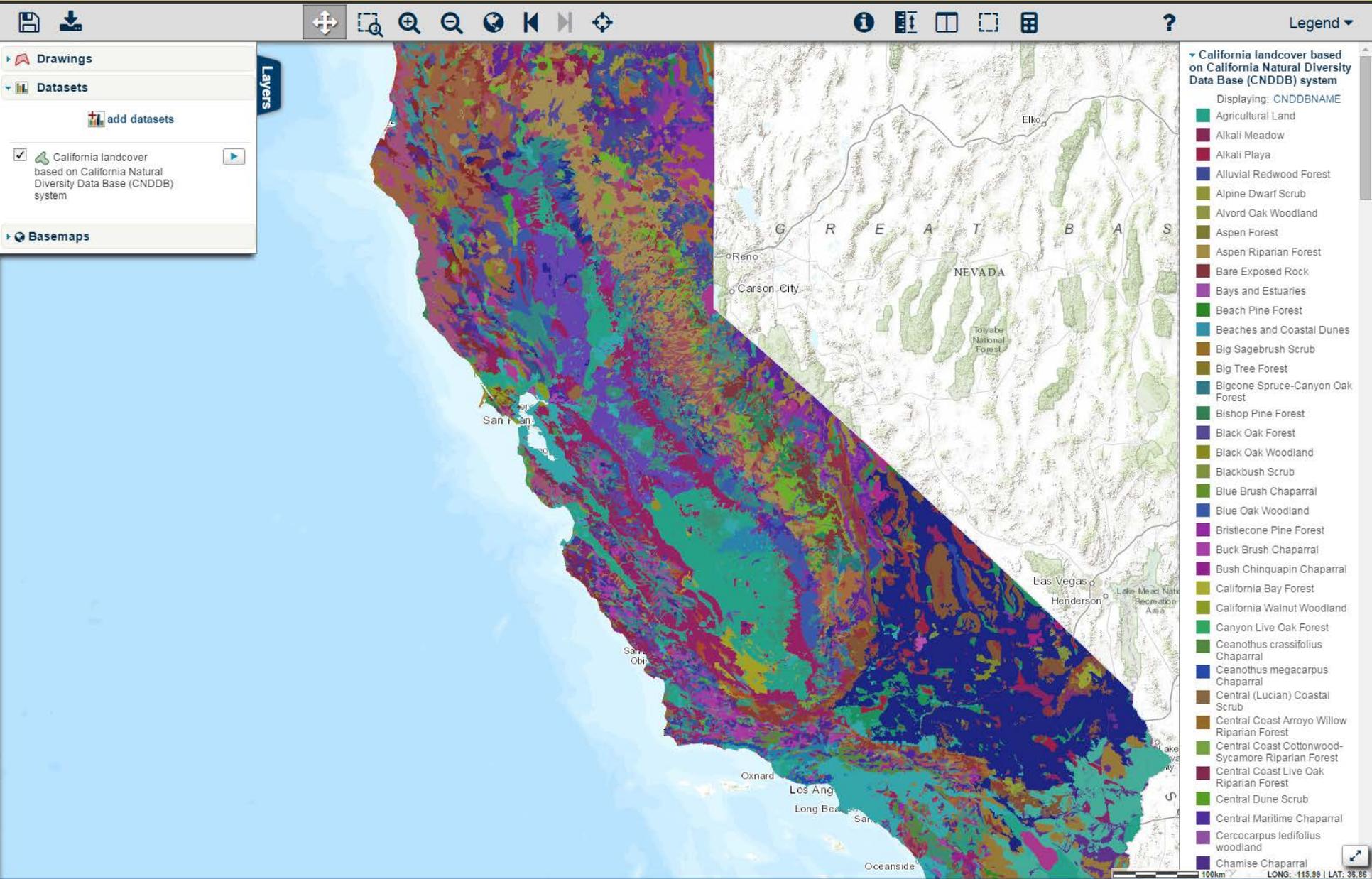
Data Sources - CNDDDB



Data Sources - VegCamp



Data Sources- CA Landcover



Data Categories – Agricultural Conservation

- Farmland Cover
- Soil Characteristics
- Groundwater
- Micro-climate
- Political Designations

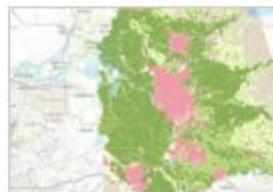
Data Sources - FMMP



Dataset
Tulare County Farmland Mapping and Monitoring Program (FMMP), 2012



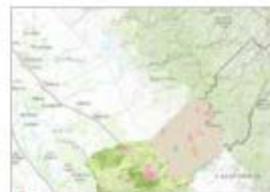
Dataset
Stanislaus County Farmland Mapping and Monitoring Program (FMMP), 2012



Dataset
San Joaquin County Farmland Mapping and Monitoring Program (FMMP), 2012



Dataset
Merced County Farmland Mapping and Monitoring Program (FMMP), 2012



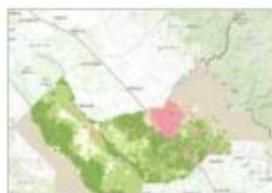
Dataset
Madera County Farmland Mapping and Monitoring Program (FMMP), 2012



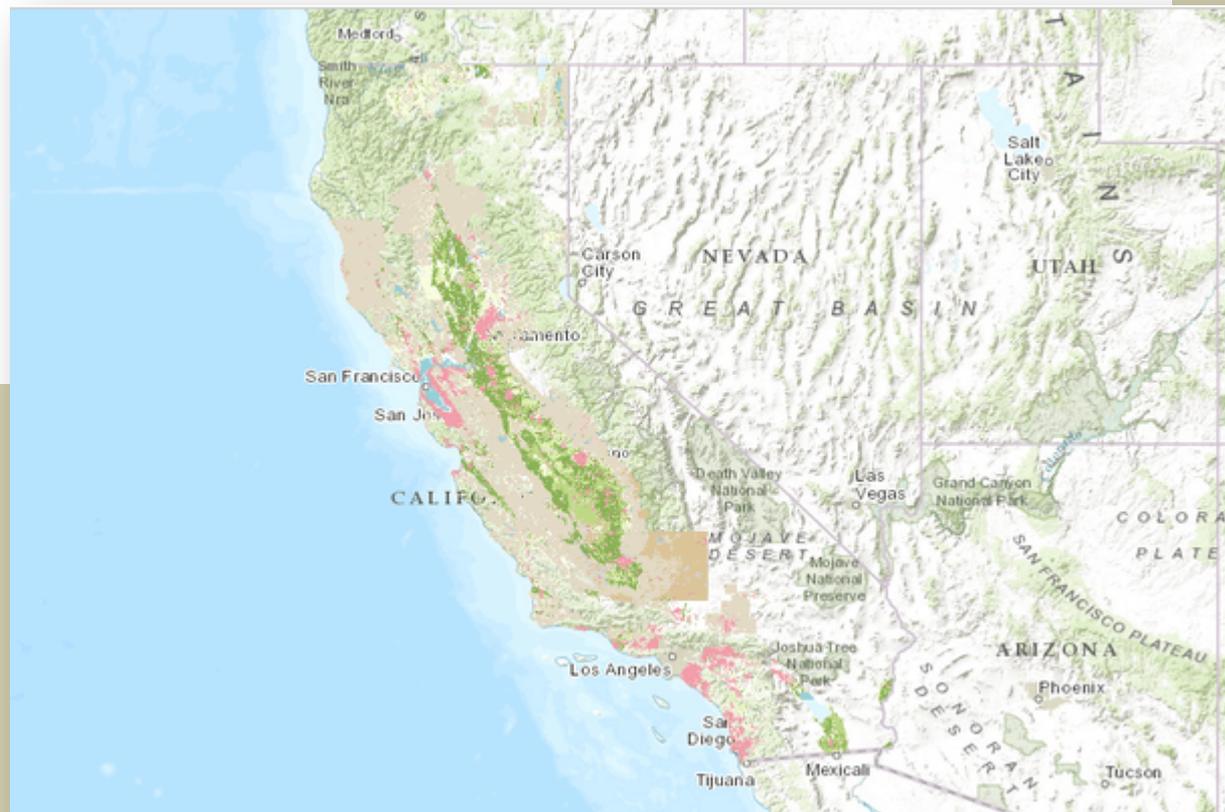
Dataset
Kings County Farmland Mapping and Monitoring Program (FMMP), 2012



Dataset
Kern County Farmland Mapping and Monitoring Program (FMMP), 2012



Dataset
Fresno County Farmland Mapping and Monitoring Program (FMMP), 2012



What is missing?

- ✧ Important species distribution models for many areas
- ✧ Detailed vegetation data in many areas
- ✧ Aquatic intactness model
- ✧ Incorporation of climate change with species and natural communities
- ✧ Prioritized and refined landscape corridor mapping

RETI Gateway

The screenshot shows the Data Basin website interface. At the top, there is a search bar and navigation tabs for 'Get Started', 'Explore', 'Create', 'Community', and 'My Workspace'. A large banner features a tiger's face and the text: 'Data Basin is a science-based mapping and analysis platform that supports learning, research, and sustainable environmental stewardship.' Below the banner are four blue buttons: 'What is Data Basin?', 'What can I do?', 'Who is using Data Basin?', and 'How do I start exploring?'. A 'Take a Tour' button is also visible. The main content area is titled 'Explore Data Basin Guides & Case Studies...' and includes sections for 'Sea Level Rise (SLR) Data Platform', 'Explore Data Basin Mapping Tools', and 'Gateways'. The 'Sea Level Rise (SLR) Data Platform' section describes a portal for coastal impacts. The 'Explore Data Basin Mapping Tools' section lists features like viewing and analyzing geospatial data and collaborative tools. The 'Gateways' section explains they are unique spaces for finding curated spatial data. A 'See All Gateways' button is present.

www.databasin.org

<http://drecp.databasin.org/videos>

The screenshot shows the 'Desert Renewable Energy Conservation Plan Gateway' website. It features a search bar and navigation tabs for 'Get Started', 'Explore', 'Create', and 'My Workspace'. The main content area is titled 'Instructional Videos & Webinars' and is divided into two columns: 'Overview videos' and 'Models and Applications'. The 'Overview videos' column includes thumbnails for 'How to Create a Map', 'How to Search', 'How to Import Data', 'Importing NetCDF Data', 'EEMS Explorer', 'The Swiper Tool', 'How to Create a Gallery', and 'Using My Workspace'. The 'Models and Applications' column includes thumbnails for 'Terrestrial Intactness', 'Conservation Values', 'Climate Site Sensitivity', 'Species Stack', 'Climate Console', and 'Site Survey Analyst'. Each thumbnail shows a map or data visualization with a play button icon.

The screenshot shows a webinar page titled 'Webinars' with the subtitle 'Navigating the Data Basin Platform: A Guided Tour'. The page features a video player showing a person's feet in hiking boots. Below the video player are social media sharing options for Facebook, Twitter, and LinkedIn. The text below the video reads: 'Dr. Tosha Conasant, Senior Scientist at Conservation Biology Institute, gives an introductory tour to demonstrate multiple ways to explore and create content in Data Basin. Data Basin is an online mapping and analysis platform that supports learning, research, and sustainable environmental stewardship. The tour will include examples of keyword and geographic search functions, mapping, and collaborative tools. A 30 minute presentation is followed by 15 minutes of informal questions and discussion. After this webinar, you will have:' followed by a bulleted list of learning objectives. The presenter's name and title are listed as 'Presenter: Tosha Conasant, Ph.D., Senior Conservation Scientist, tosha@consbio.org'. A video player icon is visible at the bottom of the page.

<http://consbio.org/products/webinars/navigating-data-basin>