



Overview and Discussion of DRECP Alternatives

DRECP Stakeholders Meeting

July 25, 2012

REAT Agency Team



Presentation Overview

- Purpose and progress
- Biological conservation planning context
- Energy context
- Development Focus Areas (DFAs)
- BLM Land Use Plan Amendment (LUPA)
- Mitigation contribution
- Potential high conflict development areas
- Q & A and discussion

Purpose and Progress

- Purpose of this overview is to seek stakeholder input on the proposed DRECP and EIS/EIR alternatives
- REAT Agencies have been coordinating with DoD - subsequent presentation today
- This presentation highlights key portions of comprehensive briefing materials posted in advance for stakeholder review

Progress on Alternatives

- October 2011 Preliminary Conservation Strategy (PCS) included PCS map and Renewable Energy Study Areas (RESAs)
- December 14/15, 2011 Stakeholder Committee Meeting on Alternative Conservation Strategy Approaches
- April 25, 2012 Stakeholder Committee Meeting
 - Preliminary Plan-Wide Biological Reserve Design Context Map
 - Development Scenarios 1 – 6 with Development Focus Areas (DFAs)
 - Planning envelope for conflict identification (biological and non-biological issues)
- May 8, 2012 memorandum posted for stakeholder review described methods for creating development scenarios



Progress on Alternatives

- July 25, 2012 stakeholder committee meeting briefing materials include:
 - Alternatives 1 – 5 based on development themes
 - Evolution from the development scenarios
 - Integration of BLM LUPA options and development alternatives
 - Integration of biological reserve design and development alternatives

Progress on Alternatives

- Briefing materials include (cont.):
 - A working map and rough acreage estimates for mitigation contributions to the overall reserve design and conservation strategy for Alternatives 1 – 5
 - Identification of high conflict DFAs and high conflict industry polygons and a preliminary matrix summary of conflicts

Still to Come on Alternatives

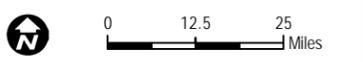
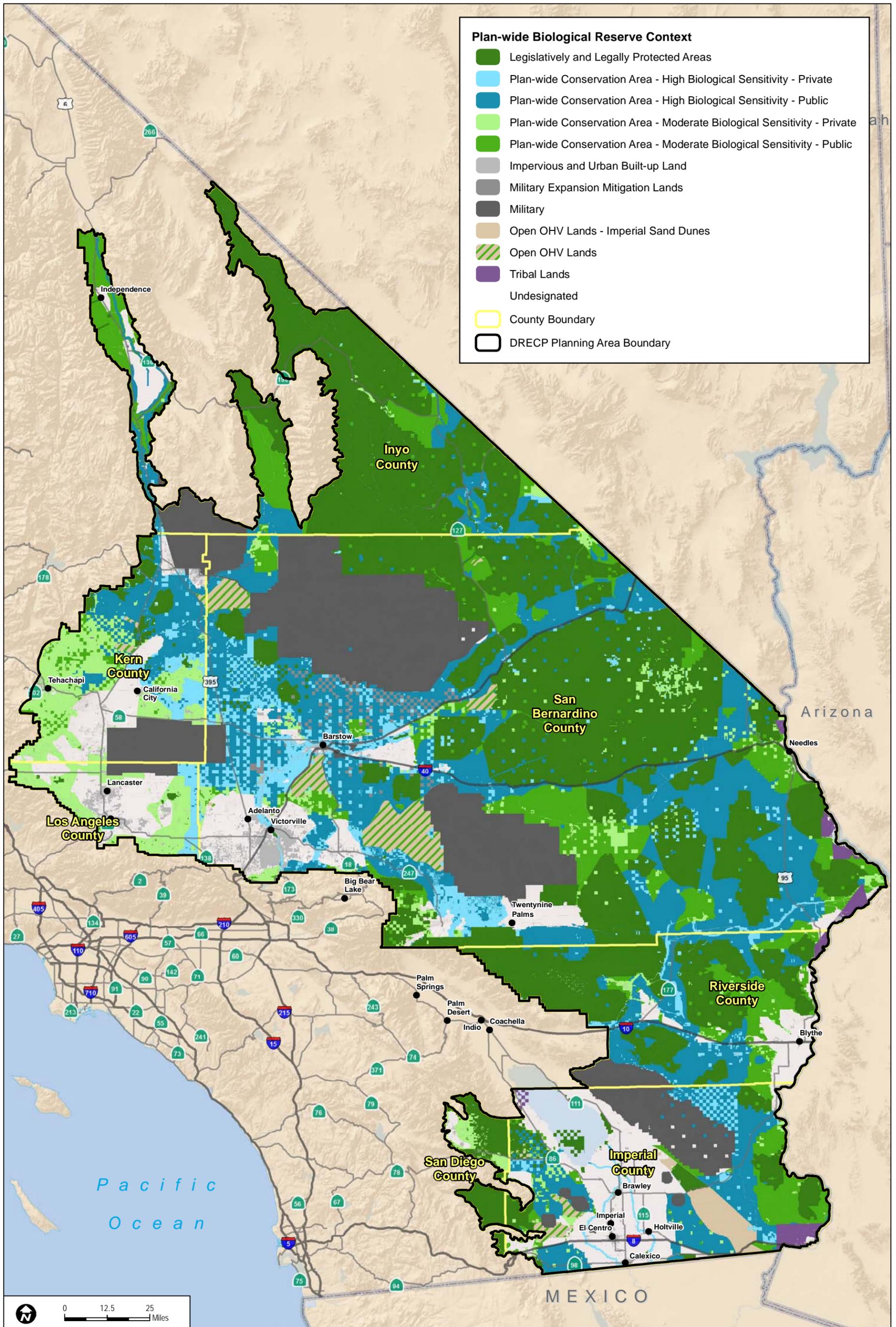
- Refinement of alternatives, including rule sets/criteria/management actions for DFAs and conservation areas
- Complete conservation strategy including SMART BGOs, monitoring and adaptive management
- Refinements as a result of Independent Science Panel (ISP) input
- Input from Transmission Technical Group (TTG)

Still to Come on Alternatives

- Complete analysis of DoD issues and integration with alternatives
- Input from July 13 Energy Commission Workshop
- Input resulting from stakeholders review and public comment
- Selection of a preferred alternative

Biological Conservation Planning Context

- April 25, 2012 preliminary plan-wide biological reserve design sets the context for the integrated alternatives
- Analysis of the plan-wide biological reserve design is ongoing and may be refined based on ISP and other input
- Baseline biology report and workshops on BGOs, reserve design, climate change, and other biological resources input including expert review of species profiles and models





Biological Conservation Planning Context

- Integration of reserve design with development in Alternatives 1 -5 is shown through:
 - Shifts in boundaries of high and moderate biological sensitivity areas
 - BLM LUPA designations (discussed later in this presentation)



Biological Conservation Planning Context

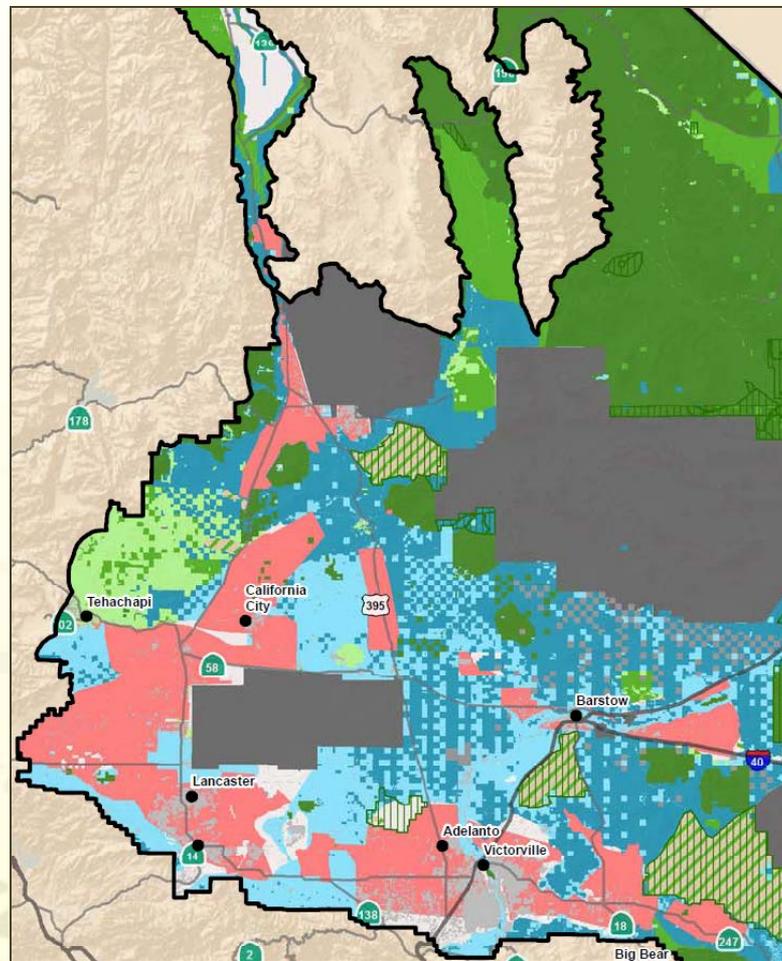
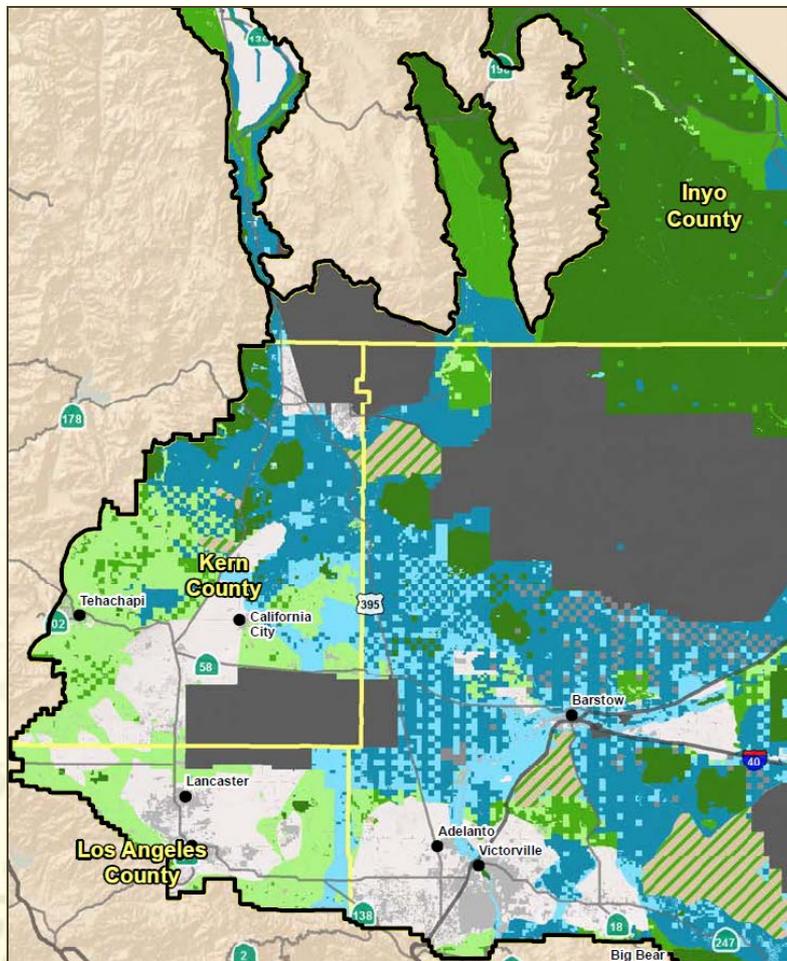
- On the plan wide biological reserve context map
 - High and moderate biological sensitivity categories represent REAT Agencies' assessment of existing conditions
- On the integrated alternatives maps
 - High and moderate biological sensitivity categories represent potential changes in biological sensitivity in response to development under Alternatives 1 - 5



Biological Conservation Planning Context

Plan-wide Biological Reserve Context – West Mojave

Biological Reserve Design (Alt. 3) – West Mojave

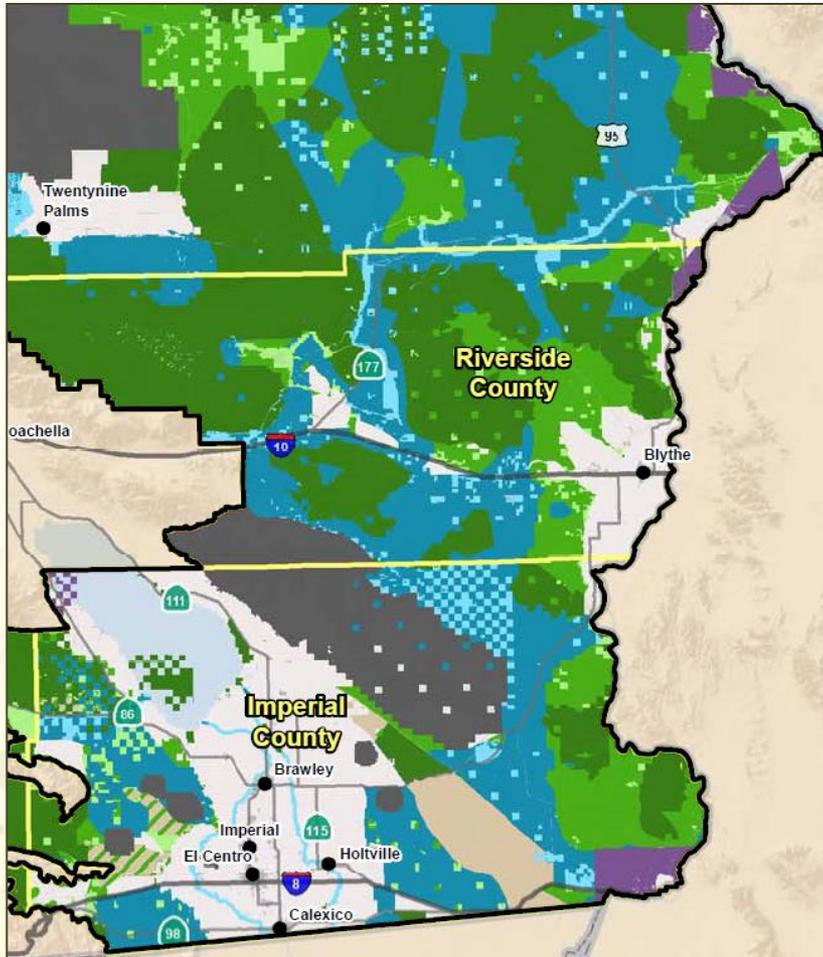


- Plan-wide Conservation Area - High Biological Sensitivity - Private
 - Plan-wide Conservation Area - High Biological Sensitivity - Public
- Plan-wide Conservation Area - Moderate Biological Sensitivity - Private
 - Plan-wide Conservation Area - Moderate Biological Sensitivity - Public

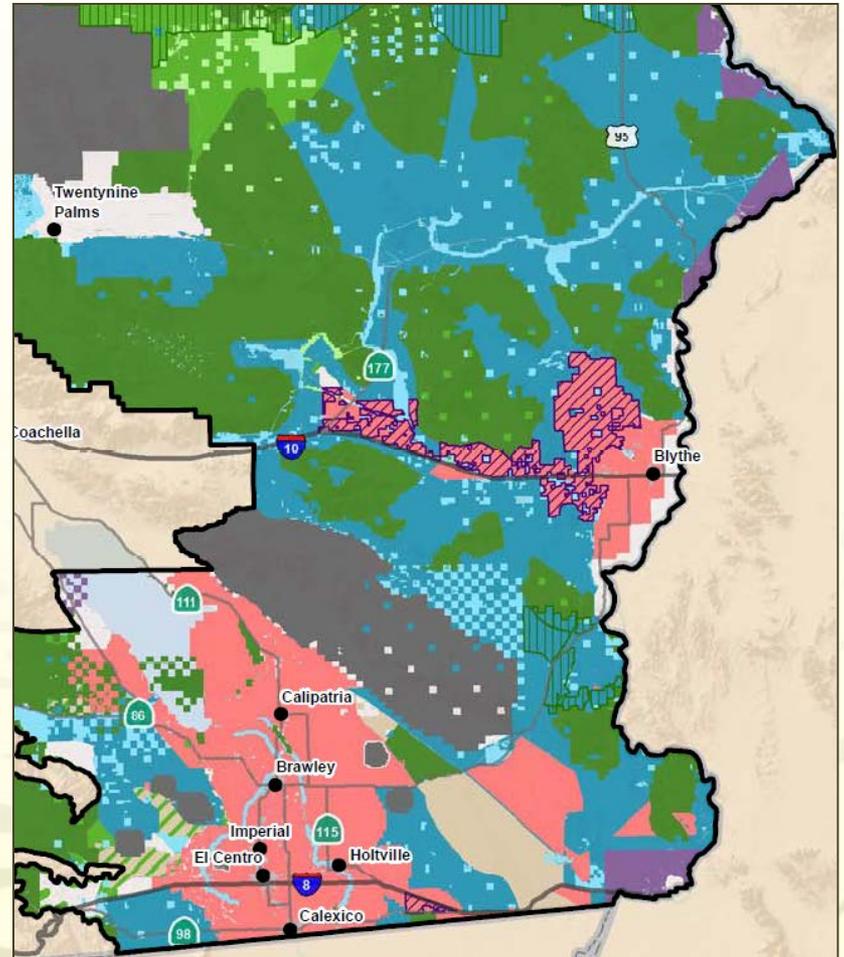


Biological Conservation Planning Context

Plan-wide Biological Reserve Context – Southeast



Biological Reserve Design (Alt. 5) – Southeast



- Plan-wide Conservation Area - High Biological Sensitivity - Private
- Plan-wide Conservation Area - Moderate Biological Sensitivity - Private
- Plan-wide Conservation Area - High Biological Sensitivity - Public
- Plan-wide Conservation Area - Moderate Biological Sensitivity - Public

Biological Conservation Planning Context

- Integration of reserve design with development in Alternatives 1-5
- Analysis will show whether a feasible reserve design is possible for each alternative
- Initial conflict analysis (discussed later in this presentation) indicates potential high conflicts between reserve design and some development polygons



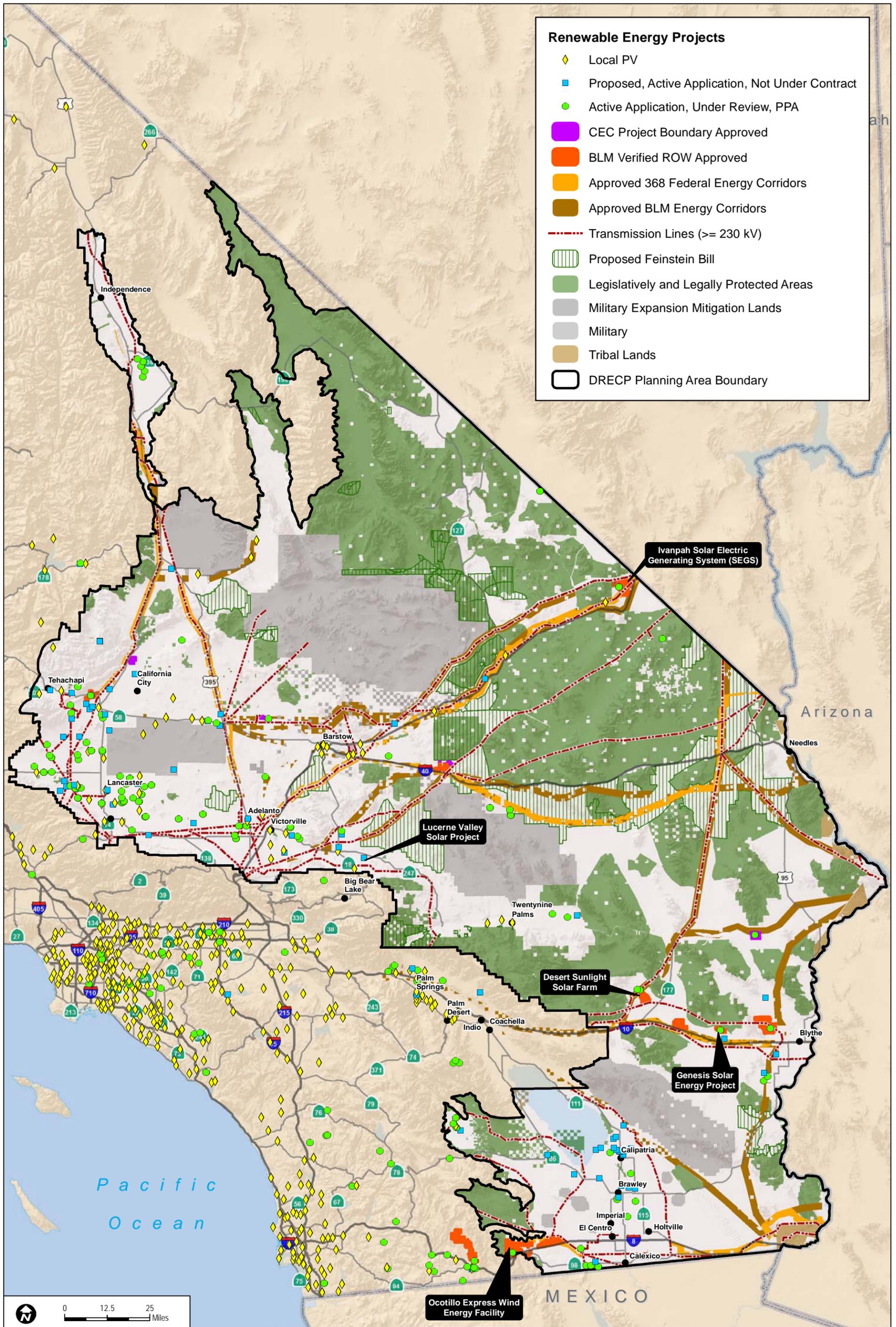
Still to Come on Biological Conservation Planning Context

- Finalization and integration of rule sets for development and conservation areas
 - Development criteria, criteria for reserve assembly and management, BMPs, avoidance and minimization measures, conservation actions, descriptions of allowable and compatible uses
- Approach to aerial considerations
- Analysis of the reserve design and biological conservation associated with each alternative



Energy Context

- Assumed target for all alternatives – 20,324 MWs
- 20,324 MWs translates to 160,000 – 360,000 acres of ground disturbance (absent aerial considerations) depending on technology mix
- Geothermal is a constant 2,800 MWs for all alternatives



Renewable Energy Projects

- ◆ Local PV
- Proposed, Active Application, Not Under Contract
- Active Application, Under Review, PPA
- CEC Project Boundary Approved
- BLM Verified ROW Approved
- Approved 368 Federal Energy Corridors
- Approved BLM Energy Corridors
- Transmission Lines (>= 230 kV)
- ▨ Proposed Feinstein Bill
- Legislatively and Legally Protected Areas
- Military Expansion Mitigation Lands
- Military
- Tribal Lands
- DRECP Planning Area Boundary





Energy Context

MWs and Acreage Distribution Summary of Alternatives

	Total MWs*	Solar MWs	Wind MWs	GM DG MW**	Geo MWs	Total DFA Acreage	Available Acres with discount	Total Required Acres	% of Total DFA Utilized	Solar Acres	Wind Acres	Geo Acres	GM DG Acres
No Action Alternative	19,934	14,110	4,329	716	779	282,451	N/A	282,451	N/A	100,180	173,161	3,579	5,530
Alt 1 - Disturbed Lands	19,624	14,135	971	1,718	2,800	1,121,570	305,288	165,390	15%	100,360	38,833	14,000	12,197
Alt 2 - Balanced	19,624	13,103	2,003	1,718	2,800	1,697,885	435,531	199,363	12%	93,028	80,138	14,000	12,197
Alt 3 - W MJ Emphasis	19,624	14,489	617	1,718	2,800	1,668,802	414,195	153,735	9%	102,875	24,663	14,000	12,197
Alt 4 - SE Emphasis	19,700	14,172	934	1,794	2,800	1,294,049	384,324	164,709	13%	100,624	37,345	14,000	12,740
Alt 5 - Flexibility	19,649	8,446	6,660	1,743	2,800	2,297,452	609,142	352,755	15%	59,963	266,420	14,000	12,372

* Alts 1-3 assume 700MWs, Alt 4 assumes 624 MWs, and Alt 5 assumes 675MW of all utility scale Distributed Generation will be sited at sites requiring minimal permitting and have no acreage impacts.

**Ground mounted utility scale distributed generation.

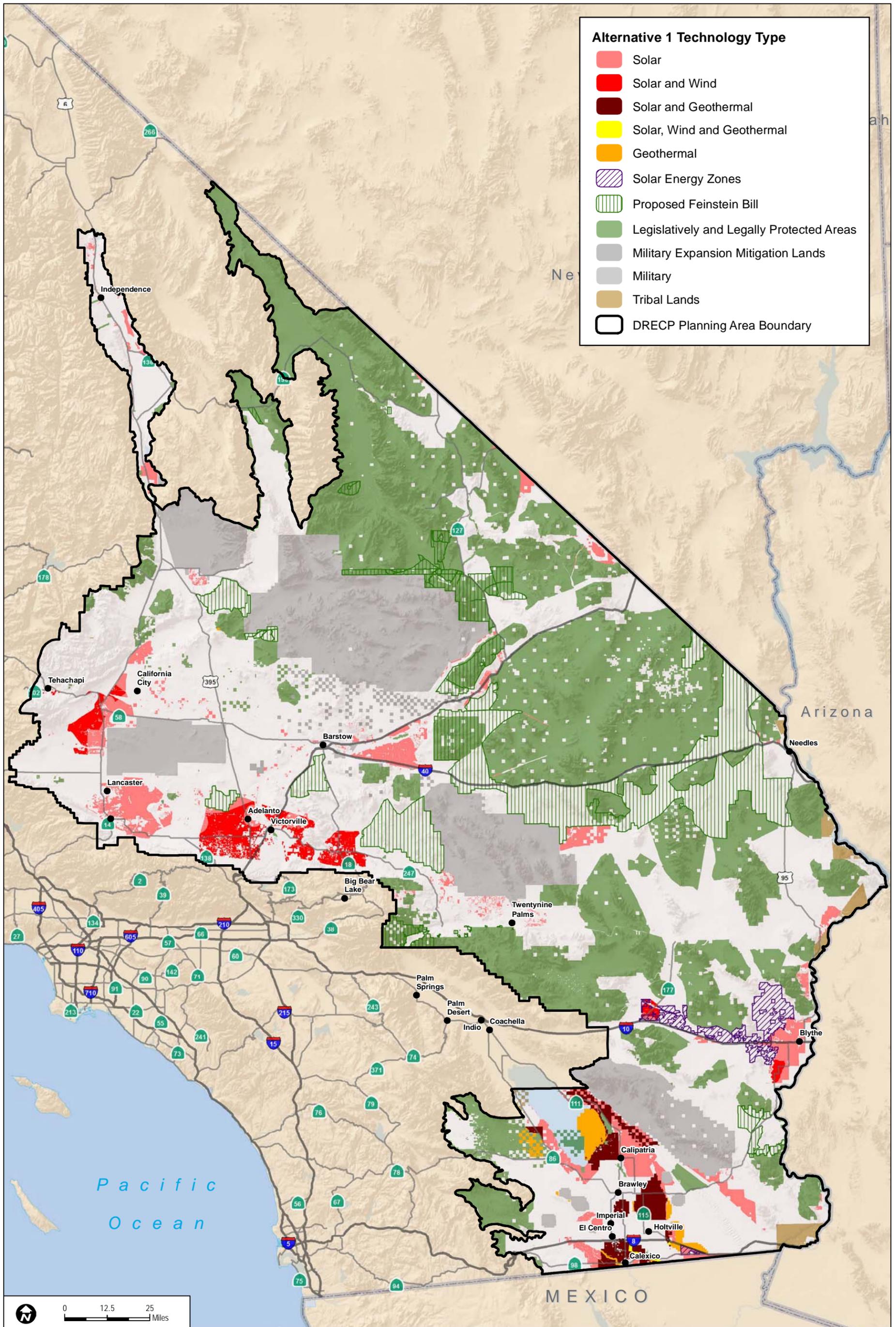
Development Focus Areas (DFAs)

- Alternative 1 – Disturbed Lands/Low Resource Conflict
- Alternative 2 – Geographically Balanced/Transmission Aligned
- Alternative 3 – West Mojave Emphasis and Tribal Sensitivity
- Alternative 4 – Southeast Emphasis
- Alternative 5 – Increased Geographic and Technology Flexibility



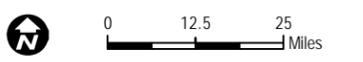
Development Focus Areas (DFAs)

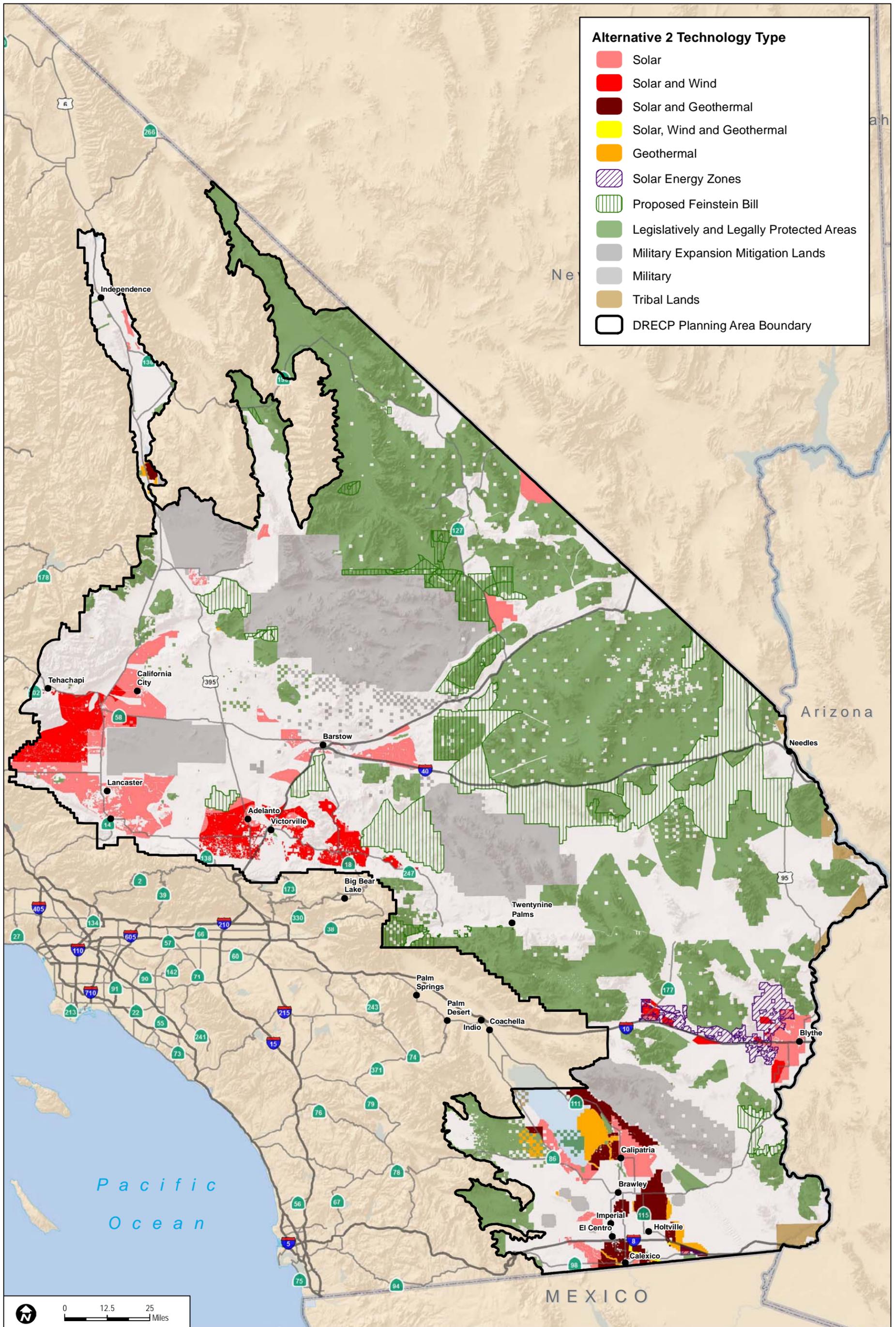
- Total DFA acreage ranges from
 - 1.1 million acres under Alternative 1
 - 2.3 million acres under Alternative 5
- Total required acres (assuming discounts/multipliers of 3 to 5) ranges from
 - 165,390 acres under Alternative 1
 - 352,755 acres under Alternative 5
- Actual ground disturbance under all alternatives is 160,000 acres – 360,000 acres



Alternative 1 Technology Type

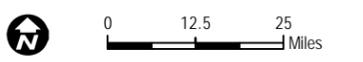
- Solar
- Solar and Wind
- Solar and Geothermal
- Solar, Wind and Geothermal
- Geothermal
- Solar Energy Zones
- Proposed Feinstein Bill
- Legislatively and Legally Protected Areas
- Military Expansion Mitigation Lands
- Military
- Tribal Lands
- DRECP Planning Area Boundary

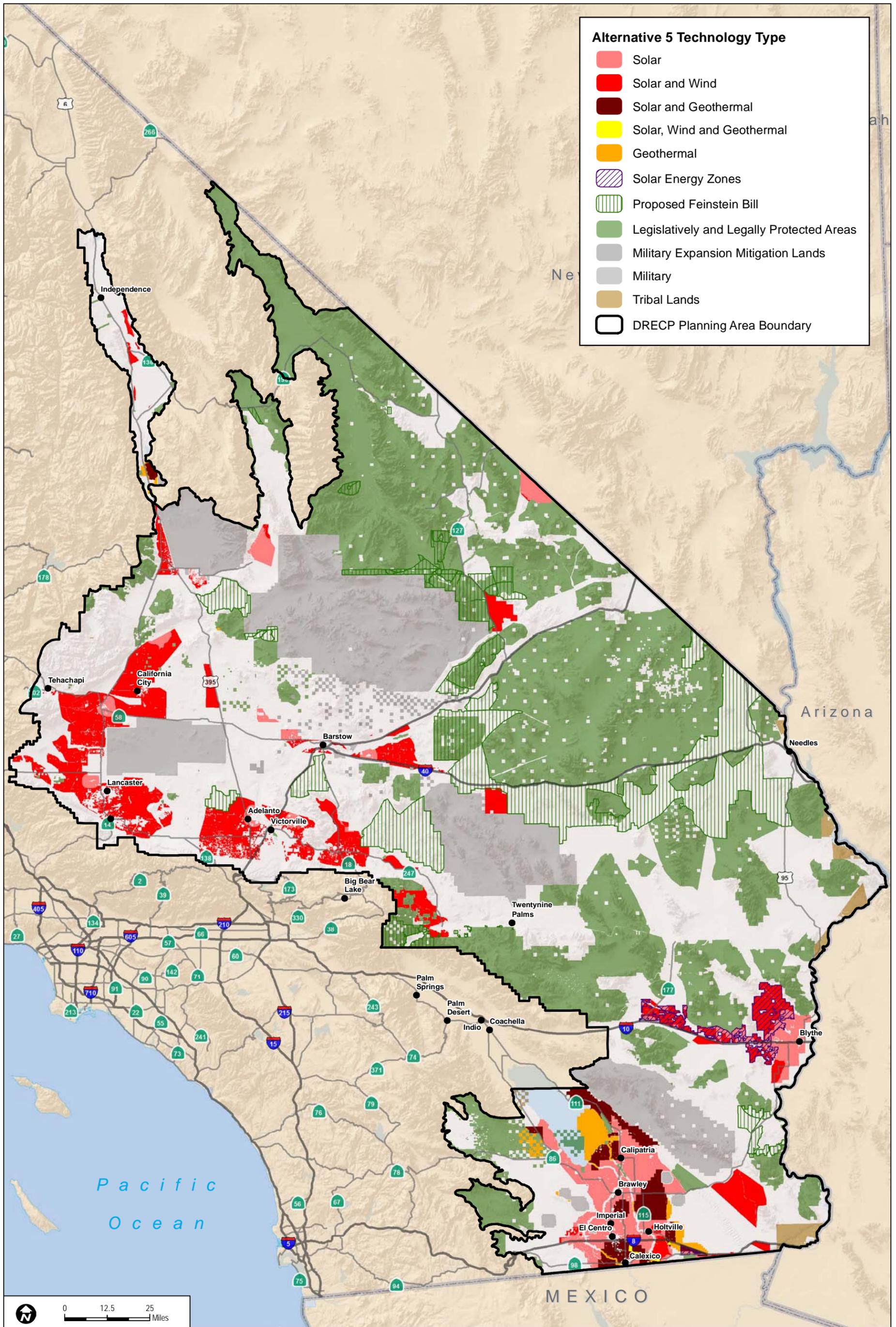




Alternative 2 Technology Type

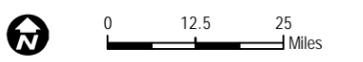
- Solar
- Solar and Wind
- Solar and Geothermal
- Solar, Wind and Geothermal
- Geothermal
- Solar Energy Zones
- Proposed Feinstein Bill
- Legislatively and Legally Protected Areas
- Military Expansion Mitigation Lands
- Military
- Tribal Lands
- DRECP Planning Area Boundary





Alternative 5 Technology Type

- Solar
- Solar and Wind
- Solar and Geothermal
- Solar, Wind and Geothermal
- Geothermal
- Solar Energy Zones
- Proposed Feinstein Bill
- Legislatively and Legally Protected Areas
- Military Expansion Mitigation Lands
- Military
- Tribal Lands
- DRECP Planning Area Boundary





Development Focus Areas (DFAs)

Ownership Class	DFAs in Alternatives (in acres)				
	1	2	3	4	5
Other Public	74,493	89,435	83,682	68,064	100,702
Private	964,872	1,374,677	1,261,069	819,766	1,571,575
Public (BLM)	82,204	233,773	324,051	406,218	625,175
Grand Total	1,121,570	1,697,885	1,668,802	1,294,049	2,297,452



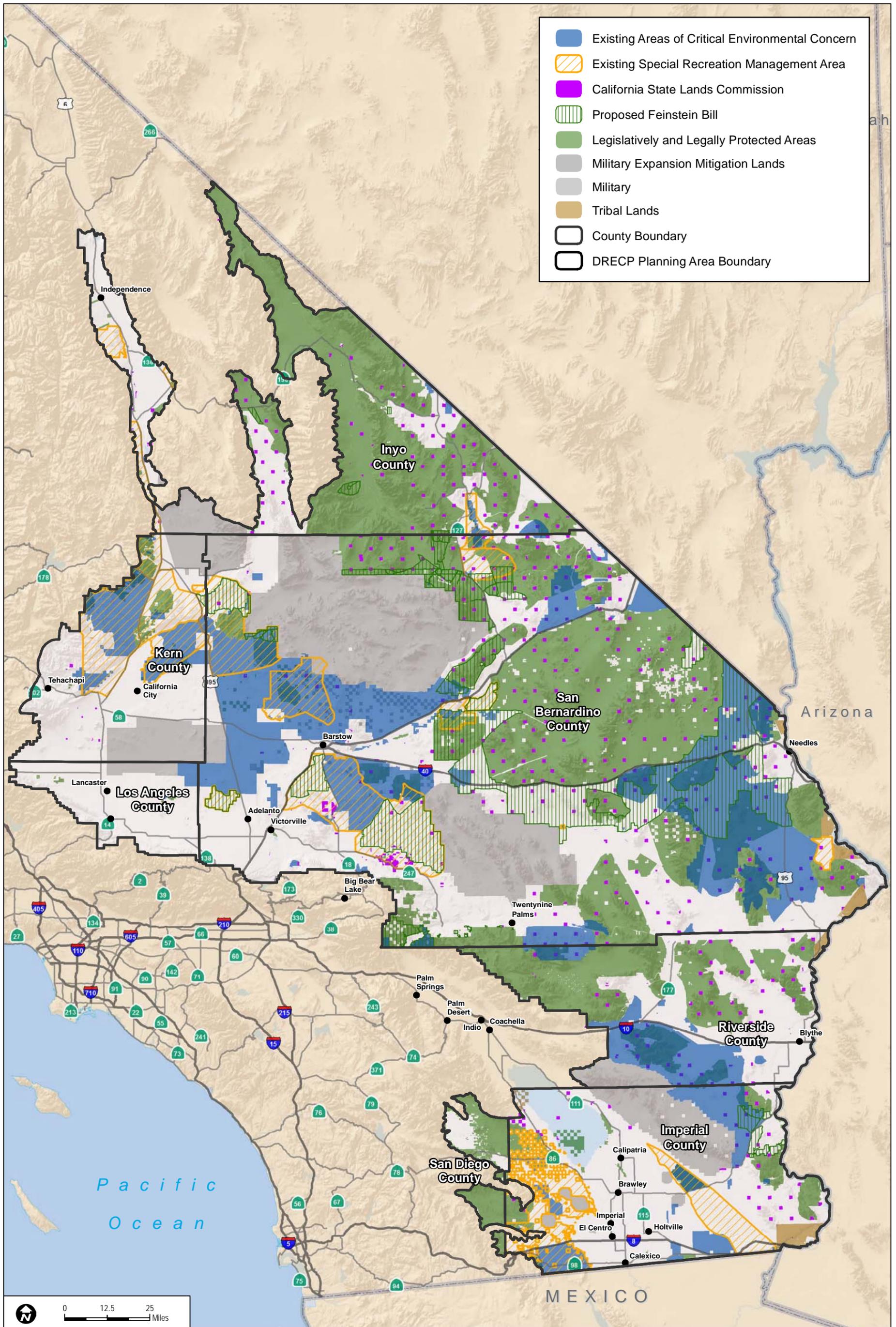
Still to Come on DFAs

- Input from TTG
- Input from July 13 Energy Commission workshop
- Detailed alternatives analysis

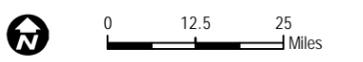


BLM Land Use Plan Amendment (LUPA)

- April 25, 2012 Stakeholder Committee Meeting reviewed BLM non-biological resources and uses
 - Areas of Critical Environmental Concern (ACECs), Special Recreation Management Areas (SRMAs), grazing allotments, herd management areas (HMAs), general recreation, visual and cultural and historic resources
- BLM LUPA involves changes to California Desert Conservation Area Plan (CDCA) and 3 Resource Management Plans
 - Bishop, Caliente/Bakersfield, and Eastern San Diego County



- Existing Areas of Critical Environmental Concern
- Existing Special Recreation Management Area
- California State Lands Commission
- Proposed Feinstein Bill
- Legislatively and Legally Protected Areas
- Military Expansion Mitigation Lands
- Military
- Tribal Lands
- County Boundary
- DRECP Planning Area Boundary





BLM Land Use Plan Amendment (LUPA)

Alternatives Overlap with BLM Non-Biological Resources and Uses*

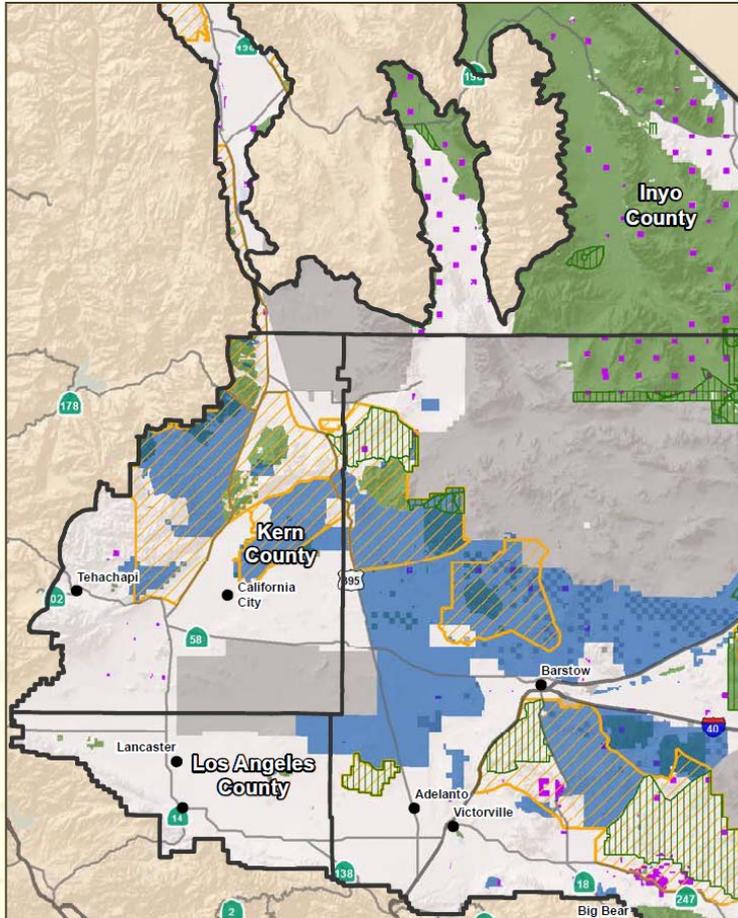
Alternative	Existing ACEC	Existing SRMA	Grazing Allotment	Herd Management Areas
Alternative 1	9,218	15,287	50,532	1,081
Alternative 2	17,223	60,212	147,311	1,081
Alternative 3	135,443	193,752	205,966	1,081
Alternative 4	11,223	38,091	20,596	12,516
Alternative 5	87,338	139,464	170,839	12,516

* Existing ACECs, Existing SRMAs, Grazing Allotments, and Herd Management Areas are acreages within the DFAs



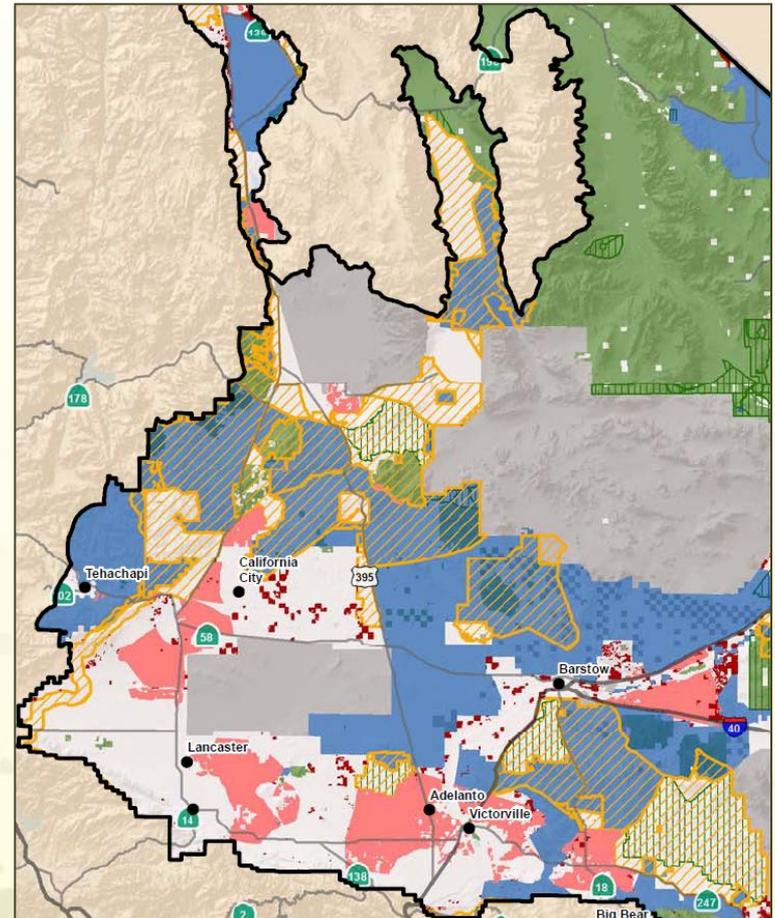
BLM Land Use Plan Amendment (LUPA)

Existing Designations – West Mojave



- Existing Areas of Critical Environmental Concern
- Existing Special Recreation Management Area

Proposed Designations (Alt. 1) – West Mojave



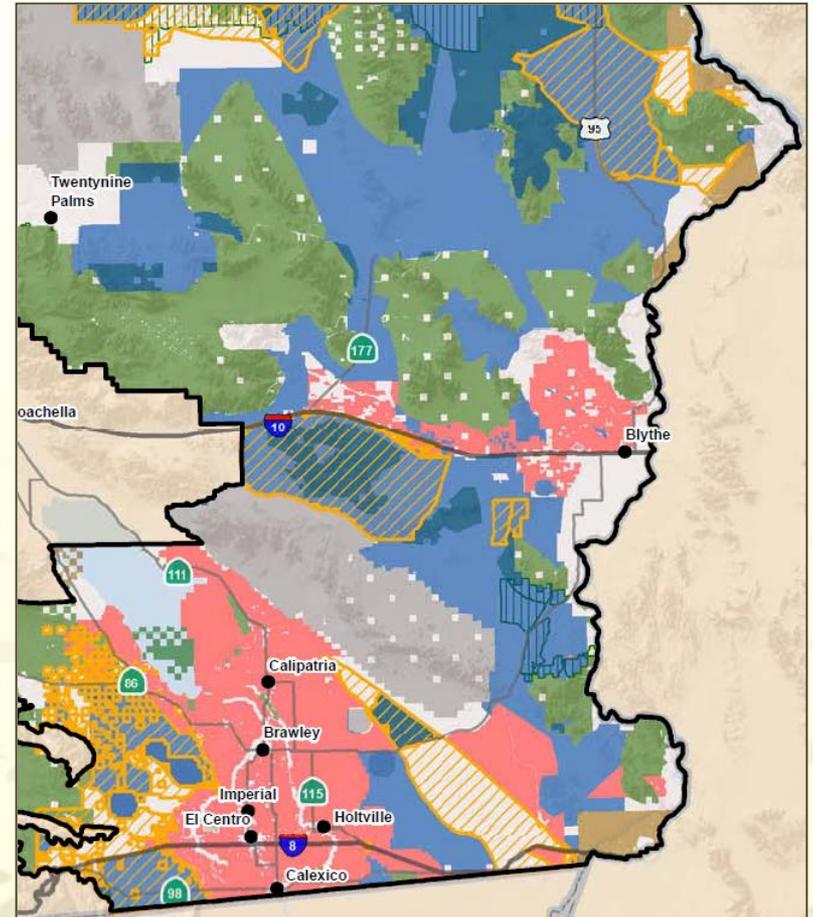
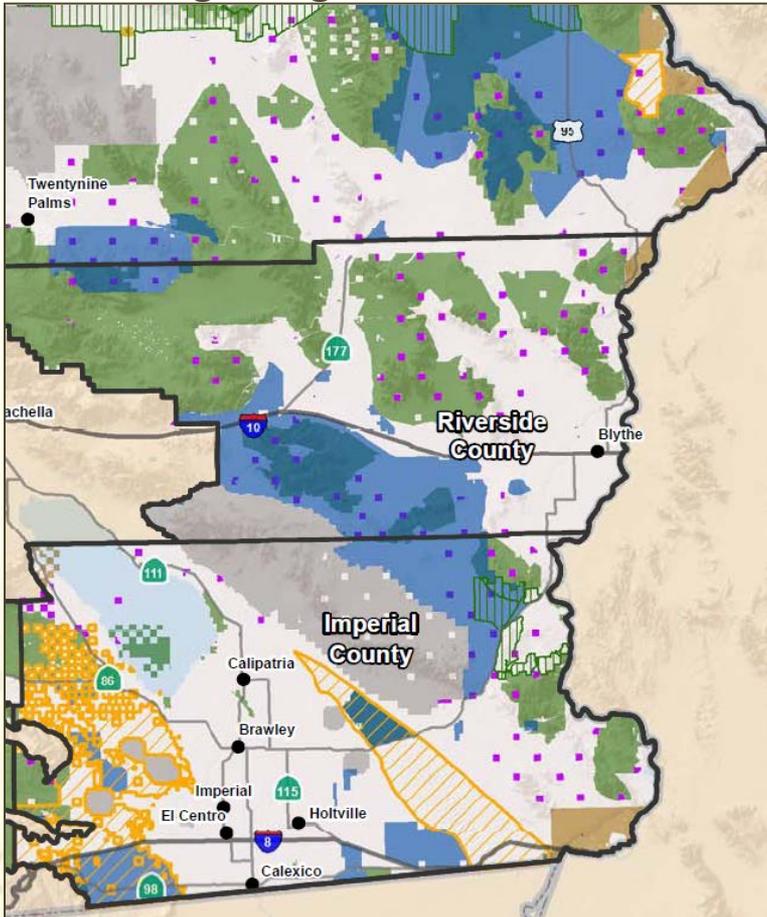
- Special Recreation Management Area
- Biological Conservation Lands (ACECs/NLCS/Land Allocation)



BLM Land Use Plan Amendment (LUPA)

Existing Designations – Southeast

Proposed Designations (Alt. 4) – Southeast



-  Existing Areas of Critical Environmental Concern
-  Existing Special Recreation Management Area

-  Special Recreation Management Area
-  Biological Conservation Lands (ACECs/NLCS/Land Allocation)



Still to Come on BLM LUPA

- Rulesets/management actions, allowable and non allowable uses for DFAs, conservation lands, SRMAs, and undesignated lands
- Detailed alternatives analysis

Mitigation Contribution

- The Stakeholder Committee Meeting briefing materials include rough acreage estimates for mitigation contribution to the overall reserve design and conservation strategy anticipated for each alternative
- Methods for the rough acreage estimates are included in briefing materials

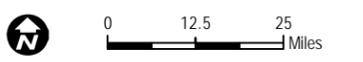
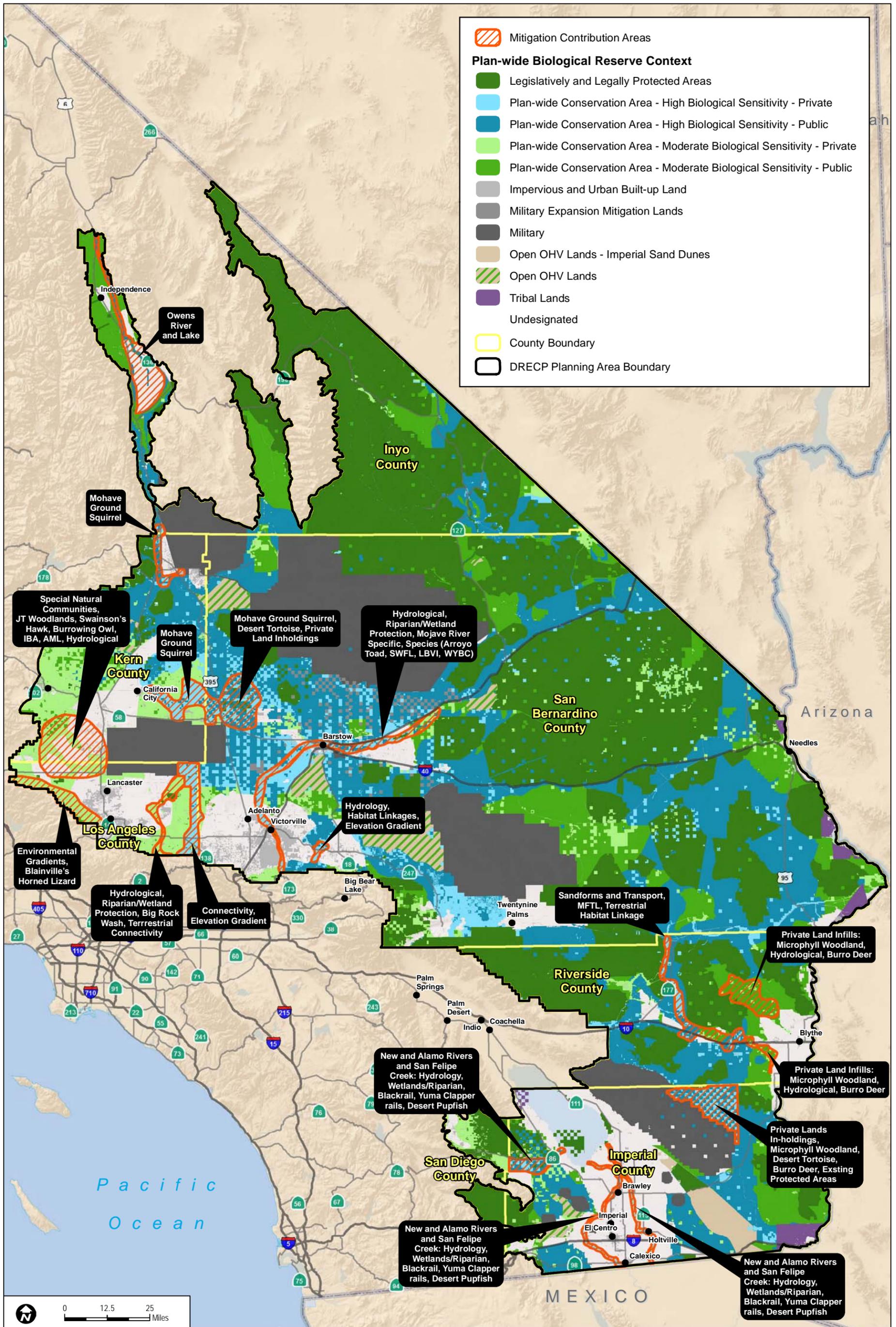
Mitigation Contribution

- Mitigation contribution acreage estimates
 - Are useful to see the relative differences among alternatives
 - Represent the potential mitigation contribution for ground disturbance impacts
 - Do not consider mitigation contributions for aerial effects



Mitigation Contribution

- Mitigation contribution acreage estimates are not intended to indicate that all impacts under all alternatives are mitigable
- Generalized mitigation contribution areas working map represents some but not all potential areas from within which mitigation contribution may be assembled





Mitigation Contribution

Alternative	Total DFA Acreage	Estimated Required Acreage for the Development Footprint	Estimated Mitigation Contribution Acreage
Alternative 1	1,121,565	165,344	200,068
Alternative 2	1,697,878	199,338	295,740
Alternative 3	1,668,795	181,820	386,630
Alternative 4	1,294,044	162,235	322,237
Alternative 5	2,297,443	352,732	672,504

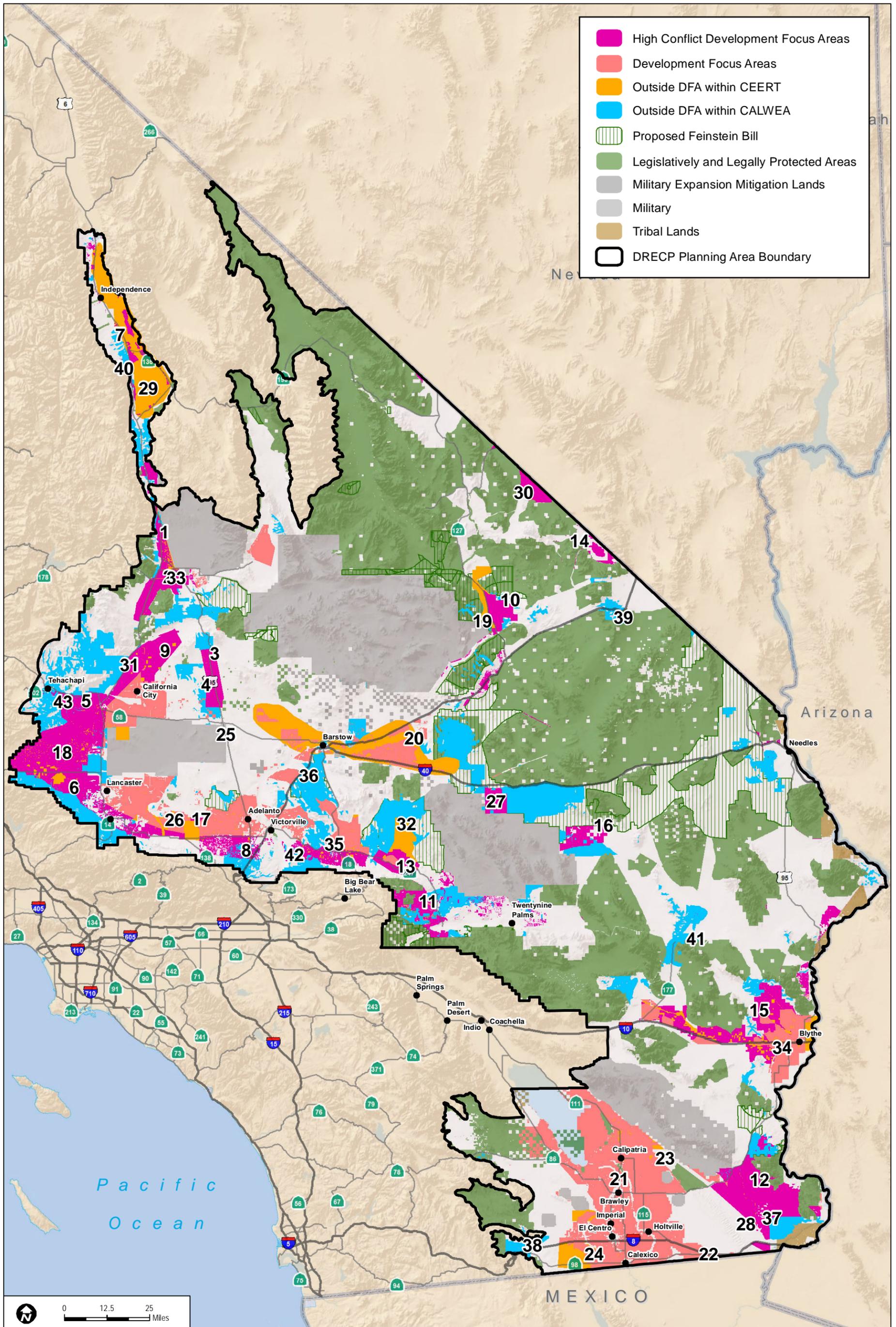
Still to Come on Mitigation Contribution

- Analysis and consideration of mitigation contribution for non-ground disturbance effects including effects on avian resources and operational effects
- Refinement of acreage estimates for mitigation contribution
- Finalize and refine criteria or rule sets for mitigation contribution

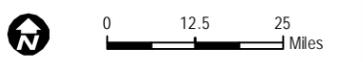


Potential High Conflict Development Areas

- Potential conflicts identified for:
 - DFAs within Alternatives 1 – 5
 - Unselected CEERT polygons
 - Unselected CalWEA Phase 1 polygons
- Potential conflict polygons numbered and shown in maps and matrix



- High Conflict Development Focus Areas
- Development Focus Areas
- Outside DFA within CEERT
- Outside DFA within CALWEA
- Proposed Feinstein Bill
- Legislatively and Legally Protected Areas
- Military Expansion Mitigation Lands
- Military
- Tribal Lands
- DRECP Planning Area Boundary





Potential High Conflict Development Areas

- Conflict matrix provides initial screening for the following factors:
 - NREL characterization
 - Acreage, potential MWs
 - Summary of potential biological conflicts
 - Summary of potential conflicts with public land designations, resources and uses



Potential High Conflict Development Areas

- Conflict matrix provides initial screening for the following factors (cont.):
 - Preliminary summary of DoD conflicts
 - Summary notes



Still to Come on Potential High Conflict Development Areas

- Detailed analysis of conflicts for Alternatives 1 – 5
- No further analysis of unselected polygons



Overview and Discussion of DRECP Alternatives

- Q &A