

DOCKETED

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Environmental Information for Energy Planning

Scott Flint

California Energy Commission
IEPR Staff Workshop
Art Rosenfeld Hearing Room
Sacramento, California

August 2, 2017



2016 Integrated Energy Policy Report Update

Recommendations for Statewide Energy Planning and Permit Coordination:

- Continue to apply proactive tools and approaches like landscape-scale planning, to help meet renewable energy and GHG reduction goals.
- Integrate information gathered and produced from energy planning efforts, including DRECP, San Joaquin Valley Identification of Least Conflict Lands, and the Renewable Energy Transmission Initiative (RETI) to inform energy planning.
- Expedite permitting of the highest priority transmission projects.



Landscape-Scale Energy Planning Processes

- Renewable Energy Transmission Initiative (RETI)
- Desert Renewable Energy Conservation Plan (DRECP)
- San Joaquin Valley Least Conflict Lands for Solar PV
- RETI 2.0
- California Offshore Wind Energy



Collaboration with Conservation Biology Institute (CBI)

Data Basin

DATA BASIN

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What is Data Basin?
Data Basin is a science-based mapping and analysis platform that supports learning, research, and sustainable environmental stewardship.

What can I do?
Who is using Data Basin?
How do I start exploring?

Get started quickly with Data Basin [Take a Tour](#)

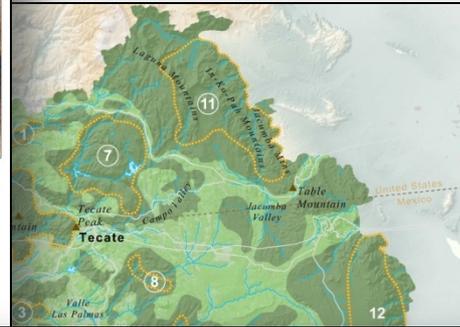
Explore Data Basin Guides & Case Studies...

Recommended Items

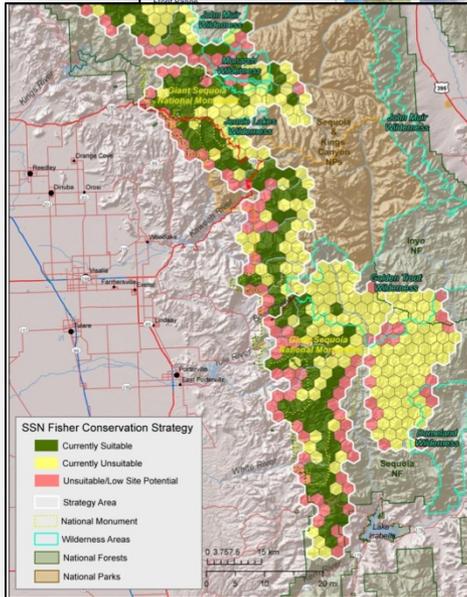
- Dataset: Percent Land Area Formally Protected by Terrestrial Ecoregion (2014)
- Dataset: Biodiversity of Amphibians, Birds, and Mammals
- Gateways: Gateways are unique spaces for finding curated spatial data. They build upon the existing Data Basin Framework and are customized to meet the needs of a target audience. Customizations can include custom mapping and analysis tools.

(CBI)

Conservation Planning & Assessments



Ecological Models



Select a Location

Selection Tools

4 polygons selected
Designation: Development Focus Areas
Ownership: Private and Other Public Lands

Model Results

Click a column below to view the map and model diagram

Highest (+1)
Very High
High
Moderate (0)
Very Low
Lowest (-1)

Terrestrial Insectness | Conservation Value | Soil Sensitivity | Physical Refuge

Conservation Value: 0.5

Selected Union

- Hi Diversity & Underlay Communities (0)
- Hi Rare Species & Vtg Communities (0.2)
- Effect Species (0.3)

Click a node in the diagram above to map the model component

Golden eagle | Mohave ground squirrel | Mohave monkeyflower

Science Interpretation Support Tools



Monitoring & Management



Data Basin Gateways: Collaborative Planning Platforms



drecp.databasin.org



reti.databasin.org



caoffshorewind.databasin.org



sjvp.databasin.org



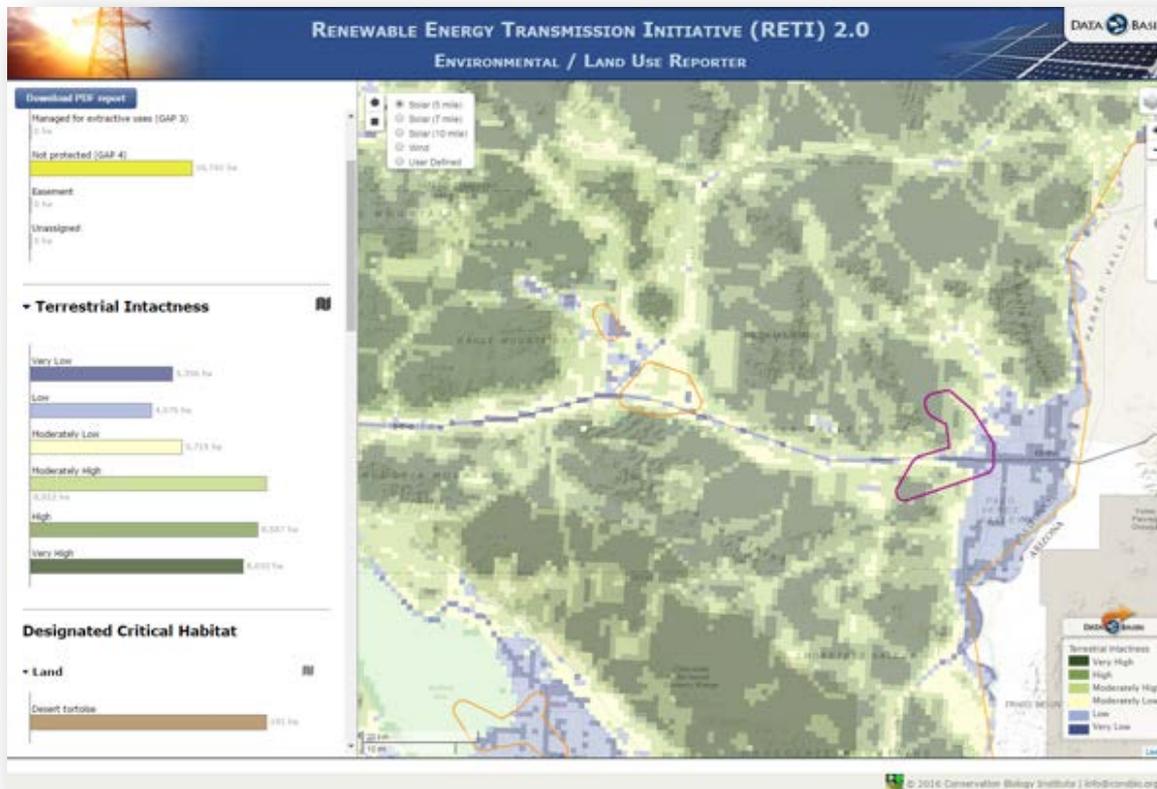
RETI 2.0 Environmental and Land Use Technical Group

Report Recommendations and Next Steps:

- Assemble accurate and representative datasets, keep them available online for use by the agencies, stakeholders, and the public.
- Periodically update and work to fill data gaps to provide a basic set of information that can be used as an input to agency planning and regulatory processes.
- Agencies and stakeholders should work together to complete the Environmental Report Writer that uses the data in landscape-scale planning processes so that the data and information could be easily used in planning and decision making.



Environmental Report Writer Application Began Development Under RETI 2.0





Environmental Information for Energy Planning (Docket 17-MISC-03)

- Siting Division – 2017 staff work that implements IEPR and RETI 2.0 recommendations
- Continue and complete energy planning / environmental application
- Test data and functionality with a transmission case study that builds from the RETI 2.0 results
- Complementary process that helps inform the IEPR

Home » renewables » enviro info-energy planning

Environmental Information for Energy Planning - Docket # 17-MISC-03

Senate Bill 32 (Pavley), Chapter 249, Statutes of 2016 amended the Global Warming Solutions Act of 2006 by establishing a statewide greenhouse gas (GHG) limit equivalent to a 40 percent decrease from 1990 levels by 2030. The Clean Energy and Pollution Reduction Act (De León, Chapter 547, Statutes of 2016) increases California's Renewables Portfolio Standard (RPS) from 33 to 50 percent and requires a doubling of energy efficiency of existing buildings by 2030. Achieving the GHG limits and RPS by 2030 will require changes across California's entire energy system, including the electricity system, which will need to continue decarbonizing rapidly while reliably meeting future electricity needs.

As described in the 2016 Integrated Energy Policy Report (IEPR) Update and the final Renewable Energy Transmission Initiative (RETI) 2.0 Plenary Report, reaching the GHG and RPS goals will require additional renewable energy development, which could affect a variety of environmental resources. Further, the 2016 IEPR and previous IEPRs describe how landscape-scale planning can facilitate the development of renewable energy and transmission to meet the state's goals by considering a wide range of potential constraints and conflicts to minimize potential environmental impacts.

Through the first and second RETIs, Desert Renewable Energy Conservation Plan (DRECP), and the stakeholder-led San Joaquin Valley Identification of Least-Conflict Lands study, federal and state agencies, local governments, tribes, and stakeholders have gained experience with a variety of landscape-scale planning approaches that seek to identify suitable areas for renewable energy development. These planning efforts demonstrate different approaches to using science-based tools and spatial data for renewable energy and transmission planning.

The Energy Commission staff report, Environmental and Land Use Information for RETI 2.0 Plenary Process, also includes specific recommendations to refine and update environmental and land use information and data, and improve existing spatial support tools developed in collaboration with the Conservation Biology Institute (CBI).

Proceeding Information

- Environmental Information for Energy Planning Main Page
- Workshops, Notices and Documents
- Submit comments (17-MISC-03)
- Dockets Log

CALENDAR

April 08, 2017
Staff Workshop on Environmental Information for Energy Planning

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Criteria For Case Study Areas

- Areas with significant renewable energy potential
- Areas of interest to stakeholders from previous energy-related planning proceedings
- Robust datasets and information



CEC Case Study Approach

Desert Area South	Imperial Valley
	Riverside East
Desert Area North	Victorville/Barstow
	Tehachapi
San Joaquin Valley	San Joaquin Valley
Northern California	Solano
	Sacramento River Valley
	Lassen/Round Mountain



Events & Progress

- April 6, 2017 Staff Workshop “kick off” of 2017 staff work on Environmental Info for Energy Planning
- May 24, 2017 IEPR Lead Commissioner Workshop on Interactive Data Platforms
- August 2, 2017 IEPR Staff Workshop



Available on
Data Basin

Access to:

- Project Gateways
- Logic Models
- Applications

Gateways



CALIFORNIA STATEWIDE ENERGY GATEWAY

powered by DATA BASIN

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About the California Statewide Energy Gateway

This gateway brings together energy planning related information and applications across California, and serves as a launchpad for accessing additional gateways and applications for specific planning processes.

California Statewide Energy Planning

ENERGY RELATED GATEWAYS



Desert Renewable Energy Conservation Plan Gateway

The DRECP Gateway was created to support final development of the Desert Renewable Energy Conservation Plan. It will be used to engage and inform all interested parties about ongoing planning and management issues in the California desert.



Renewable Energy Transmission 2.0 Gateway

The Renewable Energy Transmission Initiative (RETI) 2.0 Gateway supports the public process of identifying potential transmission that could access and integrate renewable energy with the most environmental, economic, and community benefits.



California Offshore Wind Energy

The Offshore Renewable Wind Energy Gateway assembles geospatial information on ocean wind resources, ecological and natural resources, ocean commercial and recreational uses and community values. This information will help identify areas of California that are potentially suitable for wind energy generation.

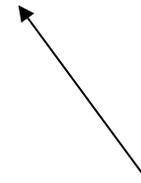
ENERGY RELATED APPLICATIONS



California Climate Console

The climate console is a web application designed for exploring climate change projections for a selected area of interest.

Other applications currently under development.



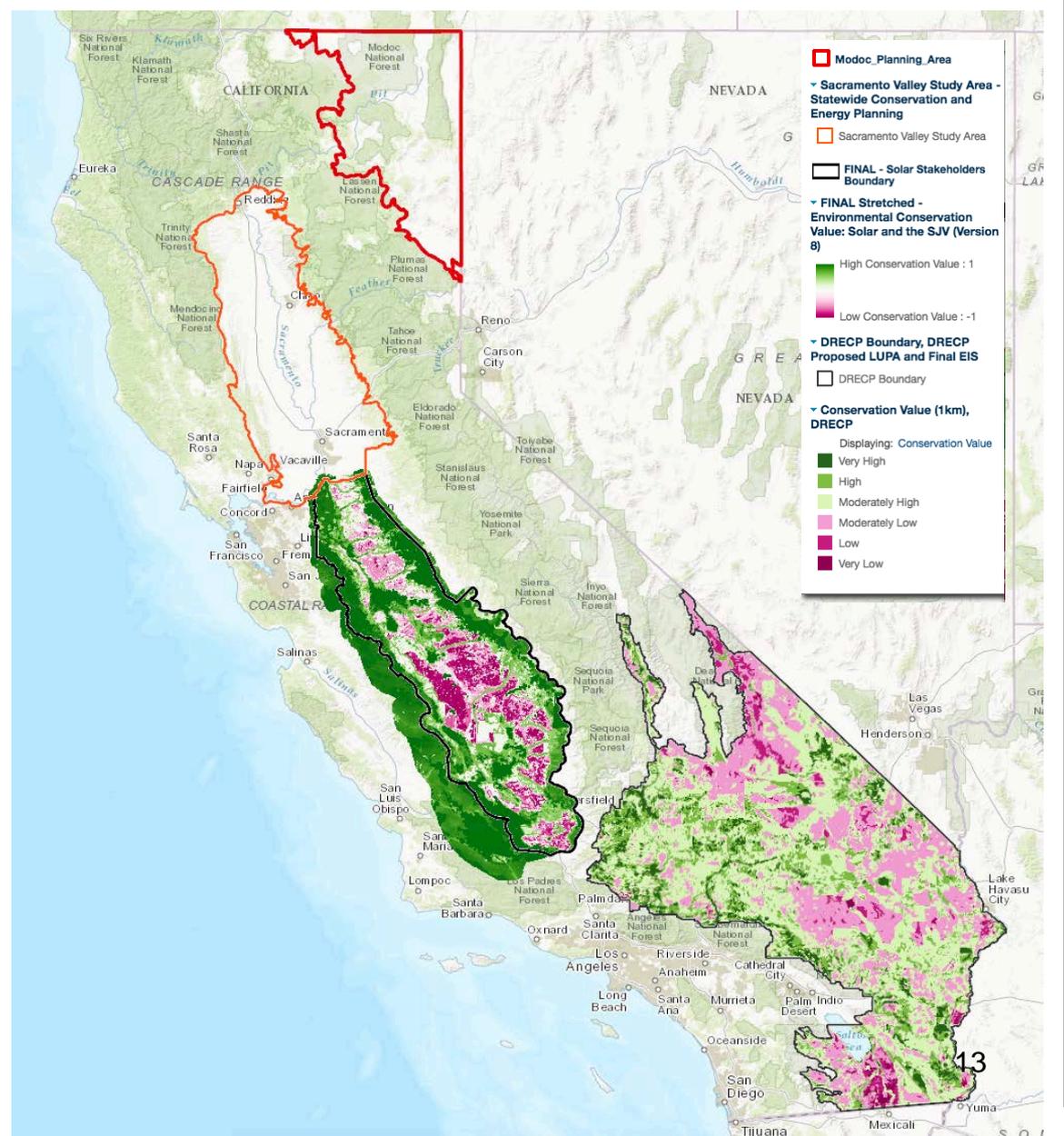
Applications





Statewide Energy Planning

- Develop comparable and consistent set of Data Elements
- Provide functionality through Data Basin to evaluate potential renewable generation areas, transmission upgrades and corridors





Dataset Updates in Report Writer Since RETI 2.0

ENVIRONMENTAL:

- Protected areas
- Terrestrial landscape intactness
- Federally designated Critical Habitat
- Species occurrence and status (CNDDDB)
- Detailed species richness and rarity information (ACE IIv2)
- Essential Habitat Connectivity Areas
- Important Bird Areas
- Climate site sensitivity
- Climate change exposure
- Conservation value (DRECP)
- Connectivity Linkages and Condition (DRECP)
- DRECP Covered Species Stack
- Least Conflict Areas (San Joaquin Valley)



Dataset Updates in Report Writer Since RETI 2.0, cont'd

LAND USE:

- Land Cover (coming soon)
- Agriculture value (coming soon)

ENERGY (private datasets):

- Federal Agency Corridors
368
- Transmission Lines
- Substations
- Solar Footprints



Written Comments

- Due August 16, 2017
- E-Commenting:
 - Go to www.energy.ca.gov/2017_energypolicy/
 - Select subject: “**IEPR 2017-08-02 Workshop**”
- See revised notice for e-mail and U.S. Mail commenting instructions.



Guiding Questions

- Which relevant datasets are missing from the application or make it useful?
- What are the different use cases that would be best for testing the functionality and value of the application?