



Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead



Richard J. Bruckner
Director

June 9, 2011

TO: Pat Modugno, Chair
Esther L. Valadez, Vice Chair
David W. Louie, Commissioner
Harold V. Helsley, Commissioner
Curt Pedersen, Commissioner

FROM: Paul McCarthy
Section Head, Impact Analysis

SUBJECT: Background Materials for Hearing
Project No. R2011-00367
RPC Meeting: June 22, 2011
Agenda item: 7

Please find attached a copy of a power point presentation which gives an introduction to and provides background information regarding the Desert Renewable Energy Conservation Plan currently being developed by the California State Energy Commission in cooperation with the State Department of Fish and Game and the United States Department of the Interior.

In addition, we have attached a four-page summary of all renewable energy projects in Los Angeles County. We are currently anticipating additional case filings within the next several weeks. If those are received prior to the June 22 hearing we will provide you with an updated report at the hearing.

PMC:PMC

Los Angeles County Renewable Energy Projects (as of June 2011)

1. *AV Solar Ranch One (Approved) (Project Number R2009-02239)*

The proposed AV Solar Ranch One by First Solar project site is located in northwestern Los Angeles County, approximately 15 miles northwest of downtown Lancaster, roughly centered at the intersection of State Route 138 and 170th Street West. The project consists of approximately 2,300 acres and is located approximately 2 miles south of the Kern County boundary and 1.5 miles north of the Antelope Valley California Poppy Reserve. The project will generate 230 MW of power using fixed-tilt or tracking photovoltaic solar panels.

The project site was previously in agricultural production and is now fallow. The surrounding area generally consists of agricultural or farm-related structures and is privately owned. Two Los Angeles County-designated Significant Ecological Areas (SEA), SEA #60 and SEA #57, occur in the vicinity of the project site. The project will use a maximum of 12 acre-feet/year of water primarily to wash the panels as well as potable water for staff.

The proposed project's generation-tie line is 4.25 miles long and includes a 3.5-mile-long off-site segment and a 0.75-mile-long on-site segment.

The Los Angeles County Regional Planning Commission (RPC) approved the project on June 30, 2010. That decision was appealed by Northrop Grumman and the appeal hearing took place at the Board of Supervisors on November 23, 2010. The Board rejected the appeal and approved the project.

2. *Gray Butte Solar Array (Project Number R2009-01148)*

First Solar and AES Solar's Gray Butte Solar Array will transform 1,100 acres of former agricultural land into a 150-MW photovoltaic solar energy farm. Located at the intersection of 240th Street East and East Palmdale Boulevard near the eastern County boundary, the energy produced by the project will be delivered east into San Bernardino County via a 10-mile generation tie-line to interconnect with the existing Victor-Phelan 115-kV transmission line. This project involves development in a Significant Ecological Area (SEA). The project is projecting using four acre-feet/year of water.

A Draft Environmental Report is currently being prepared.

Los Angeles County Renewable Energy Projects (as of June 2011)

3. *Alpine Solar Project (Approved) (Project Number R2009-02089)*

The proposed Alpine Solar Project (ASP) by NRG will be located in northwestern Los Angeles County, approximately 18 miles northwest of downtown Lancaster and one mile south of the Kern County boundary. The project consists of development of 580 acres of an 800-acre project site with photovoltaic solar panels to generate 92 MW of power. A one-mile-long, 66-kV generation tie-line to the Neenach Substation is also proposed and will be located adjacent to 210th Street West.

The project site has been used for agricultural purposes until the fall of 2009. A drainage channel crosses the northern portion of the site in an east-west direction.

The project was approved by the Hearing Officer in December 2010. The decision of the Hearing Officer was appealed to the Regional Planning Commission and a hearing was held on March 30, 2011. The Regional Planning Commission denied the appeal and upheld the decision and approved the project.

4. *Wildflower Green Energy Farm (Project Number R2010-00256)*

Element Power's proposed Wildflower Green Energy Farm, located south of the Antelope Valley Poppy Reserve, will employ a mix of photovoltaic solar panels and wind turbines to generate 300 MW of power on 4,000 acres. The EIR will examine four different scenarios regarding the precise mix of solar to wind.

The case is currently undergoing environmental review, including review before SEATAC.

5. *Recurrent Energy (Project Numbers below)*

Recurrent Energy's three solar projects are as follows:

- *Antelope Solar 1 (R2010-00911)*
Antelope Solar 1 is a 10-MW photovoltaic solar facility located on 111 acres of vacant land in the northwest Antelope Valley, near the intersection of Fairmont-Neenach Road and 120th Street West. Power generated from the project is planned to connect to the existing Del Sur substation via a 12-kV generation tie-line running east from the site. A zone change from A-1 to A-2 will be required.
- *Antelope Solar 2 (R2008-00878)*
Antelope Solar 2 is a 10-MW photovoltaic solar facility on 80 acres of vacant land in the northwest Antelope Valley, near the intersection of 130th Street West and West Avenue G. Power generated from the project is planned to connect to existing transmission facilities through either (1) an approximate 1-mile underground gen-tie line along West Avenue G or (2) an approximate 1.1-mile underground gen-tie line south along 130th Street West.

Los Angeles County Renewable Energy Projects (as of June 2011)

- **105th Street North 1 (R2010-01041)**
105th Street North is a 5.9-MW photovoltaic solar plant on 46 acres of vacant land in the northwest Antelope Valley, near the intersection of 105th Street West and West Avenue I. Power generated from the site is planned to connect to an existing 12-kV SCE overhead line. A zone change from A-1 (Light Agricultural) to A-2 (Heavy Agricultural) will be required.

6. *Antelope Valley Solar (Project Number R2010-00808)*

Renewable Resources Group, Inc.'s Antelope Valley Solar project will comprise 5,175 acres, of which 1,238 will be located in Los Angeles County and the remainder in Kern County. It will produce 650 MW of power— enough for 230,000 households— with PV technology. Kern County will be the lead agency for CEQA and Los Angeles County will be a responsible agency. A Draft EIR was released for 45-day public review on April 18, 2011. The site is approximately nine miles west of the Kern County community of Rosamond. Power from the project will be fed to the grid through an interconnection at the Whirlwind Substation in Kern County.

7. *Antelope Solar Farm (Project Number R2011-00377)*

Fotowatio Renewable Venture's (FRV) Antelope Solar Farm project will comprises two parcels totaling 320 acres (project components will occupy approximately 200 acres) and will utilize photovoltaic technology to generate 20 MW of power. Located at the northwest corner of the intersection of 110th Street West and West Avenue I, the project will feed power to the electrical grid via an existing 66-kV line located onsite or the existing ACE Antelope Substation. Staff is currently reviewing the recently submitted materials and will make an environmental determination.

8. *Ruby Solar Project (Project Number R2011-00410)*

Ruby Solar LLC proposes to construct and operate a 20-MW photovoltaic solar facility—the Ruby Solar Project—on 160 acres east of 180th Street East and north of Avenue D (Highway 138) in the west Antelope Valley. The power output will be delivered to the grid via a 69-kV transmission line located entirely onsite. Immediately north of the project property is the AVSRO project site. Staff is currently reviewing the recently submitted materials and will make an environmental determination.

Los Angeles County Renewable Energy Projects (as of June 2011)

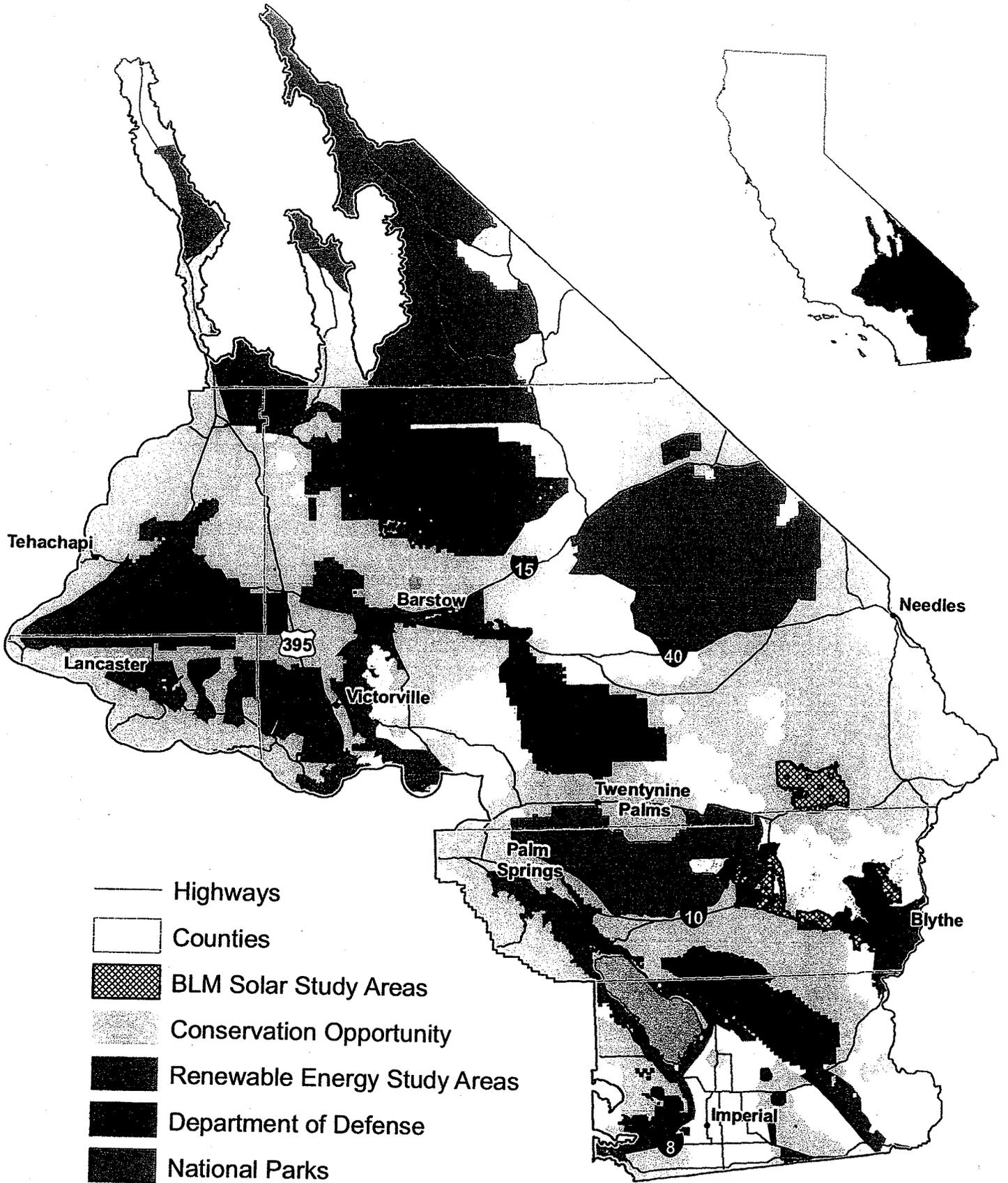
9. L.A. Solar 20 (Project Number R2010-01638)

LA Solar 20, LLC plans to construct and operate a 20-MW photovoltaic solar facility on a 155-acre site in the northeast Antelope Valley. A planned 66-kV interconnection will connect the project substation to SCE's existing local distribution grid adjacent to the site across 90th Street East. The project site is located at the northwest corner of East Avenue H and 90th Street East. Staff is currently reviewing the recently submitted materials and will make an environmental determination.

10. Blue Sky Wind Energy Project (Project Number R2011-00408)

NextEra Energy Resources, LLC is proposing a wind energy facility (the Blue Sky Wind Energy Project) with up to 90 wind turbine generators on approximately 7,500 acres of private land to generate 225 MW of electricity. Portions of the project site will require a zone change from A-1 (Light Agricultural) to A-2 (Heavy Agricultural). Most of the proposed project is located in a Significant Ecological Area (SEA). The project site is located on the Portal Ridge of the San Gabriel Mountains, approximately 4 miles west of the City of Lancaster and 12 miles west of State Route 14 (SR-14).

RENEWABLE ENERGY ACTION TEAM STARTING POINT



Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

Conservation Planning and the Desert Renewable Energy Conservation Plan

Joint Public Workshop
March 12, 2009
Sacramento, California



California Energy Commission



Department of Fish and Game



Fish and Wildlife Service



Bureau of Land Management

Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

This presentation will focus on the elements of the Executive Order that address comprehensive conservation planning in the California desert and activities, processes, and actions designed to reduce permit review and issuance time. Specifically, it will cover:

- The Renewable Energy Action Team (REAT)
- Element 3: Department of Fish and Game reorganization
- Element 7: Initiation of the Desert Renewable Energy Conservation Plan (DRECP)
- Element 8: Designation of additional areas where an NCCP would be beneficial for permit assurances
- Elements 10-12: Process and structure of the DRECP

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

The Executive Order is intended to provide a more predictable and streamlined regulatory compliance framework while completing a conservation plan that will balance renewable energy development with natural resource conservation

Establish and operate REAT



Create tools and collect and interpret data

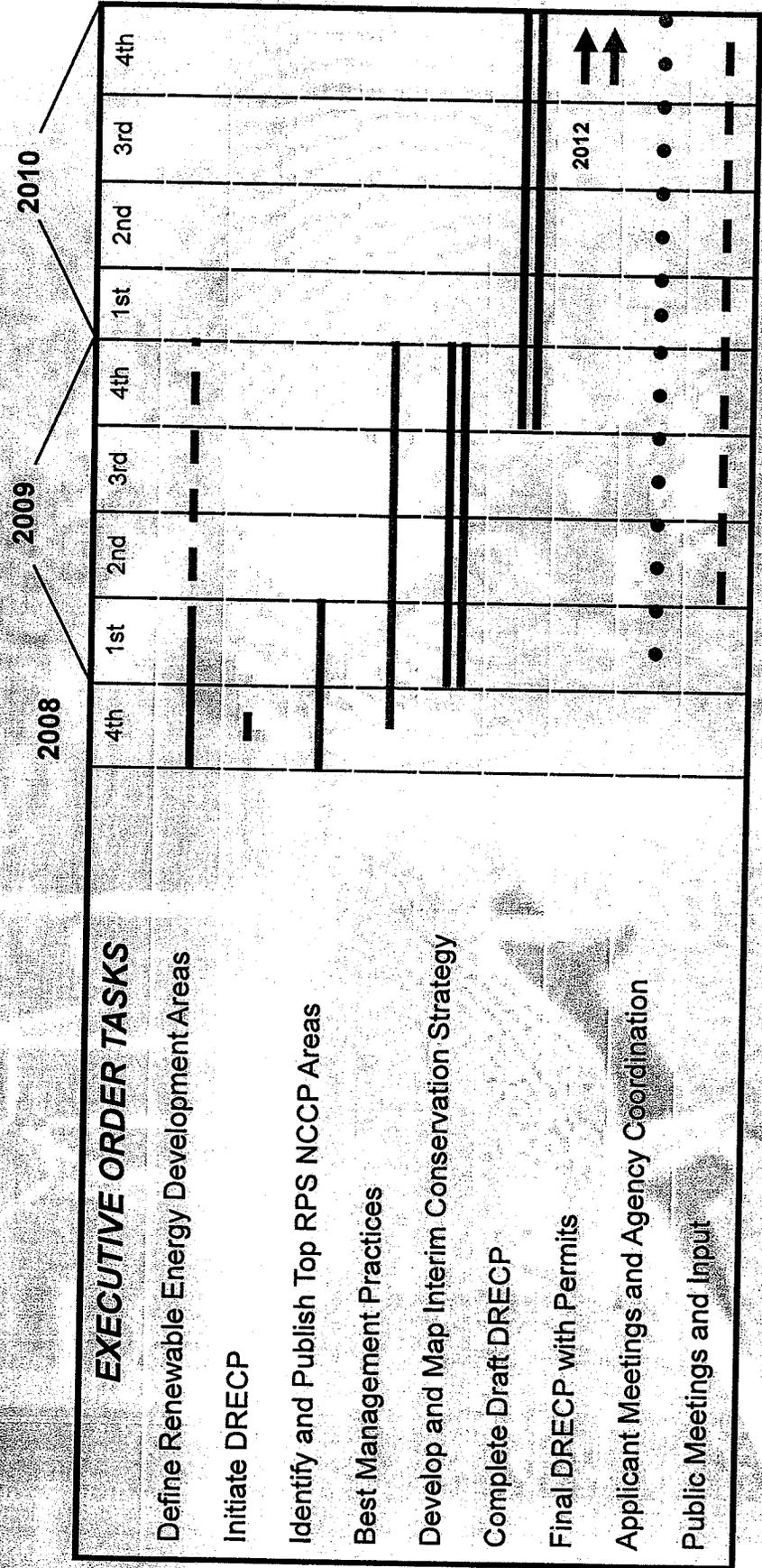


Develop Desert Renewable Energy Conservation Plan



Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

EO Implementation Schedule



█ REAT █ DRECP

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*Implementing the Governors Renewable
Energy Executive Order*

The REAT

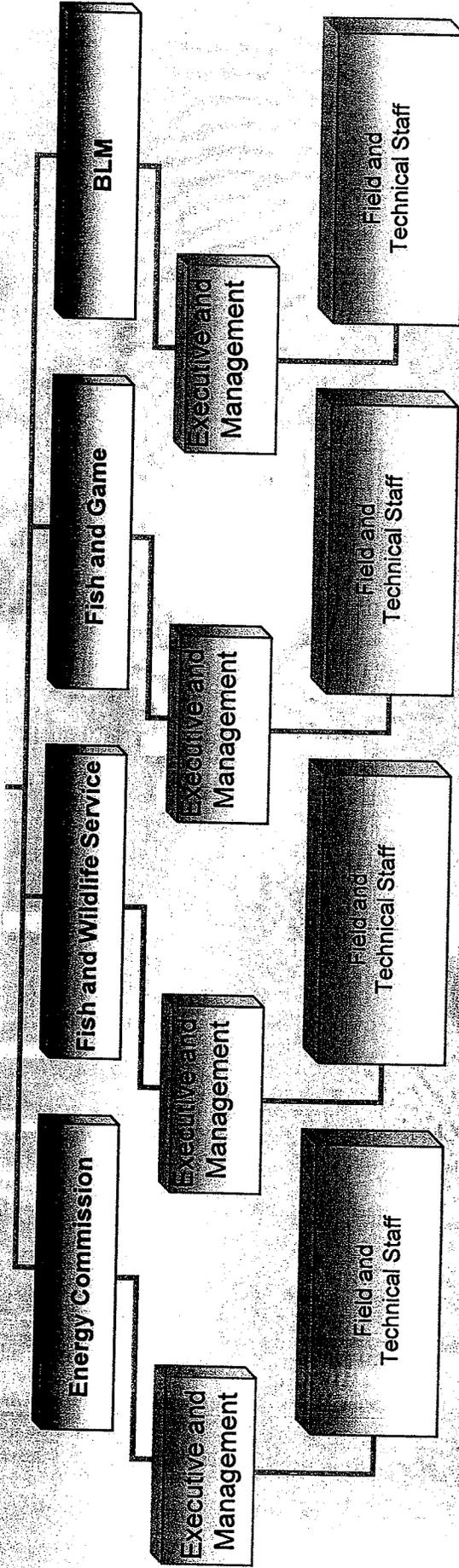
Renewable Energy Action Team

- Comprised of the four MOU signatory agencies
- Holds "top to bottom" meetings every other week to address policy and process issues
- Primary function is to coordinate permitting and process activities among agencies
- Reports to policy team comprised of the Natural Resources Agency, Commissioners, and Fish and Wildlife Service and Bureau of Land Management directors
- Working technical unit for implementing the Executive Order

**Renewable Energy in California:
Implementing the Governors Renewable
Energy Executive Order**

The REAT

**Renewable Energy
Action Team**



Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

The REAT

Permitting Matrix: Projects > 50 mw on Private Lands

	CEC	CPUC	LOCAL	BLM	USFWS	CEQA
Wind	--	PPA Approval	CEQA/CUP	--	FESA Section 10a or Section 7	CEQA ITP or NCCP/LSAA
Solar PV	--	PPA Approval	CEQA/CUP	--	FESA Section 10a or Section 7	CEQA ITP or NCCP/LSAA
Solar Thermal	CEQA/License	PPA Approval	--	--	FESA Section 10a or Section 7	CEC Consultation
Biofuels - Generation	CEQA/License	PPA Approval	--	--	FESA Section 10a or Section 7	CEC Consultation
Geothermal	CEQA/License	PPA Approval	--	--	FESA Section 10a or Section 7	CEC Consultation

* - assumes FESA species present

** - assumes CESA species present, CESA Consistency Determination may be applicable

Renewable Energy in California:
Implementing the Governors Renewable Energy Executive Order

The REAT

Permitting Matrix:
Projects > 50 mw on Public Lands

	CEC	CPUC	LOCAL	BEM	USEWS	
Wind	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Solar PV	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Solar Thermal	CEQA/License	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Biofuels - Generation	CEQA/License	PPA Approval	--	NEPA/ROW	FESA Section 7	CEC Consultation
Geothermal	CEQA/License	PPA Approval	--	NEPA/ROW	FESA Section 7	CEC Consultation

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**Renewable Energy in California:
Implementing the Governors Renewable
Energy Executive Order**

The REAT

**Permitting Matrix:
Projects < 50 mw on Private Lands**

	CEC	CPUC	LOCAL	BLM	FIS/WS	CEQA
Wind	--	PPA Approval	CEQA/ CUP	--	FESA Section 10a or Section 7	CESA ITP or NCCP/ LSAA
Solar PV	--	PPA Approval	CEQA/ CUP	--	FESA Section 10a or Section 7	CESA ITP or NCCP/ LSAA
Solar Thermal	--	PPA Approval	CEQA/ CUP	--	FESA Section 10a or Section 7	CESA ITP or NCCP/ LSAA
Biofuels - Generation	--	PPA Approval	CEQA/ CUP	--	FESA Section 10a or Section 7	CESA ITP or NCCP/ LSAA
Geothermal	--	PPA Approval	CEQA/ CUP	--	FESA Section 10a or Section 7	CESA ITP or NCCP/ LSAA

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Implementing the Governors Renewable Energy Executive Order

The REAT

Permitting Matrix:
Projects < 50 mw on Public Lands

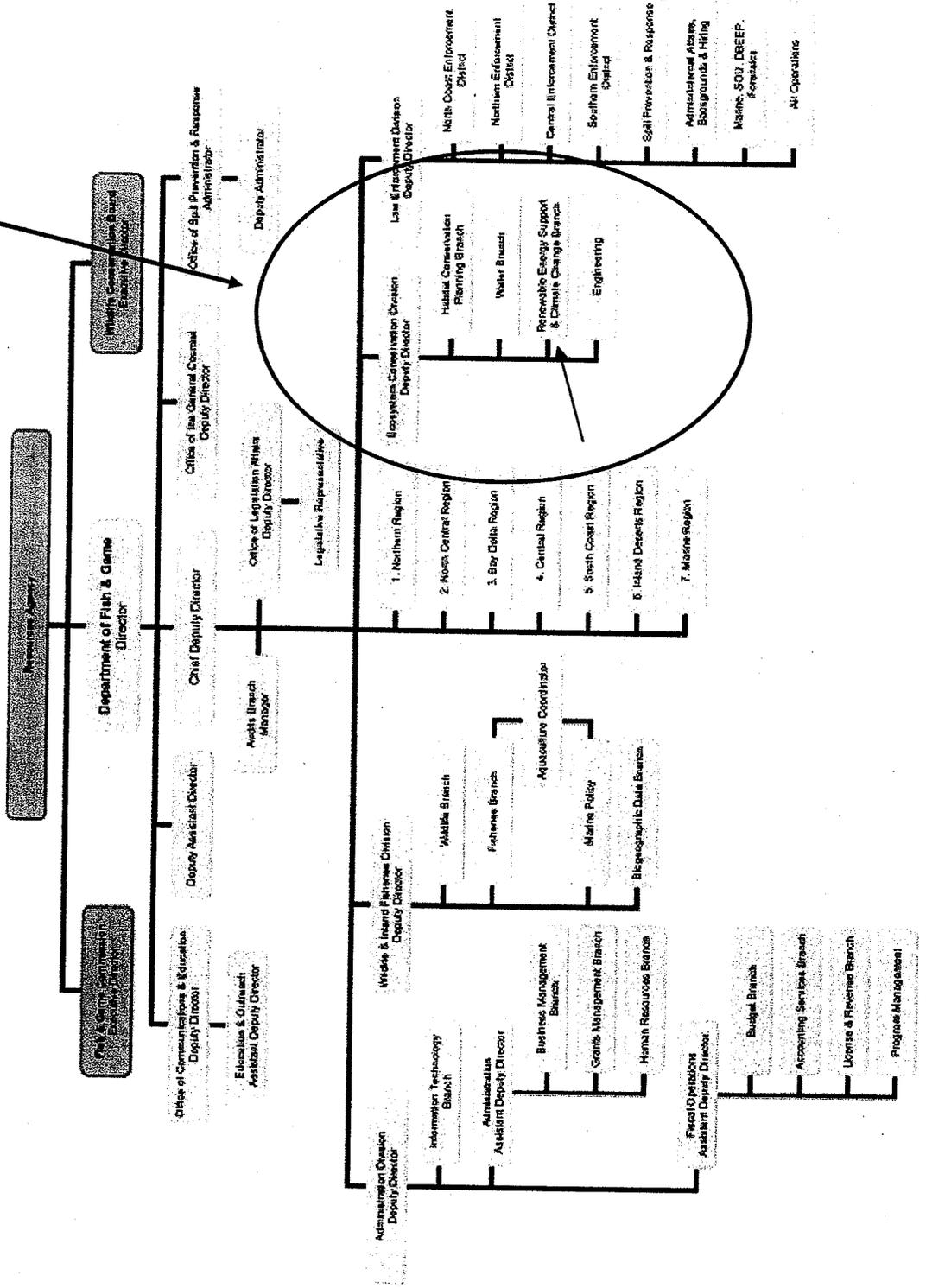
	CEC	CPUC	LOCAL	BLM	FSEIS	
Wind	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Solar PV	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Solar Thermal	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Biofuels - Generation	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA
Geothermal	--	PPA Approval	--	NEPA/ROW	FESA Section 7	CEQA/CESA ITP or NCCP/LSAA

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Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

Element 3: Department Reorganization



Renewable Energy in California:
*Implementing the Governors' Renewable
Energy Executive Order*

The NCCP Act

**Natural Community Conservation Planning Act:
Background**

- Enacted in 1991
- Ecosystem, landscape approach to conservation
- Provides for California Endangered Species Act (CESA) incidental take authorization
- Provide for species conservation and management
- Provides for listing assurances for duration of the permit
- Introduces the possibility of federal and state conservation funding

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

The NCCP Act

**Natural Community Conservation Planning Act:
Background**

- Extensive stakeholder process
- Independent scientific review and input process
- Integration with other planning processes
- Integration with other conservation efforts

**Renewable Energy in California:
Implementing the Governors Renewable
Energy Executive Order**

The NCCP Act

**NCCP and Individual Take Permit Provision
Comparison**

<i>Individual Take Permit (ITP)</i>	<i>NCCP</i>
Intended for a single action with a finite impact and conservation horizon	Intended for a range of activities that would occur over the life of the permit
Usually a single project applicant	Often many applicants or local government or state agency applicant
Project centric and oriented	Ecosystem or functional ecological unit oriented
"Take" authorization standard is "fully mitigate" all project actions	NCCP standard is "provide for conservation and recovery" of species
No assurances	Department may authorize assurances
Applicant responsible for funding entire range of mitigation requirements	Provides for state and federal contributions to meet conservation and recovery standard

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

The NCCP Act

**Natural Community Conservation Planning Act:
Implementation**

- Planning agreement establishes roles and responsibilities of Plan participants, defines initial "covered activities", and identifies conserved species and habitats
- Acquisition and preservation actions funded by applicants with contributions from state and federal government
- Preserve design implemented through a variety of actions in concert with other planning efforts
- NCCP permit can have a working life of 50 years
- Rough step concept

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

**Natural Community Conservation
Plans (Northern California)**

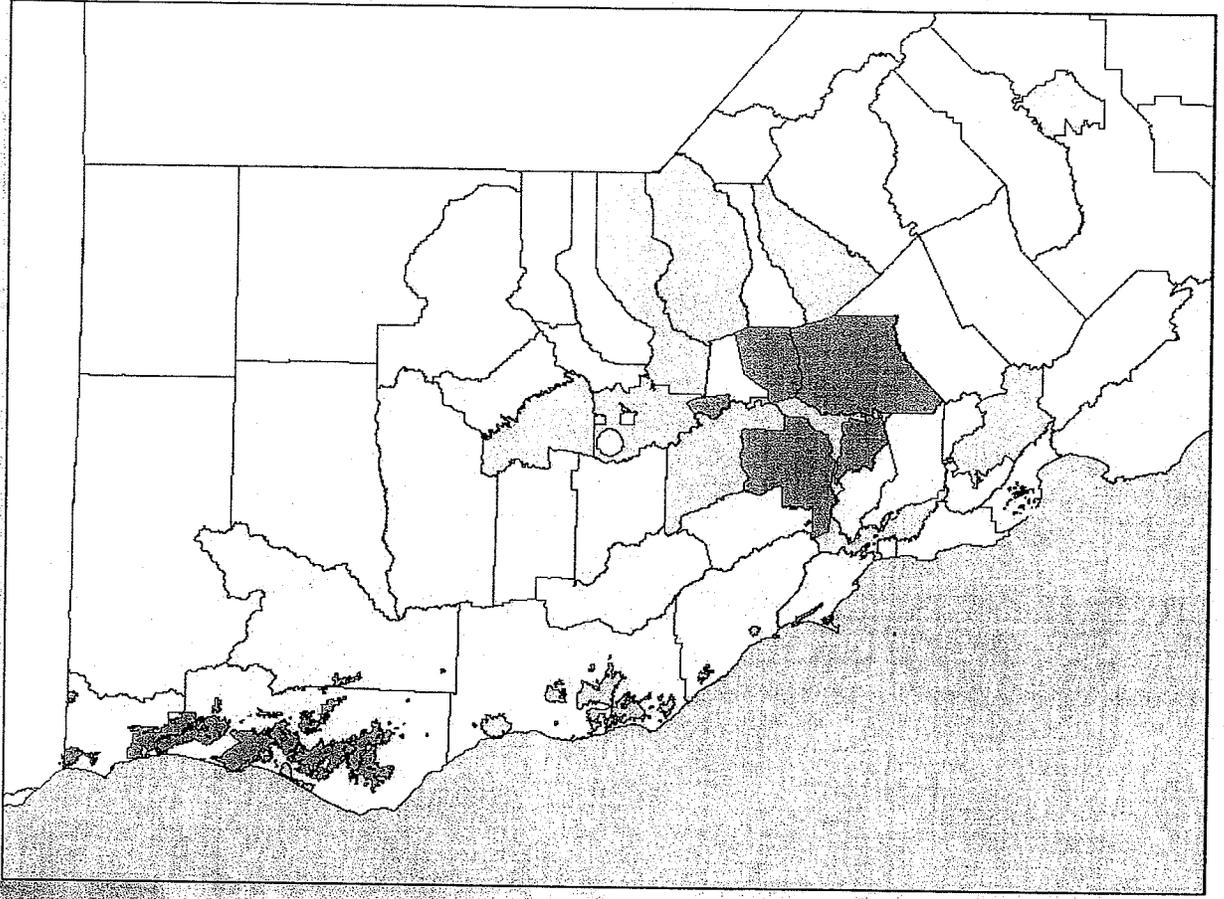


In the Planning Process



Completed

The NCCP Act

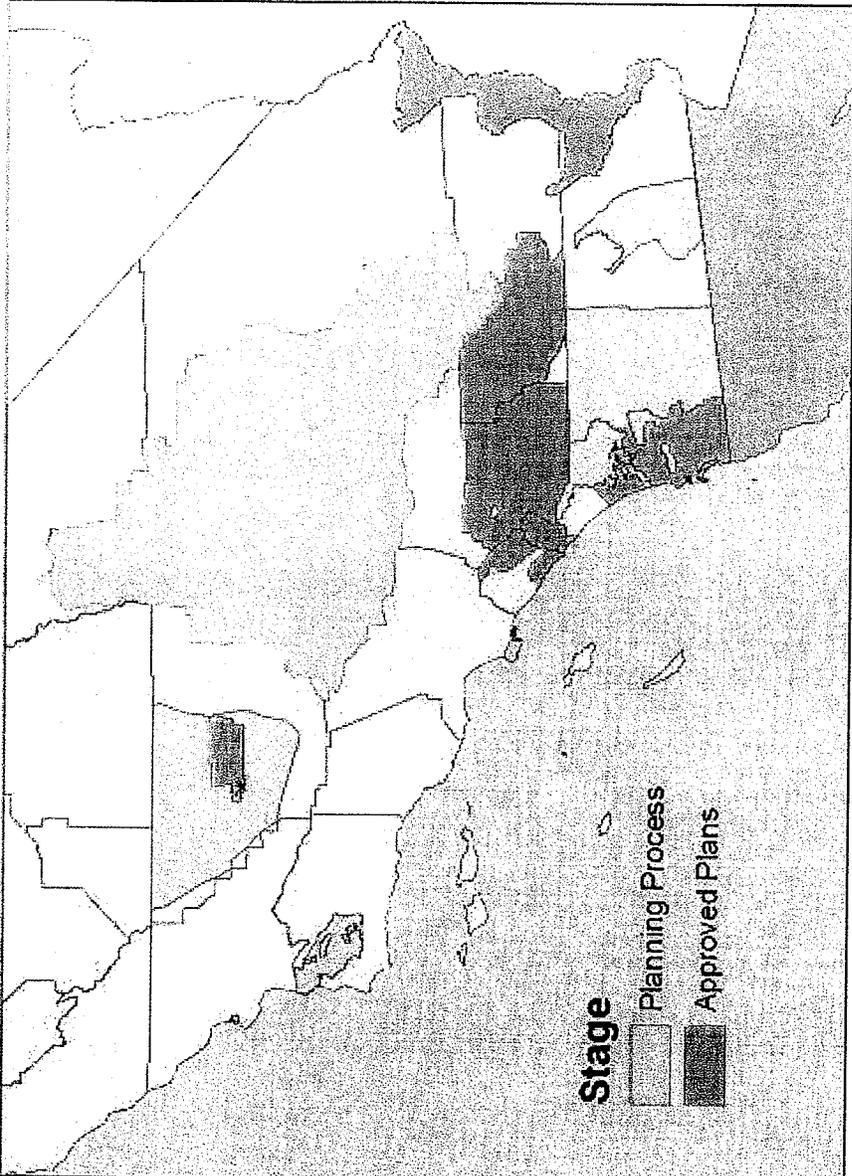


Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

The NCCP Act

Natural Community Conservation Plans (Southern California)

-  In the Planning Process
-  Completed

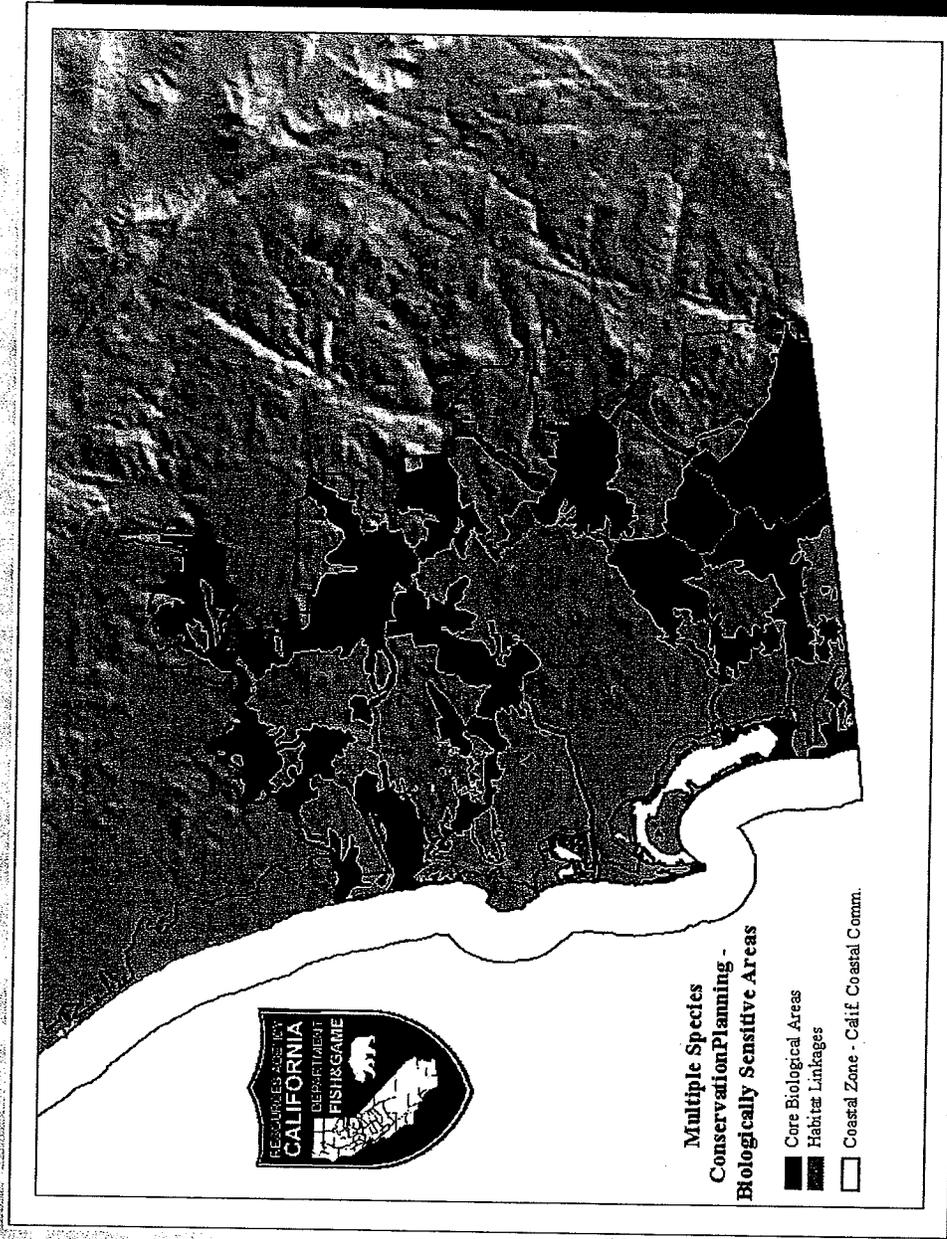


Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

The NCCP Act

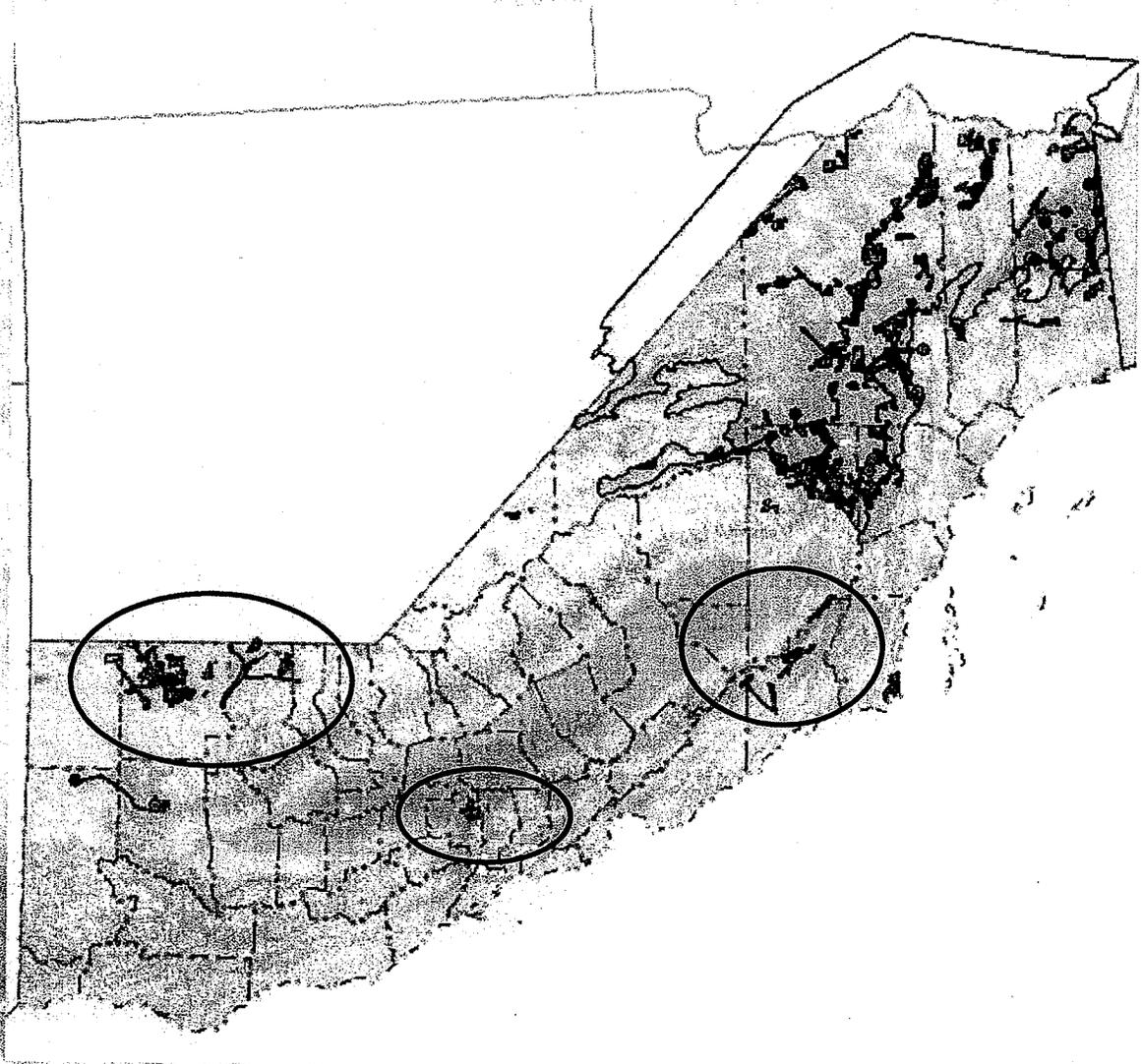
Natural Community Conservation Planning

- The planning process incorporates most current and viable scientific information
- Stakeholder process to identify conservation and permitted areas
- Result is matrix of core biological and connectivity areas



Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

EO Element 8:
NCCP Priorities



➤ Current focus is on the desert with development of the DRECP

➤ Future development of NCCPs for RPS projects will focus on the Modoc Plateau and the Carrizo Plain

➤ Initial planning for an NCCP underway for the Altamont Pass Wind Resource Area

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

**EO Elements 10-12:
The DRECP**

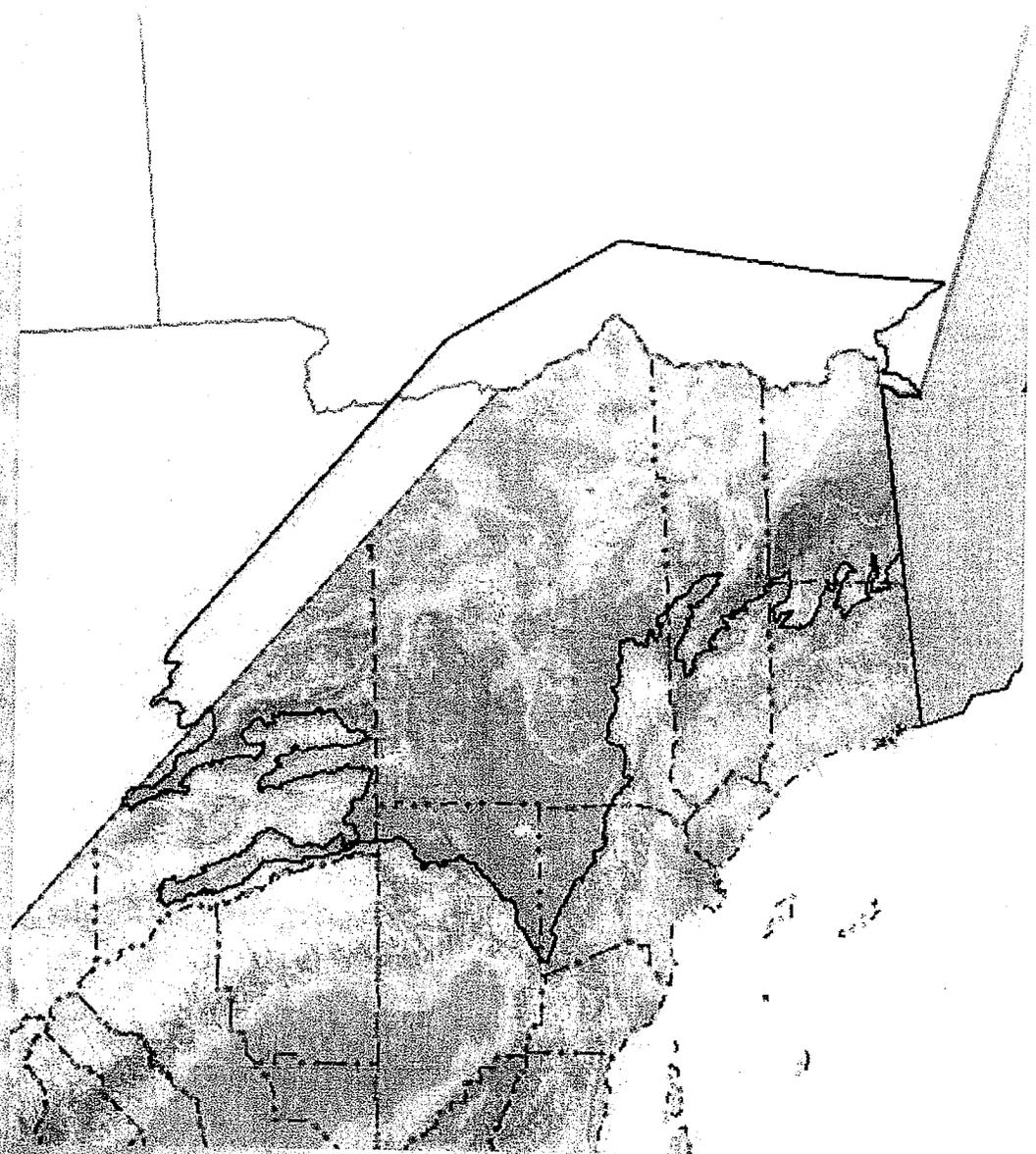
The Desert Renewable Energy Conservation Plan

- Identify geographic areas designated for RPS project development
- Identify areas for conservation and declining species management
- Focuses on the Mojave and Colorado desert regions
- Goal is to coordinate and consider desert land uses and activities during the planning process

**Renewable Energy in California:
Implementing the Governors Renewable
Energy Executive Order**

**EO Elements 10-12:
The DRECP**

The Desert Renewable Energy Conservation Plan

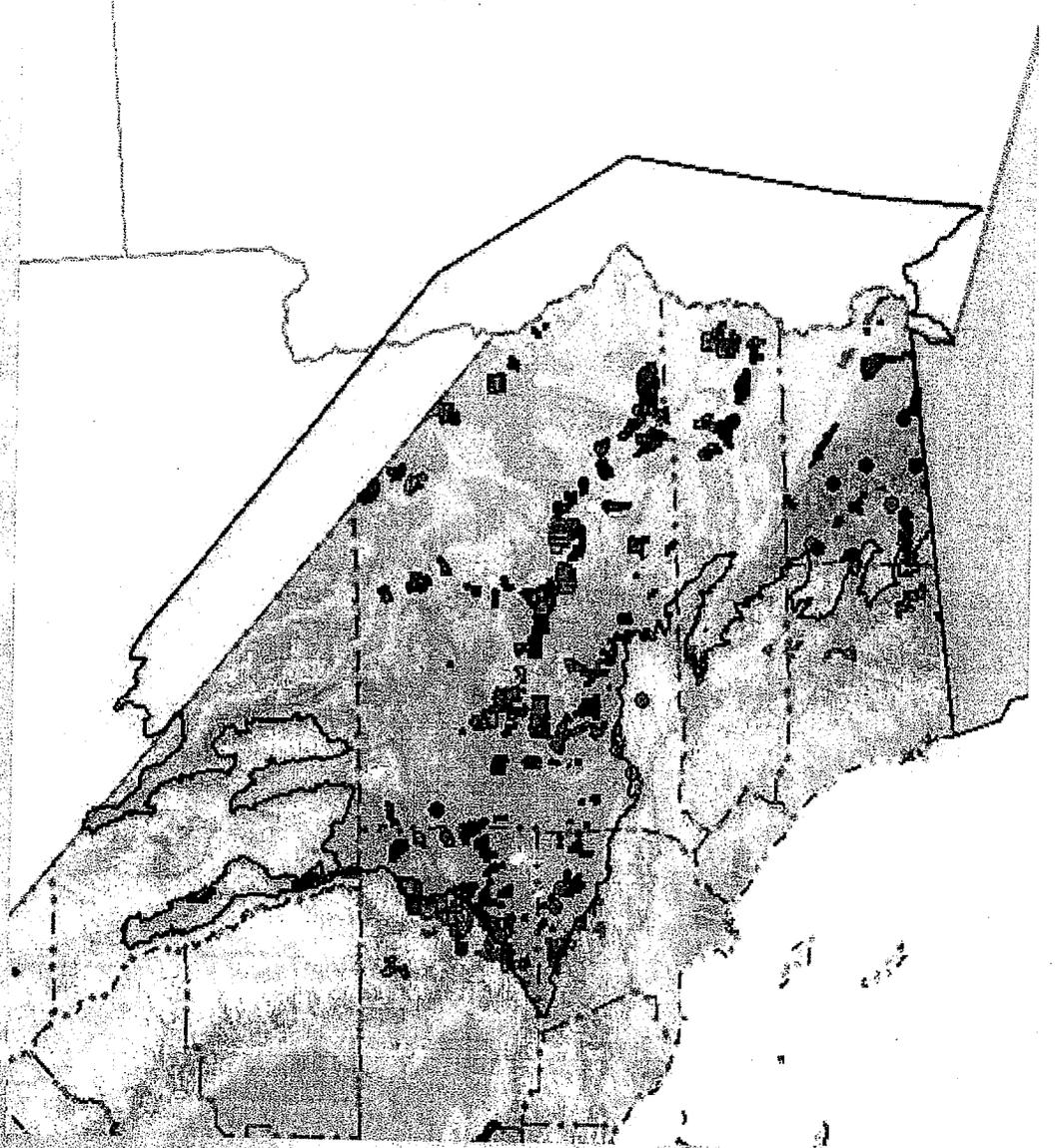


- Includes the Mojave and Colorado Desert ecoregions
- Parts of six counties
- Focus is on Renewable Portfolio Standard (RPS) projects

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

**EO Elements 10-12:
The DRECP**

The Desert Renewable Energy Conservation Plan

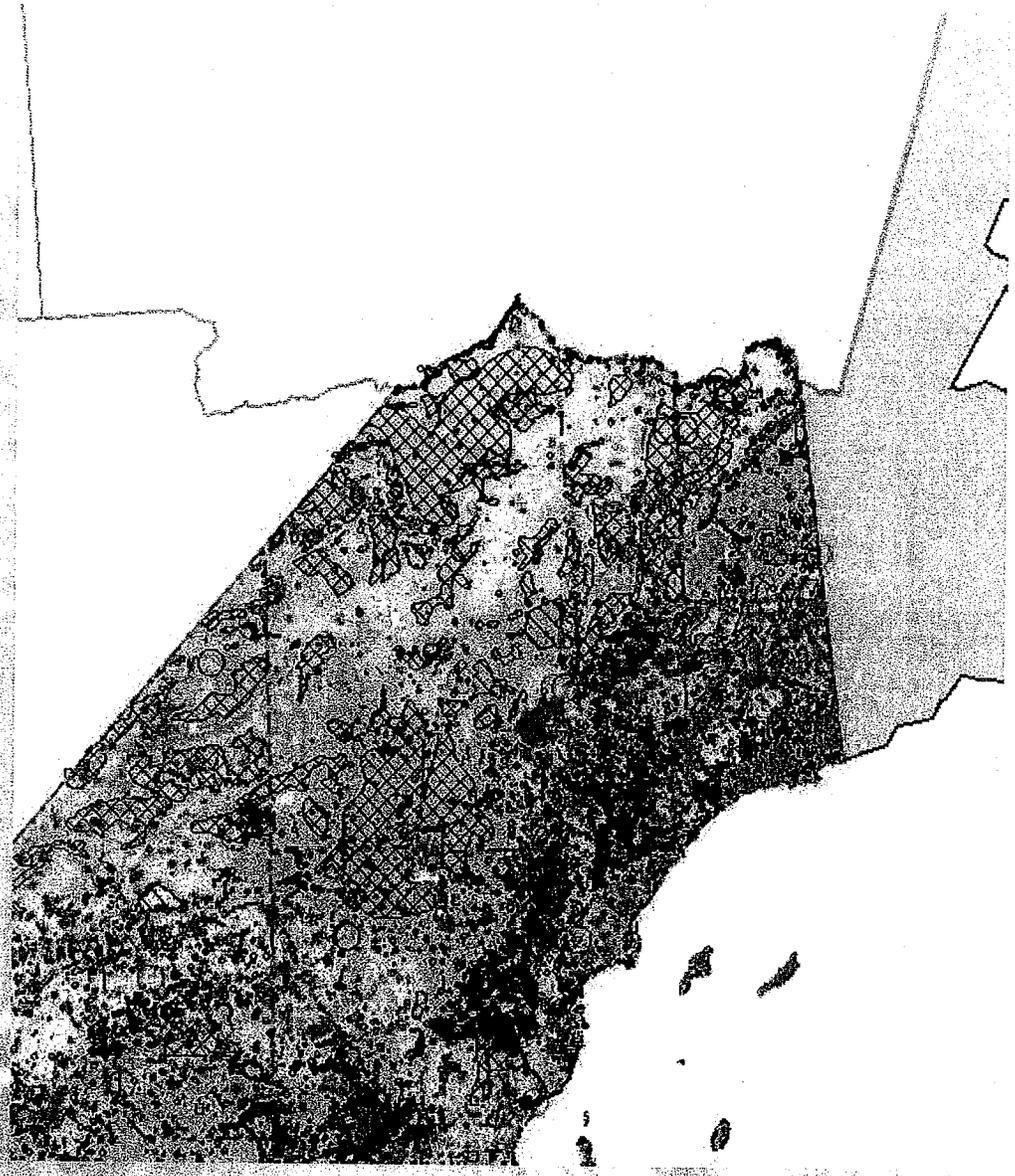


- **Designed to incorporate existing and potential project areas**
- **Specific covered activities (RPS projects) drive permit coverage**
- **RETI results will modify and help direct covered activity area design**

Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

**EO Elements 10-12:
The DRECP**

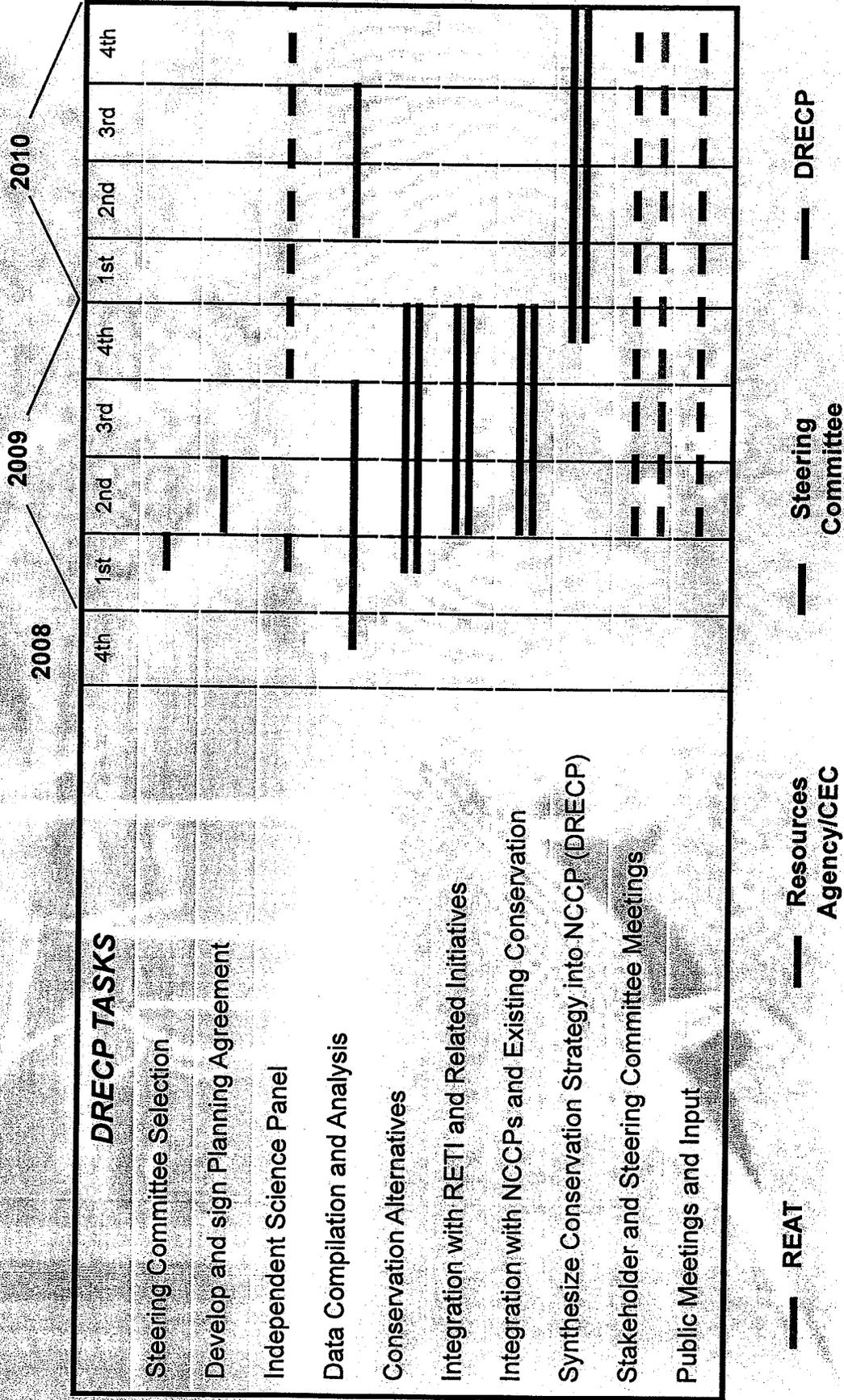
The Desert Renewable Energy Conservation Plan



- Incorporates best existing biological data
- Conservation area designation will consider many factors
- Data quality, extent, and availability will be key!

Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

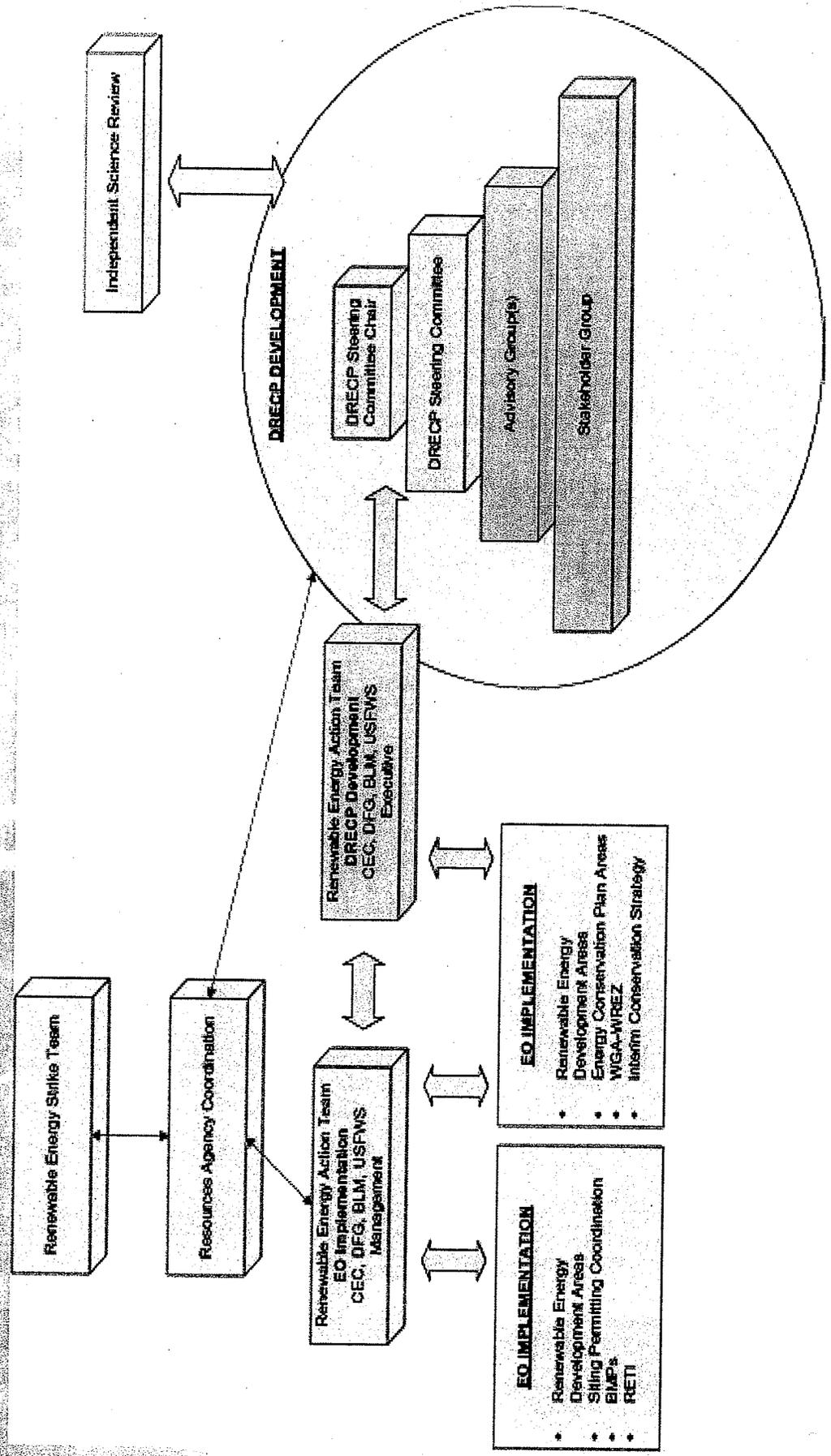
EO Elements 10-12: The DRECP



Renewable Energy in California: Implementing the Governors Renewable Energy Executive Order

REAT, REST, and The DRECP

Conceptual Agency and Team Organization

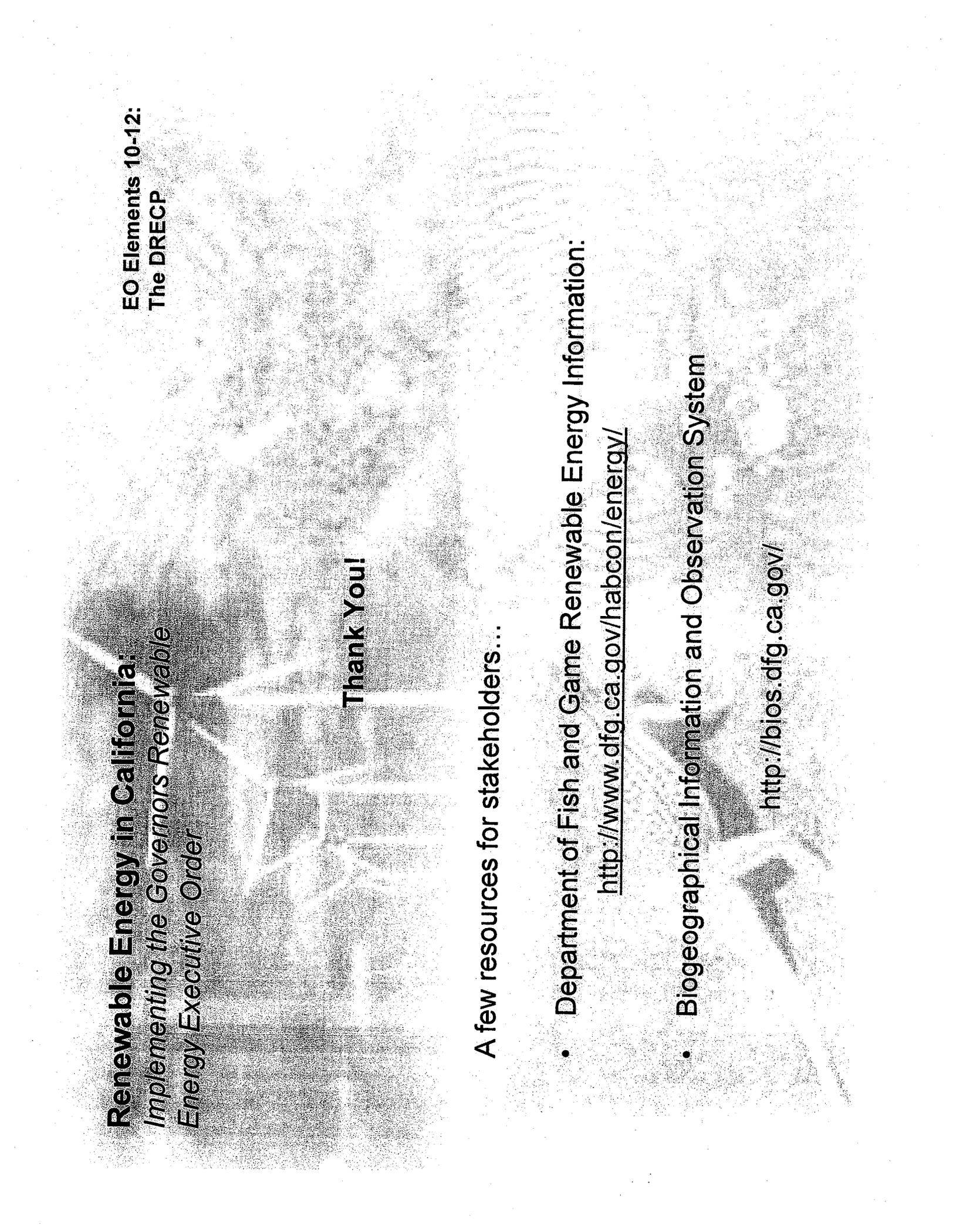


Renewable Energy in California:
*Implementing the Governors Renewable
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EO Elements 10-12:
The DRECP

**The Desert Renewable Energy Conservation Plan:
Challenges**

- Integration of, and coordination with, current conservation and planning efforts
- Integration of, and coordination with, current renewable energy and transmission planning efforts
- Aggressive time frame
- Meeting complex and evolving conservation objectives over multiple land owners and land uses
- Overcoming multi-agency culture and process impediments to create a seamless and integrated permitting process



Renewable Energy in California:
*Implementing the Governors Renewable
Energy Executive Order*

**EO Elements 10-12:
The DRECP**

Thank You!

A few resources for stakeholders...

- Department of Fish and Game Renewable Energy Information:
<http://www.dfg.ca.gov/habcon/energy/>
- Biogeographical Information and Observation System

<http://bios.dfg.ca.gov/>