II.4 ALTERNATIVE 1

Alternative 1 is one of five action alternatives considered and analyzed in the Desert Renewable Energy Conservation Plan (DRECP or Plan) and Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The description of Alternative 1 is first provided at an interagency level (Section II.4.1), which describes all Plan elements of the alternative. After the interagency description, the individual elements of the alternative are described, including the Bureau of Land Management (BLM) Land Use Plan Amendment (LUPA) elements of the DRECP (Section II.4.2), the Natural Community Conservation Plan (NCCP) elements of the DRECP (Section II.4.3), and the General Conservation Plan (GCP) elements of the DRECP (Section II.4.4).

II.4.1 Interagency Description of Alternative 1

The interagency description of Alternative 1 includes the following main sections: Overview of Alternative 1, Conservation Strategy, Monitoring and Adaptive Management Program, Description of the Covered Activities, and Plan Implementation. The description of Alternative 1 for the DRECP and EIR/EIS encompasses the overall conservation strategy and description of Covered Activities on federal and nonfederal lands (i.e., state, county, city, and privately owned lands) within the Plan Area.

II.4.1.1 Overview of Alternative 1

The following provides a Plan-wide overview of Alternative 1. Alternative 1 integrates the renewable energy and resource conservation with other existing uses in the Plan Area and includes BLM LUPA elements, NCCP elements, and GCP elements.

Under Alternative 1 for the DRECP, an interagency conservation strategy for the Plan Area would be established that includes a streamlined process for the permitting of renewable energy and transmission development on both federal and nonfederal lands and a BLM LUPA providing Conservation and Management Actions (CMAs) for resources throughout the Plan Area on BLM-administered lands. Like the Preferred Alternative, Alternative 1 would consist of Development Focus Areas (DFAs), Study Area Lands, and the DRECP Plan-Wide Reserve Design Envelope (including existing conservation areas, BLM LUPA conservation designations, and Conservation Planning Areas), Impervious and Urban Built-up Lands, Other Lands (including Military, Open Off-Highway Vehicle [OHV] Areas, Tribal lands), and Undesignated Areas. These areas are defined in Section II.3.1, Interagency Description of the Preferred Alternative.

The BLM LUPA (Section II.4.2) provides the land use plan amendment description related to these components on BLM-administered lands, and it also describes the Special Recreation Management Areas (SRMAs) designations and other CMAs for resources on

BLM-administered lands. The NCCP (Section II.4.3) and GCP for nonfederal lands (Section II.4.4) describe how these Plan components would provide for incidental take authorization of Covered Species under Section 2835 of the state Natural Community Conservation Planning Act and Section 10 of the federal Endangered Species Act.

Alternatives under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), including Alternative 1, must consider potential impacts on all aspects of the human environment, both the natural environment and the built environment, including biological and nonbiological resources. Additionally, Appendix M contains all the required components of a GCP.

Figure II.4-1 provides the Plan-wide map for Alternative 1.

Table II.4-1 provides an overview summary for Alternative 1. In summary, Alternative 1 would include approximately 1,070,000 acres of DFAs. Study Area Lands include 37,000 acres of DRECP Variance Lands. The DRECP Plan-Wide Reserve Design Envelope would include 7,662,000 acres of existing conservation areas, 6,090,000 acres of BLM LUPA conservation designations, and 1,287,000 acres of Conservation Planning Areas. Of the over 19 million acres of the Plan Area outside of Military Lands, BLM Open OHV Areas, and Tribal Lands, there are approximately 13,565,000 acres of federally owned or administered lands and 5,420,000 of nonfederal lands. The BLM LUPA elements of Alternative 1 are described in Section II.4.2; the NCCP elements of Alternative 1 are described in Section II.4.3; and the GCP elements of Alternative 1 addressing nonfederal lands are described in Section II.4.4. Exhibit II.4-1 graphically displays the components of Alternative 1.

Table II.4-1
Interagency DRECP Plan-Wide Alternative 1

Alternative Components	Acreage
DFAs	**1,070,000**
Study Area Lands	**37,000**
DRECP Variance Lands	37,000
DRECP Plan-Wide Reserve Design Envelope	**15,039,000**
Existing conservation areas	7,662,000
BLM LUPA conservation designations	6,090,000
Conservation Planning Areas	1,287,000
Urban Areas, Other Lands, and Undesignated Areas	**6,439,000**
Impervious and Urban Built-up Land	534,000
Military Lands	3,019,000
BLM Open OHV Areas	264,000
Imperial Sand Dunes, including the BLM Open OHV Area	132,000

Table II.4-1
Interagency DRECP Plan-Wide Alternative 1

Alternative Components	Acreage
Johnson Valley OHV Shared Use Area	56,000
Tribal Lands	129,000
Undesignated Areas	2,306,000
Plan Area Total	**22,585,000**

Notes: This Plan-wide alternative summary includes both federal lands and nonfederal lands. The summary specific to BLM-administered lands is provided in Section II.4.2, and the summary specific to nonfederal lands is provided in Section II.4.4. Overlaps of BLM LUPA conservation designations with existing conservation areas are reported in the existing conservation area acreages. The BLM LUPA conservation designation acreage reported includes both BLM-administered lands and non-BLM lands inholdings within the designation. The BLM LUPA would also designate approximately 2,537,000 acres of SRMAs in addition to the 193,000 acres of existing SRMAs, which are BLM designation overlays that overlap portions of the components provided in this table and described in Section II.4.2. Impervious and urban built-up lands occur within BLM LUPA conservation designations and DFAs were not explicitly included in the urban category reported here. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

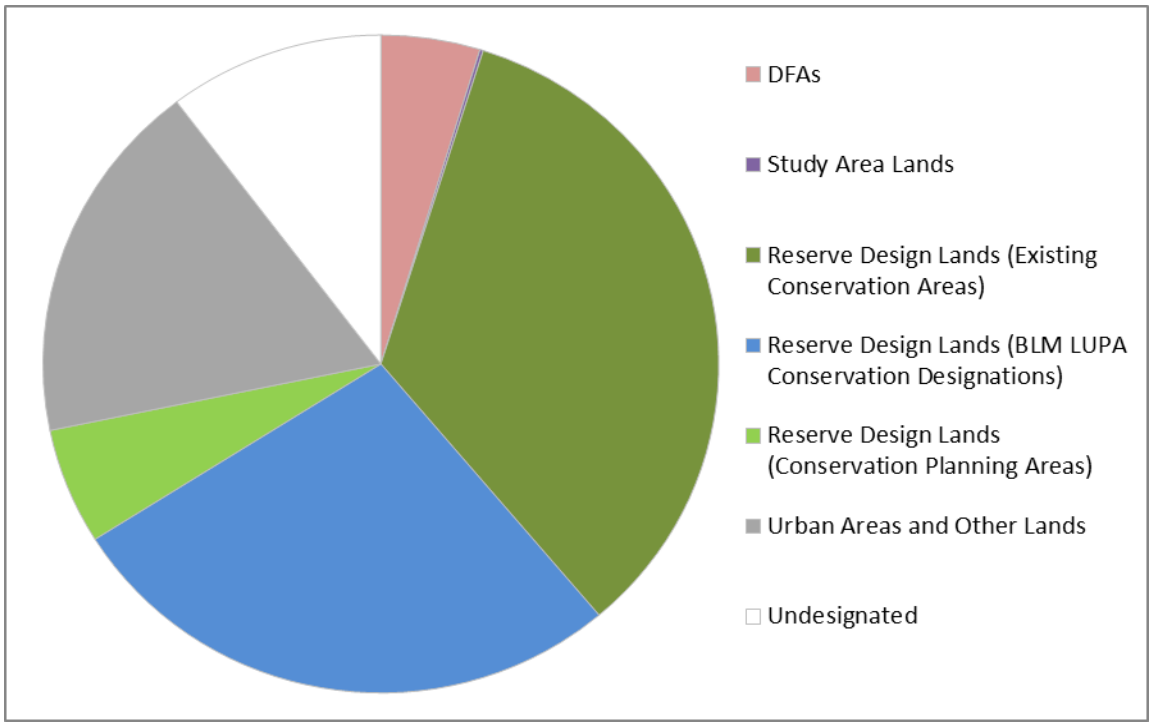


Exhibit II.4-1 Components of Alternative 1

II.4.1.2 Conservation Strategy

The Plan-wide conservation strategy for the DRECP was developed through the planning process described in Volume I, Chapter I.3. The process included: (1) establishing the

conservation focus on biological, cultural, recreation, and visual resources; (2) gathering baseline information; (3) identifying Biological Goals and Objectives (BGOs) and goals and objectives for nonbiological resources on BLM-administered land; (4) developing a comprehensive reserve design; (4) developing biological CMAs and CMAs for nonbiological resources on BLM land; and (6) developing a Monitoring and Adaptive Management Program. The approach and structure of the conservation strategy for Alternative 1 is the same as the conservation strategy for the Preferred Alternative.

II.4.1.2.1 Overview of the Structure and Content of the Biological Conservation Strategy for Alternative 1

The structure of the conservation strategy under Alternative 1 is the same as that for the Preferred Alternative as described in Section II.3.1.2.

II.4.1.2.2 DRECP Proposed Covered Species List

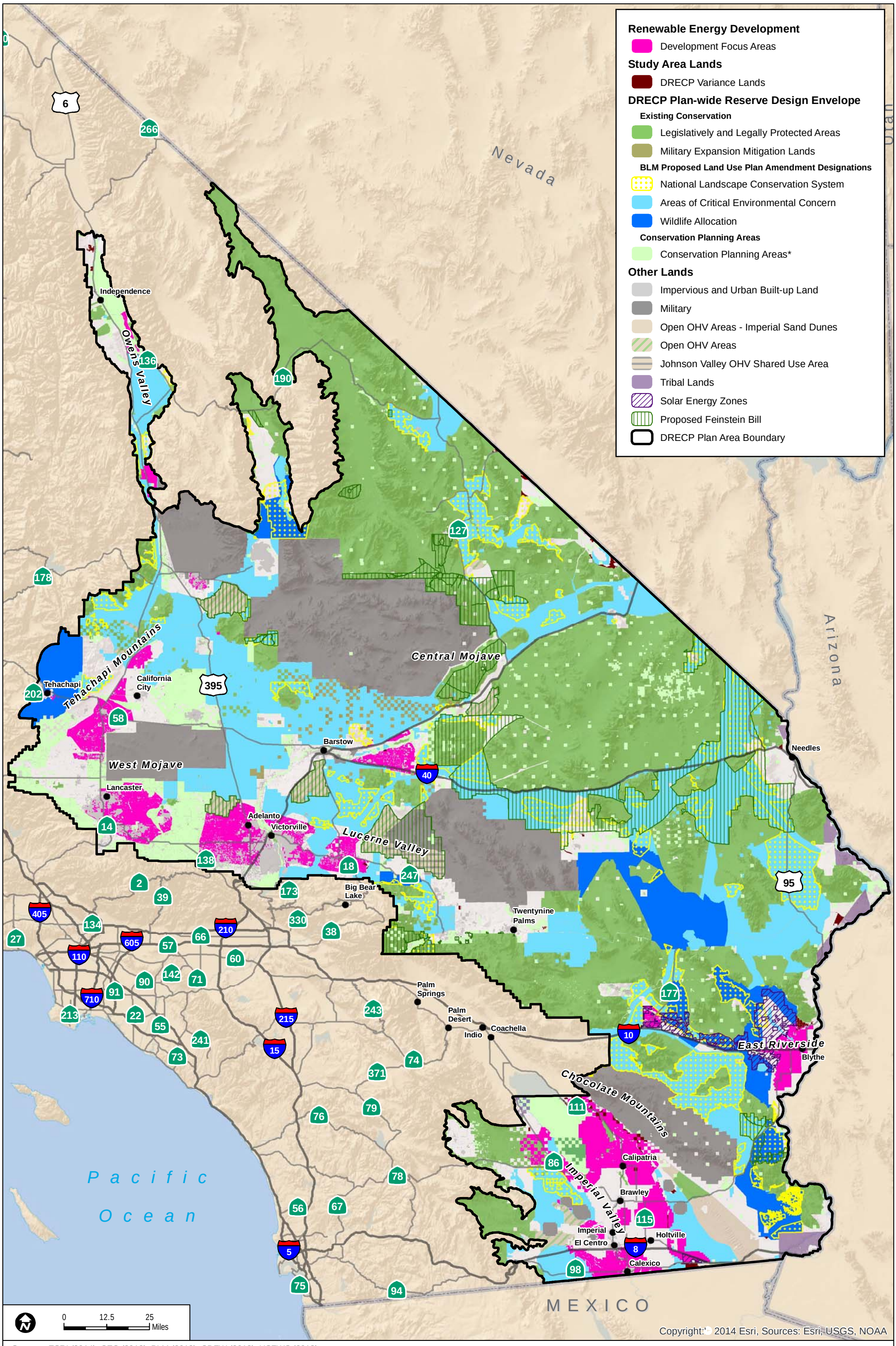
The proposed Covered Species list would be the same under Alternative 1 as it is under the Preferred Alternative. See Section II.3.1.2.2 for the proposed Covered Species list.

II.4.1.2.3 Plan-Wide Biological Goals and Objectives

The Plan-wide BGOs provide the broad guiding principles and define the desired outcome of the DRECP conservation strategy. The Plan-wide BGOs are described in Section I.3.4.3 and are provided in Appendix C at the landscape, natural community, and species levels. The Plan-wide BGOs are common to and apply to each of the DRECP alternatives. The Step-Down Biological Objectives describe the contribution of DRECP implementation towards achieving the Plan-wide BGOs.

II.4.1.2.4 DRECP Plan-Wide Reserve Design Envelope

The DRECP Plan-Wide Reserve Design Envelope for Alternative 1 was developed based on the biological reserve design process described in Section I.3.4.4. The reserve design is the mapped expression of Plan-wide BGOs. Additionally, an interagency Plan-Wide Conservation Priority Area has been identified. This area represents the highest priority area for the creation and long-term management of habitat reserves for the conservation of the 37 proposed Covered Species and representative examples of the natural communities and processes that support them in the Plan Area. The interagency Plan-Wide Conservation Priority Area was the basis for the NCCP Conceptual Plan-Wide Reserve Design of each alternative.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

*The portion of the reserve design outside Existing Conservation Areas and BLM LUPA Conservation Designations on private and non-BLM public lands from which reserve areas will be assembled from willing sellers as compensation for Covered Activities.

FIGURE II.4-1

Alternative 1

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Overall, the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 would cover 79% of the Plan Area (excluding military lands, tribal lands, and BLM Open OHV Areas), which includes 7,662,000 acres of existing conservation areas, 6,090,000 acres of BLM LUPA conservation designations, and 1,287,000 acres of Conservation Planning Areas. Approximately half of the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 is made up of existing conservation areas (i.e., Legislatively and Legally Protected Areas [LLPAs] and Military Expansion Mitigation Lands [MEMLs]). Approximately 40% of the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 is made up of existing and proposed BLM LUPA conservation designations including combinations of Areas of Critical Environmental Concern (ACECs), National Landscape Conservation System (NLCS), and Wildlife Allocations, and approximately 9% of the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 is comprised of Conservation Planning Areas.

The interagency Plan-Wide Conservation Priority Area within the reserve design envelope covers approximately 1,732,000 acres. This includes 1,545,000 acres of BLM LUPA conservation designations (1,126,000 acres on BLM-administered lands and 419,000 acres of non-BLM inholdings) and 188,000 acres of Conservation Planning Areas.

The DRECP Plan-Wide Reserve Design Envelope for Alternative 1 is comprised of an interconnected network of federal and nonfederal (both public and private) lands that spans seven counties, multiple ownerships, and ten ecoregion subareas of the Mojave and Colorado/Sonoran deserts of California. Figure II.4-2 shows the Alternative 1 reserve design envelope, and Appendix G provides figures of the reserve design envelope for each ecoregion subarea in the Plan Area. Table II.4-2 shows the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by county. Table II.4-3 shows the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by ownership. Table II.4-4 shows the DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by ecoregion subarea.

Table II.4-2
DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by County

County	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Total Acreage
Imperial County	274,000	692,000	144,000	1,109,000
Inyo County	1,921,000	538,000	144,000	2,603,000
Kern County	135,000	556,000	236,000	927,000
Los Angeles County	6,000	37,000	278,000	321,000
Riverside County	982,000	711,000	44,000	1,736,000
San Bernardino County	4,145,000	3,556,000	436,000	8,137,000

Table II.4-2
DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by County

County	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Total Acreage
San Diego County	199,000	0	6,000	205,000
Total	**7,662,000**	**6,090,000**	**1,287,000**	**15,039,000**

Notes: Overlaps of BLM LUPA conservation designations with existing conservation areas are reported in the existing conservation area acreages. The BLM LUPA conservation designation acreage reported includes both BLM-administered lands and non-BLM lands inholdings within the designation. These include both existing and proposed conservation designations. The reserve design envelope also includes an interagency Plan-wide Conservation Priority Area that covered 1,732,000 acres of BLM LUPA conservation designations and Conservation Planning Areas. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Table II.4-3
DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by Ownership Class

Ownership Class	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Total Acreage
Federal Lands				
BLM-administered land	3,279,000	4,869,000	—	8,148,000
Other federal land	3,949,000	9,000	64,000	4,023,000
Nonfederal Lands				
Private land	31,000	976,000	946,000	1,953,000
State and local public land	403,000	235,000	277,000	915,000
Total	**7,662,000**	**6,090,000**	**1,287,000**	**15,039,000**

Notes: Overlaps of BLM LUPA conservation designations with existing conservation areas are reported in the existing conservation area acreages. The BLM LUPA conservation designation acreage reported includes both BLM-administered lands and non-BLM lands inholdings within the designation. These include both existing and proposed conservation designations. The reserve design envelope also includes an interagency Plan-Wide Conservation Priority Area that covered 1,732,000 acres of BLM LUPA conservation designations and Conservation Planning Areas. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Table II.4-4
DRECP Plan-Wide Reserve Design Envelope for Alternative 1 by Ecoregion Subarea

Ecoregion Subarea	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Total Acreage
Cadiz Valley and Chocolate Mountains	842,000	1,452,000	54,000	2,348,000
Imperial Borrego Valley	355,000	439,000	140,000	934,000
Kingston and Funeral Mountains	1,767,000	528,000	84,000	2,379,000
Mojave and Silurian Valley	786,000	503,000	53,000	1,342,000
Owens River Valley	32,000	154,000	92,000	277,000
Panamint Death Valley	1,253,000	239,000	20,000	1,511,000
Pinto Lucerne Valley and Eastern Slopes	739,000	506,000	76,000	1,321,000
Piute Valley and Sacramento Mountains	423,000	443,000	29,000	894,000
Providence and Bullion Mountains	1,305,000	769,000	132,000	2,205,000
West Mojave and Eastern Slopes	162,000	1,057,000	607,000	1,827,000
Total	**7,662,000**	**6,090,000**	**1,287,000**	**15,039,000**

Notes: Overlaps of BLM LUPA conservation designations with existing conservation areas are reported in the existing conservation area acreages. The BLM LUPA conservation designation acreage reported includes both BLM-administered lands and non-BLM lands inholdings within the designation. These include both existing and proposed conservation designations. The reserve design envelope also includes an interagency Plan-Wide Conservation Priority Area that covered 1,732,000 acres of BLM LUPA conservation designations and Conservation Planning Areas. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Existing Conservation Areas

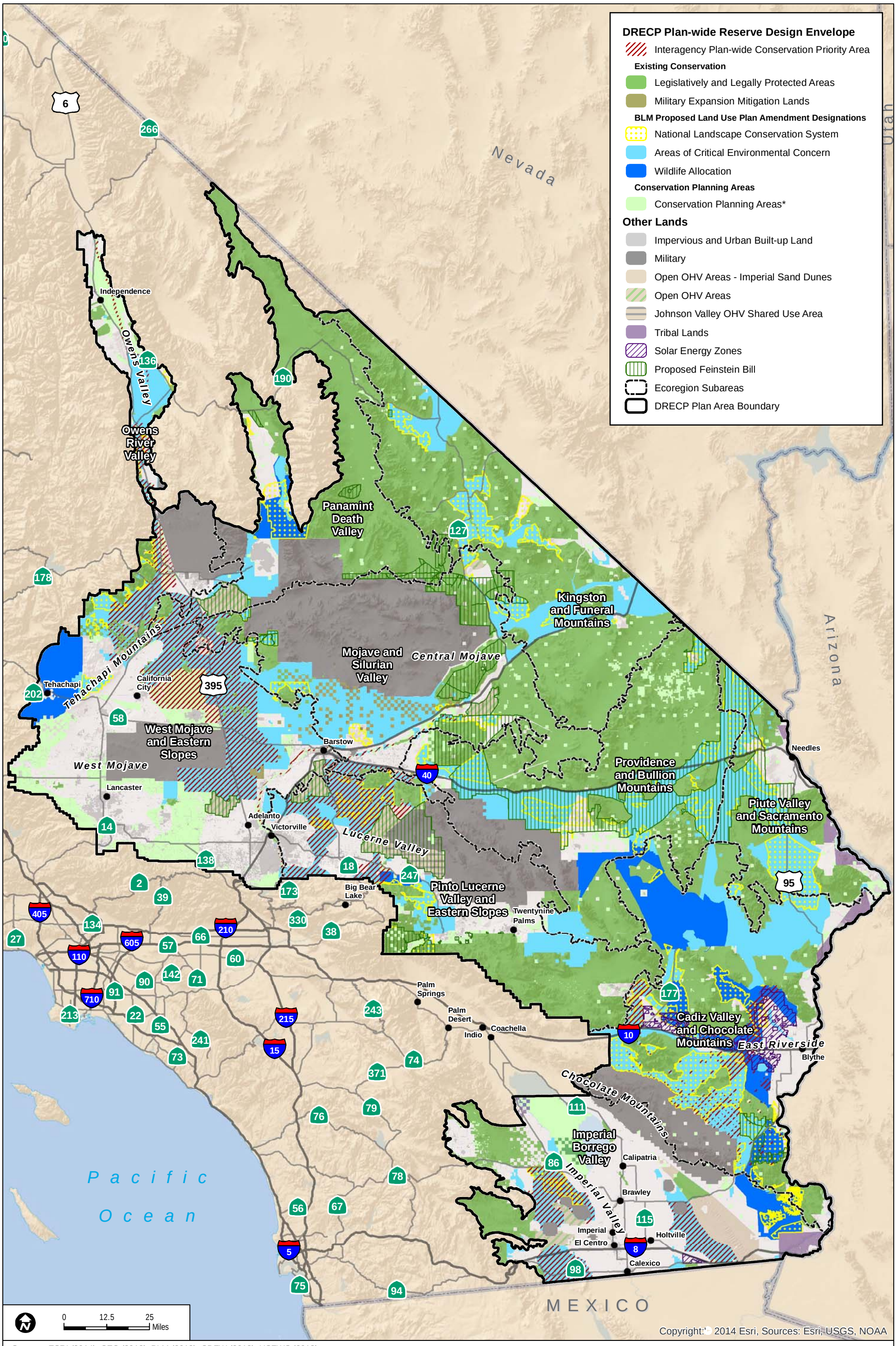
The Plan Area encompasses existing conservation areas that include LLPAs and MEMLs, which include designations such as Wilderness Areas, Wilderness Study Areas, National Parks, National Preserve, and California State Parks. LLPAs serve as the building blocks of the reserve design with existing boundaries and management regimes around which the BLM LUPA conservation designations and Conservation Planning Areas were designed. Existing conservation areas are the same for all alternatives. A full description of the existing conservation areas is provided in Section I.3.4.4 under the reserve design process. The existing conservation areas of the reserve design are shown on Figure II.4-2 and the ecoregion subarea maps of the reserve design in Appendix G.

BLM LUPA Conservation Designations

The BLM LUPA conservation designations are a critical component of the reserve design for the DRECP. These include existing and newly proposed NLCS designations, ACEC designations, and Wildlife Allocations. The land unit names included in BLM LUPA conservation designations in the reserve design by subarea are provided in Section II.4.2 and Appendix L. The BLM LUPA conservation designations component of the reserve design is shown on Figure II.4-2 and the ecoregion subarea maps of the reserve design in Appendix G.

Conservation Planning Areas

Conservation Planning Areas are the portions of the reserve design located outside of existing conservation areas and BLM-administered lands. Conservation Planning Areas include both public and private lands. Reserve areas would be created within Conservation Planning Areas by acquiring land or conservation easements from willing sellers within the Conservation Planning Areas to provide compensatory mitigation for Covered Activities to contribute to meeting BGOs. Conservation Planning Areas within the interagency Plan-Wide Conservation Priority Area have been prioritized for conservation. The Conservation Planning Areas component of the reserve design is shown on Figure II.4-2 and the ecoregion subarea maps of the reserve design in Appendix G.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

*The portion of the reserve design outside Existing Conservation Areas and BLM LUPA Conservation Designations on private and non-BLM public lands from which reserve areas will be assembled from willing sellers as compensation for Covered Activities.

FIGURE II.4-2

Alternative 1 - Plan-wide Reserve Design Envelope

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II.4.1.2.5 Biological CMAs

The biological CMAs under Alternative 1 would be the same as those for the Preferred Alternative described in Section II.3.1.2.5, except as described in the following discussion. The CMAs related to BLM LUPA conservation designations under Alternative 1 are described in Section II.4.2 and in the BLM unit-specific worksheets in Appendix L.

- **Exceptions to the Preferred Alternative CMAs.** The Plan-wide CMAs, landscape-level CMAs, Natural Communities and Covered Species CMAs in the DFAs, Natural Communities and Covered Species CMAs in the Reserve, and the Transmission-specific CMAs under the heading "Exceptions to the Preferred Alternative CMAs" will specify the CMA code (e.g., RIP-WET-1) that corresponds to the specific CMA listed in the biological CMAs for the Preferred Alternative that will not be implemented for Alternative 1.
- **Additional CMAs to the Preferred Alternative.** The Plan-wide CMAs, landscape-level CMAs, Natural Communities and Covered Species CMAs in the DFAs, Natural Communities and Covered Species CMAs in the Reserve, and the Transmission-specific CMAs will list the additional biological CMAs under the heading "Additional CMAs to the Preferred Alternative" that will be implemented specifically for Alternative 1 in addition to the CMAs described for the Preferred Alternative.

The following provides the biological CMAs for Alternative 1, including the CMAs listed in the Preferred Alternative that will not be implemented and any additional CMAs that will specifically be implemented for Alternative 1 in addition to the biological CMAs in the Preferred Alternative.

II.4.1.2.5.1 Avoidance and Minimization CMAs

Alternative 1 would implement avoidance and minimization CMAs including the Avoidance and Minimization CMAs in the Preferred Alternative with the exceptions and additions as described in Section II.4.1.2.5.2 through Section II.4.1.2.5.6.

II.4.1.2.5.2 Plan-Wide Avoidance and Minimization CMAs

Under Alternative 1 the Plan-Wide Avoidance and Minimization CMAs listed in the Preferred Alternative (Section II.3.1.2.5.2) will be implemented with no exceptions or additions.

II.4.1.2.5.3 Landscape-Level Avoidance and Minimization CMAs

Under Alternative 1 the Landscape-Level Avoidance and Minimization CMAs listed in the Preferred Alternative (Section II.3.1.2.5.3) will be implemented with no exceptions or additions.

II.4.1.2.5.4 Natural Communities and Covered Species Avoidance and Minimization CMAs in DFAs

Under Alternative 1, the Natural Communities and Covered Species Avoidance and Minimization CMAs listed in the Preferred Alternative (Section II.3.1.2.5.4) will be implemented with no exceptions or additions.

II.4.1.2.5.5 Natural Communities and Covered Species Avoidance and Minimization CMAs in the Reserve

Under Alternative 1, the Natural Communities and Covered Species Avoidance and Minimization CMAs in the Reserve listed in the Preferred Alternative (Section II.3.1.2.5.5) will be implemented with no exceptions or additions.

II.4.1.2.5.6 Transmission Avoidance and Minimization CMAs

Under Alternative 1, the Transmission Avoidance and Minimization CMAs listed in the Preferred Alternative (Section II.3.1.2.5.6) will be implemented with no exceptions or additions.

II.4.1.2.5.7 Compensation CMAs

Under Alternative 1, the Compensation CMAs listed in the Preferred Alternative (Section II.3.1.2.5.7) will be implemented with no exceptions or additions.

II.4.1.3 Monitoring and Adaptive Management Program

The Monitoring and Adaptive Management Program for Alternative 1 would be the same as is described under the Preferred Alternative (see Section II.3.1.3).

II.4.1.4 Overview Description of Covered Activities

This section provides a description of the distribution, magnitude, and scope of activities under the DRECP for Alternative 1 under the DRECP. This describes how Alternative 1 would meet the renewable energy goals outlined in Section I.3.5. Renewable energy development technologies addressed under the DRECP include solar thermal, photovoltaic (PV) solar, wind, geothermal, and transmission.

On nonfederal lands, renewable energy and transmission siting, construction, operation, and decommissioning activities and conservation activities would be considered Covered Activities for incidental take permits under Section 2835 of the state Natural Community Conservation Planning Act and Section 10 of the federal Endangered Species Act. On BLM-administered lands, the BLM LUPA addresses renewable energy and transmission siting, construction, operation, and decommissioning activities, conservation activities, and other

land use management decisions. The following describes the renewable energy-generation-, transmission-, and conservation-related activities that would occur on both federal and nonfederal lands. The specific land use management decisions addressed by the BLM LUPA are described in Section II.4.2.

The section includes a summary of DFA distribution, and an estimated acreage associated with each technology. The description is subdivided by technology: solar, wind, geothermal and transmission. For brevity, the description of the activities associated with siting, constructing, operating, and decommissioning are not repeated in this section as the information is identical to that which is provided in Section II.3.1.4.

In Alternative 1, renewable energy-related activities covered by the Plan would be confined to the DFAs. If the activities are not located within a DFA, they would no longer be considered a Covered Activity and would not enjoy the benefits the Plan affords. Generation development is focused in the West Mojave and Eastern Slopes, Imperial Borrego Valley, and Cadiz Valley and Chocolate Mountains ecoregion subareas, and around Barstow, with smaller areas in the Owens River Valley ecoregion subarea. Figure II.4-3 shows the DFAs for Alternative 1, and Appendix G provides figures of the DFAs for each ecoregion subarea in the Plan Area.

Table II.4-5a provides a DFA acreage summary by ecoregion subarea and by ecoregion subunit (i.e., finer-grained geographic subdivisions within each ecoregion subarea). Figure II.4-3 shows the corresponding ecoregion subunits.

Table II.4-5a
Alternative 1 Development Focus Areas by Ecoregion Subarea and Subunit

Ecoregion Subarea	Ecoregion Subunit	DFA Acreage
Cadiz Valley and Chocolate Mountains	Cadiz - 1	—
	Cadiz - 2	99,000
	Cadiz - 3	500
Imperial Borrego Valley	Imperial - 1	218,000
	Imperial - 2	224,000
	Imperial - 3	—
Mojave and Silurian Valley	Mojave - 1	39,000
	Mojave - 2	500
Owens River Valley	Owens -1	22,000
Pinto Lucerne Valley and Eastern Slopes	Pinto - 1	95,000
	Pinto - 2	—
Piute Valley and Sacramento Mountains	Piute - 1	—

Table II.4-5a
Alternative 1 Development Focus Areas by Ecoregion Subarea and Subunit

Ecoregion Subarea	Ecoregion Subunit	DFA Acreage
Providence and Bullion Mountains	Providence - 1	12,000
	Providence - 2	—
West Mojave and Eastern Slopes	West Mojave - 1	4,000
	West Mojave - 2	118,000
	West Mojave -3	30
	West Mojave - 4	111,000
	West Mojave - 5	127,000
	West Mojave - 6	—
	Total DFA Acreage	**1,070,000**

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

The distribution of different generation technologies varies depending on underlying factors that affect each technology. The method used to estimate the distribution of generation impacts across the Plan Area simultaneously accounts for the area available to each technology, potential interactions between technologies, and variation in the relative development potential of different DFAs. A more detailed description of the methodology is discussed in Chapter I.3 with additional detail provided in Appendix F. In the following section each technology is discussed separately.

Table II.4-5b includes a summary of the DFAs by technology type by county. The technology type listed indicates what technologies are assumed feasible in the DFA. If multiple technologies are listed that indicates that more than one renewable energy technology could be feasible in that DFA. DFAs suitable for solar only are the most common in most counties. DFAs suitable for solar and geothermal together make up the largest technology type category in Imperial County, whereas DFAs that can support both solar and wind make up the largest technology type category in San Bernardino County. Geothermal is only proposed in Imperial and San Bernardino counties under Alternative 1. Table II.4-5c includes a summary of the DFAs by ownership. For Alternative 1, nearly 91% of the DFAs are on nonfederal lands, and over 9% of the DFAs are on federal lands.

Table II.4-5b
Alternative 1 Development Focus Areas by Technology Type by County

Technology Type Category by County	DFA Acreage
Imperial County	**442,000**
Geothermal	100,000
Solar	136,000
Solar and geothermal	201,000
Solar and wind	60
Solar, wind, and geothermal	5,000
Inyo County	**22,000**
Solar	22,000
Kern County	**122,000**
Solar	71,000
Solar and wind	51,000
Los Angeles County	**111,000**
Solar	111,000
Riverside County	**99,000**
Solar	75,000
Solar and wind	24,000
San Bernardino County	**274,000**
Geothermal	500
Solar	83,000
Solar and wind	190,000
San Diego County	—
Total	**1,070,000**

Notes: See Chapter I.3 and Appendix F for detailed descriptions of the methodology used to identify the acreage amounts listed in this table. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Table II.4-5c
Alternative 1 Development Focus Areas by Ownership Class

Ownership Class	DFA Acreage
Federal Lands	
BLM-administered land	81,000
Other federal land	17,000

Table II.4-5c
Alternative 1 Development Focus Areas by Ownership Class

Ownership Class	DFA Acreage
Nonfederal Lands	
Private land	916,000
State and local public land	55,000
Total	**1,070,000**

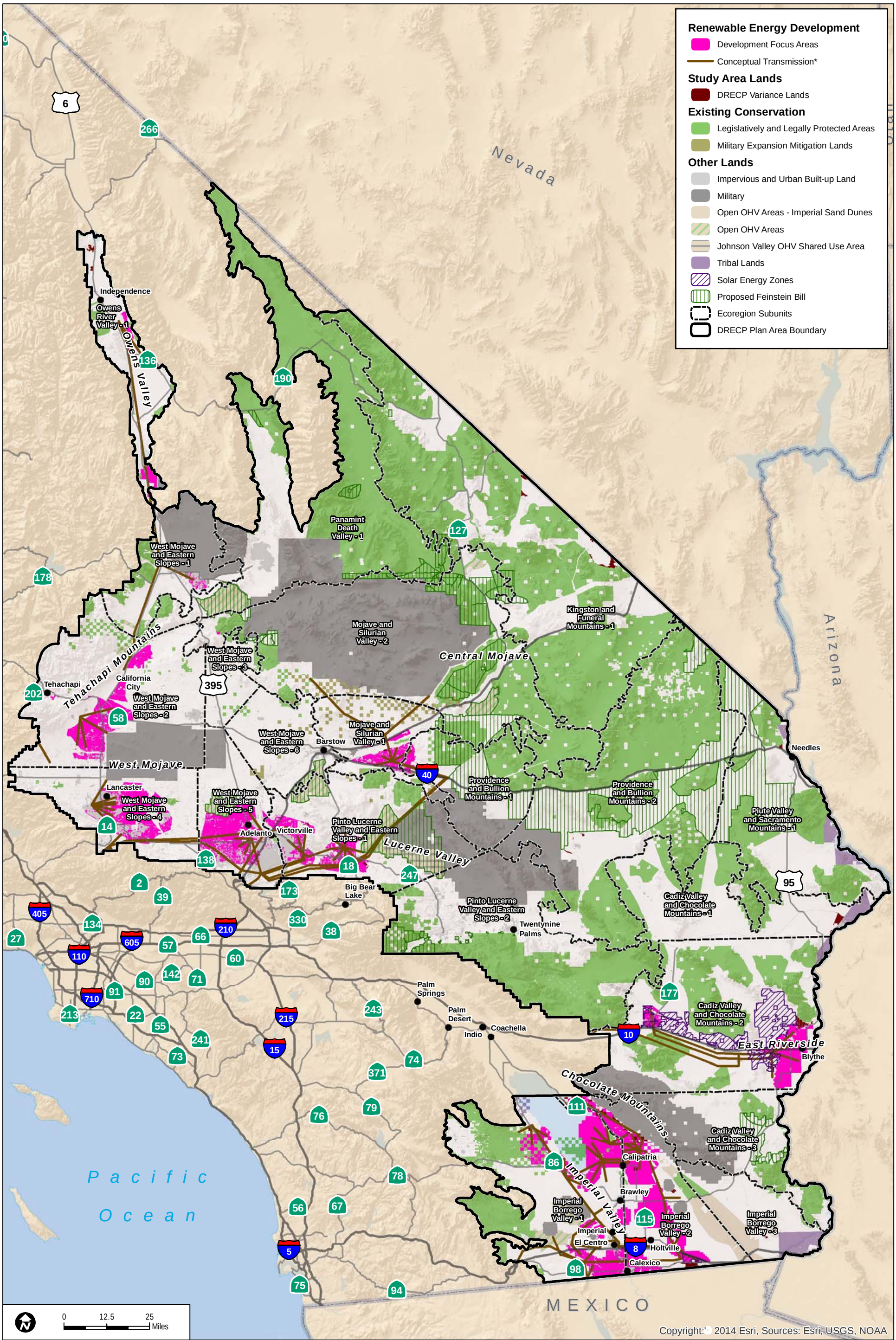
Notes: See Chapter I.3 and Appendix F for detailed descriptions of the methodology used to identify the acreage amounts listed in this table. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

The following sections describe the distribution of the DFAs along with an estimate of the total project area required for each technology and the associated area of permanent disturbance, a summary of which is provided in Table II.4-6. The estimated distribution of generation activities in the following sections aims to ensure that the DRECP evaluates a plausible magnitude of effects for each covered biological resource, such that the Plan would offer adequate minimization and mitigation for each covered technology.

Table II.4-6
Summary of Permanent Disturbance and Project Area
for All Renewable Generation Technologies Under Alternative 1

	Estimated Permanent Disturbance (Acres)	Total Project Area (Acres)
Solar	115,000	115,000
Wind	2,000	38,000
Geothermal	17,000	17,000
Distributed generation	14,000	14,000
Total	**148,000**	**184,000**

Notes: See Chapter I.3 and Appendix F for detailed descriptions of the methodology used to identify the acreage amounts listed in this table. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

*Transmission lines shown are based on the DRECP Transmission Technical Group (TTG) Report, which provides a conceptual transmission plan for the DRECP alternatives and is not intended for siting or alignment purposes.

FIGURE II.4-3

Alternative 1 - Plan-wide DFAs

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II.4.1.4.1 Solar Energy Generation (Including Utility-Scale Distributed Generation)[1]

This section provides an estimate of the size of impacts for Covered Activities associated with solar and utility-scale distributed generation projects that would be covered by the Plan under Alternative 1. Construction and operational activities are identical to those described in Section II.3.1.4.1 and listed in Table II.3-21 (Preferred Alternative). Although the area available to solar generation would be more extensive in the DFAs than for other technologies, not all DFAs were considered suitable for solar development. Consequently, it was assumed that solar development would occur within the subset of DFAs identified in Appendix G.

Solar projects can range from small-scale developments of a few megawatts (MWs) that occupy tens of acres up to 1,000 MW projects that occupy thousands of acres. Given the programmatic nature of the DRECP, extensive detailed analysis of effects that are project-specific (i.e., geographically site-specific) is infeasible. Consequently, the magnitudes of impacts are described in terms of the acreage that would be affected by Covered Activities within different ecoregion subareas of the Plan Area (Table II.4-7). For the purpose of assessing the magnitude of impacts from ancillary facilities, construction impacts, and infrastructure, solar projects were assumed to be a mixture of 100 MW projects and 400 MW projects to represent the diversity of projects currently under review and construction. Similarly all ground-mounted distributed generation projects were assumed to be 20 MW projects.

When estimating the impacts of solar projects, it was assumed that the construction of projects would result in the loss of all habitat within the boundary of the project footprint. Two reasons are given for this: (1) Unlike other technologies, solar projects are generally fenced to exclude wildlife and result in modification to natural processes for the life of the project; and (2) although some vegetation may be preserved at some project locations, this is not universal, and conditions of service often lead to the removal of vegetation to reduce fire risk. Further, the extensive removal, modification, and grading within the project boundary, even if vegetation is not completely removed, may lead to edge effects that effectively modify the remaining vegetation communities. Therefore, the acreage requirements for roads, operation and maintenance facilities, and switchyards required for each facility are included in the overall estimated boundary of the solar project. Similarly, short-term impacts, such as construction and laydown yards, were assumed to be within the final boundary of the project and therefore subsumed within the boundary estimate.

[1] For the purpose of analysis, all distributed generation was considered to be located in the same areas as utility-scale solar, therefore requiring the same ancillary facilities (i.e., Covered Activities) as utility-scale solar projects.

Table II.4-7 summarizes the long-term impacts for solar technologies, and provides the following information by ecoregion subarea:

- Total Long-Term Ground Disturbance – Estimated total acreage affected by Covered Activities such as vegetation clearance, grading, and construction. This is effectively a summation of all potential solar generation facility footprints, including operations and maintenance building, switchyards, and road construction impacts. All ancillary facilities were assumed to be within the boundary of the Plan Area and result in total permanent disturbance to the entire project site. Due to the difficulty of restoration in a desert environment, all activities that result in vegetation removal or disturbance were considered permanent for the purpose of analysis.
- Total Project Area – An estimate of the total area occupied by a given project. For area-intensive technologies like solar generation, the total project area is identical to the total permanent ground-conversion impacts.

Table II.4-7
Long-Term Disturbance and Project Area Acreages Associated with Solar and Ground-Mounted Distributed Generation by Ecoregion Subarea – Alternative 1

Ecoregion Subarea	Long-Term Disturbance and Project Area (acres)		
	Plan-Wide	*LUPA*	*GCP*
Cadiz Valley and Chocolate Mountains	21,000	4,000	17,000
Imperial Borrego Valley	47,000	2,000	45,000
Kingston and Funeral Mountains	—	—	—
Mojave and Silurian Valley	5,000	—	
Owens River Valley	6,000	4,000	2,000
Panamint Death Valley	—	—	—
Pinto Lucerne Valley and Eastern Slopes	12,000	2,000	10,000
Piute Valley and Sacramento Mountains	—	—	—
Providence and Bullion Mountains	2,000	300	2,000
West Mojave and Eastern Slopes	36,000	1,000	35,000
Total	**129,000**	**14,000**	**115,000**

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table

II.4.1.4.2 Wind Energy Generation

This section provides an estimate of the size of impacts for activities associated with wind projects that would be covered by the DRECP. Construction and operational

activities are identical to those described in Section II.3.1.4.2 and listed in Table II.3-23 of the Preferred Alternative.

The area available to wind development was constrained by several factors including areas where construction was considered infeasible and areas where turbine construction has been precluded by ordinance or general policy. Consequently, it was assumed that wind development would occur within the subset of DFAs identified in Appendix G.

Wind projects can range from small-scale developments of a few MWs that occupy tens of acres up to several hundred MW projects that occupy thousands of acres. Given the programmatic nature of the DRECP, extensive detailed analysis of effects that are project-specific (i.e., geographically site-specific) is infeasible. Consequently, the magnitudes of impacts are described in terms of the acreage that would be affected by Covered Activities within different ecoregion subareas of the Plan.

Wind projects result in a relatively diffuse impacts spread across a wide area. Turbines are widely spaced and connected by permanent access roads, and transmission infrastructure, with centralized maintenance facilities and switchyards. Unlike solar, not all the land within the boundary of a wind project was assumed to be permanently disturbed by project activities. For the purpose of analysis, estimates of disturbed acreage were the sum of the estimated acreage required for turbine pads, roads, ancillary facilities, and supporting infrastructure. Short-term construction activities, such as laydown yards, were assumed to result in permanent disturbance within the project boundary, and were also included in the estimate of permanently disturbed acreage. In addition to estimates of ground disturbance, the area likely to be impacted by the operation of the turbine rotors (airspace) was also estimated. For analysis purposes, turbines were grouped into conceptual projects of up to 200 MWs to enable an estimation of impacts from ancillary facilities, roads, turbines, etc. Table II.4-8 summarizes the long-term impacts for wind technologies and provides the following information by ecoregion subarea:

- Total Project Area – An estimate of the total area occupied by a given project. For technologies where the impacts may be spread across a greater area (e.g., wind energy generation), the permanent impacts are distributed over a larger area.
- Estimated Long-Term Ground Disturbance – Estimated total acreage affected by Covered Activities. This is effectively a summation of all potential wind generation facility footprints, including individual turbine pad, operations and maintenance building, switchyard, and road construction impacts. This estimate also includes the additional impacts that would occur as a consequence of construction activities, including construction areas, laydown yards, and storage facilities. Due to the difficulty of restoration in a desert environment, all activities

that result in vegetation removal or disturbance were considered permanent for the purpose of analysis.

- Turbine Rotor Swept Area – An estimate of the total aerial acreage affected by the rotation of turbine blades while a wind facility is operating.

Table II.4-8
Project Area, Long-Term Disturbance, and Rotor Swept Area Acreages Associated with Wind Generation by Ecoregion Subarea – Alternative 1

	Project Area (acres)			Long-Term Disturbance (acres)			Rotor Swept Area (acres)		
Ecoregion Subarea	*Plan-Wide*	*LUPA*	*GCP*	*Plan-Wide*	*LUPA*	*GCP*	*Plan-Wide*	*LUPA*	*GCP*
Cadiz Valley and Chocolate Mountains	5,000	1,000	4,000	300	100	200	200	30	100
Imperial Borrego Valley	—	—	—	—	—	—	—	—	—
Kingston and Funeral Mountains	—	—	—	—	—	—	—	—	—
Mojave and Silurian Valley	—	—	—	—	—	—	—	—	—
Owens River Valley	—	—	—	—	—	—	—	—	—
Panamint Death Valley	—	—	—	—	—	—	—	—	—
Pinto Lucerne Valley and Eastern Slopes	13,000	1,000	12,000	800	100	700	400	40	400
Piute Valley, Sacramento Mountains	—	—	—	—	—	—	—	—	—
Providence and Bullion Mountains	—	—	—	—	—	—	—	—	—
West Mojave and Eastern Slopes	21,000	—	21,000	1,000	—	1,000	600	—	600
Total	**38,000**	**2,000**	**36,000**	**2,000**	**100**	**2,000**	**1,000**	**100**	**1,000**

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table

II.4.1.4.3 Geothermal Energy Generation

This section provides an estimate of the size of impacts for Covered Activities associated with geothermal projects that would be covered by the DRECP. Construction and operational activities are identical to those described in Section II.3.1.4.3 and listed in Table II.3-25 of the Preferred Alternative.

The area available to geothermal development was limited to areas in the Imperial Borrego Valley and part of the Owens River Valley ecoregion subareas, where geothermal resources are concentrated. Consequently, it was assumed that geothermal development would occur within the subset of DFAs identified in Appendix G.

Geothermal projects would be more limited in size (in the Plan Area) than other renewable energy projects. Recent projects vary from about 50 MW to 160 MW in size. For analysis within the DRECP, geothermal projects were assumed be typically 50 MW in size. Given the programmatic nature of the Plan, extensive detailed analysis of effects that are project-specific (i.e., geographically site-specific) is infeasible. Consequently, the magnitudes of impacts are described in terms of the estimated acreage that would be affected by Covered Activities within different ecoregion subareas of the Plan.

Geothermal projects result in extensive impacts associated with the power block and ancillary facilities, with more dispersed impacts resulting from the well-fields. Well heads that inject and collect heat transfer fluids are widely spaced and connected by permanent access roads and pipelines to the centrally located power block and steam turbine facilities. All land within the boundary of a geothermal project was assumed permanently disturbed by project activities. Estimates of disturbed acreage include the acreage required for well head pads, roads, ancillary facilities, and supporting infrastructure, and also includes the land fragmented by the roads, pipelines, and well pads in the well-field, which was assumed to retain no conservation value. Short-term construction activities, such as laydown yards, were assumed to result in permanent disturbance within the project boundary, and are also included in the estimate of permanently disturbed acreage. Table II.4-9 summarizes the long-term impacts for geothermal technologies and provides the following information by ecoregion subarea:

- Estimated Long-Term Ground Disturbance – Estimated total acreage affected by Covered Activities such as vegetation clearance, grading, and construction. This is effectively a summation of all potential geothermal energy generation facility footprints, including operations and maintenance building, switchyard, and road construction impacts. This estimate also includes the additional impacts that occur as a consequence of construction activities, and the fragmented land within the well-field. Due to the difficulty of restoration in a desert environment, all activities that

result in vegetation removal or disturbance were considered permanent for the purpose of analysis.

- Total Project Area – An estimate of the total area occupied by a given project. For technologies where the impacts may be spread across a greater area (e.g., geothermal energy generation), the permanent impacts are distributed over a larger area.

Table II.4-9
Long-Term Disturbance and Project Area Acreages Associated with Geothermal Generation by Ecoregion Subarea – Alternative 1

Ecoregion Subarea	Long-Term Disturbance and Project Area (acres)		
	Plan-Wide	*LUPA*	*GCP*
Cadiz Valley and Chocolate Mountains	—	—	—
Imperial Borrego Valley	17,000	4,500	12,500
Kingston and Funeral Mountains	—	—	—
Mojave and Silurian Valley	—	—	—
Owens River Valley	—	—	—
Panamint Death Valley	—	—	—
Pinto Lucerne Valley and Eastern Slopes	—	—	—
Piute Valley and Sacramento Mountains	—	—	—
Providence and Bullion Mountains	—	—	—
West Mojave and Eastern Slopes	—	—	—
Total	**17,000**	**4,500**	**12,500**

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

II.4.1.4.4 Transmission

The transmission Covered Activities components for Alternative 1 would be the same as those described for the Preferred Alternative in Section II.3.1.4.4.

The subarea distribution of major transmission, substation, and gen-tie impacts described in Table II.4-10 provides an estimate of right-of-way (ROW) requirements in acres from which it was possible estimate the relative impacts of transmission-related Covered Activities described in Section II.3.1.4.4.

- Estimated Long-Term Ground Disturbance – Estimated total acreage affected by Covered Activities such as vegetation clearance, grading, and construction. This is effectively a summation of transmission impacts. This estimate also includes impacts that occur as a consequence of construction activities, including

construction areas, laydown yards, and storage facilities. Due to the difficulty of restoration in a desert environment, all activities that result in vegetation removal or disturbance were considered permanent for the purpose of analysis.

- Total Project Area – An estimate of the total area occupied by a given project. For technologies where the impacts may be spread across a greater area, the permanent impacts are distributed over a larger area.

Table II.4-10
Right-of-Way Requirements for Transmission Associated with Renewable Energy Development by Ecoregion Subarea – Alternative 1

Ecoregion Subarea	Long-Term Disturbance and Project Area (acres)		
	Plan-Wide	*LUPA*	*GCP*
Cadiz Valley and Chocolate Mountains	7,000	5,000	3,000
Imperial Borrego Valley	16,000	4,000	13,000
Kingston and Funeral Mountains	—	—	—
Mojave and Silurian Valley	2,000	900	1,000
Owens River Valley	2,000	1,000	1,000
Panamint Death Valley	—	—	—
Pinto Lucerne Valley and Eastern Slopes	4,000	1,000	3,000
Piute Valley and Sacramento Mountains	—	—	—
Providence and Bullion Mountains	600	400	300
West Mojave and Eastern Slopes	1,000	200	1,000
Total	**34,000**	**12,000**	**21,000**

Notes: All transmission disturbance data reflect intermediate disturbance values used for comparative purposes in the analysis. Disturbance area estimates reflecting the most recent Transmission Technical Group Report are provided in Appendix K.
The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

II.4.1.4.4.1 Transmission Outside the Plan Area

Transmission outside the Plan Area is not a Covered Activity under the DRECP. The potential direct effects of potential future transmission outside the Plan Area associated with development of covered renewable energy projects and transmission facilities inside the Plan Area are, however, programmatically described and analyzed in Volume IV of the DRECP for each environmental resource category. This section presents a description of the transmission facilities outside the Plan Area that are programmatically analyzed in Volume IV.

The assumptions used to calculate acreages of effects for transmission and substation facilities in the DRECP Plan Area are the same as those used to calculate effects of

transmission and substations outside the Plan Area, and are described in Section II.3.1.4.4. However, approval of the DRECP would not result in any approval of the potential future transmission lines outside the Plan Area that are discussed here. All future transmission lines outside the Plan Area would require new applications by the developer or utility, compliance with CEQA and NEPA as appropriate, and approvals from the developer (if municipal utilities or irrigation districts) or from the California Public Utilities Commission (if investor-owned utilities) prior to construction.

Table II.4-11 provides the acreage of effects for transmission and substations outside of the DRECP boundary. For ease of analysis, the transmission lines and substations have been clustered into general geographic boundaries.

Table II.4-11
Right-of-Way Requirements for Transmission Outside the DRECP Plan Area Associated with Renewable Energy Development – Alternative 1

Geographic Area	Transmission	
	Acres	*Miles*
San Diego area	2,000	94
Los Angeles area	2,000	83
Central Valley	16,000	274
Rialto/Moreno Valley/Devers area	12,000	484
Total Outside Plan Area	**32,000**	**935**

Source: Transmission Technical Group Report, provided as Appendix K.

The new transmission lines outside the Plan Area are presented in the following list.

- **San Diego Area:** Two 500-kilovolt (kV) lines from the Imperial Valley Substation to the existing Sycamore Substation (San Diego).
- **Los Angeles Area:**
  - One 500 kV line from the existing Vincent Substation (just inside the DRECP boundary) to the existing Lighthipe Substation.
  - One 500 kV from the existing Vincent Substation (just inside the DRECP boundary) to the existing Mesa Substation.
- **Central Valley:**
  - One 500 kV transmission line from the Whirlwind Substation (just inside the DRECP boundary) to the Pacific Gas and Electric (PG&E) Midway 500 kV Substation.
  - Two 500 kV lines from the PG&E Midway Substation to the Tesla/Tracy Substation.

- **Rialto/Moreno Valley/Devers Area:**
  - One 500 kV line from the Devers Substation to Vincent Substation.
  - One 500 kV line from the Devers Substation to Rancho Vista Substation.
  - One 500 kV line from Colorado River Substation to existing Valley Substation. About 103 miles of this line would be outside the DRECP boundary.
  - Three 500 kV lines from Midway X (Imperial Valley) to Devers Substation. About 200 miles of this corridor would be outside the DRECP boundary.

II.4.1.5 Plan Implementation

Plan implementation for Alternative 1 would be the same as that for the Preferred Alternative as described in Section II.3.1.5.

II.4.2 BLM LUPA Elements of Alternative 1

The BLM LUPA elements of Alternative 1 are the same elements as the Preferred Alternative (see Figure II.4-4).

As shown in Table II.4-12, approximately 9,834,000 acres within the Plan Area occur within the BLM LUPA on BLM-administered lands. Under Alternative 1, approximately 81,000 acres of DFAs occur on BLM-administered lands.

In this area, existing conservation areas on BLM lands totals 3,264,000 acres including 3,260,000 acres of LLPAs. All of the BLM LLPAs are Wilderness or Wilderness Study Areas and are managed to meet the statute of the Wilderness Act of 1964 and to ensure these congressionally designated areas meet DRECP conservation goals.

As shown in Table II.4-13, of the 4,863,000 acres of BLM LUPA conservation designations on BLM-administered lands, 2,789,000 acres (57%) would be designated as Existing or Proposed ACEC, 1,398,000 acres (29%) would be Existing or Proposed ACEC or Wildlife Allocation and National Conservation Lands, 92,000 acres (2%) would be National Conservation Lands only, and 585,000 acres (12%) would be Wildlife Allocation.

Table II.4-12
Interagency Alternative 1 Within the BLM LUPA

Alternative Components	Acreage[1]
DFAs	**81,000**
Study Area Lands	**35,000**
DRECP Variance Lands	35,000
DRECP Plan-Wide Reserve Design Envelope	**8,127,000**

Table II.4-12
Interagency Alternative 1 Within the BLM LUPA

Alternative Components	Acreage[1]
Existing conservation areas	3,264,000
BLM LUPA conservation designations	4,863,000
Urban Areas, Other Lands, and Undesignated Areas	**1,590,000**
Impervious and Urban Built-up Land	71,000
BLM Open OHV Areas	235,000
Imperial Sand Dunes, including the BLM Open OHV Area	127,000
Johnson Valley OHV Shared Use Area	54,000
Undesignated Areas	1,103,000
Total	**9,834,000**

Notes: BLM LUPA conservation designations include NLCS lands, ACECs, and Wildlife Allocations. Overlaps of BLM LUPA conservation designations with existing conservation areas are reported in the existing conservation area acreages. The BLM LUPA would also designate approximately 2,537,000 acres of SRMAs on BLM-administered lands in addition to the 193,000 acres of existing SRMAs on BLM-administered lands, which are BLM designation overlays that overlap portions of the components provided in this table. Impervious and urban built-up lands occur within BLM LUPA conservation designations and DFAs where not explicitly included in the urban category reported here. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

[1] Acreages reported are on BLM-administered lands only within the BLM LUPA area.

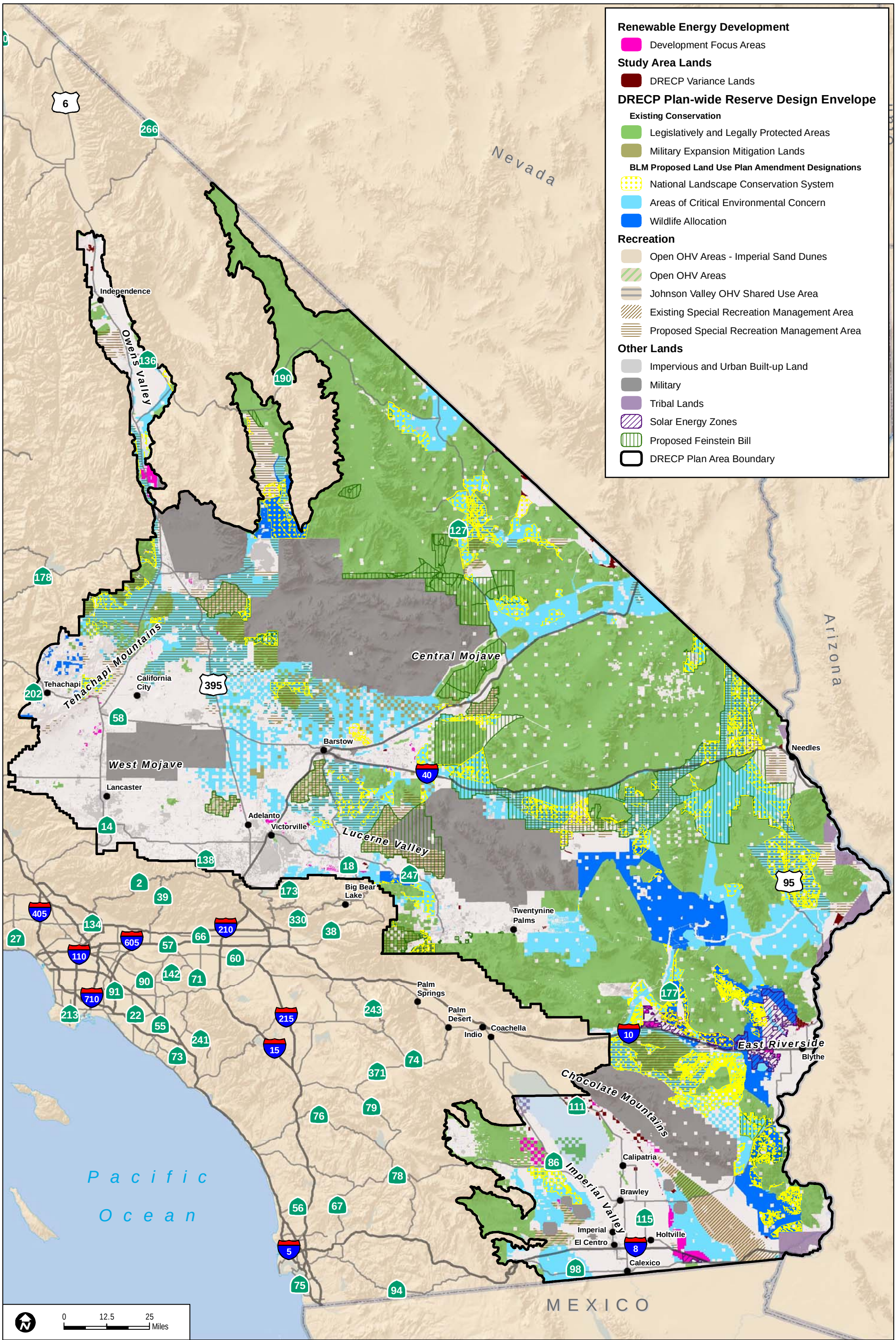
Table II.4-13
Alternative 1 BLM LUPA Conservation Designations Within the BLM LUPA

BLM LUPA Conservation Designation	Acreage[1,2]
NLCS	92,000
NLCS (and Existing ACEC)	733,000
NLCS (and Proposed ACEC)	414,000
NLCS (and Wildlife Allocation)	251,000
Existing ACEC	1,593,000
Proposed ACEC	1,196,000
Wildlife Allocation	585,000
Total	**4,863,000**

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

[1] Acreages reported are on BLM-administered lands only within the BLM LUPA area.

[2] Approximately 817,000 acres of BLM LUPA conservation designations on BLM-administered lands occur within existing conservation areas. These overlapping acres are not reported in this table.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

*The portion of the reserve design outside Existing Conservation Areas and BLM LUPA Conservation Designations on private and non-BLM public lands from which reserve areas will be assembled from willing sellers as compensation for Covered Activities.

FIGURE II.4-4

Alternative 1 - BLM LUPA

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In addition to the proposed BLM LUPA conservation designations, Alternative 1 includes proposed BLM LUPA SRMAs as shown in Table II.4-14. Unlike the Preferred Alternative, Alternative 1 would not designate any Extensive Recreation Management Areas (ERMA).

Table II.4-14
Alternative 1 Special Recreation Management Areas and Extensive Recreation Management Areas Within the BLM LUPA

SRMA/ERMA	Acreage[1]
Existing SRMA	193,000
Proposed SRMA	2,537,000
Proposed ERMA	—
Total	2,730,000

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

[1] Acreages reported are on BLM-administered lands only within the BLM LUPA area.

The proposed BLM LUPA would not modify existing energy corridors, including "corridors of concern" defined in the Section 368 Energy Corridors settlement agreement described in Section I.2.1.7.7.

II.4.2.1 BLM Renewable Energy Policies

The BLM Renewable Energy Policies would be the same as in the Preferred Alternative.

II.4.2.2 BLM Conservation Areas

II.4.2.2.1 National Conservation Lands

This alternative emphasizes lands with high scenic quality and landscape intactness. National Conservation Lands would include only the most scenic and intact desert landscapes as determined through a BLM Visual Resources Inventory. The National Conservation Lands in this alternative would still connect existing National Conservation Lands, such as BLM wilderness and National Park units, but at a smaller scale than the other alternatives. The use allocations of this alternative allow for a variety of uses as long as they are compatible with protecting National Conservation Land values. This alternative excludes all existing transmission corridors from National Conservation Lands.

This alternative would designate 1,515,000 acres as components of the National Conservation Lands on BLM-administered lands, which includes 817,000 acres within

existing conservation areas (LLPAs and MEMLs) and 698,000 acres as part of the BLM LUPA conservation designations.

II.4.2.2.1.1 Management of National Conservation Lands

1. **Planning Area Wide National Conservation Land Management Direction**

   Like the Preferred Alternative, the use allocations for the National Conservation Lands in the California Desert Conservation Area (CDCA) are the allowable uses that would apply to all National Conservation Lands within the CDCA. The use allocations for the Preferred Alternative are listed below. For resources where there are no specific use allocations for National Conservation Lands, Plan-wide rules would apply unless otherwise specified in the Special Unit Management Plans (Appendix L).

   Comprehensive Trails and Travel Management. National Conservation Lands would be designated in accordance to the appropriate Trails and Travel Management Plan (TTMP)/RMP, and future travel management will put the emphasis of travel allowed on designated routes that provide for enjoyment of values, or necessary administrative access to conserve, protect, and restore area values.

   - **Cultural Resources.** Any adverse effects to historic properties resulting from allowable uses will be addressed through the Section 106 process of the National Historic Preservation Act and the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800.
   - **Lands and Realty**
     - **Rights-of-Way**
       - **Sites Authorizations.** National Conservation Lands would be avoidance areas. Sites ROWs would require mitigation/ compensation resulting in a net benefit to the National Conservation Lands unit. Site authorizations that protect or enhance conservation values, such as those granted as compensatory mitigation for Covered Activities within DFAs or for habitat restoration, would be allowed.
       - **Renewable Energy Generation.** National Conservation Lands would be exclusion areas for renewable energy ROWs.
       - **Linear ROWs**
         - National Conservation Lands would be avoidance areas for all other linear ROWs unless the use is clearly compatible with the protection of National Conservation Lands values.

- **Land Tenure**
  - Exchange, purchase, or donation would be permitted to acquire non-BLM lands within the National Conservation Lands unit, but disposal of lands within National Conservation Land units would not be allowed.
  - National Conservation Lands inholdings would be a priority for acquisition from willing sellers. All inholdings would become part of the National Conservation Lands unit upon acquisition and be subject to associated management requirements.

- **Minerals**
  - **Locatable Minerals.** For the purposes of locatable minerals, National Conservation Lands would be treated as "controlled" or "limited" use areas in the CDCA, requiring a Plan of Operations for greater than casual use under 43 CFR 3809.11.
  - **Saleable Minerals.** National Conservation Lands would be available for saleable mineral development, and would require mitigation/ compensation that results in net benefit for National Conservation Lands values.
  - **Leasable Minerals**
    - National Conservation Lands would be available for geothermal leasing with a No Surface Occupancy stipulation.
    - National Conservation Lands would be unsuitable for all other leasing.
- **Recreation and Visitor Services.** Competitive and Commercial Special Recreation Permits would be permitted.
- **Water Resources.** Apply for water rights on a case-by-case basis to protect water dependent National Conservation Lands values.
- **Disturbance Caps.**[2] Development in National Conservation Lands would be limited to 1% of total authorized disturbance.

2. National Conservation Land Subareas — Description of Values to be Protected

The values protected in the National Conservation Lands are described in Section II.4.2.2.1.2. This alternative emphasizes highly scenic and intact landscapes where they overlap with nationally significant ecological, cultural, or scientific values.

[2] Disturbance caps only apply to lands not already included under ACECs or Wildlife Allocation disturbance caps, as described in the Special Unit Management Plans in Appendix L.

3. Area-Specific National Conservation Land and Area of Critical Environmental Concern Management Prescriptions

Similar to the Preferred Alternative, there is overlap with the ACEC designations, and management for individual units is described in the Special Unit Management Plans (National Conservation Lands and ACEC) in Appendix L.

II.4.2.2.1.2 Subarea Descriptions

Basin and Range Subarea

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands in Alternative 1 include diverse vegetation alliances and intact ecosystems with habitat for many wildlife species, as described for the Preferred Alternative. They would include Inyo California towhee (*Pipilo crissalis eremophilus*) habitat in the Argus Range, and a small portion of two of the Mohave ground squirrel(*Xerospermophilus mohavensis*) population centers in Rose Valley (Coso_Olancha population) and North Searles Valley.
- National Conservation Lands in this alternative include connections for wildlife movement among habitat in designated BLM Wilderness Areas and in National Park units, and part of the Pacific migratory bird flyway. The areas of these wildlife corridors included would be less extensive than in the Preferred Alternative
- National Conservation Lands in this alternative do not include the dune and wetland communities of Panamint Lake or Panamint Valley, such as Warm Sulfur Springs, with its mesquite bosques and freshwater and saline marshes; greasewood sand dune habitat; the black toad (*Bufo exsul*) habitat in the Deep Springs area; Eureka and Saline Valleys; monarch overwintering sites; greater sage-grouse (*Centrocercus urophasianus*) habitat; the two watchable wildlife areas; or most of the Mohave ground squirrel population centers.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- Like the Preferred Alternative, this alternative includes rich prehistoric and historic cultural sites, historic mining areas, and areas of traditional interest to Native Americans.

- Alternative 1 includes portions of the Last Chance Canyon National Register Archaeological District, Ayers Rock, the First Los Angeles Aqueduct, and the intact landscapes in the Coso Range, Haiwee Reservoir and Conglomerate Mesa areas as National Conservation Lands. These areas and the resources included would be less extensive than those described in the Preferred Alternative.
- National Conservation Lands in this alternative would not include the Fossil Falls Archaeological District; White Mountain City and other sites in Deep Springs, Fish Lake or Eureka Valleys; most of the Rose Spring National Register Archaeological District; most of the Eastern Sierra canyons or Sierra front; or the cultural values of Warm Sulfur Springs for Timbisha Shoshone traditional uses.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- Ecological and cultural research opportunities would correspond with areas included as National Conservation Lands, as described above.
- The Trona Pinnacles would not be included as National Conservation Lands.

Acreage

Alternative 1 would include approximately 190,000 acres of National Conservation Lands in the Basin and Range subarea.

Coachella Valley

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would include most of the ecological values described for the Preferred Alternative. These include Big Morongo Canyon with its riparian cottonwood–willow, marsh, and mesquite habitats, important to neotropical migrant birds; Whitewater Canyon at a convergence of ecoregions, with dense riparian vegetation and other habitats for endangered bird species and other wildlife; and the Coachella Valley Preserve with critical habitat for the threatened Coachella Valley fringe-toed lizard (*Uma inornata*) and the endangered Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*).
- National Conservation Lands in this alternative include additional noncontiguous patches of public lands in the Edom Hill–Willow Hole Preserve within the city limits

of Cathedral City. These add important biological resources such as mesquite hummocks, a fan palm oasis, Coachella Valley milk-vetch, Little San Bernardino Mountains gilia (*Linanthus maculatus*), Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*), Palm Springs pocket mouse (*Perognathus longimembris bangsi*), burrowing owl (*Athene cunicularia*), and the Coachella giant sand treader cricket (*Macrobaenetes valgum*). The area is also home to the least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*), both federally listed as endangered, and other migratory birds such as yellow-breasted chat (*Icteria virens*) and yellow warbler (*Dendroica petechia*). Additional critical habitat for the Coachella Valley fringe-toed lizard is also included.

- National Conservation Lands in the transition zone between Mojave and Sonoran deserts, connecting the Mecca Hills and Orocopia Mountains Wilderness to the southern boundary of Joshua Tree National Park, would not be included.
- The Dos Palmas Preserve, with its riparian values, endangered desert pupfish (*Cyprinodon macularius*) and Yuma clapper rail (*Rallus longirostris yumanensis*), would not be included in National Conservation Lands.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands in this alternative would encompass most of the cultural values described for the Preferred Alternative, including numerous significant prehistoric sites, sacred sites and landscape features of importance to Cahuilla culture, and historic structures and other features from early European American settlement.

The cultural resources of Dos Palmas Preserve, including ancient habitation sites on the shoreline of ancient Lake Cahuilla, are not included in National Conservation Lands under this alternative.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative in a manner corresponding with the differences in ecological and cultural values.

Acreage

This alternative would include approximately 44,000 acres of National Conservation Lands in the Coachella Valley subarea.

Colorado Desert

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass most of the ecological values described for the Preferred Alternative. These include critical habitat for Agassiz's desert tortoise (*Gopherus agassizii*); foraging sites for golden eagles (*Aquila chrysaetos*); Sonoran Desert microphyll woodlands; and many other special status plants and animals and important plant communities.
- National Conservation Lands would be added north of Interstate 10. These lands encompass areas of habitat connectivity at the east end of Joshua Tree National Park, between the northeast and southeast parts of the park, important for desert tortoises and bighorn sheep; and dune habitat between Joshua Tree National Park and Palen McCoy Wilderness and at Palen Lake for Mojave fringe-toed lizard (*Uma scoparia*). The added lands also encompass additional populations of rare plant species dependent on dunes and sandy soils: Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*) and Palmer's jackass clover (*Wislizednia refracta* ssp. *palmeri*).
- Desert riparian zones with important bird habitat include Corn Springs and part of Milpitas Wash. Additional habitat at McCoy Wash is included in National Conservation Lands in this alternative.
- National Conservation Lands would be made up of large blocks of intact landscapes and encompass several wildlife corridor linkages. These areas would be less extensive overall than in the Preferred Alternative. National Conservation Lands would include the segments of the Chuckwalla to Chemehuevi tortoise linkage, Chuckwalla ACEC Extension, Chuckwalla Mountains Central, and Picacho areas that best meet the criteria for intact landscapes and nationally significant ecological values. National Conservation Lands in the northern part of the subarea encompass less extensive or no connectivity among the Old Woman Mountains, Cadiz Dunes, and Sheephole Valley wildernesses; and among Turtle Mountains, Big Maria Mountains, Rice Valley, and Riverside Mountains wildernesses. National Conservation Lands also do not link the Mule Mountains ACEC and Palo Verde Mountains Wilderness.
- Desert tortoise critical habitat included in National Conservation Lands in the Chuckwalla ACEC would be less extensive than in the Preferred Alternative.
- Vital underground habitat for sensitive bat species near the Colorado River is included in the southeast part of the subarea, and not in the northeast.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands in this alternative would encompass most of the cultural values described for the Preferred Alternative, including many significant prehistoric sites and culturally significant landscapes and features; the Corn Springs site; and several World War II Desert Training Center camps.
- National Conservation Lands in this alternative would incorporate lesser areas of McCoy Valley and northern Palen Valley, and would add Ford Dry Lake, for these areas' high scenic values.
- National Conservation Lands would include a smaller segment of the historic Bradshaw Trail stage route, and a very small part of Indian Pass.
- Some sensitive cultural areas, including Alligator Rock, Mule Mountains, Camp Young and Iron Mountain, would not be encompassed by National Conservation Lands.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative in a manner corresponding with the differences in ecological and cultural values.

Acreage

This alternative would include approximately 462,000 acres in the Colorado Desert subarea.

Kingston–Amargosa

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass most of the ecological values described for the Preferred Alternative. These include some crucial wildlife habitat linkages for desert tortoise and desert bighorn sheep (*Ovis canadensis nelson*); most of the Amargosa River's riparian communities and bird habitats; and the entire range of the Amargosa vole (*Microtus californicus scirpensis*).

- Corridors important for maintaining genetic connectivity for desert tortoise and desert bighorn sheep would be less extensive in the Shadow Valley and Silurian Valley areas.
- Populations of Amargosa nitrophila (*Nitrophila mohavensis*) along the northern segment of the Amargosa River would not be included in National Conservation Lands.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands in this alternative would encompass some of the cultural values described for the Preferred Alternative, including nationally significant archaeological sites in the Shadow and Silurian valleys. About half of the Silurian Valley's archaeological sites would not be included as National Conservation Lands.
- Additional historic mining areas in the Silurian Valley would be included in National Conservation Lands in this alternative.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 relating to ecological and cultural values correspond with those values included under this alternative.

Acreage

This alternative would include approximately 200,000 acres of National Conservation Lands in the Kingston–Armargosa subarea.

Lake Cahuilla

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- As with the Preferred Alternative, National Conservation Lands would include the desert pupfish critical habitat of San Sebastian Marsh and Felipe Creek.
- Habitat for the flat-tailed horned lizard (*Phrynosoma mcallii*), Colorado Desert fringe-toed lizard (*Uma notata*), and bighorn sheep would be included as National Conservation Lands in portions of the West Mesa and Ocotillo areas. In other areas

these habitats would not be included. Lake Cahuilla shoreline lands would be much less extensive than in the Preferred Alternative.

- Mesquite Thickets and Munz's Cholla Unusual Plant Assemblages would be included in National Conservation Lands. Yuha Desert Crucifixion Thorn assemblage would not be included.
- National Conservation Lands in this alternative would encompass areas of habitat connectivity. These would be less extensive than in the Preferred Alternative. Conservation lands in this alternative would include the area around San Sebastian Marsh on the west and some of the lands around the Chocolate and Cargo Muchacho mountains east of the Imperial Sand Dunes. Not included as National Conservation Lands in this alternative would be the Yuha Basin, most of the Ocotillo and West Mesa areas, all of the East Mesa, and most other lands adjacent to the Algodones Dunes.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would include some of the prehistoric sites of San Sebastian Marsh.
- National Conservation Lands would not include archaeological sites or culturally significant features at Pilot Knob, Yuha Basin, Singer Geoglyphs, the historic Tumco mining area, most of the Ocotillo area, or any segments of the Juan Bautista de Anza National Historic Trail[3] or Southern Immigrant/Butterfield Stage route.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative in a manner corresponding with the differences in ecological and cultural values described above.

Acreage

This alternative would include approximately 60,000 acres in the Lake Cahuilla subarea.

Mojave and Silurian Valley

This alternative emphasizes highly scenic and intact landscapes where they overlap with nationally significant ecological, cultural or scientific values.

[3] Although not included in the National Conservation Lands designated under Public Law 111-11, the Juan Bautista de Anza National Historic Trail remains a part of the NLCS as a National Historic Trail. Section II.4.2.2.2 discusses the National Historic Trail Management Corridor for this alternative.

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would include areas of wildlife habitat connectivity. These areas would be less extensive and would not encompass habitat connectivity associated with the Silurian Valley, between Mojave National Preserve and Death Valley National Park, or between Rodman Mountains Wilderness and the Cady Mountains Wilderness Study Area (outside the subarea).
- National Conservation Lands would include less of Salt Creek Hills and about half of the Mojave River at Afton Canyon, with associated ecological values.
- National Conservation Lands would not encompass ecological values associated with Coolgardie Mesa; the critical habitat for desert tortoise and other special-status plant and animal habitats of the Superior–Cronese ACEC; the Ord-Rodman area with its rare Mojave monkeyflower (*Mimulus mohavensis*); populations of Parish's phacelia (*Phacelia parishii*) in the vicinity of Coyote Lake; or Mojave fringe-toed lizard habitat.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass cultural values at Christmas Canyon as described for the Preferred Alternative.
- A larger area associated with the Calico Early Man Site would be included.
- National Conservation Lands would encompass less land around Black Mountain Wilderness. Inscription Canyon is included; less of the Black Mountain Rock Art District is included.
- The Mojave Road in Afton Canyon would be included, although less of Afton Canyon would be included.
- In the Silurian Valley, part of the area associated with historic mining would be included. The rest of the Silurian Valley and the entire Silurian Valley Corridor are omitted, so that the Old Spanish National Historic Trail, [4] Tonopah and Tidewater Railroad, and Boulder Transmission Line are not included.

[4] Although not included in the National Conservation Lands designated under Public Law 111-11, the Old Spanish Historic Trail remains a part of the NLCS as a National Historic Trail. Section II.4.2.2.2 discusses the National Historic Trail Management Corridor for this alternative.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- There would be reduced research opportunities associated with most ecological and cultural values on National Conservation Lands, corresponding with the changes noted above.
- Research opportunities on National Conservation Lands in the vicinity of the Calico Early Man Site would be increased.
- National Conservation Lands would not encompass the paleontological values associated with Rainbow Basin and the Manix area.

Acreage

This alternative would include approximately 91,000 acres in the Mojave and Silurian Valley subarea.

Pinto, Lucerne Valley, and Eastern Slopes

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- The existing Bendire's Thrasher ACEC is added to National Conservation Lands in this alternative, encompassing breeding habitat for a unique disjunct population of Bendire's thrasher (*Toxostoma bendirei*), a rare, BLM Sensitive bird species.
- National Conservation Lands would encompass habitat for sensitive animal and plant species and for raptors. These areas would be less extensive than in the Preferred Alternative. Specifically, they would include isolated patches of desert tortoise critical habitat, golden eagle and prairie falcon (*Falco mexicanus*) breeding and foraging habitat, and Mojave monkey flower habitat in the Ord Mountains area.
- National Conservation Lands encompassing areas of habitat connectivity would be included in this alternative. These areas would be less extensive; specifically, connectivity between the two units of the Bighorn Mountains Wilderness would be included, while the Bighorn Mountains–Pipes Canyon wildlife connectivity area would not be included.
- National Conservation Lands would include part of the Pipes Canyon Huge Joshua Trees Unusual Plant Assemblage, and would not include Juniper Flats (San Diego horned lizard [*Phrynosoma coronatum blainvillii*], gray vireo [*Vireo vicinior*]) or the Carbonate Endemic Plant area.

- The ecological values of the Pinto Mountains in the southeast of the subarea, with habitat for the Mojave fringe-toed lizard, desert tortoise and other sensitive species, would not be encompassed by National Conservation Lands.
- No Unusual Plant Assemblages would be included as National Conservation Lands.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- A part of the newly proposed Pipes Canyon cultural ACEC would be included.
- Juniper Flats, with its important cultural values including rock shelters and village sites, would not be encompassed by National Conservation Lands.
- The important prehistoric and historic values of the Pinto Mountains, such as the Dale Mining District and the World War II Desert Training Center remnants, would not be included.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would not include the Carbonate Endemic Plant Research Natural Area ACEC, with its unusual geologic, soil, and plant association and habitat for threatened and endangered species.
- Other differences correspond with the differences in ecological and cultural values described above.

Acreage

This alternative would include approximately 81,000 acres of National Conservation Lands in the Pinto, Lucerne Valley, and Eastern Slopes subarea.

Piute Valley and Sacramento Mountains

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass most of the ecological values described for the Preferred Alternative, including habitat for desert tortoise and other declining and sensitive animal and plant species.

- National Conservation Lands would include the following, with less extensive acreage: the values of Chemehuevi Valley, including Chemehuevi Wash and teddybear cholla (*Cylindropuntia bigelovii*) stands; Piute–Fenner and Chemehuevi ACECs; the values of the Sacramento Mountains, including bat colonies and teddybear cholla stands; rare plant populations.
- National Conservation Lands would include areas of habitat connectivity important to bighorn sheep between the Stepladder Mountains, Turtle Mountains, and Whipple Mountains Wildernesses. Connections between other designated Wilderness Areas would not be included.
- National Conservation Lands would not include Homer Wash and most other parts of Ward Valley.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass most of the cultural values described for the Preferred Alternative, including important prehistoric sites along the Colorado River and historic sites such as Camp Ibis.
- Segments of the Mojave Trail, Old Spanish National Trail, East Mojave Heritage Trail, and historic U.S. Route 66, and some World War II Desert Training Center sites, including part of Camp Ibis, would be included as National Conservation Lands. These would be less extensive than in the Preferred Alternative.
- Some prominent cultural resources in the vicinity of Needles would not be included.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative in a manner corresponding with the differences in ecological and cultural values.

Acreage

This alternative would include approximately 250,000 acres of National Conservation Lands in the Piute Valley and Sacramento Valley subarea.

South Mojave–Amboy

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass many of the ecological values described for the Preferred Alternative. It would include National Conservation Lands connecting the Kelso Dunes Wilderness with the Cady Mountains Wilderness Study Area north of the Pisgah Crater ACEC, lands west of the Trilobite Wilderness across the Bristol Mountains, and lands around the mountain ranges and wilderness of the Fenner Valley.
- National Conservation Lands would encompass areas of wildlife habitat connectivity. The areas included would be less extensive than in the Preferred Alternative. The lands linking the Kelso Dunes Wilderness and the Cady Mountains Wilderness Study Area have important habitat connectivity for desert tortoise and bighorn sheep. National Conservation Lands would not link other Wilderness Areas with each other, and would not completely link the Ord–Rodman ACEC with the Chemehuevi ACEC.
- Populations of rare plants would be included in National Conservation Lands. These areas would be less extensive for some plants, particularly white-margined beardtongue (*Penstemon albomarginatus*).
- Bonanza Spring would not be included in National Conservation Lands.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would encompass most of the cultural values described for the Preferred Alternative.
- A smaller portion of historic U.S. Route 66 is included in National Conservation Lands, at the east end of the subarea. Also included with less area are the historic Atchinson, Topeka and Santa Fe railroad and the proposed Mojave Trails National Monument.
- National Conservation Lands would not include Bonanza Spring or remnants of the Tonopah and Tidewater railroad grade.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- Most scientific values would compare to those in the Preferred Alternative in a manner corresponding with the differences in ecological and cultural values described above.
- The scientific values associated with the Pisgah Crater – the NASA Mars analog site and unique invertebrate assemblage associated with the lava tubes – would not be included.

Acreage

This alternative would include approximately 239,000 acres of National Conservation Lands in the South Mojave–Amboy subarea.

Western Desert and Eastern Slope

Ecological Values

Ecological values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would include ecological values described for the Preferred Alternative except as stated below.
- National Conservation Lands include areas of wildlife habitat connectivity. These areas are less extensive than in the Preferred Alternative. The Kiavah Wilderness is linked by National Conservation Lands with the Bright Star Wilderness, and not with the El Paso Mountains Wilderness.
- National Conservation Lands would include the following, with less extensive areas as compared to the Preferred Alternative: stopover sites and habitat connectivity for the Pacific migratory bird flyway along the eastern flank of the Sierra; nesting habitat for Bendire's thrasher; burrowing owl habitat; Townsend's big-eared bat (*Corynorhinus townsendii*) habitat; and Charlotte's phacelia (*Phacelia nashiana*) range.
- National Conservation Lands would include less extensive foraging area for golden eagles between the Sierra Nevada front and the El Paso Mountains Wilderness, with a smaller portion of eagle habitat in Kelso Valley and the Sierras. Most golden eagle nesting sites and California condor (*Gymnogyps californianus*) habitat would not be included.
- National Conservation Lands would not include the following: the Desert Tortoise Research Natural Area and the Western Rand Mountains ACEC, which constitute

part of the Fremont–Kramer unit of Desert Tortoise Critical Habitat; the Unusual Plant Assemblage of Joshua trees (*Yucca brevifolia*) and Jeffrey pines (*Pinus jeffreyi*); habitat for the Tehachapi slender salamander (*Batrachoseps stebbinsi*) and Palmer's mariposa lily (*Calochortus palmeri*); Mohave ground squirrel population centers and expansion habitat; the Important Bird Area of Butterbredt Canyon; and the migratory and breeding bird habitat of Piute Mountains springs.

Cultural Values

Cultural values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative as follows:

- National Conservation Lands would include most of the cultural values described for the Preferred Alternative.
- National Conservation Lands would include the following, with less extensive areas as compared to the Preferred Alternative: the Last Chance Canyon National Register Archaeological District; areas on the southwest side of Black Mountain National Register Rock Art District; and intact landscapes in the Jawbone–Butterbredt area. Fewer Native American resources previously identified within the Jawbone–Butterbredt area would be included.
- Cultural resources eligible for listing, nominated for listing, or listed on the National Register of Historic Places would be included in this alternative; however, large areas where cultural landscapes have been identified through cultural resource inventory or tribal consultation would not be included.

Scientific Values

Scientific values of National Conservation Lands in Alternative 1 compare to those in the Preferred Alternative in a manner corresponding with the differences in ecological and cultural values. The Desert Tortoise Research Natural Area is not included.

Acreage

This alternative would include approximately 49,000 acres of National Conservation Lands in the Western Desert and Eastern Slope subarea.

II.4.2.2.2 National Trails

II.4.2.2.2.1 National Scenic and Historic Trails

Goals and Objectives

Goals and objectives for National Scenic and Historic Trails (NSHT) would be the same as the Preferred Alternative.

Conservation and Management Actions for the Pacific Crest National Scenic Trail, and the Juan Bautista de Anza and Old Spanish National Historic Trails Management Corridors

- **Management Corridor Width (see also maps).** Establish a National Trail Management Corridor, width generally 0.25 mile from centerline.
- **Management of Trail Corridors.** Manage National Trails as components of the BLM's NLCS. Where National Trails overlap other National Conservation Lands, the more protective CMAs or land use allocations will apply. Within these areas, the BLM will support the nature and purposes of the designated National Trails.
- **Lands and Realty**
  - Rights-of-Way
    - **Site Authorizations**. NSHT Management Corridors would be avoidance areas. Sites ROWs would require mitigation/compensation resulting in net benefit to the NSHT.
    - **Linear ROWs.** NSHT Management Corridors would be avoidance areas. Exclude cultural landscapes, high potential historic sites, and high potential route segments identified along historic trails corridors from transmission. Where development affects trail management corridors, an analysis must be performed to ensure that it does not substantially interfere with the nature and purposes of the trail, and that mitigation/compensation results in a net benefit to the trail.
    - **Renewable Energy ROWs.** Exclude cultural landscapes, high potential historic sites, and high potential route segments identified along historic trails corridors from transmission except in approved DFAs. Where development affects trail management corridors, an analysis must be performed to ensure that it does not substantially interfere with the nature and purposes of the trail, and that mitigation/compensation results in a net benefit to the trail.

  - **Land Tenure.** Exchange or disposal must result in net benefit to trail values through acquisition or other compensation.
- Minerals
  - **Locatable Minerals.** Locatable Minerals would be treated the same as limited or controlled use areas and a plan of operations will be required for greater than casual use as identified in 43 CFR 3809.11.
  - **Saleable Minerals.** NSHT Management Corridors would be unavailable for saleable mineral development.
  - **Leasable Minerals.** NSHT Management Corridors would be available for leasing with a no surface occupancy stipulation. Surface coal mining would not be allowed within the NSHT Management Corridors.
- **Recreation.** Competitive and Commercial Special Recreation Permits would be permitted if they do not substantially interfere with nature and purposes of NSHTs.
- **Cultural Resources.** Any adverse effects to historic properties resulting from allowable uses will be addressed through the Section 106 process of the National Historic Preservation Act and the implementing regulations at 36 CFR Part 800.
- **Visual Resources Management.** All NSHT Management Corridors will be designated as Visual Resource Management (VRM) Class II, except within approved transmission corridors (VRM Class III) and DFAs (VRM Class IV). However, state-of-the-art VRM best management practices for renewable energy will be employed commensurate with the protection of nationally significant scenic resources, cultural landscapes, and other identified resources, qualities, values, and associated settings and the primary use or uses to minimize the level of intrusion and protect trail settings.
- **Mitigation Requirements**
  - If a segment of an NSHT or trail under study for possible designation traverses a DFA, it will be subject to mitigation for impacts to trail resources, qualities, values, and associated settings, and primary use or uses, including, but not limited to, and not in priority order: avoidance, the cost of trail relocation, on-site mitigation, and off-site mitigation. Compensation can include acquisition or restoration of corridor features and landscapes at a minimum of 2:1, and must result in a net benefit to the overall National Trail Management Corridor. Covered Activity development within high potential route segments must not substantially interfere with the nature and purposes of the National Trail.

II.4.2.2.2.2 National Recreation Trails

Management for National Recreation Trails would be the same as under the Preferred Alternative.

II.4.2.2.3 Areas of Critical Environmental Concern

Alternative 1 would include 121 ACECs, totaling approximately 4,749,000 acres (nonoverlapping ACEC acres) on BLM-administered lands (includes ACECs within Existing Protected Areas). Specific management and maps for ACECs under this alternative are included in the Special Unit Management Plans (National Conservation Lands and ACEC) in Appendix L.

II.4.2.2.4 Wildlife Allocations

This alternative would include 836,000 acres of Wildlife Allocations on BLM-administered lands (includes Wildlife Allocations within NLCS). Descriptions and maps are included in the Special Unit Management Plans (National Conservation Lands and ACEC) in Appendix L.

II.4.2.2.5 Special Recreation Management Areas

This alternative would include 28 SRMAs (2,730,000 acres on BLM-administered lands). Descriptions, maps, and management actions for each SRMA under this alternative are included in SRMA Management Plans in Appendix L.

II.4.2.2.6 Lands Managed to Protect Wilderness Characteristics

Under this alternative, no lands would be managed to protect wilderness characteristics.

II.4.2.3 BLM-Specific CMAs

The following CMAs are different than the Preferred Alternative. For all other resources, see the Preferred Alternative, Section II.3.2.3.

II.4.2.3.1 Lands and Realty

Conservation and Management Actions for Lands and Realty would be the same as in the Preferred Alternative, except for Land Exchanges and Land Sales, as described below.

II.4.2.3.1.1 CMAs for the Entire Planning Area

- In nondesignated lands (i.e., lands not covered by the specific CMAs), make lands available for disposal through exchange or land sale.

II.4.2.3.1.2 CMAs in Development Focus Areas and DRECP Study Areas

- Make lands within DFAs available for disposal by sale or exchange under Section 203(a)(1), 203(a)(3), 206 and 209 of the Federal Land Policy and Management Act.
- In DRECP Study Areas, make lands unavailable for sale or exchange.

II.4.2.3.1.3 CMAs in National Conservation Lands

- Make lands within National Conservation Lands available for exchange in accordance with the CMAs outlined for National Conservation Lands in Section II.3.2.2.1.1.
- Make lands within National Conservation Lands unavailable for disposal.

II.4.2.3.1.4 CMAs in Areas of Critical Environmental Concern

- Acquire lands in ACECs through exchange, purchase, or donation.
- Make lands in ACECs unavailable for disposal.

Conservation and Management Actions in Wildlife Allocations

- Acquire lands in Wildlife Allocations through exchange, purchase, or donation.
- Make lands in Wildlife Allocations unavailable for disposal.

Conservation and Management Actions in Special Recreation Management Areas

- Acquire lands in SRMAs through exchange, purchase, or donation.
- Make lands in SRMAs unavailable for disposal.

II.4.2.3.2 Soil, Water, and Water-Dependent Resources

CMAs for soil, water, and water-dependent Resources would be the same as in the Preferred Alternative, except within DFAs, as described below.

II.4.2.3.2.1 CMAs in Development Focus Areas

- Limit disturbance of sensitive soil areas, so that no more than 1% of the sensitive soil areas within a proposed project footprint shall be disturbed for construction.
- Exclude renewable energy development that disturbs sand dunes.
- Limit disturbance of sand flow corridors, so that no more than 1% of the sand flow corridors within a proposed project footprint shall be disturbed for construction.

- Limit disturbance of desert pavement, so that no more than 5% of the desert pavement within a proposed project footprint shall be disturbed for construction.
- Avoid development in flood plain, unless such development can be mitigated.
- Apply a 0.25-mile protective offset around playas.

II.4.2.3.3 Visual Resources Management

Figure II.4-5 shows VRM Classes under this alternative. CMAs under this alternative would be the same as under the Preferred Alternative.

II.4.2.3.4 Wilderness Characteristics

No lands would be managed to protect wilderness characteristics under this alternative.

II.4.2.4 California Desert Conservation Area Plan Amendments

II.4.2.4.1 Multiple-Use Classes

The amendments to the multiple-use classes would be the same as the Preferred Alternative.

II.4.2.4.2 Visual Resource Management Classes and National Conservation Lands Outside of the DRECP

VRM Classes and National Conservation Land designations in the CDCA outside of the Planning Area are described in Section II.4.2.2.1 and Section II.4.2.3.3.

II.4.3 NCCP Elements of Alternative 1

The following provides an overview of the NCCP elements of Alternative 1. At the broadest level, the NCCP includes elements related to Covered Activities and conservation elements.

As described for the Preferred Alternative, each of the NCCP alternatives includes the full range of Covered Activities anticipated under the DRECP for each of the interagency Plan-wide alternatives. The Plan-wide description of Covered Activities serves as the description of Covered Activities for the NCCP alternatives.

The Natural Community Conservation Planning Act requires that NCCPs provide for the conservation and management of Covered Species and natural communities on a landscape or ecosystem level through the creation and long-term management of habitat reserves and the application of other equivalent conservation measures. To reflect the conservation that would occur under the NCCP, the NCCP elements of each alternative define the following means of providing conservation within the DRECP Plan-Wide Reserve Design Envelope: an NCCP Conceptual Plan-Wide Reserve Design, a DRECP NCCP Reserve Design, and other conservation actions.

Reserve design features and other conservation actions within the NCCP alternatives are consistent with and nested within the DRECP Plan-Wide Reserve Design Envelope in the interagency Plan-wide alternatives, but differ in terms of how reserve design features are grouped with in the NCCP Conceptual Plan-Wide Reserve Design and the DRECP NCCP Reserve Design. Table II.4-15 summarizes the NCCP elements of Alternative 1. As shown in Table II.4-15, the DRECP NCCP Reserve Design covers approximately 279,000 acres of BLM and non-BLM lands. Figure II.4-6 depicts the NCCP for Alternative 1. Refer to Appendix N for a description of how the Plan-wide description of the alternative serves as the description of the NCCP for the DRECP.

Table II.4-15
NCCP for Alternative 1

NCCP Components	Acreage
DFAs	**1,070,000**
Study Area Lands	**37,000**
DRECP Variance Lands	37,000
DRECP Plan-Wide Reserve Design Envelope	**15,039,000**
Existing conservation areas	7,662,000
NCCP Conceptual Plan-Wide Reserve Design	1,732,000
Inside the DRECP NCCP Reserve Design	279,000
BLM LUPA conservation designations	186,000
Biological Conservation Priority Areas on non-BLM lands	93,000
Outside the DRECP NCCP Reserve Design	1,454,000
BLM LUPA conservation designations	940,000
Biological Conservation Priority Areas on non-BLM lands	514,000
BLM LUPA conservation designations outside the NCCP Conceptual Plan-Wide Reserve Design	3,743,000
Biological Conservation Planning Areas on non-BLM lands	1,901,000
Urban Areas, Other Lands, and Undesignated Areas	**6,439,000**
Plan Area Total	**22,585,000**

Notes: The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

II.4.4 GCP Elements of Alternative 1

As described in Section II.3.4 for the Preferred Alternative, the DRECP's GCP elements include a streamlined permitting process for renewable energy development by nonfederal project proponents in the Plan Area. This section is intended to provide the description of the GCP elements of the DRECP for Alternative 1.

II.4.4.1 Overview of the Nonfederal GCP Lands of Alternative 1

The GCP component of Alternative 1 includes all nonfederal lands within the DRECP DFAs and Conservation Planning Areas, as well as nonfederal inholdings within existing conservation areas and BLM-administered lands in the Plan Area; these lands comprise the GCP Permit Area in the Plan Area. The larger GCP Plan Area encompasses the GCP Permit Area as well as Conservation Priority Areas outside the GCP Permit Area where permittee non-acquisition mitigation measures may be implemented (i.e., BLM-administered lands corresponding to the DRECP NCCP Reserve Design). Nonfederal lands include privately owned lands and lands owned by state and local jurisdictions. The conservation strategy and Covered Activities under the GCP would be consistent with the DRECP. Table II.4-16 provides a summary of Alternative 1 within the GCP component of the DRECP; Figure II.4-7 depicts Alternative 1 within the GCP area.

As shown in Table II.4-16, the GCP portion of the Plan Area covers a total of 971,000 acres of DFAs on nonfederal lands (91% of the total DFAs in Alternative 1). The biological resources environmental setting/affected environment for the GCP portion of the Plan Area is described in Volume III, Section III.7.11. The impact analysis for Alternative 1 on nonfederal lands within the GCP area is provided in Volume IV, Section IV.7.3.3.4

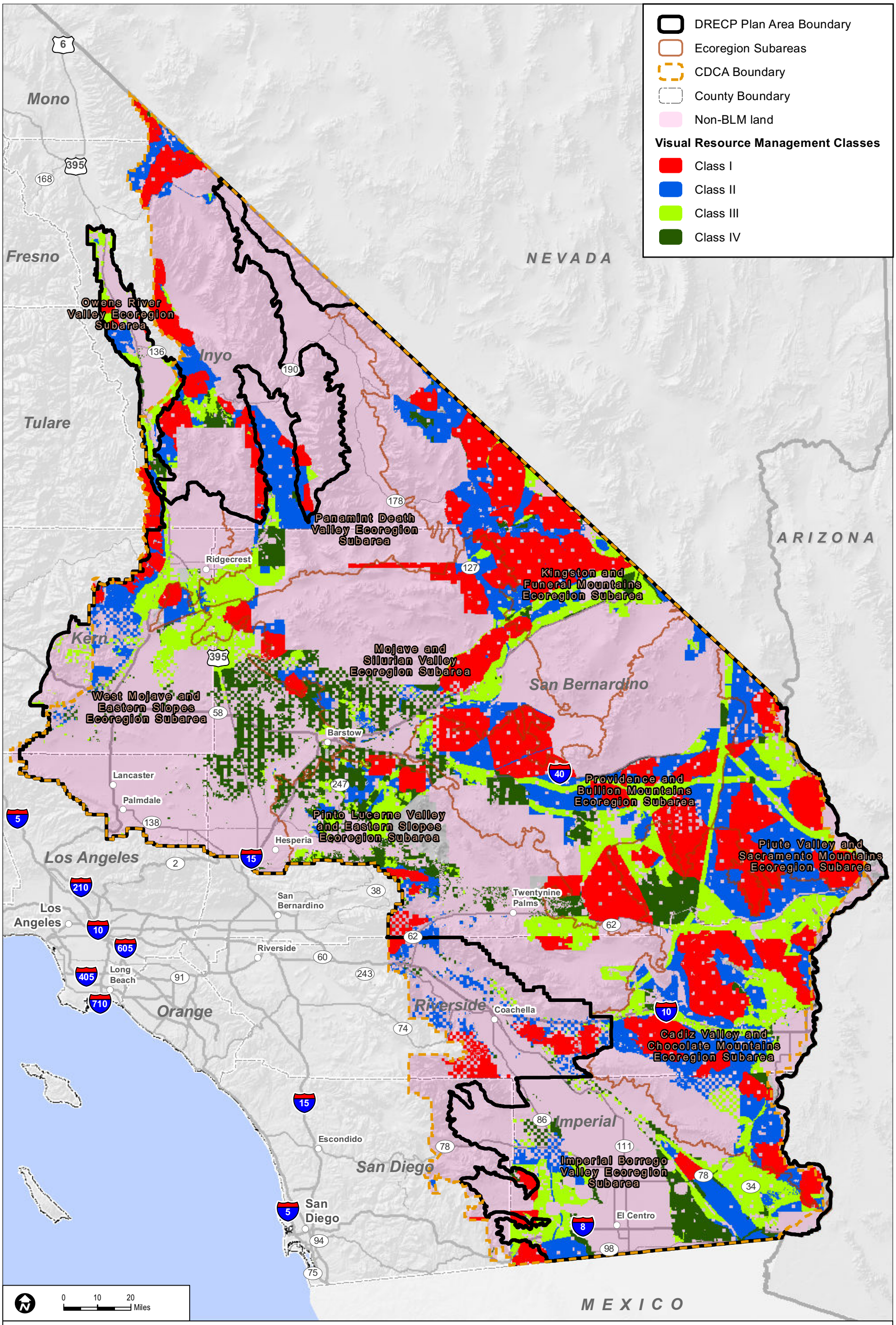
Table II.4-16
Alternative 1 Within the GCP

Alternative Components	Acreage[1]
DFAs (Nonfederal Lands Only)	**971,000**
DRECP Plan-Wide Reserve Design Envelope (Nonfederal Lands Only)	**2,868,000**
Existing conservation areas	433,000
BLM LUPA conservation designations	1,211,000
Conservation Planning Areas	1,223,000

Notes: Urban Areas, Other Lands, and Undesignated Areas also occur on nonfederal lands but are not reported here. The following general rounding rules were applied to acreage values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

II.4.4.2 Overview of the GCP Permitting Process

The GCP permitting process under Alternative 1 would be the same as is described for the Preferred Alternative in Section II.3.4.2 and in Appendix M.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE II.4-5

Alternative 1 - BLM Visual Resource Management Classes

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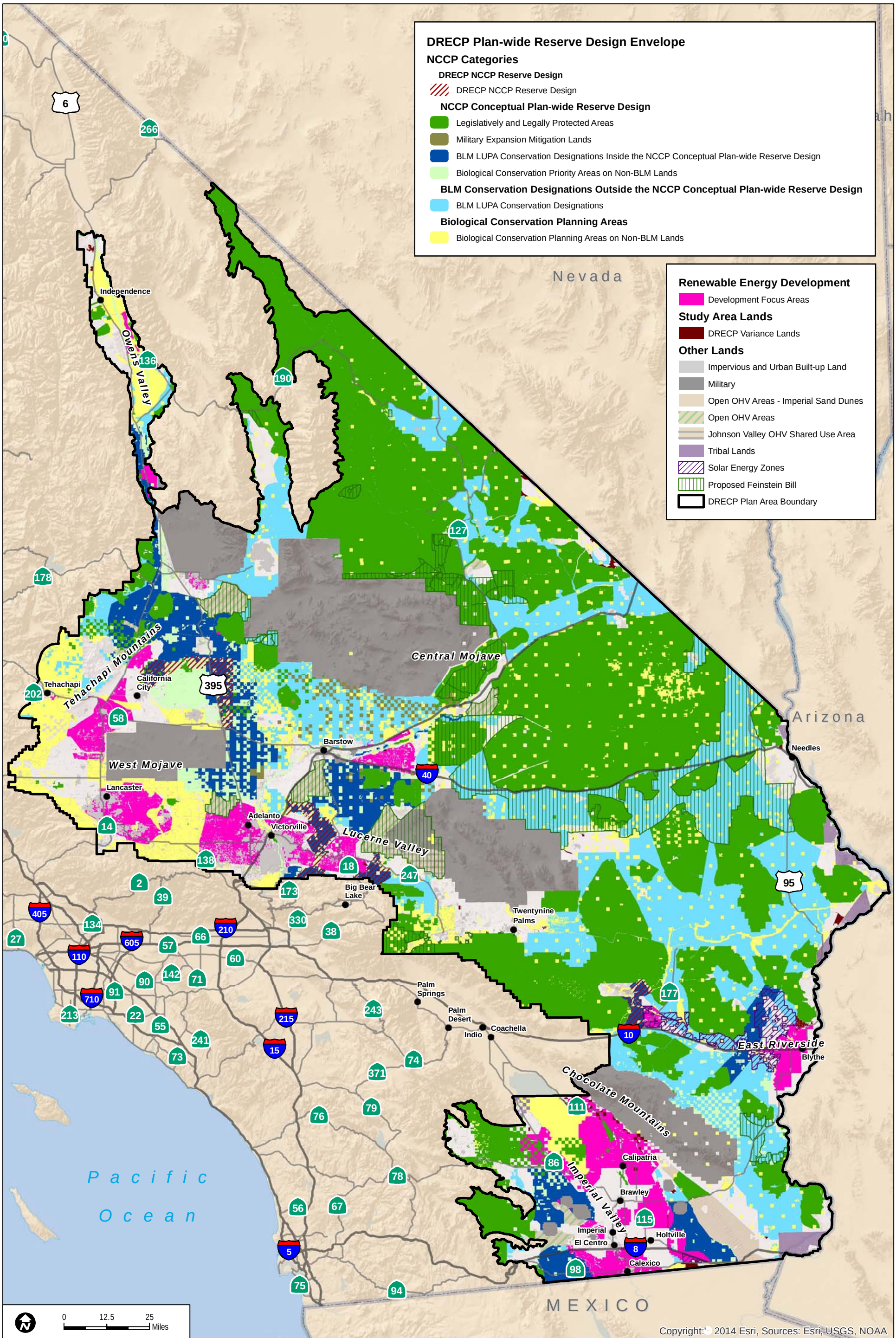

Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE II.4-6

Alternative 1 - Natural Community Conservation Plan

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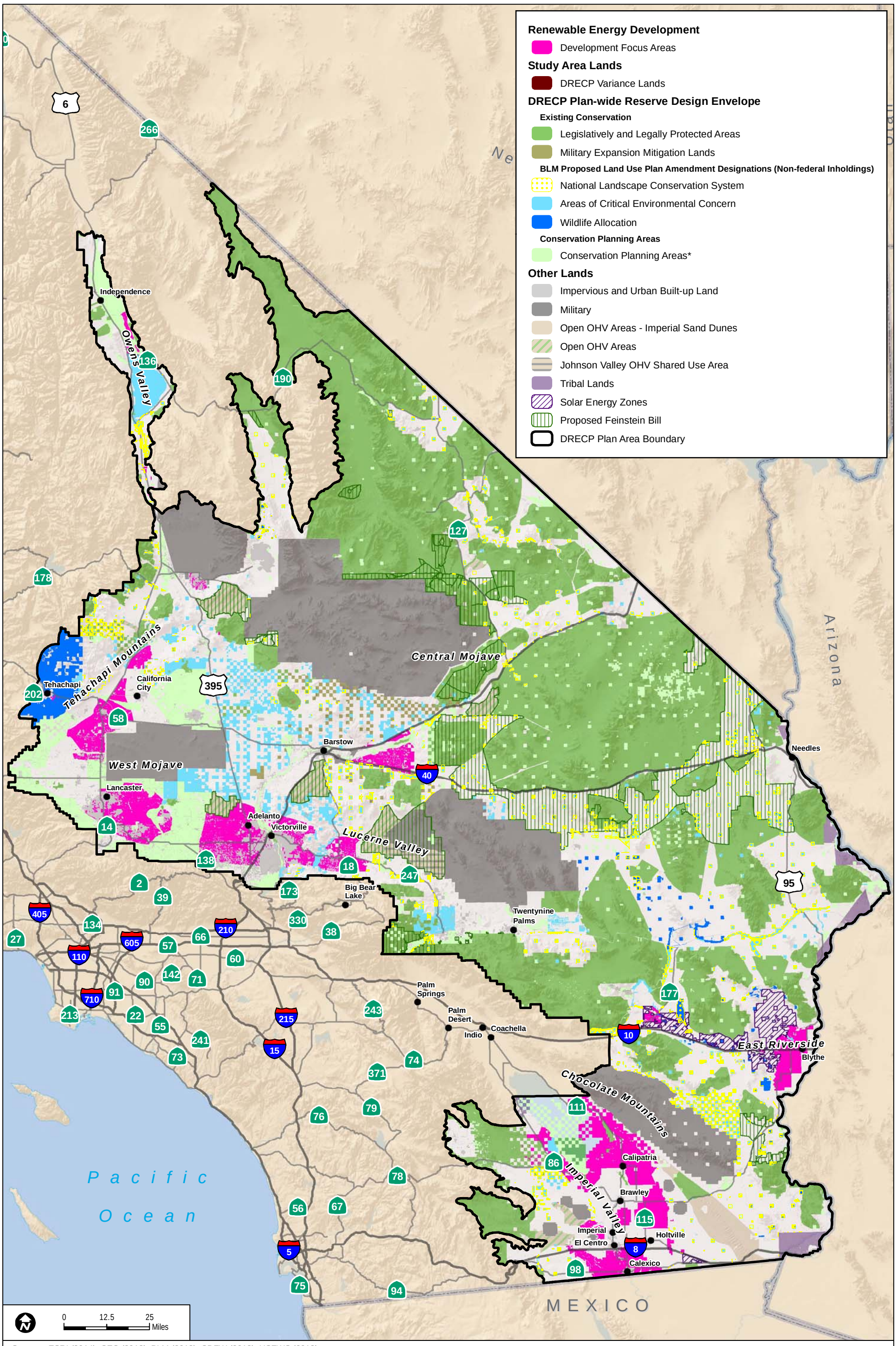

Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

*The portion of the reserve design outside Existing Conservation Areas and BLM LUPA Conservation Designations on private and non-BLM public lands from which reserve areas will be assembled from willing sellers as compensation for Covered Activities.

FIGURE II.4-7

Alternative 1 - General Conservation Plan

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