IV.13 BLM LANDS AND REALTY—LAND USE AUTHORIZATIONS AND LAND TENURE

IV.13.1 Approach to Impact Analysis

Volume III, Chapter III.13, provides the affected environment for Bureau of Land Management (BLM) lands and realty, which includes descriptions of authorized BLM solar and wind energy rights-of-way (ROWs), transmission line corridors, land use authorizations for nonrenewable energy uses, and BLM-designated lands excluded from future renewable energy development.

This chapter assesses potential impacts on these BLM lands from the development of utility-scale renewable energy facilities in the DRECP area through implementation of the Desert Renewable Energy Conservation Plan (DRECP). The Land Use Plan Amendment (LUPA) Decision Area encompasses the DRECP area. Anticipated impacts include conflicts with applicable BLM policies or regulations; conflicts with existing or authorized land uses on BLM land, including exclusion areas; and conservation actions prohibiting existing authorized land uses.

This analysis identifies potential impacts to BLM lands from the No Action Alternative, the Preferred Alternative, and Alternatives 1 through 4. It then compares each alternative with the Preferred Alternative. In particular, this analysis identifies and compares the acreage of BLM land affected and conserved under each alternative. Because this is a programmatic analysis, the impact analysis is based on anticipated general impacts if renewable energy facilities are developed.

IV.13.2 Typical Impacts Common to All Action Alternatives

This section describes typical impacts to BLM lands and realty specifically associated with various renewable energy facilities and infrastructure (solar, wind, geothermal, and transmission) that would be permitted under the DRECP. All the proposed facilities built on BLM lands would exclude most other land uses, resulting in impacts to existing BLM-designated land and other authorized land uses. Therefore, impacts to BLM lands would not vary based solely upon technology type.

IV.13.2.1 Impacts of Renewable Energy and Transmission Development

This overview of impacts is partially based on the timing of renewable energy resource development. Each subsection presents a brief list of common activities associated with the phases of facility development, as presented in Volume II, Section II.3.3.1. Potential impacts to BLM lands and realty would generally be the same for each of the renewable energy

technologies, as well as for transmission. However, solar and wind development may be compatible with some direction drilling or minerals mining underlying a project area.

IV.13.2.1.1 Impacts of Site Characterization

Site preparations for individual projects may include building temporary access roads, erecting meteorological towers, and geotechnical boring or other activities. Typically, impacts during this phase would be temporary and not require large amounts of land. However, construction activities could disrupt existing authorized BLM land uses, prevent access to some locations, or conflict with BLM policies or regulations.

IV.13.2.1.2 Impacts of Construction and Decommissioning

Project construction activities may include ground disturbance (grading and vegetation clearing), excavation, staging area construction, fencing, and temporary drainage. Decommissioning activities may include removing project infrastructure, re-contouring to approximate original contour, and restoring vegetation. Construction and decommissioning activities would likely be temporary but would have the potential to disrupt existing authorized BLM land uses, prevent access to previously available areas, increase traffic and transportation across BLM lands, or conflict with BLM policies or regulations.

IV.13.2.1.3 Impacts of Operations and Maintenance

Project operations and maintenance activities may include energy generation operations, facility cleaning and maintenance, dust suppression, and fire and fuel management. Energy generation development on BLM lands would require long-term land use, which could convert BLM lands to permanent industrial use. Other long-term impacts could include closing to the public areas previously open, closing open trails, and removing BLM lands from use for other nonrenewable-energy activities such as recreation, grazing, or herd management. Maintenance activities would likely be temporary but would potentially disrupt existing authorized BLM land uses or conflict with BLM policies or regulations.

IV.13.2.2 Impacts of the Ecological and Cultural Conservation and Recreation Designations

The Conservation and Management Actions (CMAs) for these conservation lands would generally limit land disturbance and protect resources. In particular, CMAs such as standard practices for siting and design, existing road and utility corridor use, and restoration standards would benefit BLM lands. However, as noted in Volume III, Section III.13.1.1, the Federal Land Policy and Management Act of 1976 establishes BLM policies to develop and manage public lands as well as to protect and enhance them. BLM lands contain numerous designations and existing land use authorizations that may conflict with

the conservation designations and CMAs. For instance, BLM designations may include grazing allotments and herd management areas. Nonrenewable-energy land use authorizations may include roads, pipelines, and communications sites. Conservation actions could also limit existing authorized uses on BLM land, ultimately resulting in the reduction of available area for nonconservation uses.

Because the BLM LUPA land designations would be managed to protect ecological, historic, cultural, scenic, scientific, and recreation resources and values, they would also provide general protection for BLM lands and realty**.** While other land uses are allowed within these areas, those other uses must be compatible with the resources and values that the land designation is intended to protect.

ACEC designations, NLCS lands, and wildlife allocations could limit the expansion of BLM land use authorizations, which could in turn limit available areas for renewable energy development. However, these designations could also be beneficial since disturbance limitations in those areas could also conserve and protect resource values on BLM lands.

The extent to which Special Recreation Management Areas (SRMAs) are designated could increase public access to BLM-authorized lands, which could then lead to increased looting or vandalism. Effective SRMA management may provide limited protections to BLM lands.

Details on allowable uses and management of National Landscape Conservation System (NLCS) lands are provided in the Proposed LUPA description in Volume II. Details on the goals, objectives, allowable uses, and management actions for each ACEC and SRMA are listed in the LUPA worksheets in Appendix L.

IV.13.3 Impact Analysis by Alternative

The following sections present impact analysis for the No Action Alternative, the Preferred Alternative, and Alternatives 1 through 4.

IV.13.3.1 No Action Alternative

IV.13.3.1.1 Impacts of Renewable Energy and Transmission Development

The No Action Alternative assumes the state's renewable energy goals would be achievable without the DRECP and that renewable energy facilities (up to 20,000 megawatts) and transmission facilities, along with mitigation, would continue on a project-by-project basis, consistent with past and ongoing renewable energy and transmission projects.

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

Under the No Action Alternative, existing conservation actions and management programs are assumed to be in place, and BLM would not establish a development program to provide guidance to industry and BLM field staff in the LUPA Decision Area. Table II.2-3 in Volume II, Chapter II.2, provides existing conservation planning documents within the LUPA Decision Area, which includes 11 plans. BLM's planning documents include:

- California Desert Conservation Area (CDCA) Plan, as amended
- Amargosa River ACEC Implementation Plan
- Imperial Sand Dunes Recreational Area Resource Management Plan
- Northern and Eastern Mojave Desert Ecosystem Resource Management Plan
- West Mojave Habitat Conservation Plan

In addition to these plans, BLM participated in preparation of the Flat-Tailed Horned Lizard Rangewide Management Strategy and the Lower Colorado River Multi-Species Conservation Program. These BLM land use plans would remain in effect under this alternative, and individual projects, including a land tenure adjustment, would undergo a policy analysis to ensure there would be no conflicts with applicable BLM policies and regulations.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Volume II, Chapter II.2, describes approximately 2.8 million acres of BLM land in the DRECP area within potential development areas for renewable energy development and transmission infrastructure. Under the No Action Alternative, approximately 1.4 million acres of BLM lands and realty are within the DRECP area and could be either directly or indirectly affected. Table IV.13-1 summarizes the estimated DRECP area that would intersect with BLM's authorized renewable energy ROWs and utility corridors, by ecoregion subarea, for each of the renewable energy technologies. This alternative has the greatest amount of BLM land that could be disturbed by solar and wind energy development.

Nonrenewable energy land use authorizations (not included in the acreage under Table IV.13-1) include roads, telephone lines, transmission lines, water and gas pipelines, communication sites, ditches, railroads, and fiber optic lines. Development of renewable energy facilities and transmission lines could disrupt existing nonrenewable energy land use authorizations. Disruptions could include limited access or restrictions to BLM land uses or disruptions to utility services. Chapter IV.14, BLM Land Designations, Classifications, Allocations, and Lands With Wilderness Characteristics, also addresses

potential impacts to BLM lands, and Chapter IV.19, Transportation and Public Access, addresses impacts to public land access.

Table IV.13-1
Potential Acres of Impacts to BLM Renewable Energy and Utility ROWs by Technology Type by Ecoregion Subarea – No Action Alternative

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Potential Impacts to BLM ROWs by Technology Type (acres)			
		Solar	*Wind*	*Geothermal*	*Transmission*
Cadiz Valley and Chocolate Mountains	257,000	5,000	0	0	5,000
Imperial Borrego Valley	120,000	600	1,000	40	600
Kingston and Funeral Mountains	112,000	3,000	0	0	0
Mojave and Silurian Valley	172,000	0	0	0	800
Owens River Valley	35,000	0	0	0	0
Panamint Death Valley	47,000	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	144,000	30	800	0	100
Piute Valley and Sacramento Mountains	105,000	0	0	0	0
Providence and Bullion Mountains	244,000	3,000	0	0	500
West Mojave and Eastern Slopes	207,000	800	7,000	0	200
Total	**1,443,000**	**12,000**	**9,000**	**40**	**7,000**

The acreage of BLM-authorized renewable energy ROWs and utility corridors may overlap with acreage designated for renewable energy development.
Includes ground-mounted distributed generation.
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

The construction and operation of renewable energy generation may occur on BLM lands with exclusion areas. The following land use plan designations may exclude renewable energy generation ROWs: ACECs, Desert Wildlife Management Areas, NLCS lands,

wilderness and wilderness study areas, grazing allotments, mineral lease areas, withdrawal areas, and recreation lands. If a project site includes one of these designations, BLM determines on a case-by-case basis whether the designated area is excluded from development. Additional exclusion areas could include lands that are cooperatively managed with partner agencies. Coordination between BLM and its partner agencies typically happens during the National Environmental Policy Act (NEPA) planning process. In addition to other federal agencies, partner agencies may include Native American tribes and state and local governments. The scale of an exclusion area therefore ranges from a specific project site to a larger planning area. In addition, as noted in Impact LR-1, existing BLM land use plans would remain in place under this alternative, and individual projects located within an exclusion area would undergo a policy analysis to ensure that they would not conflict with BLM policies and regulations.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

The No Action Alternative does not include conservation actions; therefore, Impact LR-4 does not apply to this alternative. As discussed in Volume II, Chapter II.2, existing protected areas and BLM LUPA conservation designations and multiple-use classes (MUCs) are ongoing. There would be no new BLM conservation designations or locations where mitigation could be assembled to offset the effects of renewable energy or transmission development. The conservation management from renewable energy or transmission development would be based on mitigations defined in existing land use plans and imposed on a project-by-project basis.

Laws and Regulations

In the absence of DRECP implementation, existing laws and regulations would reduce the impacts of renewable energy projects. Relevant regulations are presented in the Regulatory Setting in Volume III. Note that this Environmental Impact Statement (EIS) addresses amendments to BLM's land use plans. Those plans are addressed separately and are not included in this chapter. Impacts would be reduced through the following mechanisms:

- Code of Federal Regulations (CFR), Title 43–Public Lands – Sets regulations and procedures for land resource management, including ROW grants, land classifications, and land tenure.
- Federal Land Policy and Management Act – Establishes public land policy and guidelines for administration and provides for the management, protection, development, and enhancement of public lands.

- Energy Policy Act of 2005 – Authorizes the designation of corridors for oil, gas, and hydrogen pipelines, and electricity transmission and distribution facilities on federal land in the 11 contiguous western states.
- BLM Land Use Plans – Includes conservation plans and resource management plans that provide the framework that guides decisions for every action and approved land use on BLM lands. The following apply to BLM lands in the LUPA Decision Area:
    - CDCA Plan, as amended
    - Caliente Resource Management Plan
    - Bishop Resource Management Plan

Refer to Table II.2-3 for a complete list of the tiered plans that fall under the above plans.

- BLM instruction memorandums either provide new policy or procedural instructions or interpret existing regulations, policies, or instructions; they are used when there is insufficient time to issue a manual release. The instruction memorandums that apply to renewable energy development are described in Volume III, Chapter III.13, BLM Lands and Realty.
- BLM handbooks provide the detailed instructions needed to carry out policy and direction.
- BLM manuals are permanent records of written policies and procedural instructions.
- Programmatic EIS documents for renewable energy development provide numerous design features that would reduce the impacts of renewable energy development, including mitigation measures to identify, avoid, minimize, or mitigate potential land use conflicts on BLM lands.

Typical Mitigation Measures

Mitigation strategies adopted for recently approved projects are assumed to be the same as mitigations that would apply under the No Action Alternative. The following mitigation strategies are consistent with those identified in recently published BLM programmatic documents that evaluate renewable energy development (BLM 2010, 2005) and apply to the avoidance or reduction of impacts to BLM lands and realty, depending on site- and project-specific conditions:

- Coordination with federal, state, and county agencies, tribes, property owners, and other stakeholders should take place as early as possible in the planning process to identify (1) potentially significant land use conflicts and issues, and (2) federal, state, and local laws and regulations that govern renewable energy development.

Significant issues and the potential modifications to either eliminate or mitigate them should be considered in the environmental analysis of the project application.

- Where there are existing BLM land use authorizations within renewable energy development areas, BLM would notify authorization holders that an application might affect their existing authorization. BLM would also request comments from those authorization holders (43 CFR 2807.14). Early discussion with existing land use authorization holders should take place to ensure that any issues are effectively resolved.
- Where a designated transmission corridor is within an area of a proposed renewable energy development project, the need for future transmission capacity in the corridor should be reviewed in a corridor study to determine whether it should be excluded from development or its capacity reduced. Partially relocating the corridor to retain the current planned capacity would also be an option, as well as relocating the proposed project outside the designated corridor.
- Legal access to public lands surrounding renewable energy facilities should be retained to avoid creating areas that are either inaccessible to the public or difficult to manage. The effect on the manageability and use of public lands around the boundaries of renewable energy facilities should also be considered during the environmental analysis of a proposed project.
- Consolidation of access and other supporting infrastructure should be required for single projects and for projects that are close together to maximize the efficient use of public land.

IV.13.3.1.2 Impacts of Ecological and Cultural Conservation and Recreation Designations

Under the No Action Alternative there would be no new conservation and recreation designations, but there would be continued protection under existing Legislatively and Legally Protected Areas, such as wilderness and recreation areas and existing land use plan restrictions. In addition, under the No Action Alternative, renewable energy projects would still be evaluated and approved with project-specific mitigation requirements.

In Volume II, Chapter II.2.1 shows approximately 3 million acres of existing BLM LUPA conservation designations. Table IV.13-2 provides the acres of BLM lands and realty within existing protected areas and BLM conservation designations including authorized renewable energy ROWs, utility corridors, and Section 368 corridors. Under the No Action Alternative, these existing areas and conservation designations will continue to operate under existing conservation programs; however, there would be guidance on where future BLM conservation designations could be established or where mitigation could offset the

effects of renewable energy or transmission development. Because there would be no conservation designations, there would be no impacts on nonrenewable energy land use authorizations. The NEPA process for individual projects would ensure that development on or in the vicinity of BLM conservation lands would be consistent with BLM plans and policies. In addition, the conservation generated from renewable energy or transmission development would be based solely on mitigation requirements and imposed on a project-by-project basis.

Table IV.13-2
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation by Ecoregion Subarea – No Action Alternative

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Protected Areas (acres)	BLM Conservation Designations (acres)	Percent in Conservation
Cadiz Valley and Chocolate Mountains	257,000	29,000	48,000	29.9%
Imperial Borrego Valley	120,000	2,000	700	2.3%
Kingston and Funeral Mountains	112,000	5,000	41,000	40.9%
Mojave and Silurian Valley	172,000	6,000	90,000	55.6%
Owens River Valley	35,000	0	800	2.2%
Panamint Death Valley	47,000	0	3,000	6.1%
Pinto Lucerne Valley and Eastern Slopes	144,000	9,000	32,000	29.0%
Piute Valley and Sacramento Mountains	105,000	5,000	60,000	61.9%
Providence and Bullion Mountains	244,000	27,000	101,000	52.5%
West Mojave and Eastern Slopes	207,000	200	106,000	51.1%
Total	**1,443,000**	**87,000**	**483,000**	**39.2%**

This summary does not reflect project-by-project mitigation generated from renewable energy and transmission development.
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

IV.13.3.1.3 Impacts of Transmission Outside the DRECP Area

Additional transmission lines would be needed to deliver renewable energy to load centers (areas of high demand) outside the DRECP area. New transmission lines outside the DRECP area would presumably use existing transmission corridors between the DRECP area and existing substations. The areas outside the DRECP area through which new transmission lines may pass include the San Diego, Los Angeles, North Palm Springs–Riverside, and Central

Valley areas. There are no renewable energy ROWs on BLM lands near the Central Valley transmission corridor. The other three areas with corridors are described in Volume III, Section III.13.5.

Few BLM lands are in transmission corridors outside the DRECP area, except for the North Palm Springs–Riverside and San Diego areas. In the North Palm Springs–Riverside area, BLM lands run along the transmission corridors east of Devers Substation and immediately west in the San Gorgonio Pass along Interstate 10. A Section 368 BLM-designated corridor (number 30-52) with a width of 10,650 feet parallels this route. Any future transmission project in a Section 368 corridor would require NEPA (but not LUPA) review. For BLM lands without designated corridors, both NEPA and LUPA reviews are required. BLM land use plans and designations may exclude the following land use authorizations: ACECs, Desert Wildlife Management Areas, NLCS lands, wilderness and wilderness study areas, grazing allotments, mineral lease areas, withdrawal areas, and recreation lands. BLM determines exclusions by one of those uses or designations on a case-by-case basis.

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

If a transmission line outside the DRECP area is proposed on BLM land not previously designated as a Section 368 corridor, the proposal could conflict with applicable BLM policies and regulations and require both NEPA and LUPA reviews.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Existing land use authorizations use some BLM lands outside the DRECP area, mostly in the North Palm Springs–Riverside area. Proposed new transmission lines would have to work within the constraints imposed by existing or proposed facilities on these tracts.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

The construction and operation of transmission lines outside the DRECP area are possible on BLM lands with exclusion areas. The following land use plan designations or uses may exclude renewable energy generation ROWs: ACECs, Desert Wildlife Management Areas, NLCS lands, wilderness and wilderness study areas, grazing allotments, mineral lease areas, withdrawal areas, and recreation lands. If a project site includes one of these designations, BLM determines on a case-by-case basis whether the designated area is excluded from development. Additional exclusion areas could include lands cooperatively managed with partner agencies including Native American tribes, state and local governments, and other federal agencies.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

Transmission outside the DRECP area would not be subject to conservation actions currently applicable to or proposed for the DRECP area. This impact would not apply outside the DRECP area. The CDCA Plan amendments would prohibit some actions outside the DRECP area but within the CDCA, such as some of the transmission lines along the Interstate 10 corridor. However, these lines would be within a Section 368 BLM-designated corridor, which is specifically designated for the construction of utilities and would not be subject to restrictions.

IV.13.3.2 Preferred Alternative

IV.13.3.2.1 Impacts of Renewable Energy and Transmission Development

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

Direct impacts to BLM lands and realty would occur if utility-scale renewable energy projects or associated facilities require land tenure adjustments that conflict with existing policies or regulations. The DRECP's BLM LUPA Element was developed to site DFAs in areas that would avoid or minimize conflicts with existing BLM-administered lands. However, in the event that conflicts with BLM policies arise over a specific proposed project, a project-level analysis and mitigation would be required to ensure consistency with all applicable BLM policies and regulations. Impacts would occur if a project does not comply with applicable policies and regulations. However, conflicts may be resolved with existing mitigation strategies that require coordination with federal, state, and county agencies, tribes, property owners, and other stakeholders as early as possible in the planning process to identify potentially significant land use conflicts and issues.

Volume II, Chapter II.3, Figure II.3-1, under the Preferred Alternative, shows the DFAs are predominantly located in the following ecoregion subareas: West Mojave and Eastern Slopes, Imperial Borrego Valley, Cadiz Valley and Chocolate Mountains, and Pinto Lucerne Valley and Eastern Slopes. Table IV.13-3 provides the acreages for potential renewable energy development within authorized BLM ROWs under each ecoregion subarea, by technology type. Over 45,000 acres of potential renewable energy development could conflict with BLM lands and policies. Wind energy development (26,000 acres) would have the greatest potential impacts, followed by solar (13,000 acres), transmission (6,000 acres), and geothermal (800 acres). The majority of these ROWs are within the Providence and Bullion Mountains ecoregion subarea and Cadiz Valley and Chocolate Mountains ecoregion subarea, which would therefore have the greatest potential for conflicts with applicable

policies and regulations. It is likely that project development would require project-level policy analyses to ensure compliance with all applicable policies and regulations.

Table IV.13-3
Potential Acres of Impacts to BLM Renewable Energy and Utility ROWs by Technology Type by Ecoregion Subarea – Preferred Alternative

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Potential Impacts to BLM ROWs by Technology Type (acres)			
		Solar	*Wind*	*Geothermal*	*Transmission*
Cadiz Valley and Chocolate Mountains	261,000	8,000	21,000	0	4,000
Imperial Borrego Valley	122,000	400	10	300	500
Kingston and Funeral Mountains	112,000	0	0	0	0
Mojave and Silurian Valley	173,000	100	0	0	500
Owens River Valley	35,000	300	0	500	100
Panamint Death Valley	46,000	90	0	0	0
Pinto Lucerne Valley and Eastern Slopes	139,000	600	3,000	0	600
Piute Valley and Sacramento Mountains	106,000	0	0	0	0
Providence and Bullion Mountains	269,000	200	0	0	100
West Mojave and Eastern Slopes	207,000	3,000	2,000	0	200
Total	**1,470,000**	**13,000**	**26,000**	**800**	**6,000**

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Development of utility-scale renewable energy facilities may interfere with or require modifications to existing BLM land use authorizations. Each proposed project would be subject, however, to the rights of existing land use authorizations, and BLM may not force changes in its existing authorizations. If the holder of a land use authorization agrees to modify an existing authorization, the energy project developer would be financially responsible for the cost of any modifications. For example, if an existing transmission ROW crossed a proposed renewable project site, the developer of the project would be

financially responsible for rerouting the existing line. Once a renewable energy facility is authorized, the area would be excluded from other land uses that are incompatible with renewable energy facility operations. Due to the potentially large size of utility-scale renewable energy facilities, these exclusions could serve as substantial barriers to other lands uses, close existing open routes (see Chapter IV.19, Transportation and Traffic), and fragment large blocks of public land, creating isolated public land parcels that would be hard to manage. Private and state lands in proximity to renewable energy facilities could also be affected. There is also the potential to sever access routes and adversely affect non-energy uses of other public, state, and private lands. The potential magnitude and nature of these impacts should be considered in supplemental project-specific analyses and associated mitigation. In addition, existing BLM mitigation strategies could be implemented to minimize potential impacts. These strategies would require sending notification to inform land use authorization holders that an application might affect their existing authorization and to request their comments. In addition, strategies could require consolidating access and other supporting infrastructure and retaining legal access to public lands surrounding the renewable energy facilities to avoid creating areas inaccessible to the public.

Table IV.13-3 shows that the majority of potential development on BLM lands and realty would be wind and solar. These two technologies would therefore have the greatest potential for conflicts with existing land use authorizations. Solar energy developments typically occupy a large industrial area that would exclude both existing and potential uses of that land. Solar facilities have a minimum expected lifetime of 30 years, with the opportunity for a lifetime of 50 years or more with equipment replacement and repowering. Similar to solar facilities, geothermal plants require large areas for exploration and drilling, which precludes other land uses. Solar and geothermal facilities therefore create new and discordant long-term land uses in areas that are largely undeveloped and rural. BLM lands and realty within the DRECP area are generally in undeveloped, rural areas. Therefore, the development of solar and geothermal facilities could result in long-term impacts to existing BLM land use authorizations.

Wind facilities also typically occur in undeveloped rural areas. However, wind farms may be compatible with other land uses since they do not require fencing of the entire wind development site. As such, other BLM land uses, such as recreation and grazing, may be authorized on the same site. Similarly, further development of transmission line corridors in the LUPA Decision Area could occur alongside existing linear BLM land use authorizations. Therefore, the permanent conversion or preclusion of existing authorizations would not constitute a long-term impact in a wind energy or transmission development project.

Short-term impacts to existing land use authorizations would occur from construction-related disturbances, on both the project site and adjacent lands. During preconstruction and construction, these short-term impacts could include increased noise, emissions, or dust from construction equipment and degradation of scenic resources due to construction activities or equipment. The same types of nuisance impacts would occur under all three types of renewable energy and transmission development; however, the intensity and duration of those impacts may vary by technology type. Refer to the following chapters for detailed discussions of potential nuisance impacts from DRECP implementation: IV.2, Air Quality; IV.19, Transportation and Public Access; IV.20, Visual Resources; and IV.21, Noise and Vibration.

Nonrenewable energy land use authorizations (not included in the acreage in Table IV.13-1) include roads, transmission lines, telephone lines, water and gas pipelines, communication sites, ditches, railroads, and fiber optic lines. Development of renewable energy facilities and transmission lines could disrupt existing nonrenewable energy land use authorizations. Disruptions could include limited access or preclusions to BLM land uses, or disruptions to utility services. Chapter IV.14, BLM Land Designations, also addresses potential impacts to BLM lands and Chapter IV.19, Transportation and Public Access, addresses impacts to access to public lands.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

Potential exclusion areas would include BLM-designated lands such as ACECs, Desert Wildlife Management Areas, NLCS lands, wilderness and wilderness study areas, grazing allotments, mineral lease areas, and recreation lands. As discussed in Volume II, Chapter II.3, the BLM LUPA component of the Preferred Alternative includes SRMAs, existing and proposed ACECs, NLCS lands, and wildlife allocations. These designations are the mechanism by which conservation will be established on BLM lands under the action alternatives. Therefore, the exclusion areas would be protected under the Preferred Alternative. Development of wind energy facilities and transmission lines could allow for other BLM-designated land uses, but the development of solar and geothermal facilities would require the conversion of BLM land to an industrial use, which could preclude or limit all other land uses. Compliance with BLM regulations and policies for exclusion areas within a DFA would require a policy analysis on a case-by-case basis.

Common CMAs include measures such as the development of a DRECP acquisition priorities program, which would target high-priority conservation properties in the LUPA Decision Area to reserve and seek acquisitions from willing sellers. Management actions would use existing roads and utility corridors as much as possible to minimize the number of new roads and corridors. These measures would help minimize impacts to existing authorized

BLM land uses. In addition, existing BLM mitigation strategies require notification to land use authorization holders to inform them that an application that might affect their existing authorization has been filed and to request the holders' comments.

Impacts of Variance Process Lands

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process). If development of the Variance Process Lands occurred, potential conflicts with existing BLM land use authorizations, plans, and policies would be unlikely considering these lands are based on BLM's screening criteria.

Conservation and Management Actions

The Proposed LUPA implementation would result in the conservation of some desert lands and the development of renewable energy generation and transmission facilities on other lands. The impacts of renewable energy development in the LUPA would be lessened in several ways. First, the LUPA incorporates CMAs for each alternative, including biological components and LUPA components. The implementation of existing laws, orders, regulations, and standards would also reduce the impacts of project development.

The conservation strategy for the Preferred Alternative defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes specific CMAs for the Preferred Alternative. The following are the CMAs presented in Volume II, Section II.3.4.2.1.5:

- LUPA-LANDS-1: Identify donated or acquired lands as exclusion areas when development is incompatible with the purpose of the acquisition.
- LUPA-LANDS-2: Prioritize acquisition of land within and adjacent to conservation designation allocations. Acquired land in any land use allocation in this Plan would be managed according to the applicable allocation requirements and/or for the purposes of the acquisition. Management boundaries for the allocation may be adjusted to include the acquired land if the acquisition lies outside the allocation area through a future land use plan amendment process.
- LUPA-LANDS-3: Within land use allocations where renewable energy and ancillary facilities are not allowed, an exception exists for geothermal development.

Geothermal development would be an allowable use if a geothermal-only DFA overlays the allocation and the lease includes a no surface occupancy stipulation.

- LUPA-LANDS-4: Non-federal lands within the boundaries of BLM LUPA land use allocations are not affected by the Plan
- LUPA-LANDS-5: The MUCs used to determine land tenure in the CDCA Plan will be replaced by areas listed in the CMAs below.
- LUPA-LANDS-6: Any activities on Catellus Agreement lands will be consistent with deed restrictions.
- LUPA-LANDS-7: Any activities on Catellus Agreement lands will be subject to the approval of the California State Director.

Exchanges with the State of California

- LUPA-LANDS-8: Continue land exchanges with the State of California as described in the CDCA Plan in the Goals and Objectives section above.
- LUPA-LANDS-9: Enter into land exchanges with the California State Lands Commission (CSLC) which convey BLM lands suitable for, or developed as, large-scale renewable energy related projects in exchange for CSLC school lands located in and adjacent to designated conservation areas. These exchanges will follow the procedures outlined in Memorandum of Agreement Relating to Land Exchanges to Consolidate Land Parcels signed by the BLM and CSLC on May 21, 2012.
- LUPA-LANDS-10: Prioritize land exchange proposals from the CSLC on available lands if there are competing land tenure proposals (e.g. land sale or exchange), CSLC proposals that enhance revenues for schools will generally be given priority.

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of the Proposed LUPA and its implementation. Relevant regulations are presented in the Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized for the No Action Alternative in Section IV.13.3.1.1.1.

IV.13.3.2.2 Impacts of Ecological and Cultural Conservation and Recreation Designations

The impacts of the conservation designations on BLM lands and realty are discussed under Impact LR-4. In summary, it is likely that proposed conservation lands on BLM lands would result in extensive overlaps with renewable energy and nonrenewable energy BLM land use authorizations. This is more likely to occur in the more populated areas where there

are conservation designated lands, in particular the areas along major interstate highways. However, the measures associated with the CMAs would reduce potential conflicts with existing land use authorizations.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

BLM land within the ecological conservation designation under the Preferred Alternative includes (1) approximately 3.3 million acres of existing BLM conservation lands, and (2) over 5.2 million acres under the proposed BLM LUPA conservation designations.

In addition to renewable energy ROWs and transmission lines, major BLM land use authorizations include roads, highways, telephone lines, leases for recreation and other public purposes, oil and gas facilities, water and gas pipelines, water facilities, communication sites, ditches, railroads, and fiber optic lines. The ecological conservation designations would increase the acreage of existing conservation by over 5 million acres, which would then overlap with BLM land use authorizations. Table IV.13-4 shows the acreage of authorized wind and solar ROWs (which consist of existing and planned ROWs) within the existing conservation areas. Considering that nonrenewable energy land use authorizations typically consist of required infrastructure (e.g. roads, utility lines), it is therefore likely that there would be extensive overlaps between the proposed conservation actions and nonrenewable-energy BLM land use authorizations. Overlaps are more likely to occur in the more populated areas of the conservation designations, in particular, areas along major interstate highways.

Table IV.13-4
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designations by Ecoregion Subarea – Preferred Alternative

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)[†]	Percent in Conservation
Cadiz Valley and Chocolate Mountains	261,000	34,000	151,000	70.8
Imperial Borrego Valley	122,000	2,000	49,000	42.1
Kingston and Funeral Mountains	112,000	5,000	94,000	88.3
Mojave and Silurian Valley	173,000	21,000	128,000	86.3
Owens River Valley	35,000	0	18,000	51.0
Panamint Death Valley	46,000	0	34,000	73.2
Pinto Lucerne Valley and Eastern Slopes	139,000	10,000	83,000	66.8
Piute Valley and Sacramento Mountains	106,000	5,000	77,000	78.0
Providence and Bullion Mountains	269,000	29,000	231,000	96.4

Table IV.13-4
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designations by Ecoregion Subarea – Preferred Alternative

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)†	Percent in Conservation
West Mojave and Eastern Slopes	207,000	200	156,000	75.4
Total	**1,470,000**	**107,000**	**1,020,000**	**76.7**

BLM Conservation Lands include Proposed NLCS, Existing and Proposed ACEC, and wildlife allocations and excludes LLPAs
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

IV.13.3.2.3 Impacts of Transmission Outside the DRECP Area

The impacts of transmission outside the DRECP area on BLM lands and realty would be the same under all alternatives. These impacts are as described for the No Action Alternative in Section IV.13.3.1.3, Impacts of Existing BLM Land Use Plans Outside the DRECP area.

IV.13.3.2.4 Comparison of the Preferred Alternative With No Action Alternative

The Preferred Alternative consists of approximately 388,000 acres of BLM land within the DFAs, 40,000 acres within Variance Process Lands, and approximately over 5.2 million acres of land within the LUPA conservation designations. Under the No Action Alternative, potential development areas total approximately 2.8 million acres and existing protected areas total 7.5 million acres. Therefore, potential impacts to BLM lands from renewable energy development under the Preferred Alternative would decrease compared with the current system of renewable energy development within the LUPA Decision Area: Fewer areas would be available for development. However, the increase in conservation areas on BLM lands may require land use planning efforts, which may include amendments to established BLM policies and regulations (in addition to the BLM LUPA, proposed in the DRECP) and potential land tenure adjustments. In addition, the establishment of conservation areas may restrict BLM-managed land use activities such as recreation, livestock grazing, and mining.

Table IV.13-3 outlines the acreage of potential renewable energy development by technology under the Preferred Alternative. The vast majority of potential impacts to BLM lands and realty would be from the development of wind (26,000 acres) and solar energy generation (13,000 acres of disturbance). As shown in Table IV.13-1, under the No Action

Alternative, potential impacts to BLM lands would also be greatest with wind and solar development, though wind energy would be less (9,000 acres).

IV.13.3.3 Alternative 1

IV.13.3.3.1 Impacts of Renewable Energy and Transmission Development

The types of impacts to BLM lands and realty would be the same as discussed under the Preferred Alternative (Section IV.13.3.2.1); however, the amount of land affected in the LUPA Decision Area would differ under this alternative.

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

Direct impacts to BLM lands and realty would occur if utility-scale renewable energy projects or associated facilities would require land tenure adjustments, which would include the acquisition, lease, exchange, or disposal of BLM lands. For each proposed development, a project-level analysis and associated mitigation would be required to ensure consistency with all applicable BLM policies and regulations.

As shown in Volume II, Figure II.4-1, under Alternative 1 the DFAs are predominantly in the following ecoregion subareas: West Mojave and Eastern Slopes, Imperial Borrego Valley, Cadiz Valley and Chocolate Mountains, and Pinto Lucerne Valley and Eastern Slopes. Table IV.13-5 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by renewable energy technology type and shows an approximate 11,000 acres of potential impacts from solar, wind, geothermal, and transmission development. Solar energy development would consist of 5,000 acres and have the greatest potential for impacts. Transmission would consist of 5,000 acres, wind energy development would consist of over 800 acres, and geothermal development would have the least potential for impact with 50 acres. The majority of these ROWs are within the following ecoregion subareas: Cadiz Valley and Chocolate Mountains, Owens River Valley, and Pinto Lucerne Valley and Eastern Slopes. Development on BLM lands and realty would therefore have the greatest potential for conflicts with applicable policies and regulations within those ecoregion subareas, and it is likely that continued development would require project-level policy analyses to ensure compliance with all applicable policies and regulations.

Table IV.13-5
Potential Acres of Impacts to BLM Renewable Energy and Utility ROWs by Technology Type, by Ecoregion Subarea – Alternative 1

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Potential Impacts to BLM ROWs by Technology Type (acres)			
		Solar	*Wind*	*Geothermal*	*Transmission*
Cadiz Valley and Chocolate Mountains	257,000	2,000	500	0	2,000
Imperial Borrego Valley	120,000	30	0	50	700
Kingston and Funeral Mountains	112,000	0	0	0	0
Mojave and Silurian Valley	172,000	0	0	0	600
Owens River Valley	35,000	2,000	0	0	700
Panamint Death Valley	47,000	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	144,000	500	300	0	900
Piute Valley and Sacramento Mountains	105,000	0	0	0	0
Providence and Bullion Mountains	244,000	10	0	0	200
West Mojave and Eastern Slopes	207,000	300	0	0	200
Total	**1,443,000**	**5,000**	**800**	**50**	**5,000**

The acreage of BLM-authorized renewable energy ROWs and utility corridors overlap with acreage designated for renewable energy development
Includes ground-mounted distributed generation
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Development of utility-scale renewable energy facilities may interfere with or require a modification to an existing BLM land use authorization. The impacts associated with the type of renewable energy technology would be the same as discussed in the Preferred Alternative. The majority of impacts under Alternative 1 would be a result of solar and transmission development, however, as opposed to the solar and wind energy development under the Preferred Alternative.

Table IV.13-5 shows that the majority of potential development on BLM lands and realty consists of solar energy generation and transmission development; these would therefore have the greatest potential for conflicts with existing land use authorizations. Potential short- and long-term impacts would be the same as discussed under the Preferred Alternative, with the exception of geothermal development. Table IV.13-5 shows that under the alternative 50 acres of geothermal development would occur on BLM lands. Therefore, the potential for impacts as a result of geothermal development would be negligible under Alternative 1.

Under Alternative 1, the potential impacts associated with nonrenewable energy land use authorizations would be the same as under the Preferred Alternative.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

Potential conflicts with existing exclusion areas under Alternative 1 would be the same as under the Preferred Alternative. Compliance with BLM regulations and policies for exclusion areas within a DFA would require policy analysis on a case-by-case basis.

Variance Process Lands

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process). If development of the Variance Process Lands occurred, potential conflicts with existing BLM land use authorizations, plans, and policies would be unlikely considering these lands are based on BLM's screening criteria.

Conservation and Management Actions

The Proposed LUPA implementation would result in conservation of some desert lands as well as the development of renewable energy generation and transmission facilities on other lands. The impacts of renewable energy development would be lessened in several ways. First, the LUPA incorporates CMAs for each alternative, including biological components and LUPA components. Implementation of existing laws, orders, regulations, and standards would also reduce the impacts of project development The conservation strategy for Alternative 1 (see Volume II, Section II.4.4) defines specific actions to reduce the impacts of this alternative. CMAs for lands and realty would be the same as in the Preferred Alternative, except for land exchanges and land sales, described below.

NLCS

- Make lands within National Conservation Lands available for exchange in accordance with the CMAs outlined for National Conservation Lands in Section II.3.2.1.
- Make lands within National Conservation Lands unavailable for disposal.

ACECs

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

Wildlife Allocations

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

SRMAs

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

DFAs and Variance Process Lands

- 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 Variance Process Lands, make lands unavailable for sale or exchange.

Unallocated

- In unallocated lands, make lands available for disposal through exchange or land sale.

IV.13.3.3.2 Impacts of Ecological and Cultural Conservation and Recreation Designations

Impacts to BLM lands and realty from designated conservation lands are discussed in the analysis in Impact LR-4.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

BLM land within the conservation designations under Alternative 1 is as follows: 3.2 million acres of existing BLM conservation lands and nearly 5 million acres under the Proposed BLM LUPA conservation designations for a total of over 8.1 million acres.

The conservation designation would increase the acreage of existing BLM land in conservation by approximately 5.1 million acres, which would overlap with BLM land use authorizations. As shown in Table IV.13-6, the acreage of authorized wind and solar ROWs (which consist of existing and planned ROWs) within the conservation designation is 97,000 acres within existing conservation areas. Therefore, considering the extensive acreage of existing renewable energy ROWs, it is likely that there would also be overlaps with nonrenewable energy BLM land use authorizations. Potential conflicts could be resolved with measures that are part of the CMAs.

Table IV.13-6
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designation Lands by Ecoregion Subarea – Alternative 1

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Percent in Conservation
Cadiz Valley and Chocolate Mountains	257,000	29,000	155,000	0	71.4%
Imperial Borrego Valley	120,000	2,000	41,000	0	35.6%
Kingston and Funeral Mountains	112,000	5,000	94,000	0	88.5%
Mojave and Silurian Valley	172,000	20,000	102,000	0	71.0%
Owens River Valley	35,000	0	16,000	0	45.1%
Panamint Death Valley	47,000	0	32,000	0	69.3%
Pinto Lucerne Valley and Eastern Slopes	144,000	9,000	78,000	0	60.9%
Piute Valley and Sacramento Mountains	105,000	5,000	68,000	0	69.3%
Providence and Bullion Mountains	244,000	27,000	178,000	0	83.9%
West Mojave and Eastern Slopes	207,000	200	149,000	0	71.8%
Total	**1,443,000**	**97,000**	**912,000**	**0**	**69.9%**

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

IV.13.3.3.3 Impacts of Transmission Outside the DRECP Area

The impacts of transmission outside the DRECP area on BLM lands and realty would be the same under all alternatives. These impacts are as described for the No Action Alternative in Section IV.13.3.1.3.

IV.13.3.3.4 Comparison of Alternative 1 With Preferred Alternative

Alternative 1 would result in 81,000 acres within the DFAs. The Preferred Alternative consists of approximately 388,000 acres of BLM land within the DFAs. Therefore, compared with the Preferred Alternative, Alternative 1 has fewer acres available for renewable energy development. Under Alternative 1, potential impacts to BLM lands associated with renewable energy development would therefore be less than under the Preferred Alternative.

For Alternative 1, Table IV.13-5 provides the acreage of potential impacts to BLM renewable energy ROWs within each ecoregion subarea, by type of renewable energy technology. The total is nearly 11,000 acres of potential impacts from solar, wind, geothermal, and transmission development. Solar energy development would consist of 5,000 acres and would have the greatest potential for impacts, transmission would consist of 5,000 acres, wind would consist of over 800 acres, and geothermal development would have the least potential for impacts with 50 acres.

For the Preferred Alternative, Table IV.13-3 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea, by renewable energy technology type. The total acreage is over 45,000 acres of potential impacts from solar, wind, geothermal, and transmission development. Wind energy development would consist of 26,000 acres and have the greatest potential for impacts, solar would consist of 13,000 acres, transmission would consist of 6,000 acres, and geothermal would have the least potential impacts with 800 acres.

Based on a comparison of Table IV.13-5 and Table IV.13-3, the potential for impacts to BLM lands and realty would be approximately 11, 000 acres under Alternative 1 and approximately 45,000 acres under the Preferred Alternative. Therefore, the acreage of potential impacts would be larger under the Preferred Alternative.

Under Alternative 1, the majority of potential impacts to BLM lands and realty would be within the following ecoregion subareas: Cadiz Valley and Chocolate Mountains, Mojave and Silurian Valley, and Pinto Lucerne Valley and Eastern Slopes. Under the Preferred Alternative, the majority of potential development would be within the Cadiz Valley and Chocolate Mountains ecoregion subarea. Therefore, under Alternative 1, impacts to BLM lands and realty would be spread over multiple ecoregion subareas, whereas under the

Preferred Alternative, the bulk of impacts would be concentrated in the Cadiz Valley and Chocolate Mountains ecoregion subarea.

IV.13.3.4 Alternative 2

IV.13.3.4.1 Impacts of Renewable Energy and Transmission Development

The types of impacts to BLM lands and realty would be the same as discussed under the Preferred Alternative (Section IV.13.3.2.1); however, the amount of land affected in the LUPA Decision Area would differ under this alternative.

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

Direct impacts to BLM lands and realty would occur if utility-scale renewable energy projects or associated facilities would require land tenure adjustments, which would include the acquisition, lease, exchange, or disposal of BLM lands. For each proposed development, a project-level analysis would be required to ensure consistency with all applicable BLM policies and regulations. Impacts would occur if the project would not comply with the applicable policies and regulations. However, conflicts may be resolved with existing mitigation strategies that require compliance specifically for inconsistencies applicable to the proposed development.

As shown in Volume II, Figure II.5-1, under Alternative 2 the DFAs are predominantly in the following ecoregion subareas: West Mojave and Eastern Slopes, Imperial Borrego Valley, Cadiz Valley and Chocolate Mountains, and Pinto Lucerne Valley and Eastern Slopes. In Volume II, Section II.5.1.3, Exhibit II.5-2 shows that within the DFAs BLM land ownership is greatest in the following ecoregion subareas: Cadiz Valley and Chocolate Mountains, Imperial Borrego Valley, and West Mojave and Eastern Slopes. Table IV.13-7 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by the type of renewable energy technology. The total is nearly 66,000 acres of impacts from solar, wind, geothermal, and transmission development. Wind consists of over 46,000 acres and would have the greatest potential for impacts, solar consists of 12,000 acres, transmission consists of 7,000 acres, and geothermal development would impact 700 acres of development. The majority of potential development would occur within the following ecoregion subareas: Cadiz Valley and Chocolate Mountains, Pinto Lucerne Valley and Eastern Slopes, and West Mojave and Eastern Slopes. As such, development on BLM lands and realty would have the greatest potential for conflicts with applicable policies and regulations within those ecoregion subareas. It is likely that continued development would require project-level policy analyses to ensure compliance with all applicable policies and regulations.

Table IV.13-7
Potential Acres of Impacts to BLM Renewable Energy and Utility ROWs by Technology Type, by Ecoregion Subarea – Alternative 2

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Potential Impacts to BLM ROWs by Technology Type (acres)			
		Solar	*Wind*	*Geothermal*	*Transmission*
Cadiz Valley and Chocolate Mountains	257,000	4,000	20,000	0	2,000
Imperial Borrego Valley	120,000	2,000	14,000	300	900
Kingston and Funeral Mountains	112,000	80	400	0	500
Mojave and Silurian Valley	172,000	200	800	0	600
Owens River Valley	35,000	200	0	400	300
Panamint Death Valley	47,000	30	50	0	30
Pinto Lucerne Valley and Eastern Slopes	144,000	900	6,000	0	2,000
Piute Valley and Sacramento Mountains	105,000	0	0	0	0
Providence and Bullion Mountains	244,000	300	4,000	0	500
West Mojave and Eastern Slopes	207,000	5,000	700	0	100
Total	**1,443,000**	**12,000**	**46,000**	**700**	**7,000**

The acreage of BLM lands include authorized renewable energy ROWs and utility corridors may overlap with acreage designated for renewable energy development
Includes ground-mounted distributed generation
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Development of utility-scale renewable energy facilities may interfere with or require a modification to an existing BLM land use authorization. The impacts associated with the type of renewable energy technology would be the same as discussed under the Preferred Alternative.

Table IV.13-7 shows that the majority of potential development of BLM lands and realty consists of wind and solar, which indicates that the development of wind and solar energy generation would also have the greatest potential for conflicts with existing land use authorizations. The potential short- and long-term impacts associated with each technology would be the same as discussed under the Preferred Alternative.

Under Alternative 2, the potential impacts associated with nonrenewable energy land use authorizations would be the same as the Preferred Alternative.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

Potential conflicts with existing exclusion areas under Alternative 2 would be the same as discussed under the Preferred Alternative. Compliance with BLM regulations and policies for exclusion areas within a DFA would require a policy analysis on a case-by-case basis.

Variance Process Lands

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process). If development of the Variance Process Lands occurred, potential conflicts with existing BLM land use authorizations, plans, and policies would be unlikely considering these lands are based on BLM's screening criteria.

Conservation and Management Actions

The Proposed LUPA implementation would result in conservation of some desert lands as well as the development of renewable energy generation and transmission facilities on other lands. The impacts of the renewable energy development covered by the LUPA would be lessened in several ways. First, the LUPA incorporates CMAs for each alternative, including biological components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development.

The conservation strategy for Alternative 2 (see Volume II, Section II.5.4) defines specific actions that would reduce the impacts of this alternative. CMAs for lands and realty would be the same as in the Preferred Alternative, except for land exchanges and land sales, as described below.

<u>NLCS</u>

- Make lands within National Conservation Lands available for exchange, purchase, or donation in accordance with the CMAs outlined for National Conservation Lands in Section II.3.2.1.

- Make lands within National Conservation Lands unavailable for disposal.

ACEC

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

Wildlife Allocations

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

SRMA

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

DFAs and Variance Process Lands

- 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 Variance Process Lands, make lands available for sale or exchange.

Unallocated

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

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of the Proposed LUPA implementation. Relevant regulations are presented in the Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized for the No Action Alternative in Section IV.13.3.1.1.

IV.13.3.4.2 Impacts of Ecological and Cultural Conservation and Recreation Designations

Impacts to BLM lands and realty from designated conservation lands are discussed in the analysis in Impact LR-4.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

BLM land within the conservation designation under Alternative 2 is as follows: 3.2 million acres of existing BLM conservation lands and over 5.6 million acres under the proposed BLM LUPA conservation designations.

This increase in BLM land in conservation would overlap with BLM land use authorizations. As shown in Table IV.13-8, the total of authorized BLM ROWs (which consist of existing and planned ROWs) within the conservation designation is 97,000 acres within existing conservation areas. Therefore, considering the extensive acreage of existing renewable energy ROWs, it is likely that there would also be extensive overlaps with nonrenewable energy BLM land use authorizations. Potential conflicts could be resolved with measures that are part of the CMAs.

Table IV.13-8
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designation Lands by Ecoregion Subarea – Alternative 2

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Percent in Conservation
Cadiz Valley and Chocolate Mountains	257,000	29,000	154,000	0	71.1%
Imperial Borrego Valley	120,000	2,000	44,000	0	38.2%
Kingston and Funeral Mountains	112,000	5,000	97,000	0	91.8%
Mojave and Silurian Valley	172,000	20,000	137,000	0	91.2%
Owens River Valley	35,000	0	16,000	0	47.5%
Panamint Death Valley	47,000	0	34,000	0	71.9%
Pinto Lucerne Valley and Eastern Slopes	144,000	9,000	75,000	0	58.5%
Piute Valley and Sacramento Mountains	105,000	5,000	93,000	0	93.1%
Providence and Bullion Mountains	244,000	27,000	192,000	0	89.5%
West Mojave and Eastern Slopes	207,000	200	130,000	0	62.9%
Total	**1,443,000**	**97,000**	**972,000**	**0**	**74.1%**

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

IV.13.3.4.3 Impacts of Transmission Outside the DRECP Area

The impacts of transmission outside the DRECP area on BLM lands and realty would be the same under all alternatives. These impacts are described for the No Action Alternative in Section IV.13.3.1.3.

IV.13.3.4.4 Comparison of Alternative 2 With Preferred Alternative

Alternative 2 would result in over 718,000 acres of land within the DFAs, which would include BLM lands. The Preferred Alternative consists of approximately 388,000 acres of land within the DFAs, including BLM lands. Therefore, compared with the Preferred Alternative, Alternative 2 would have more acres designated for renewable energy development. As such, under Alternative 2, potential impacts to BLM lands associated with renewable energy development would greater than under the Preferred Alternative.

For Alternative 2, Table IV.13-7 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea, by type of renewable energy technology. The total is nearly 66,000 acres of impacts from solar, wind, geothermal, and transmission development. Wind consists of over 46,000 acres and would have the greatest potential for impacts, solar consists of 12,000 acres, transmission consists of 7,000 acres, and geothermal development would have the least potential for impacts with 700 acres.

For the Preferred Alternative, Table IV.13-3 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by type of renewable energy technology. The total is over 45,000 acres of potential impacts from solar, wind, geothermal, and transmission development. Wind would consist of 26,000 acres and have the greatest potential for impacts, solar would consist of 13,000 acres, transmission would consist of 6,000 acres, and geothermal development would have the least potential for impact with 800 acres.

Based on a comparison of Table IV.13-7 and Table IV.13-3, the potential for impacts to BLM lands and realty would be approximately 66,000 acres under Alternative 2 and approximately 39,000 acres under the Preferred Alternative. Therefore, the acreage of potential impacts would be greater under Alternative 2.

Under Alternative 2, the majority of potential development would occur within the following ecoregion subareas: Cadiz Valley and Chocolate Mountains, Pinto Lucerne Valley and Eastern Slopes, and West Mojave and Eastern Slopes. Under the Preferred Alternative, the majority of potential development would be within the Cadiz Valley and Chocolate

Mountains ecoregion subarea. Therefore, under both alternatives, impacts to BLM lands and realty would be spread over multiple ecoregion subareas.

IV.13.3.5 Alternative 3

IV.13.3.5.1 Impacts of Renewable Energy and Transmission Development: Alternative 3

The types of impacts to BLM lands and realty would be the same as discussed under the Preferred Alternative (Section IV.13.3.2.1); however, the amount of land affected in the LUPA Decision Area would differ under this alternative.

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

Direct impacts to BLM lands and realty would occur if utility-scale renewable energy projects or associated facilities would require land tenure adjustments, which would include the acquisition, lease, exchange, or disposal of BLM lands. For each proposed development, a project-level analysis would be required to ensure consistency with all applicable BLM policies and regulations. Impacts would occur if the project would not comply with the applicable policies and regulations. However, conflicts may be resolved with mitigation measures resulting from supplemental project-specific analyses that require compliance specifically for the inconsistencies applicable to the proposed development.

As shown in Volume II, Figure II.6-1, under Alternative 3 the DFAs are predominantly in the following ecoregion subareas: West Mojave and Eastern Slopes, Imperial Borrego Valley, Cadiz Valley and Chocolate Mountains, and Pinto Lucerne Valley and Eastern Slopes. Table IV.13-9 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by the type of renewable energy technology. The total is nearly 18,000 acres of impacts from solar, wind, geothermal, and transmission development. Solar energy development consists of over 7,000 acres and would have the greatest potential for impacts, wind and transmission would each consist of over 5,000 acres, and geothermal development would have the least potential for impact with 900 acres. The majority of potential development would occur within the Cadiz Valley and Chocolate Mountains and the Pinto Lucerne Valley and Eastern Slopes ecoregion subareas. As such, development on BLM lands and realty would have the greatest potential for conflicts with applicable policies and regulations within those ecoregion subareas. It is likely that continued development would require project-level policy analyses to ensure compliance with all applicable policies and regulations.

Table IV.13-9
Potential Acres of Impacts to BLM Renewable Energy and Utility ROWs by Technology Type, by Ecoregion Subarea – Alternative 3

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Potential Impacts to BLM ROWs by Technology Type (acres)			
		Solar	*Wind*	*Geothermal*	*Transmission*
Cadiz Valley and Chocolate Mountains	257,000	5,000	3,000	0	2,000
Imperial Borrego Valley	120,000	600	40	400	600
Kingston and Funeral Mountains	112,000	0	0	0	0
Mojave and Silurian Valley	172,000	200	0	0	400
Owens River Valley	35,000	500	0	500	300
Panamint Death Valley	47,000	80	0	0	500
Pinto Lucerne Valley and Eastern Slopes	144,000	700	2,000	0	1,000
Piute Valley and Sacramento Mountains	105,000	0	0	0	0
Providence and Bullion Mountains	244,000	400	0	0	300
West Mojave and Eastern Slopes	207,000	300	50	0	300
Total	**1,444,000**	**7,000**	**5,000**	**900**	**5,000**

The acreage of BLM lands include authorized renewable energy ROWs and utility corridors overlap with acreage designated for renewable energy development
Includes ground-mounted distributed generation
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Development of utility-scale renewable energy facilities may interfere with or require modification to an existing BLM land use authorization. The impacts associated with the type of renewable energy technology would be the same as discussed under the Preferred Alternative.

Table IV.13-9 shows that the majority of potential development on BLM lands consists of wind, solar, and transmission facilities; these would therefore have the greatest potential for conflicts with existing land use authorizations. The potential short- and long-term

impacts associated with each technology would be the same as discussed under the Preferred Alternative.

Under Alternative 3, the potential impacts associated with nonrenewable energy land use authorizations would be the same as under the Preferred Alternative.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

Potential conflicts with existing exclusion areas under Alternative 3 would be the same as under the Preferred Alternative. Compliance with BLM regulations and policies for exclusion areas within a DFA would require a policy analysis on a case-by-case basis.

Variance Process Lands

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process). If development of the Variance Process Lands occurred, potential conflicts with existing BLM land use authorizations, plans, and policies would be unlikely considering these lands are based on BLM's screening criteria.

Conservation and Management Actions

The Proposed LUPA implementation would result in conservation of some desert lands as well as the development of renewable energy generation and transmission facilities on other lands. The impacts of the renewable energy development covered by the LUPA would be lessened in several ways. First, the LUPA incorporates CMAs for each alternative, including biological components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development.

The conservation strategy for Alternative 3 (see Volume II, Section II.6.4) defines specific actions that would reduce the impacts of this alternative. CMAs for lands and realty would be the same as in the Preferred Alternative, except for land exchanges and land sales, as described below.

NLCS

- Make available for exchange, purchase, or donation in accordance with the CMAs outlined for National Conservation Lands in Section II.3.2.1.
- Make lands in National Conservation Lands unavailable for disposal.

ACEC

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

Wildlife Allocations

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

SRMA

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

DFAs and Variance Process Lands

- 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 Variance Process Lands, acquire lands through exchange, purchase, or donation.
- In Variance Process Lands, make lands unavailable for disposal.

Unallocated

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

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of the Proposed LUPA implementation. Relevant regulations are presented in the Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized for the No Action Alternative in Section IV.13.3.1.1.

IV.13.3.5.2 Impacts of Ecological and Cultural Conservation and Recreation Designations

Impacts to BLM lands and realty from designated conservation lands are discussed in the analysis in Impact LR-4.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

BLM land within conservation under Alternative 3 is as follows: 3.2 million acres of existing BLM conservation lands and over 5.2 million acres under the proposed BLM LUPA conservation designations.

Alternative 3 would increase the acreage of existing BLM land in conservation by approximately 5.2 million acres, which would overlap with BLM land use authorizations. As shown in Table IV.13-10, the acreage of authorized BLM ROWs (which consist of existing and planned ROWs) within the conservation designation under Alternative 3 is 97,000 acres within existing conservation areas and over 1 million acres would be within the proposed BLM LUPA conservation designations. Therefore, considering the extensive acreage of existing renewable energy ROWs, it is likely that there would also be extensive overlaps with nonrenewable energy BLM land use authorizations.

Table IV.13-10
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designation Lands by Ecoregion Subarea – Alternative 3

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Percent in Conservation
Cadiz Valley and Chocolate Mountains	257,000	29,000	154,000	0	71.0%
Imperial Borrego Valley	120,000	2,000	55,000	0	47.3%
Kingston and Funeral Mountains	112,000	5,000	94,000	0	88.5%
Mojave and Silurian Valley	172,000	20,000	118,000	0	80.2%
Owens River Valley	35,000	0	16,000	0	47.3%
Panamint Death Valley	47,000	0	32,000	0	69.3%
Pinto Lucerne Valley and Eastern Slopes	144,000	9,000	76,000	0	59.4%
Piute Valley and Sacramento Mountains	105,000	5,000	68,000	0	69.3%

Table IV.13-10
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designation Lands by Ecoregion Subarea – Alternative 3

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Percent in Conservation
Providence and Bullion Mountains	244,000	27,000	191,000	0	89.2%
West Mojave and Eastern Slopes	207,000	200	149,000	0	71.8%
Total	**1,444,000**	**97,000**	**953,000**	**0**	**72.8%**

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

IV.13.3.5.3 Impacts of Transmission Outside the DRECP Area

The impacts of transmission outside the DRECP area on BLM lands and realty would be the same under all alternatives. These impacts are as described for the No Action Alternative in Section IV.13.3.1.3.

IV.13.3.5.4 Comparison of Alternative 3 With Preferred Alternative

Alternative 3 would result in a total of approximately 211,000 acres of land within the DFAs, which would include BLM lands. The Preferred Alternative consists of approximately 388,000 acres of land within the DFAs, including BLM lands. Therefore, compared with the Preferred Alternative, the amount of acreage designated for renewable energy development is less in Alternative 3. Under Alternative 3, potential impacts to BLM lands associated with renewable energy development would therefore be fewer under the Preferred Alternative.

For Alternative 3, Table IV.13-9 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea, by type of renewable energy technology. The total is nearly 18,000 acres of impacts from solar, wind, geothermal, and transmission development. Solar consists of over 7,000 acres and would have the greatest potential for impacts, wind and transmission would each consist of over 5,000 acres, and geothermal would have the least potential for impacts with 900 acres.

For the Preferred Alternative, Table IV.13-3 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by type of renewable energy technology. The

total acreage is over 45,000 acres of potential impacts from solar, wind, geothermal, and transmission development. Wind would consist of 26,000 acres and have the greatest potential for impacts, solar would consist of 13,000 acres, transmission would consist of 6,000 acres, and geothermal would have the least potential for impacts with 800 acres. Based on a comparison of Table IV.13-9 and Table IV.13-3, the potential for impacts to BLM lands and realty would be approximately 18,000 acres under Alternative 3 and approximately 39,000 acres under the Preferred Alternative. Therefore, the acreage of potential impacts would be greater under the Preferred Alternative.

Under Alternative 3, the majority of potential development would occur within the Cadiz Valley and Chocolate Mountains and the Pinto Lucerne Valley and Eastern Slopes ecoregion subareas. Under the Preferred Alternative, the majority of potential development would be within the Cadiz Valley and Chocolate Mountains ecoregion subarea. Therefore, under both alternatives, impacts to BLM lands and realty would be spread over multiple ecoregion subareas.

IV.13.3.6 Alternative 4

IV.13.3.6.1 Impacts of Renewable and Transmission Development

The types of impacts to BLM lands and realty would be the same as discussed under the Preferred Alternative (Section IV.13.3.2.1); however, the amount of land affected in the LUPA Decision Area would differ under this alternative.

Impact LR-1: BLM land tenure adjustments could conflict with applicable BLM policies and regulations.

Direct impacts to BLM lands and realty would occur if utility-scale renewable energy projects or associated facilities would require land tenure adjustments, which would include the acquisition, lease, exchange, or disposal of BLM lands. For each proposed development, a project-level analysis would be required to ensure consistency with all applicable BLM policies and regulations. Impacts would occur if the project would not comply with applicable policies and regulations. However, conflicts may be resolved with mitigation measures from supplemental project-specific analyses that require compliance specifically for the inconsistencies applicable to the proposed development.

As shown in Volume II, Figure II.7-1, under Alternative 4 the DFAs are predominantly located in the following ecoregion subareas: West Mojave and Eastern Slopes, Imperial Borrego Valley, Cadiz Valley and Chocolate Mountains, and Pinto Lucerne Valley and Eastern Slopes. Table IV.13-11 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by the type of renewable energy technology. The total is approximately 35,000 acres of impacts from solar, wind, geothermal, and transmission development.

Wind consists of over 16,000 acres and would therefore have the greatest potential for impacts, solar would consist of over 11,000 acres, transmission would consist of over 7,000 acres, and geothermal would have the least potential for impacts with 600 acres. The vast majority of potential development would occur within the Cadiz Valley and Chocolate Mountains ecoregion subarea. Development on BLM lands and realty would therefore have the greatest potential for conflicts with applicable policies and regulations within that ecoregion subarea, and it is likely that continued development would require project-level policy analyses to ensure compliance with all applicable policies and regulations.

Table IV.13-11
Potential Acres of Impacts to BLM Renewable Energy and Utility ROWs by Technology Type, by Ecoregion Subarea – Alternative 4

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Potential Impacts to BLM ROWs by Technology Type (acres)			
		Solar	*Wind*	*Geothermal*	*Transmission*
Cadiz Valley and Chocolate Mountains	257,000	10,000	15,000	0	5,000
Imperial Borrego Valley	120,000	20	0	50	300
Kingston and Funeral Mountains	112,000	0	0	0	0
Mojave and Silurian Valley	172,000	0	0	0	200
Owens River Valley	35,000	400	0	600	300
Panamint Death Valley	47,000	0	0	0	200
Pinto Lucerne Valley and Eastern Slopes	144,000	50	600	0	500
Piute Valley and Sacramento Mountains	105,000	0	0	0	0
Providence and Bullion Mountains	244,000	0	0	0	100
West Mojave and Eastern Slopes	207,000	700	900	0	100
Total	**1,443,000**	**11,000**	**16,000**	**600**	**7,000**

The acreage of BLM-authorized renewable energy ROWs and utility corridors may overlap with acreage designated for renewable energy development
Includes ground-mounted distributed generation
Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

Impact LR-2: Development on BLM land would conflict with existing land use authorizations.

Development of utility-scale renewable energy facilities may interfere with or require a modification to an existing BLM land use authorization. The impacts associated with the

type of renewable energy technology would be the same as discussed under the Preferred Alternative.

Table IV.13-11 shows that the majority of potential development of BLM lands and realty consists of wind, solar, and transmission facilities, which would have the greatest potential for conflicts with existing land use authorizations. The potential short- and long-term impacts associated with each type of renewable energy technology are the same as discussed under the Preferred Alternative.

Under Alternative 4, the potential impacts associated with nonrenewable energy land use authorizations would be the same as for the Preferred Alternative.

Impact LR-3: Development within designated exclusion areas would conflict with BLM regulations and policies.

Potential conflicts with existing exclusion areas under Alternative 4 would be the same as discussed under the Preferred Alternative. Compliance with BLM regulations and policies for exclusion areas within a DFA would require a policy analysis on a case-by-case basis.

Impacts of Variance Process Lands

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process). If development of the Variance Process Lands occurred, potential conflicts with existing BLM land use authorizations, plans, and policies would be unlikely considering these lands are based on BLM's screening criteria.

Conservation and Management Actions

The Proposed LUPA implementation would result in conservation of some desert lands as well as the development of renewable energy generation and transmission facilities on other lands. The impacts of the renewable energy development covered by the LUPA would be lessened in several ways. First, the LUPA incorporates CMAs for each alternative, including biological components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development.

The conservation strategy for Alternative 4 (see Section II.7.4) defines specific actions that would reduce the impacts of this alternative. CMAs for lands and realty would be the same as under the Preferred Alternative, except for land exchanges and land sales.

NLCS

- Make available for exchange, purchase, or donation in accordance with the CMAs outlined for National Conservation Lands in Section II.3.2.1.
- Make unavailable for disposal.

ACEC

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

Wildlife Allocations

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

SRMA

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

DFAs and Variance Process Lands

- 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 Management and Policy Act.
- In Variance Process Lands, make lands unavailable for exchange or disposal.

Unallocated

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

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of the Proposed LUPA implementation. Relevant regulations are presented in the

Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized for the No Action Alternative in Section IV.13.3.1.1.

IV.13.3.6.2 Impacts of Ecological and Cultural Conservation and Recreation Designations

Impacts to BLM lands and realty from designated conservation lands are discussed in the analysis in Impact LR-4.

Impact LR-4: Conservation actions could prohibit existing authorized land uses.

BLM conservation land under Alternative 4 is as follows: 3.2 million acres of existing BLM conservation lands and almost 4.7 million acres under the proposed BLM LUPA conservation designations.

This would increase the acreage of existing BLM land in conservation by approximately 4.7 million acres, which would overlap with BLM land use authorizations. As shown in Table IV.13-12, the total of authorized BLM ROWs (which consist of existing and planned ROWs) within the conservation lands under Alternative 4 is 97,000 acres within existing conservation areas. Therefore, considering the extensive acreage of existing renewable energy ROWs, it is likely that there would also be extensive overlaps with nonrenewable energy BLM land use authorizations. Potential conflicts could be resolved with CMAs.

Table IV.13-12
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designations Lands by Ecoregion Subarea – Alternative 4

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Percent in Conservation
Cadiz Valley and Chocolate Mountains	257,245	29,002	100,760	0	50.4%
Imperial Borrego Valley	120,444	2,083	11,290	0	11.1%
Kingston and Funeral Mountains	111,658	4,953	71,219	0	68.2%
Mojave and Silurian Valley	172,208	19,920	92,675	0	65.4%
Owens River Valley	34,588	1	15,601	0	45.1%
Panamint Death Valley	46,732	0	32,378	0	69.3%
Pinto Lucerne Valley and Eastern Slopes	144,207	9,331	69,171	0	54.4%

Table IV.13-12
Estimated Acres of BLM Renewable Energy and Utility ROWs in Conservation Designations Lands by Ecoregion Subarea – Alternative 4

Ecoregion Subarea	BLM ROWs in Ecoregion Subarea (acres)	Existing Conservation Areas (acres)	BLM LUPA Conservation Designations (acres)	Conservation Planning Areas (acres)	Percent in Conservation
Piute Valley and Sacramento Mountains	105,085	5,114	67,655	0	69.3%
Providence and Bullion Mountains	243,821	26,555	168,863	0	80.2%
West Mojave and Eastern Slopes	207,301	166	148,446	0	71.7%
Total	**1,443,288**	**97,125**	**778,059**	**0**	**60.6%**

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to the 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.

IV.13.3.6.3 Impacts of Transmission Outside the DRECP Area

The impacts of transmission outside the DRECP area on BLM lands and realty would be the same under all alternatives. These impacts are as described for the No Action Alternative in Section IV.13.3.1.3.

IV.13.3.6.4 Comparison of Alternative 4 With Preferred Alternative

Alternative 4 would result in a total of approximately 258,000 acres of land within the DFAs, which would include BLM lands. The Preferred Alternative consists of approximately 388,000 acres of land within the DFAs, including BLM lands. Therefore, compared with the Preferred Alternative, the amount designated for renewable energy development in Alternative 4 would be less. Under Alternative 4, potential impacts to BLM lands associated with renewable energy development would therefore be fewer than under the Preferred Alternative.

For Alternative 4, Table IV.13-11 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by type of renewable energy technology. The total is approximately 35,000 acres of impacts from solar, wind, geothermal, and transmission development. Wind energy development consists of over 16,000 acres and would therefore have the greatest potential for impacts, solar would consist of over 11,000 acres, transmission would consist of over 7,000 acres, and geothermal would have the least

potential for impacts with 600 acres. For the Preferred Alternative, Table IV.13-3 provides the acreage of potential impacts to BLM ROWs within each ecoregion subarea by type of renewable energy technology. The total is over 45,000 acres of potential impacts from solar, wind, geothermal, and transmission development. Wind would consist of 26,000 acres and would therefore have the greatest potential for impacts, solar would consist of 13,000 acres, transmission development would consist of 6,000 acres, and geothermal development would have the least potential for impact with 800 acres.

Based on a comparison of Table IV.13-11 and Table IV.13-3, the potential for impacts to BLM lands and realty would total approximately 35,000 acres under Alternative 4 and approximately 39,000 acres under the Preferred Alternative. Therefore, the acreage of potential impacts would be greater under the Preferred Alternative.

Under Alternative 4, the vast majority of potential development would occur within the Cadiz Valley and Chocolate Mountains ecoregion subarea. Under the Preferred Alternative, the majority of potential development would be located within the Cadiz Valley and Chocolate Mountains ecoregion subarea. Therefore, under the Preferred Alternative, impacts to BLM lands and realty would be spread over multiple ecoregion subareas, and under Alternative 4, the impacts would be concentrated in one ecoregion subarea.

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