



# DRAFT DESERT RENEWABLE ENERGY CONSERVATION PLAN

APA/AEP Luncheon  
February 13, 2015



Association of  
Environmental  
Professionals



# Presentation Overview



- Introduction to the DRECP
- Planning Process
- Draft DRECP Overview
- Public Participation
- Key Planning Topics



# Introduction to the DRECP

# Introduction to the DRECP

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

### The Draft DRECP:

- A long-term adaptable plan
- Streamlines renewable energy project review and approval
- Conserves sensitive species
- Conserves other resources
- Conservation designations on BLM land

### The DRECP will ...

- ▶ Help California and the nation meet renewable energy and greenhouse gas emission reduction goals.
- ▶ Identify areas appropriate for renewable energy development and coordinate state and federal environmental review and permitting process.
- ▶ Identify conservation areas for sensitive cultural resources, plant and wildlife species and provide a framework for adaptive management in the face of climate change.



# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

**22.5 million acres  
across 7 Counties:**

- Imperial
- Inyo
- Kern
- Los Angeles
- Riverside
- San Bernardino
- San Diego

Includes federal and  
non-federal lands





# Introduction to the DRECP

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

### CALIFORNIA NATURAL COMMUNITY CONSERVATION PLANS (NCCPs)

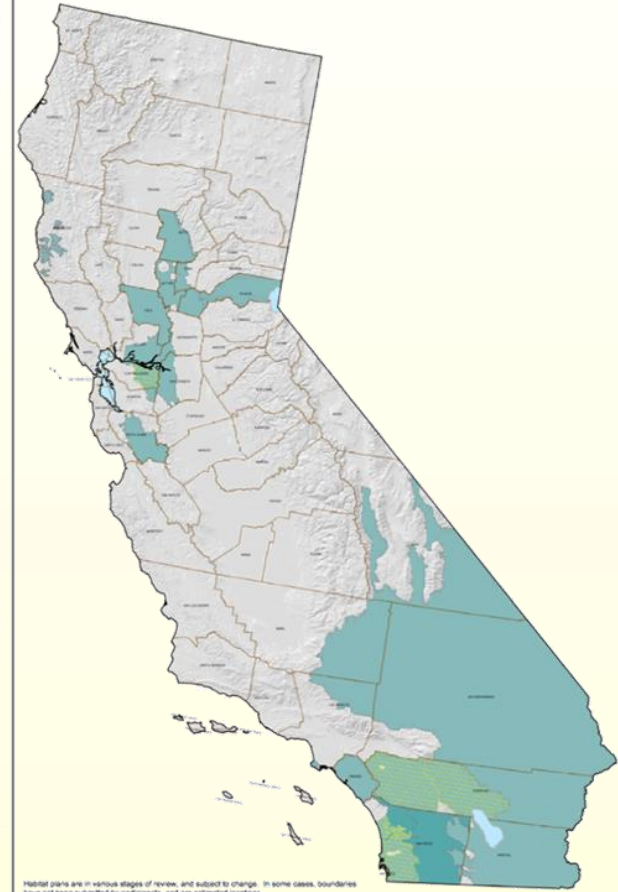
2000



2005



2010



Historical plans are in various stages of review, and subject to change. In some cases, boundaries have not been submitted by participants, and are estimated locations.  
Data Sources: Biological Resources Department of Forestry and Fire Protection (1992); Conservation Planning Areas, California Department of Fish and Game, U.S. Fish and Wildlife Service, Bureau of Land Management, CALFED Bay-Delta Program, Mendocino Redwood Company, San Diego Association of Governments and Coachella Valley Association of Governments.  
Projection: Transverse Mercator, units in meters, NAD83, LOUSTAFSON 405/11.



## Climate Change – Conservation Challenges

- Physiological Tolerances
- Vegetation Changes
- Rate of change vs. dispersal and movement
- Water Availability



# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## Climate Change – Energy Challenges

- Increase in Demand
- Power Plant Generation and Efficiency
- Hydroelectric Generation
- Transmission





# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## Energy Generation Development

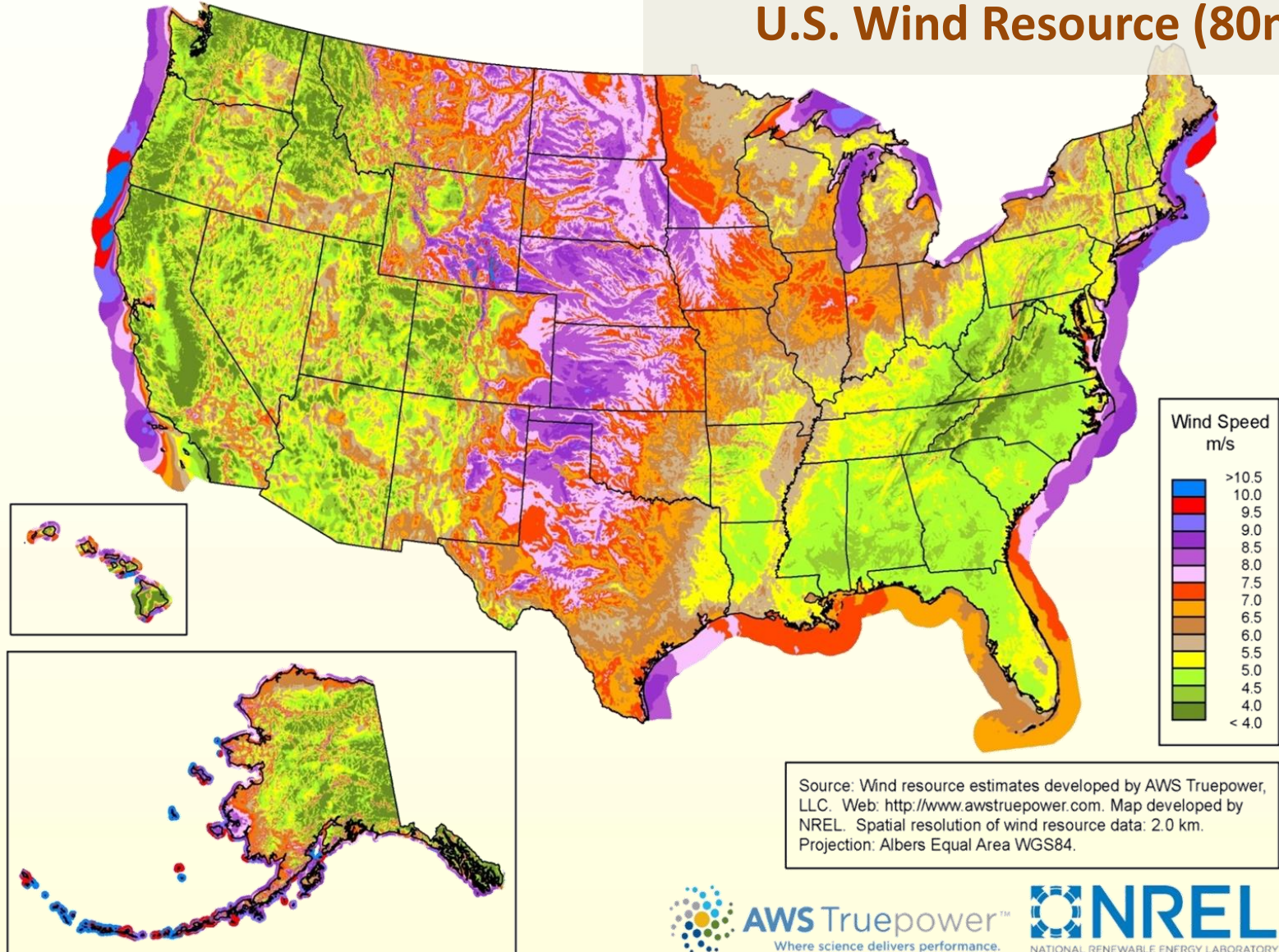
- Renewable Energy Resource Distribution and Quality
  - Wind Resources
  - Solar Resources
  - Geothermal Resources



# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## U.S. Wind Resource (80m)

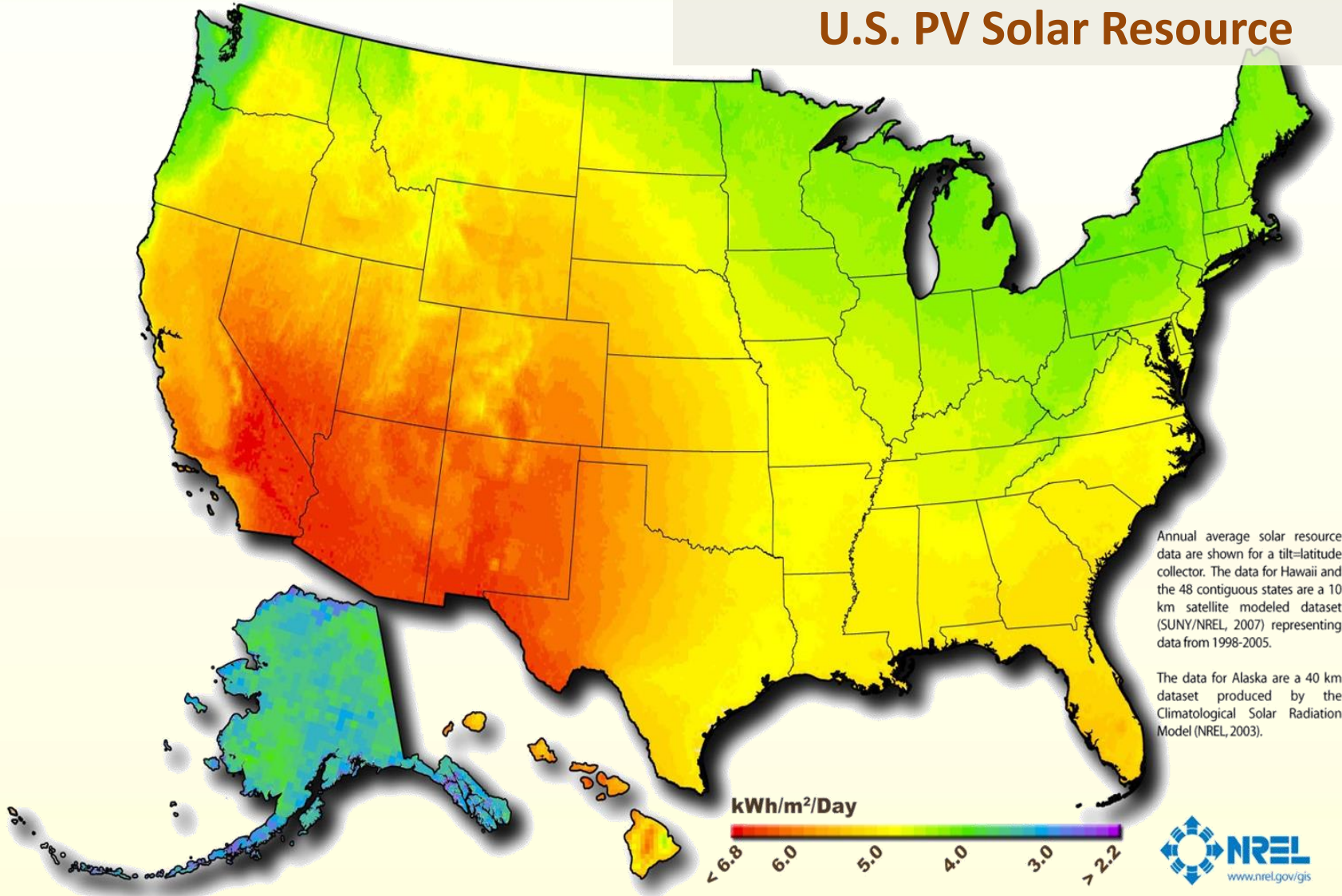




# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## U.S. PV Solar Resource

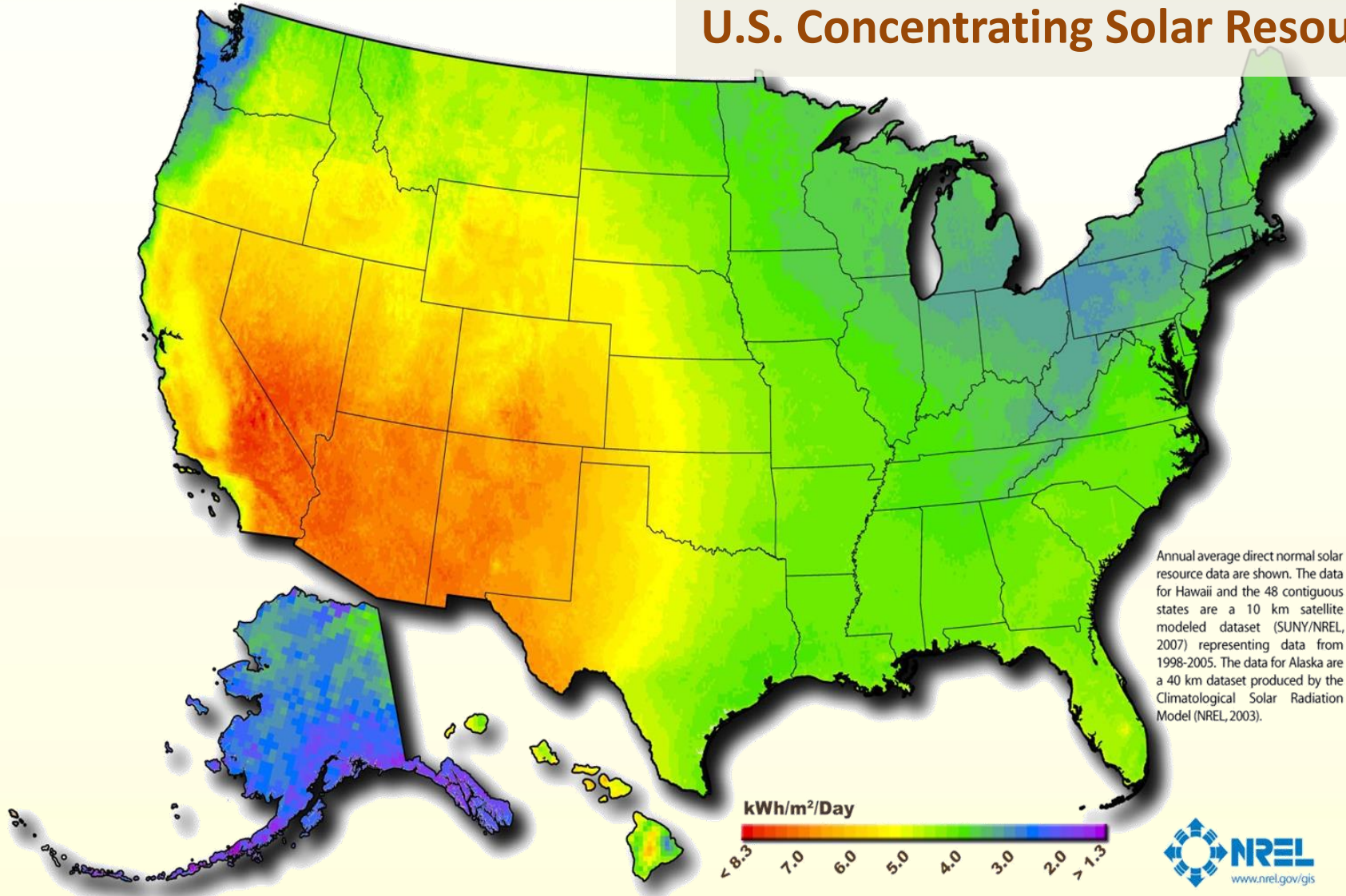




# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

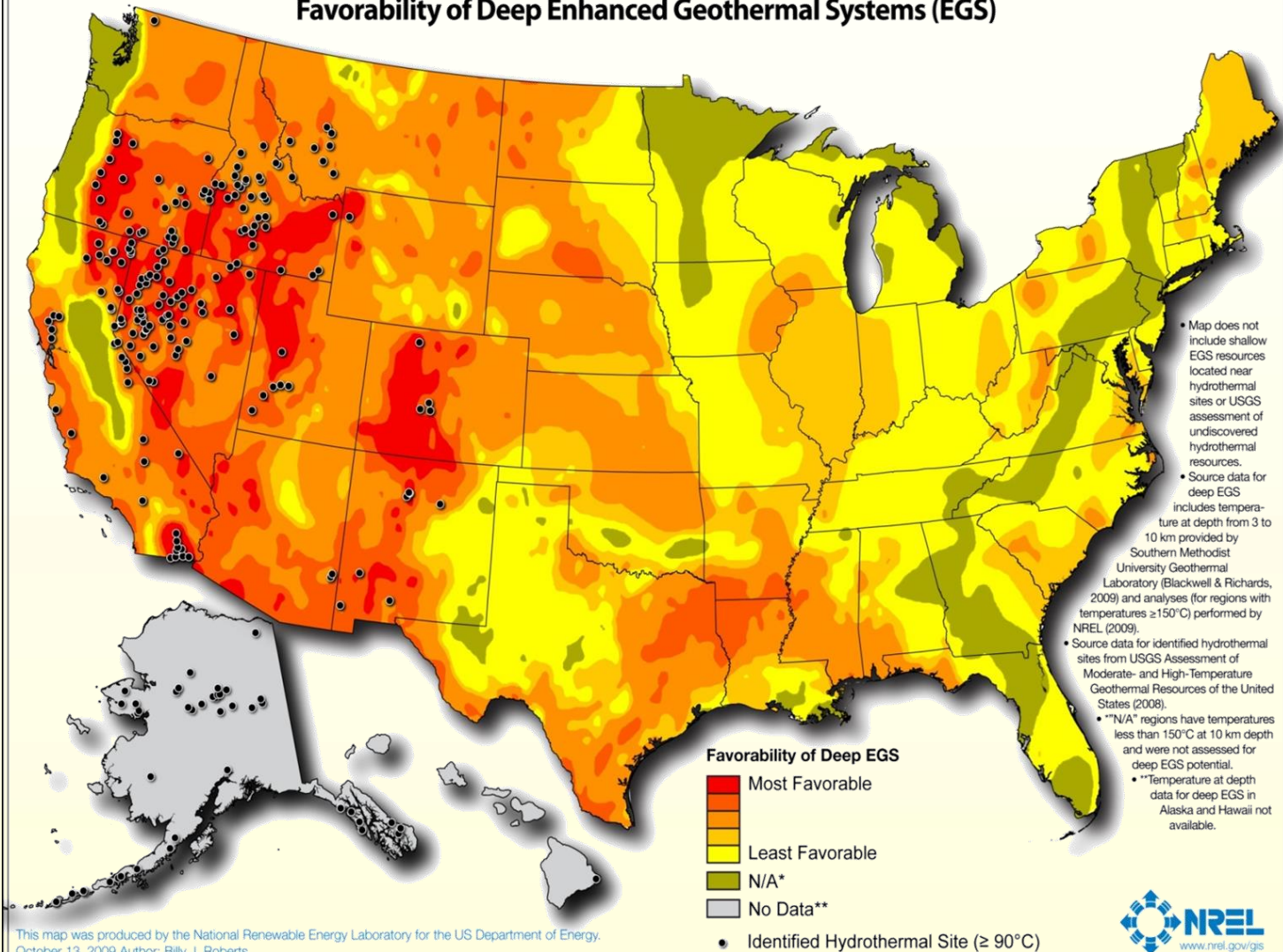
## U.S. Concentrating Solar Resource



# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## Geothermal Resource of the United States Locations of Identified Hydrothermal Sites and Favorability of Deep Enhanced Geothermal Systems (EGS)





## Energy Generation – How Much? Where?

- Population and Economic Growth Forecasts
- Energy Efficiency and Energy Conservation
- Electric Vehicles and per-vehicle electric consumption
- Electrification of other economic sectors



# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## Conservation Perspective

- Develop the most disturbed areas first
- Emphasize conservation of habitat connectivity at all landscape levels
- Minimize development impacts
- Coherent and coordinated mitigation approach



# Introduction to the DRECP

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## Energy Perspective

- Develop the most disturbed areas first
- Provide flexibility for development
- Access to transmission
- Reliable permitting process
- Known requirements



# Why do we need the DRECP?



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Identify appropriate areas for renewable energy projects
- Create incentives for developers to site projects in identified areas
- Conserve sensitive species, their habitats, and ecological processes
- Protect the cultural, recreation, and other values of the desert on BLM administered lands



# Planning Process

# Planning Process – REAT Agencies



DESERT RENEWABLE ENERGY CONSERVATION PLAN

The Draft DRECP was prepared by a partnership of state and federal agencies:

- California Energy Commission
- California Department of Fish and Wildlife
- U.S. Bureau of Land Management
- U.S. Fish and Wildlife Service



# Planning Process – Timeline



DESERT RENEWABLE ENERGY CONSERVATION PLAN

2008:  
Planning  
Process  
Initiated

2010:  
Planning  
Agmt.  
Signed by  
REAT  
Agencies

2010-  
2013:  
Public  
Stake-  
holder  
Comm.

2010 &  
2012:  
Science  
Advisors

2012:  
Preliminary  
Alts  
Released

Sept. 26,  
2014:  
Public  
Draft  
DRECP  
Released

# Planning Process – Stakeholder Input



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Stakeholders helped shape the DRECP
- Stakeholder Committee process
  - Collaborative information sharing
  - State and Federal Agencies, Local Governments, RE Developers, RE Industry Associations, NGOs, Utilities, Native American Organizations, and Off-Highway Vehicle Organizations
  - Day-long meetings, approx. every month for over 3 years
  - Open to the public
  - Broadcast and recorded via WebEx

# Planning Process – Science Input



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Science helped shape the DRECP
- Science input has occurred throughout
  - DRECP Independent Science Advisors
  - DRECP Science Advisory Panel
  - Independent species expert reviews
  - Species modeling forum
  - Conservation Biology Institute support

Recommendations of  
Independent Science Advisors  
for  
The California  
Desert Renewable Energy Conservation Plan  
(DRECP)

Prepared For  
Renewable Energy Action Team:  
California Department of Fish & Game  
U.S. Fish & Wildlife Service  
U.S. Bureau of Land Management  
California Energy Commission

Prepared By  
The DRECP Independent Science Advisors



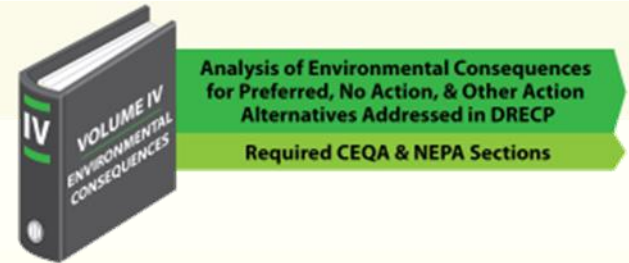
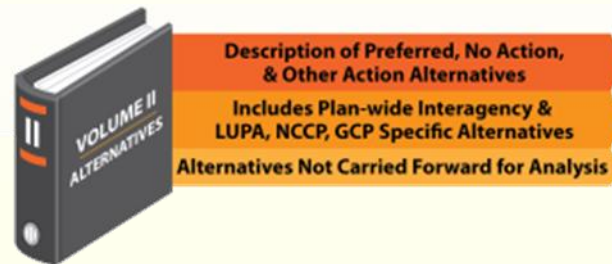
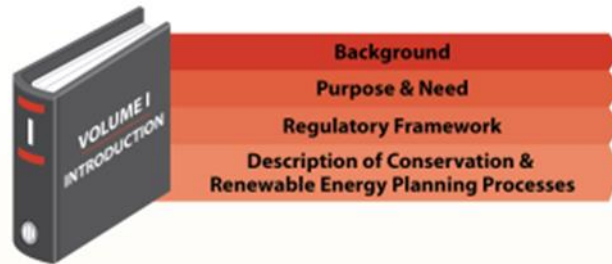


# Draft DRECP Overview

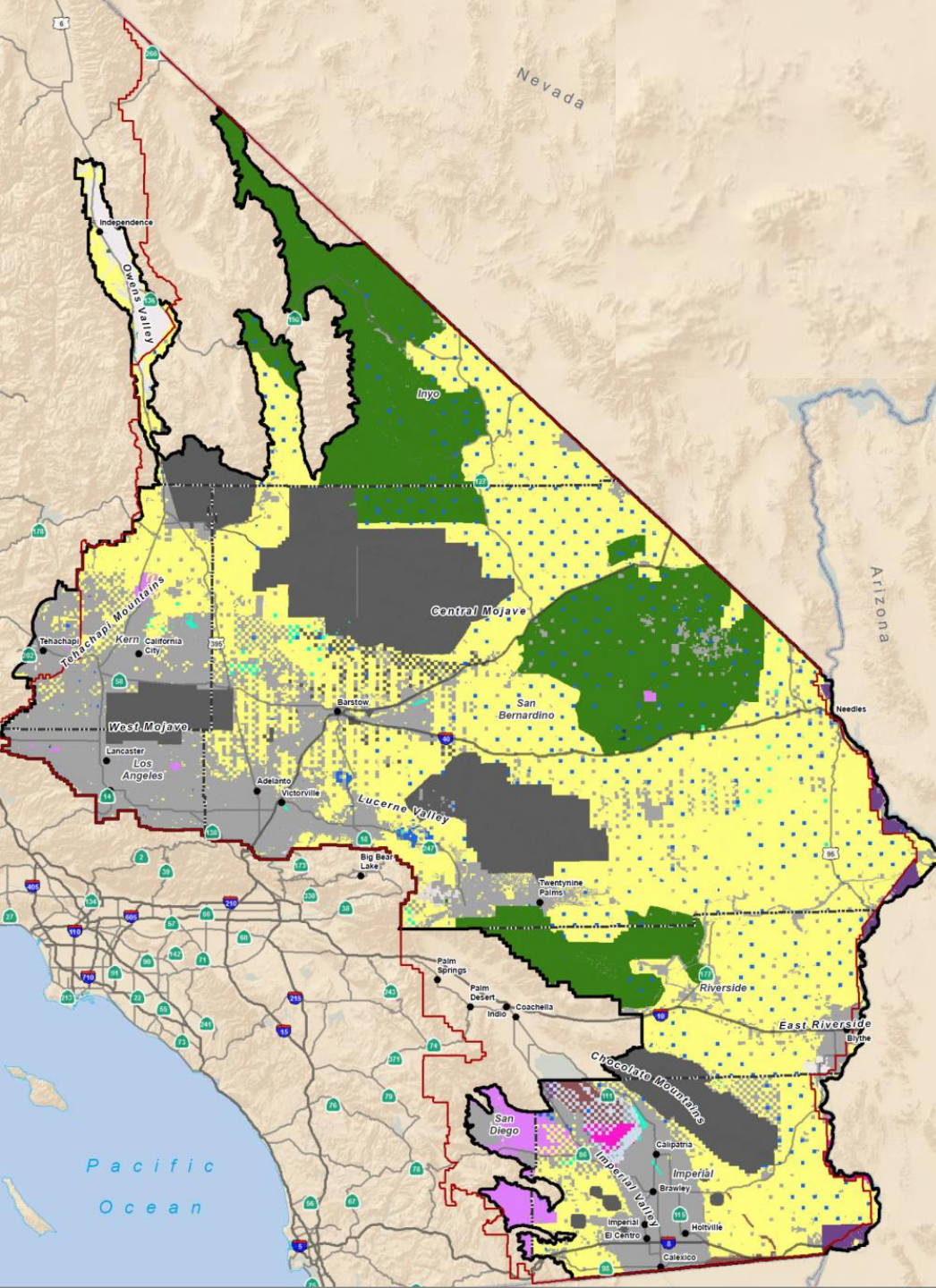
# DRECP Overview – Document Organization

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

The Draft DRECP & EIR/EIS comprise 6 volumes - plus appendices







DRECP Planning Area Boundary

CDCA Plan Boundary

County Boundary

### Land Ownership

#### Federal Lands

United States Bureau of Land Management

U.S. Department of Defense

United States Bureau of Reclamation

United States Department of Agriculture

United States Fish and Wildlife Service

United States National Park Service

#### State Lands

California Department of Fish and Wildlife

California Department of Parks and Recreation

California State Lands Commission

Other State Lands

#### Other Lands

Tribal Lands

Private

County	Nonfederal	Federal	Total Acres
Imperial County	1,071,000	1,704,000	2,775,000
Inyo County	320,000	2,668,000	2,987,000
Kern County	925,000	821,000	1,746,000
Los Angeles County	625,000	55,000	680,000
Riverside County	301,000	1,846,000	2,147,000
San Bernardino County	2,075,000	9,907,000	11,982,000
San Diego County	267,000	200	268,000
<b>Grand Total</b>			<b>22,585,000</b>



# DRECP Overview – Plan Components

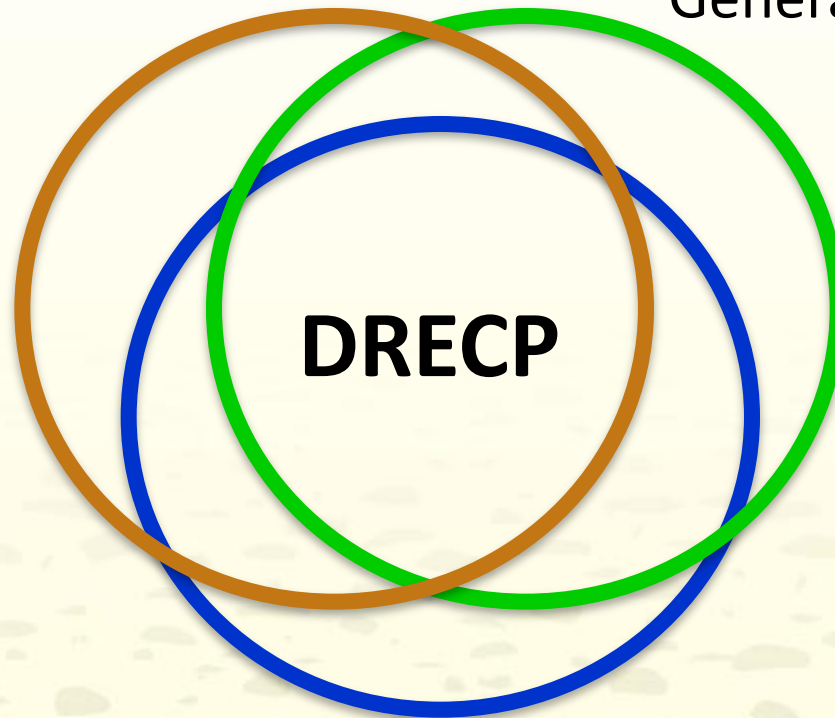
DESERT RENEWABLE ENERGY CONSERVATION PLAN

**Bureau of Land  
Management**

Land Use Plan  
Amendments

**US Fish & Wildlife  
Service**

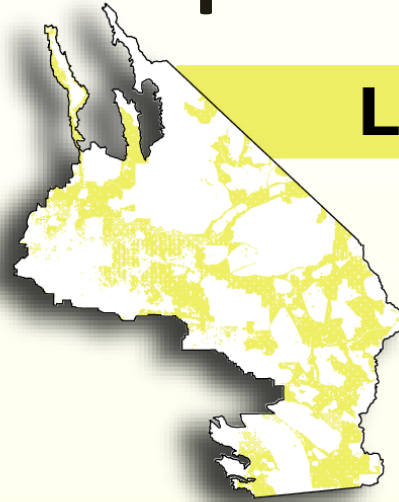
General Conservation  
Plan



**California Department of Fish & Wildlife**  
Natural Community Conservation Plan

# DRECP Plan Components

- A BLM Land Use Plan Amendment (LUPA)



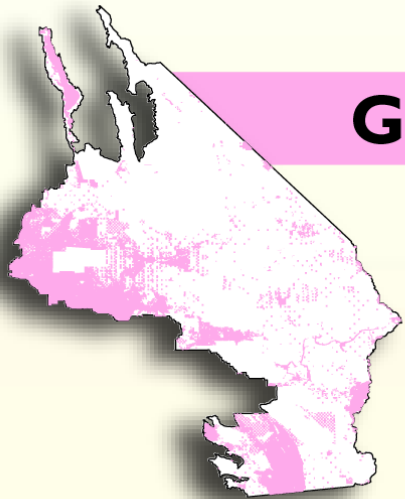
## LUPA Lands

Land Use Plan Amendment  
Agency: Bureau of Land Management (BLM)  
Total Acreage: 9,834,000

## GCP Lands

General Conservation Plan  
Agency: US Fish & Wildlife Service  
Total Acreage: 5,420,000

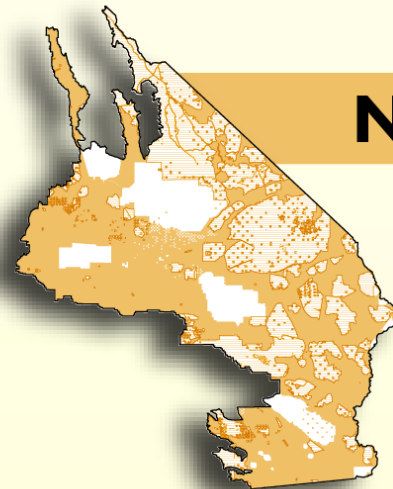
- A General Conservation Plan (GCP) covering nonfederal lands



## NCCP Lands

Natural Communities Conservation Plan  
Agency: California Dept. of Fish & Wildlife  
Total Acreage: 18,986,000

- A Natural Community Conservation Plan (NCCP)





# DRECP Overview – Covered Activities

## DRECP Covered Activities

Pre-construction and construction activities

Operation and maintenance activities

Decommissioning of Renewable Energy Projects

- Renewable energy development within Development Focus Areas (DFAs)
  - Solar
  - Wind
  - Geothermal
- Transmission development within and outside DFAs
- Biological conservation and compensation actions
- Conservation and compensation actions for recreation, cultural, visual, etc. on BLM lands



# DRECP Overview – Renewable Energy

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Plans for up to 20,000 MWs of new generation and transmission in Plan Area to 2040
  - Used as a planning assumption to develop a ground disturbance acreage estimate
- DRECP also assumes 20,000 MWs of customer-side generation installed in 2040
  - Approximately 10x more than what is installed today



# DRECP Overview – Renewable Energy

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- DRECP does not prescribe 20,000 MWs be constructed
  - Actual amount will depend on technological changes and public policy
- 20,000 MWs would result in an estimated 177,000 acres of ground disturbance.
- DRECP analyzes the effects of constructing and operating up to 20,000 MWs under a range of alternatives

## *Development Focus Areas (DFAs)*

- Areas available for renewable energy projects with development incentives

## *Study Areas*

- Lands that could be appropriate for development, but require further study (3 types)
  - Special Analysis Areas
  - Future Assessment Areas
  - DRECP Variance Lands



# DRECP Overview – Biological Conservation Strategy

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Conserve covered species, their habitat, natural communities, and ecological processes
- Biological Goals and Objectives
- Landscape design
- Conservation and Management Actions
- Monitoring and Adaptive Management Program





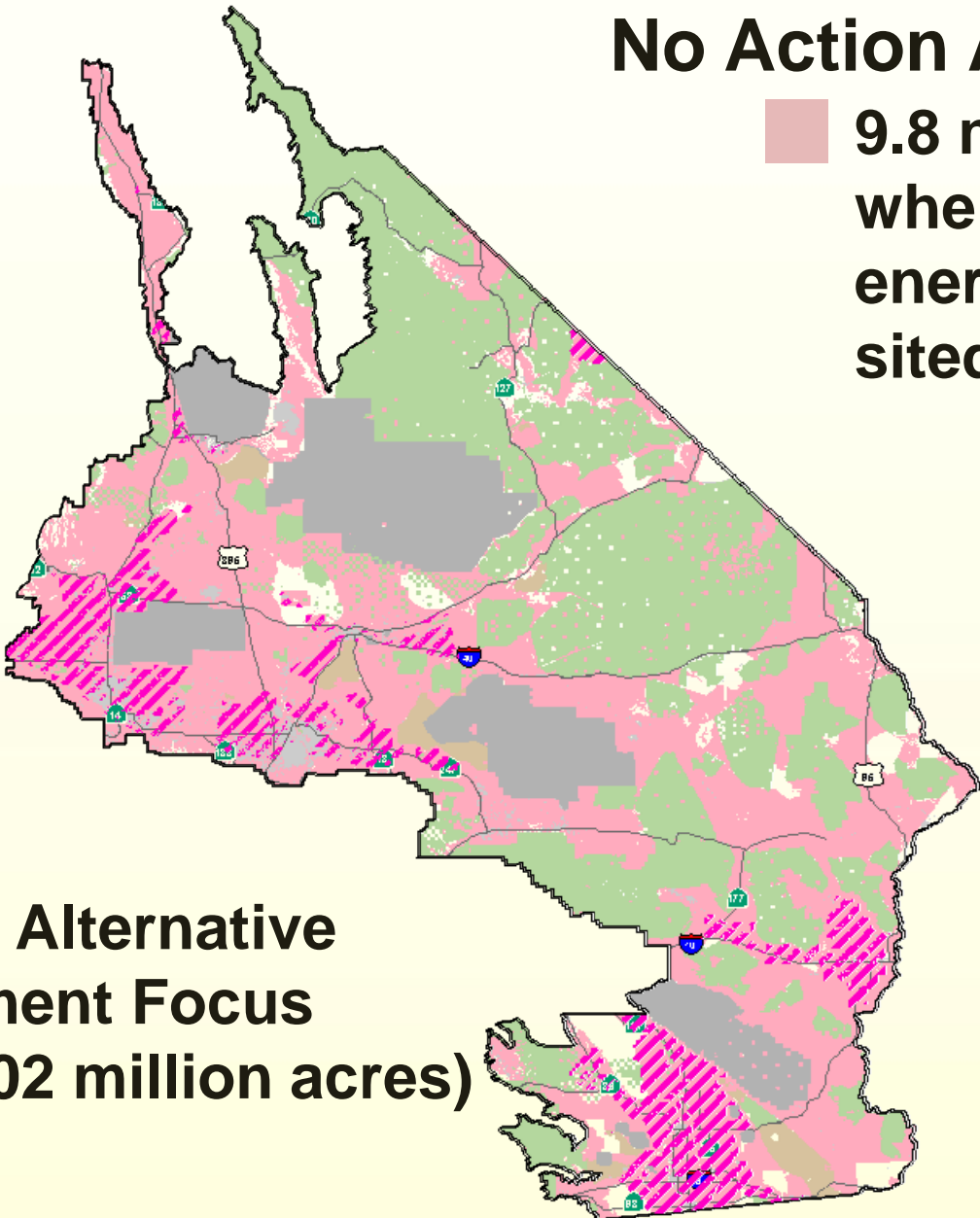
# DRECP Overview – Alternatives

- 6 Alternatives evaluated in the DRECP
  - 5 Action Alternatives
  - 1 No Action Alternative
- Agencies have selected a Preferred Alternative from the 5 action alternatives



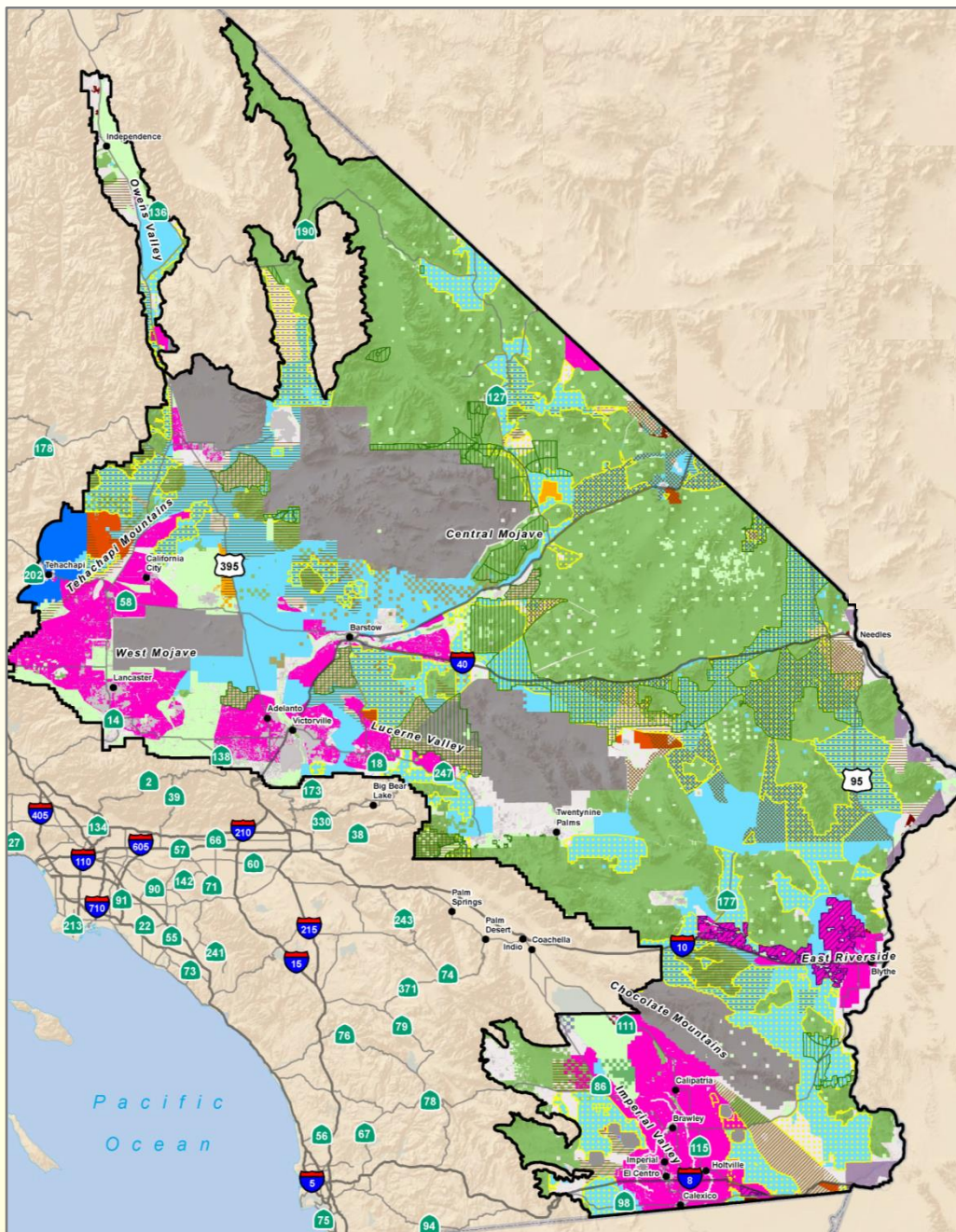
# No Action Alternative

9.8 million acres where renewable energy may be sited



Preferred Alternative Development Focus Areas (2.02 million acres)

# Preferred Alternative



## Renewable Energy Development

 Development Focus Areas

## Study Area Lands


 Special Analysis Areas

 Future Assessment Areas

 DRECP Variance Lands

## DRECP Plan-wide Reserve Design Envelope

Existing Conservation

 Legislatively and Legally Protected Areas

 Military Expansion Mitigation Lands

BLM Proposed Land Use Plan Amendment Designations

 National Landscape Conservation System

 Areas of Critical Environmental Concern

 Wildlife Allocation


## Special Recreation Management Area

 Existing Special Recreation Management Area


 Proposed Special Recreation Management Area

 Proposed Extensive Recreation Management Area

Conservation Planning Areas

 Conservation Planning Areas\*

## Other Lands

 Impervious and Urban Built-up Land

 Military

 Open OHV Areas - Imperial Sand Dunes

 Open OHV Areas

 Johnson Valley OHV Shared Use Area

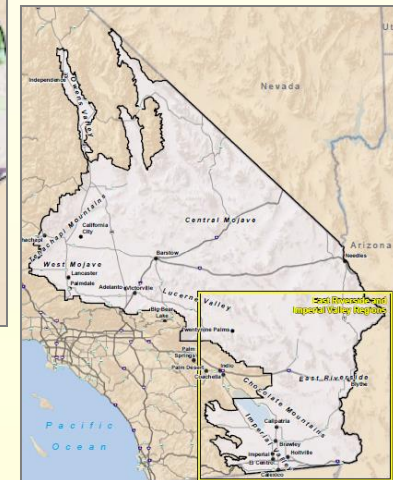
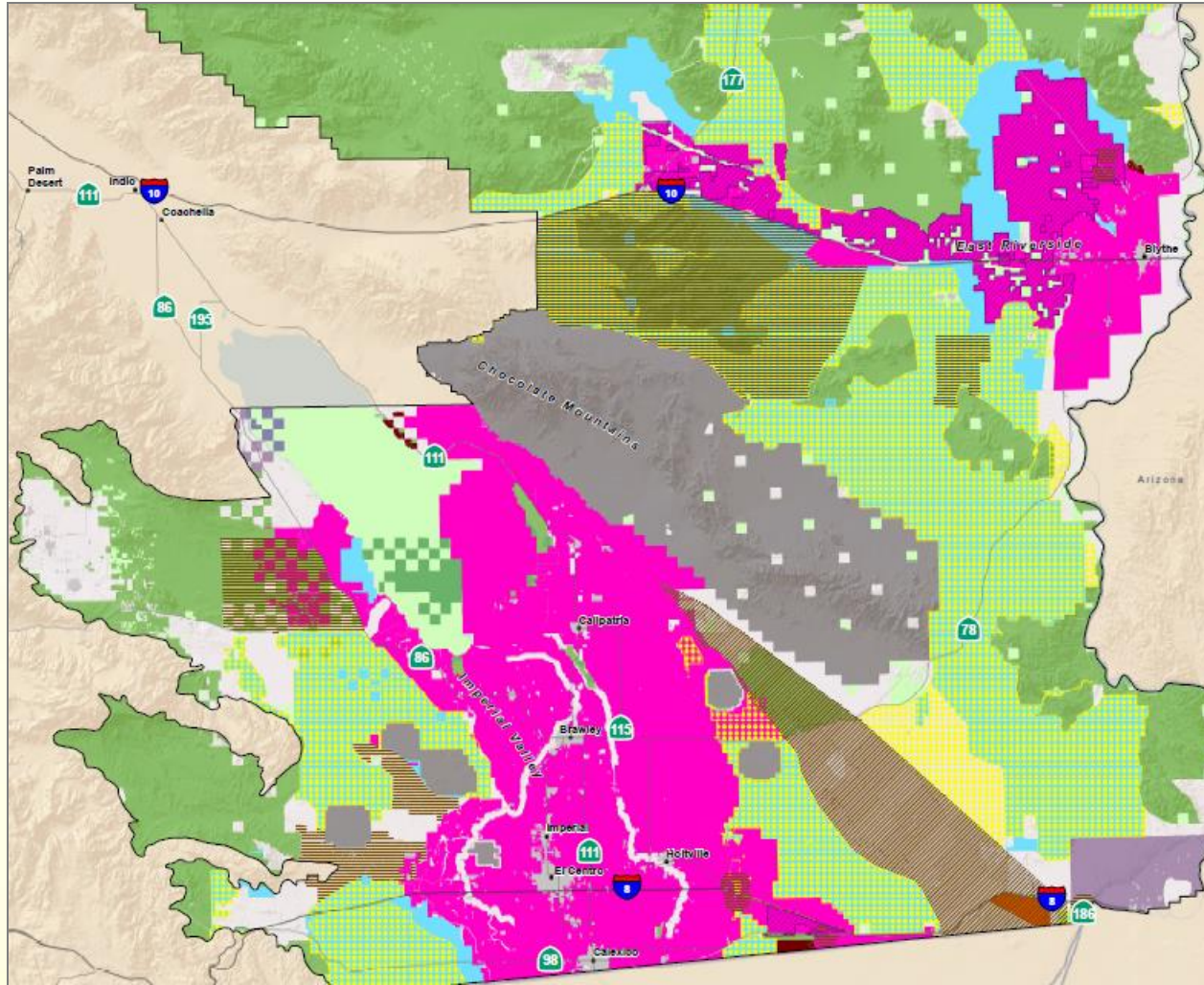
 Tribal Lands

 Solar Energy Zones

 Proposed Feinstein Bill

 DRECP Plan Area Boundary

# San Diego, Imperial, and East Riverside



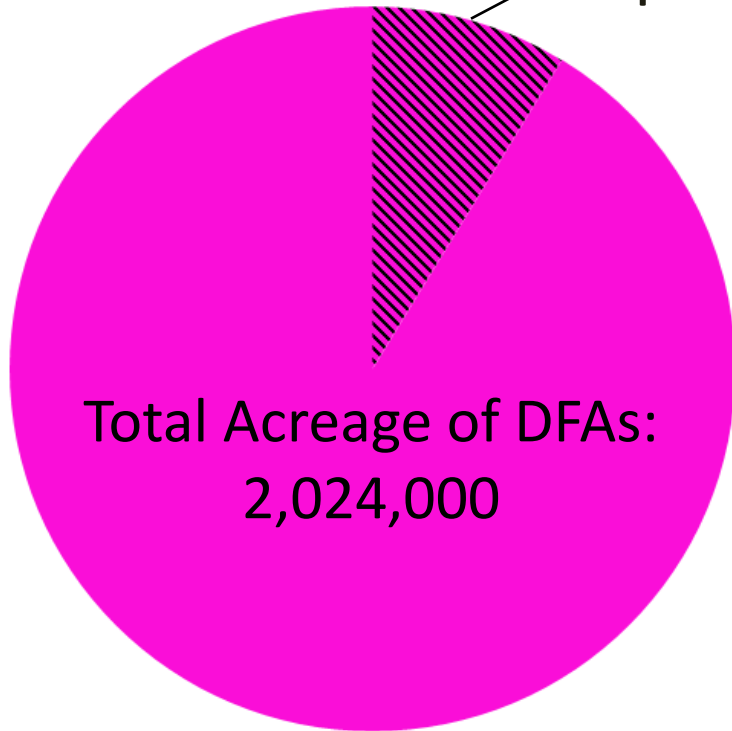


- **Biological Conservation Strategy** – 15 million acres
- **BLM Conservation Designations** – 4 million acres
- **DFAs** - 2 million acres
- **Study Area Lands** – 183,000 acres
- **BLM Recreation Designations** – 3.6 million acres



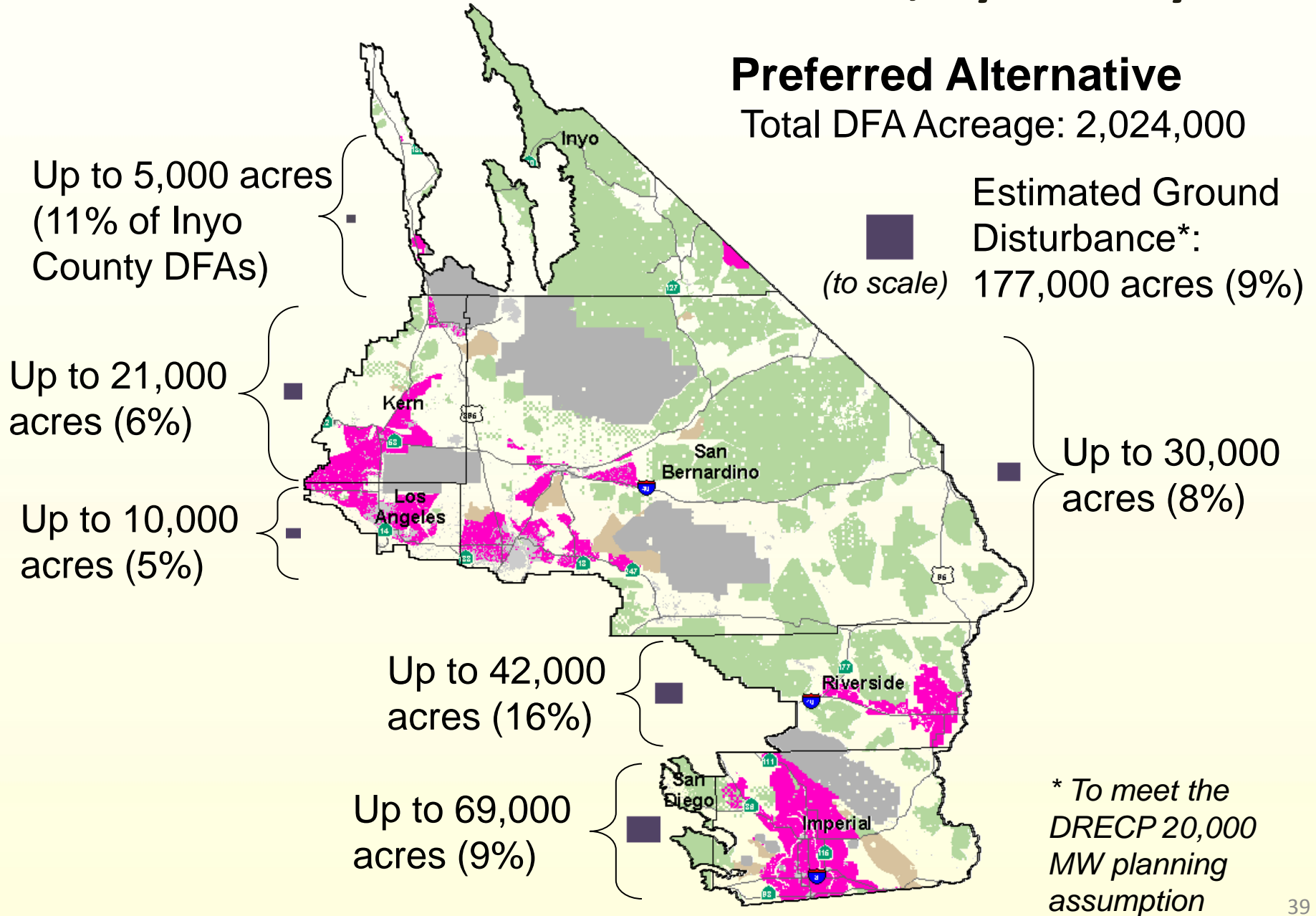
### Estimated Ground Disturbance, Preferred Alternative

Up to 177,000 acres (9% of the DFAs)



 **Estimated Ground Disturbance in DFAs**

# Estimated Ground Disturbance, by County



# DRECP Overview – Environmental Analysis



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

**23 Resource Areas** considered in the state & federal environmental analysis

Air Quality	BLM Land Designations, Classifications, Allocations, and Lands with Wilderness Characteristics**
Meteorology and Climate Change	Mineral Resources
Geology and Soils	Livestock Grazing**
Flood Hazard, Hydrology, and Drainage	Wild Horses and Burros**
Groundwater, Water Supply, and Water Quality	Outdoor Recreation
Biological Resources	Transportation and Public Access
Cultural Resources	Visual Resources
Native American Interests	Noise and Vibration
Paleontological Resources	Public Safety and Services
Land Use and Policies	Socioeconomics and Environmental Justice
Agricultural Land and Production	Department of Defense Lands and Operations**
BLM Lands and Realty—Rights-of-Way and Land Tenure**	



# DRECP Overview – Environmental Analysis



DESERT RENEWABLE ENERGY CONSERVATION PLAN

**10 Resource Areas**  
found to have  
significant impacts  
in 1 or more  
alternatives

## RESOURCE AREAS CONSIDERED IN THE ENVIRONMENTAL ANALYSIS

### Less than Significant Impacts

Air Quality  
Flood, Hazard, Hydrology, and Drainage  
Land Use and Policies  
Geology and Soils  
BLM Lands and Realty (rights-of-way and land tenure)  
BLM Land Designations, Classifications, Allocations, and Lands with Wilderness Characteristics  
Livestock Grazing  
Wild Horses and Burros  
Transportation and Public Access  
Noise and Vibration  
Public Safety and Services  
Socioeconomics and Environmental Justice  
Department of Defense Lands and Operations

### Significant Impacts\*

Biological Resources  
Agricultural Resources  
Cultural Resources  
Native American Interests  
Groundwater, Water Supply, Water Quality  
Meteorology and Climate Change  
Mineral Resources  
Outdoor Recreation  
Paleontological Resources  
Visual Resources



# DRECP Overview – Implementation

DESERT RENEWABLE ENERGY CONSERVATION PLAN

- No new government entity created
  - All existing agencies retain current authority and responsibility
- Improved agency coordination and communication
- Implementation will include tribal and public participation and ongoing input
- Provides funding for implementation

# DRECP Overview – Role of Local Government



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Local governments may use the DRECP to inform their independent land use planning decisions
- DRECP does not affect local land use planning or permitting authority for renewable energy projects
- Local governments have the option to apply for permits from the USFWS and CDFW to cover renewable energy projects within their local jurisdictions



# Public Participation



# Public Participation

## Comprehensive Public Outreach and Communication

- Document Released (September 26, 2014)
  - Fully noticed and announced
  - Available on multiple websites
  - Hardcopy Volumes distributed to agency offices and libraries
  - Distributed 750+ hardcopy Executive Summaries; 1,200 DVDs
  - DRECP Brochure and 13 Fact Sheets

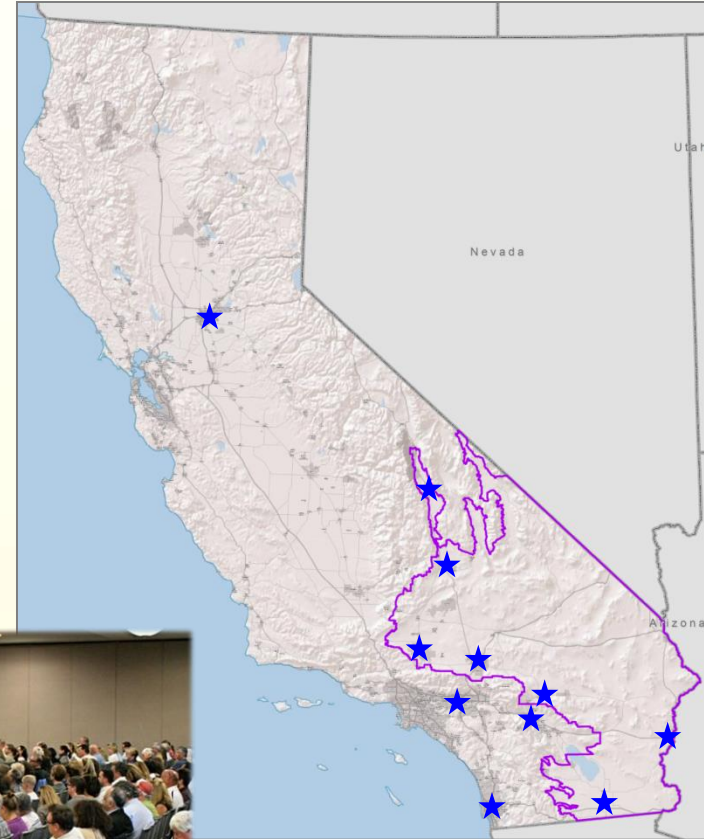




# Public Participation

## Comprehensive Public Outreach and Communication (cont.)

- Public Meetings
  - 11 Meetings
    - 10 originally planned; 1 added
  - Throughout the state
  - Multi-format
    - Presentation
    - Open House
    - Public Comment





# Public Participation

## Comprehensive Public Outreach and Communication (cont.)

- Web-based outreach and resources

- Informational Video

- Informational Webinar

- DRECP Gateway ([drecp.databasin.org](http://drecp.databasin.org))

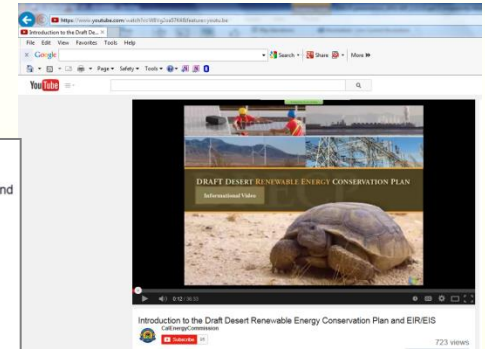
- Innovative online data & mapping tool
- User-friendly, free
- View, edit, and analyze maps and data
- Include custom maps with comments

**Notice of Two Informational Webinars**

California Energy Commission (Energy Commission), California Department of Fish and Wildlife (CDFW), Bureau of Land Management (BLM), and U.S. Fish and Wildlife Service (USFWS) staff will conduct two webinars to provide information on the Draft Desert Renewable Energy Conservation Plan (DRECP) and Environmental Impact Report/Environmental Impact Statement (EIR/EIS) on:

**Webinar 1**  
Renewable Energy and Permitting  
Monday, December 15, 2014  
10:00am-Noon

**Webinar 2**  
Conservation  
Wednesday, December 17, 2014  
1:00pm-4:30pm



**DESERT RENEWABLE ENERGY CONSERVATION PLAN GATEWAY**

powered by DATA BASIN

Get Started | Explore | Create | My Workspace

What is the DRECP gateway?  
How is the gateway organized?  
How do I provide my comments on the Public Draft DRECP and EIR/EIS?

**Biological Goals and Objectives & Conservation Management Actions**

As part of the Plan, Biological Goals and Objectives (BGOs) and Conservation Management Actions (CMAs) were developed for 37 Covered Species and 31 Natural Communities. Biological goals provide the broad, intended outcomes of the Plan while the objectives describe specific (often measurable) outcomes under each goal. CMAs provide standards and guidelines on how to achieve each objective. Avoidance and Minimization CMAs are organized spatially using the categories below.

Covered Species Database | Natural Communities Database

Plan-wide CMAs | Landscape-level CMAs

Natural Communities and Covered Species in the DRAs | Natural Communities and Covered Species in the Reserve

**Public Draft DRECP and EIR/EIS Alternative Map Review Tool**

Maps and spatial data play a key role in helping the REAT Agencies achieve the goals and objectives of the DRECP. The DRECP Gateway provides a unique opportunity to view the data and models used to develop the DRAFT DRECP and EIR/EIS.

The DRECP Alternative Map Review Tool provides an easy and convenient way to view selected datasets and maps from the Public Review Draft DRECP and EIR/EIS Document. The DRECP Alternative Map Review Tool will allow users to make both general and geographically-specific comments on DRECP alternative maps and individual datasets used to make the maps.

Public comments are not submitted using the review tool, but comments made on the maps and data can be formatted and downloaded by the user, and can be submitted through regular public commenting procedures. Comments may be made in writing or as a filing. See the [www.drecp.org](http://www.drecp.org) website for guidance on filing your comments.

Please note: The use of the DRECP Alternative Map Review Tool is OPTIONAL. THE USE OF THIS TOOL IS NOT REQUIRED TO UNDERSTAND THE DRECP OR TO PROVIDE PUBLIC COMMENT ON THE DRAFT DRECP and EIR/EIS.

ENTER HERE  
Public Draft DRECP and EIR/EIS Alternatives Map Review Tool

DRECP Alternative Maps for Public Review

DRECP Selected Maps for Public Review - Volumes III & IV

DRECP Selected Maps for Public Review - Appendix C, H, & R

DRECP Administrative Draft - Datasets from Volume II



# Public Participation

## Comprehensive Public Outreach and Communication (cont.)

**DRECP Gateway** Sign Up Sign In Support

Map Details Layers Review

If you wish to save your review, you must be signed in *before* you begin.

**WARNING:** The session will time out after 20 minutes of inactivity, and you will lose any changes you have made.

**Review** Reset

- 1 General Comments
 

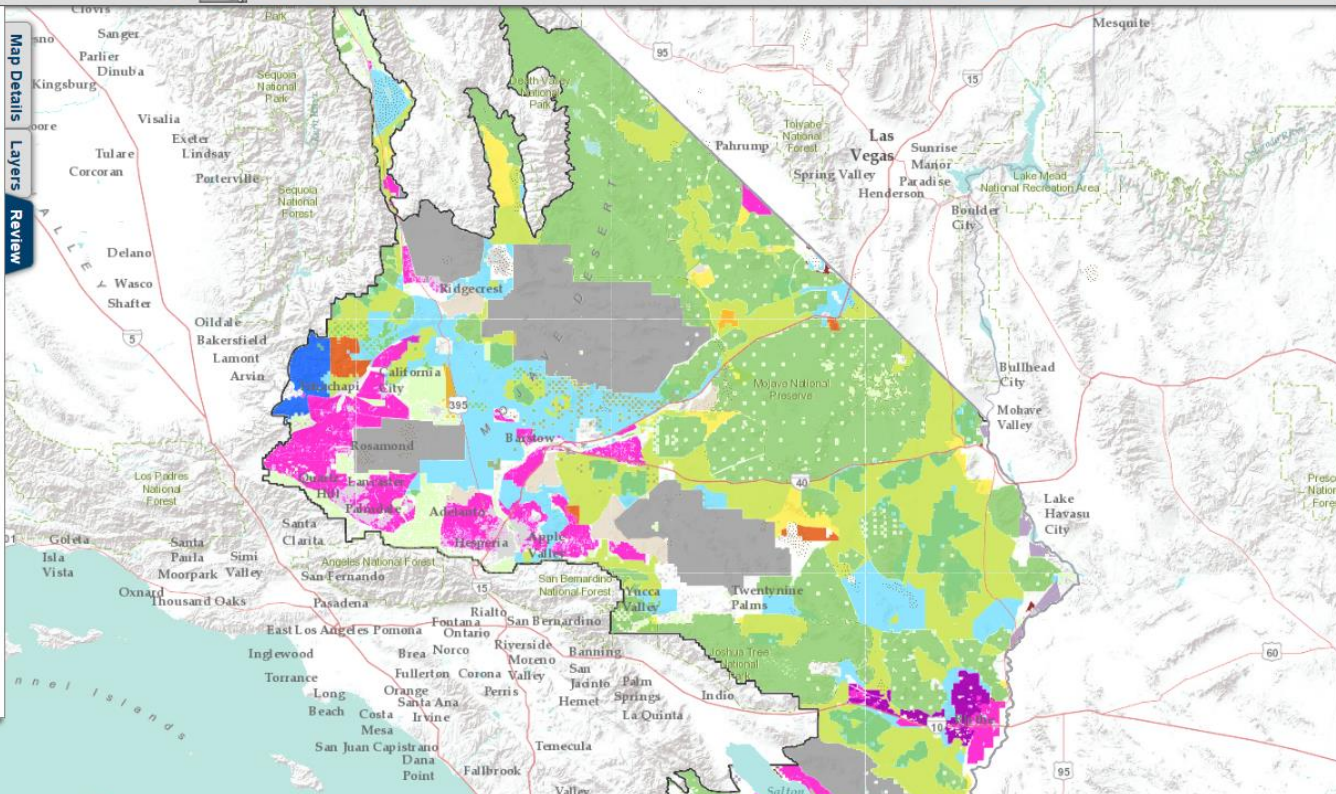
**B I** [Rich Text Editor Icons]
- 2 Location-Specific Comments
 

Add Comment
- 3 Save Review
 

Save
- 4 Generate Report
 

Create PDF Report
- 5 Submit Review
 

Follow the instructions at [www.drecp.org](http://www.drecp.org) to complete the submission process.



**Legend**

- DRECP Boundary
- Solar Energy Zones, DRECP
- Development Focus Areas, Preferred AIT.
- Study Area Lands, Preferred AIT.**
  - Displaying: Type
  - Special Analysis Areas
  - Future Assessment Areas
  - DRECP Variance Lands
- Reserve Design Envelope (Existing Cons.), DRECP**
  - Displaying: Existing Conservation
  - Legislatively and Legally Protected Areas
  - Military Expansion Mitigation Lands
- Reserve Design Envelope (NLCS), Preferred AIT.**
  - National Landscape Conservation System
- Reserve Design Envelope (ACECs & Wildlife Allocation), Preferred AIT.**
  - Displaying: BLM Existing & Proposed Land Use Plan Amendment Designations
  - Areas of Critical Environmental Concern
  - Wildlife Allocation
- Conservation Planning Areas, Preferred AIT.
- Other Lands, DRECP**
  - Displaying: Type
  - Impervious and Urban
  - Military



# Public Participation – DRECP Availability



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- **Public Comment Period Closes: February 23, 2015**
- Draft DRECP available at:
  - [www.drecp.org](http://www.drecp.org)
  - [www.blm.gov/ca](http://www.blm.gov/ca)
  - [www.fws.gov/carlsbad/PalmSprings/RenewableEnergyDocs.html](http://www.fws.gov/carlsbad/PalmSprings/RenewableEnergyDocs.html)
- DRECP Gateway: <http://drecp.databasin.org>
- Also available for review at:
  - Local libraries in the Plan Area and BLM, CEC, USFWS, and CDFW offices
- DRECP Listserv: <http://drecp.org/about/contact.html#listserver>
- DVD available on request



# Key Planning Topics

# Relationship to Other Planning Efforts



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Renewable Energy Transmission Initiative (RETI)
- Existing HCPs and Resource Management Plans
  - BLM CDCA and RMPs, National and State parks plans
  - DoD INRMPs
  - HCPs: Coachella Valley MSHCP, Tehachapi Uplands MSHCP, Lower Colorado MSCP, IID Plan
- County
  - General Plans
  - Renewable Energy initiatives

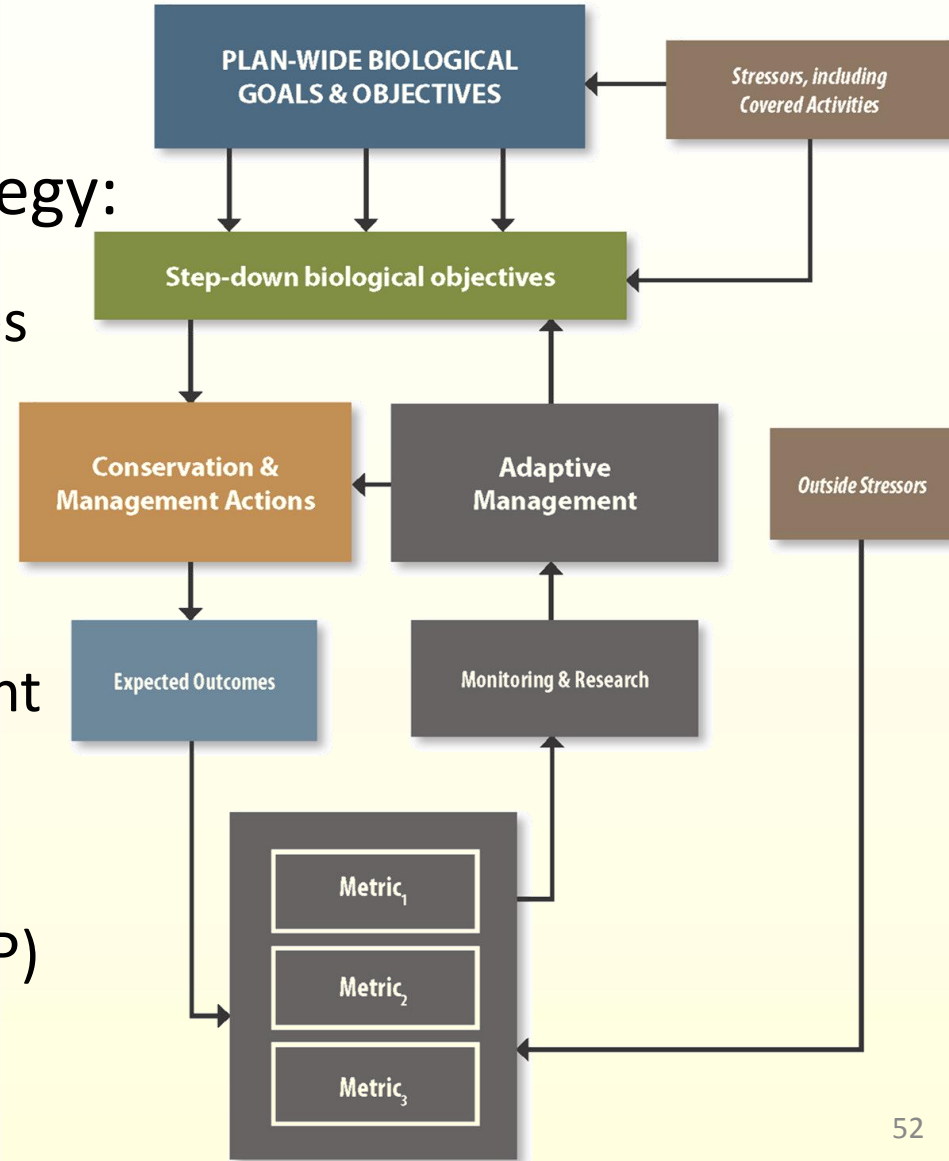


# Biological Conservation Strategy

DESERT RENEWABLE ENERGY CONSERVATION PLAN

## Essential Elements of the Biological Conservation Strategy:

- Biological Goals and Objectives (BGOs)
- Plan-wide Reserve Design Envelope
- Conservation and Management Actions (CMAs)
- Monitoring and Adaptive Management Program (MAMP)



# Biological Conservation Strategy



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

### COVERED SPECIES

Reptiles and Amphibians	Agassiz's desert tortoise Flat-tailed horned lizard	Mojave fringe-toed lizard Tehachapi slender salamander
Birds	Bendire's thrasher Burrowing owl California black rail California condor Gila woodpecker Golden eagle Greater sandhill crane	Least Bell's vireo Mountain plover Swainson's hawk Tricolored blackbird Western yellow-billed cuckoo Willow flycatcher (including southwestern) Yuma clapper rail
Fish	Desert pupfish Mohave tui chub	Owens pupfish Owens tui chub
Mammals	California leaf-nosed bat Desert bighorn sheep Mohave ground squirrel	Pallid bat Townsend's big-eared bat
Plants	Alkali mariposa-lily Bakersfield cactus Barstow woolly sunflower Desert cymopterus Little San Bernardino Mountains linanthus	Mojave monkeyflower Mojave tarplant Owens Valley checkerbloom Parish's daisy Triple-ribbed milk-vetch

# Biological Conservation Strategy



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

### NATURAL COMMUNITIES

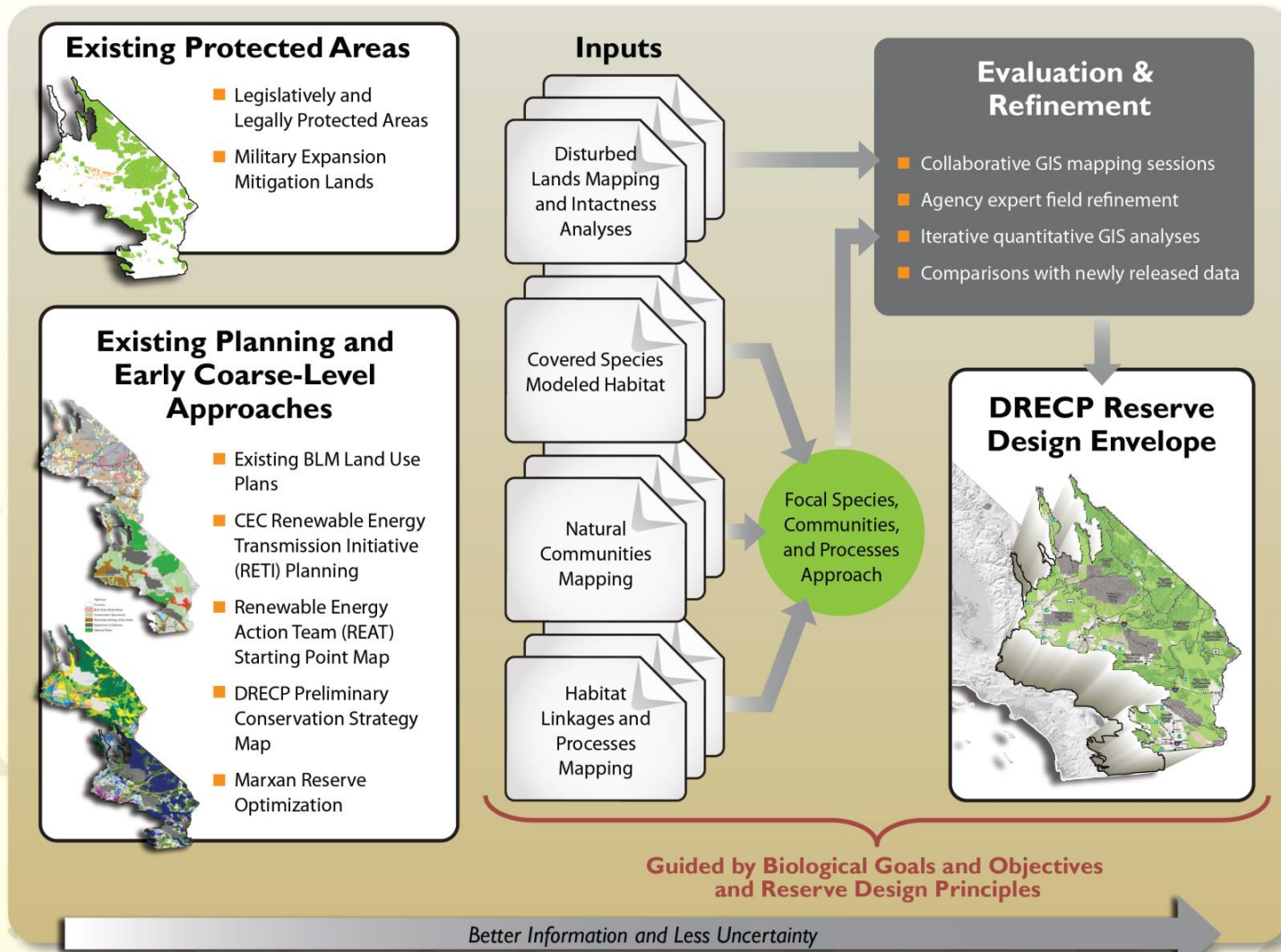
California Forest and Woodland	California Broadleaf Forest and Woodland	Californian Montane Conifer Forest
Chaparral and Coastal Shrub	Californian Mesic Chaparral Californian Pre-Montane Chaparral Californian Xeric Chaparral Central and South Coastal California Seral Scrub	Californian Coastal Sage Scrub Western Mojave and Western Sonoran Desert Borderland Chaparral
Desert Conifer Woodland	Great Basin Pinyon-Juniper Woodland	
Desert	North American Warm	
Outcrop and Badland	Desert Bedrock Cliff and Outcrop	
Desert Scrub	Arizonian upland Sonoran Desert scrub-Sonoran Desert scrub Intermontane Deep or Well-Drained Soil Scrub-Sonoran Desert Scrub Intermontane Seral Shrubland Inter-Mountain Dry Shrubland and Grassland	Intermountain Mountain Big Sagebrush Shrubland and Steppe Lower Bajada and Fan Mojavean-Sonoran Desert Shrub Mojave and Great Basin Upper Bajada and Toeslope Shadescale-Saltbrush Cool Semi-Desert Scrub Southern Great Basin Semi-Desert Grassland
Dunes	North American Warm Desert Dunes and Sand Flats	
Grasslands	California Annual and Perennial Grassland	California Annual Forb/Grass Vegetation
Riparian	Madrean Warm Semi-Desert Wash Scrub Mojavean Semi-Desert Wash Scrub Sonoran-Coloradan Semi-Desert Wash Woodland/Scrub	Southwestern North American Riparian Evergreen and Deciduous Woodland Southwestern North American Riparian/Wash Scrub
Wetland	Arid West Freshwater Emergent Marsh Californian Warm Temperate Marsh/Seep	North American Warm Desert Alkaline Scrub and Herb Playa and Wet Flat Southwestern North American Salt Basin and High Marsh



# Biological Conservation Strategy

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

### DRECP RESERVE DESIGN PROCESS





# Addressing Climate Change

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

*The California deserts are expected to become warmer and may become drier...as climate change progresses...Species will need to cope with decreasing and less consistent water availability and an increasing number of days above current minimum temperatures.*

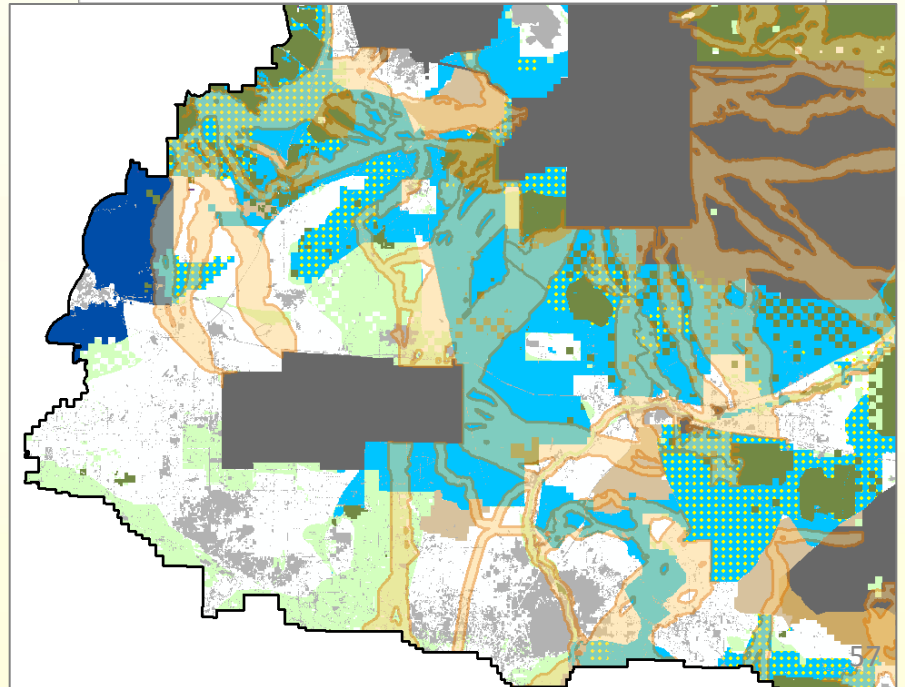
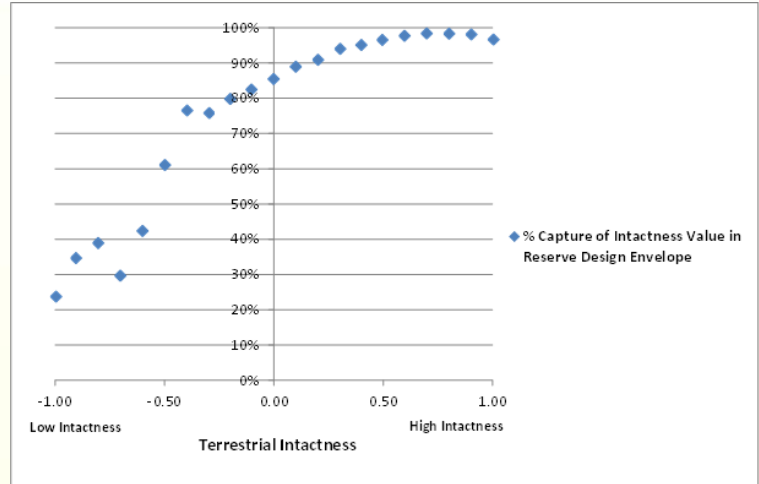
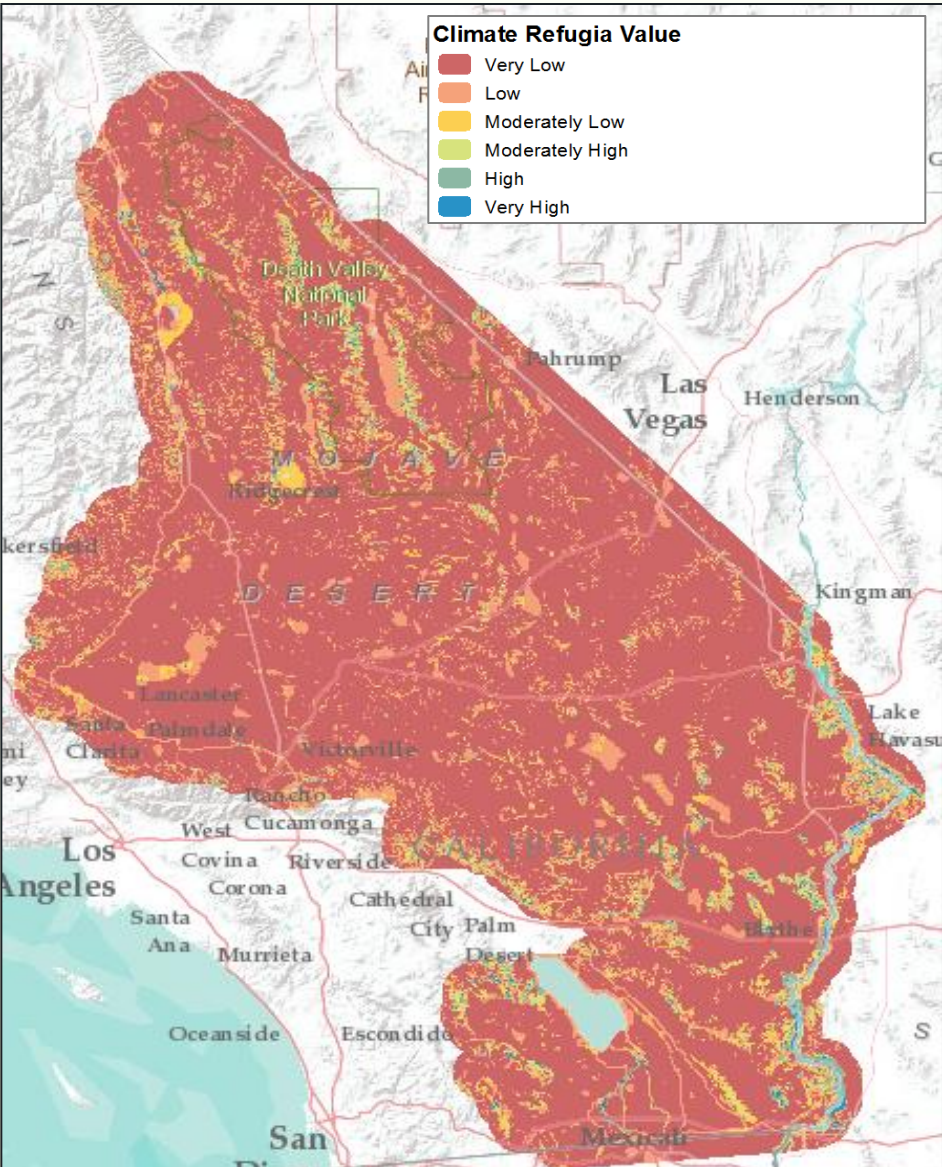
- DRECP addresses climate change effects primarily through providing for **Adaptation** and **Resiliency**
  - Reserve Design
  - Monitoring and Adaptive Management Program



# Addressing Climate Change



## DESERT RENEWABLE ENERGY CONSERVATION PLAN

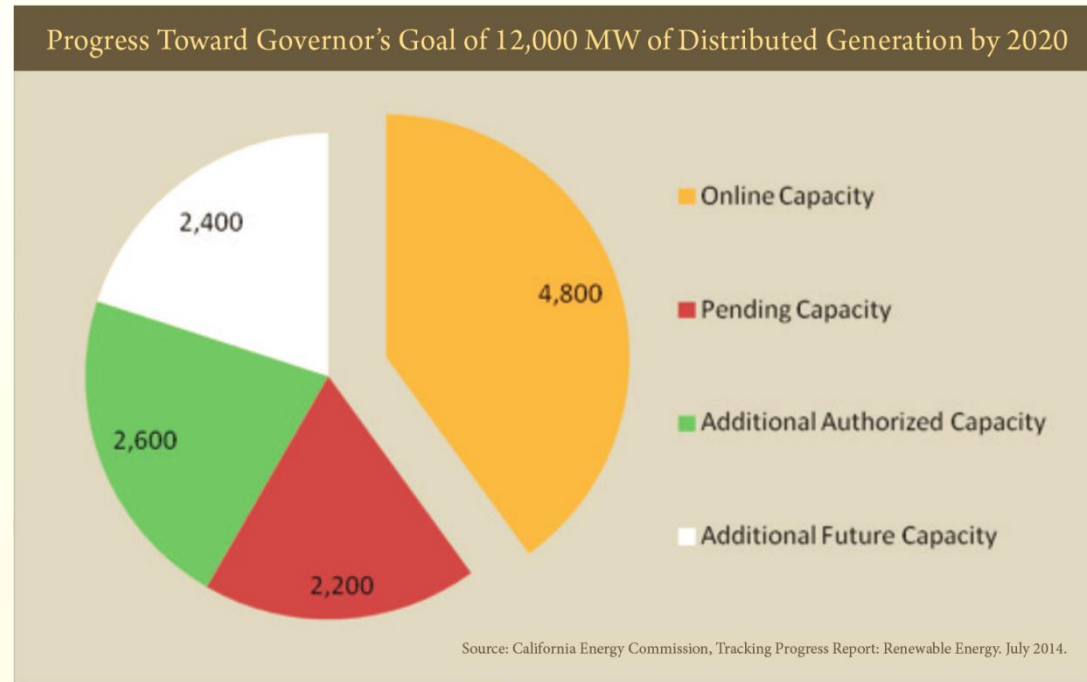




# Distributed Generation

## DESERT RENEWABLE ENERGY CONSERVATION PLAN

- Distributed generation represents an increasingly important element of California's energy portfolio
- The state has ambitious goals for DG
- The state is committed to overcoming barriers to DG to achieve these goals



For more information,  
visit: [www.drecp.org](http://www.drecp.org)

