

Description and Comparative Evaluation of Draft DRECP Alternatives

4.6 Mineral Resources

The analysis in this section addresses potential impacts to mineral resources (high mineral resource potential areas and existing high-priority mineral or energy locations) from implementing the DRECP alternatives. For this programmatic-level analysis, existing conditions for mineral resources are described in Section 3.6, Mineral Resources. The extent to which mineral resources intersect with the proposed DFAs, and existing and proposed Conservation Planning Areas under each alternative are the primary considerations in quantifying impacts.

4.6.1 Typical Impacts from Renewable Energy Development Common to All Alternatives

The potential effects of renewable energy development (solar, wind, and geothermal) and associated ROW requirements (major transmission, Gen-Ties, and substations) on mineral resources within the Plan Area were evaluated by reviewing the Draft Solar Programmatic EIS, Wind Programmatic EIS, and Geothermal Programmatic EIS. Potential effects that may occur from anticipated future actions consistent with the alternatives were assessed.

This section analyzes the impacts typical of solar, wind, and geothermal energy development and associated ROW requirements (major transmission, Gen-Ties, and substations). DRECP alternatives would result in future renewable energy development applications within identified development focus areas, and each project would undergo individual NEPA and/or CEQA analysis for impacts. Impacts related to renewable energy projects and associated facilities would vary depending on the technology proposed, location of project area, the time and degree of disturbance resulting from development, and the size and complexity of the facilities.

4.6.1.1 Solar Energy Development

As detailed in Section 3.6, Mineral Resources, there are a large number of high mineral potential areas within the Plan Area. Solar energy development could affect the development of minerals or geothermal resources in the areas where it occurs.

Solar energy development activities, including siting and exploration, operations and maintenance, and reclamation and decommissioning, could result in impacts to mineral resources. Impacts include, but are not limited to:

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- Utility-scale solar energy development would be incompatible with most mineral development activities and would preclude these activities within developed areas once solar energy facilities are constructed. An exception to this could occur if geothermal resources could be accessed under a solar energy facility utilizing offset drilling technologies.
- Existing valid mining claims or other types of mineral leases would preclude or affect solar energy development. The impact on future mineral development would be determined at the site-specific level.
- Valid mining claims or other types of mineral leases would preclude or could affect the location of ROWs for transmission lines serving solar facilities, although in most instances it is likely that ROWs could be located to avoid areas of mineral development or in a manner consistent with planned mineral development. Authorized ROWs would result in constraints on new mineral development activities, assuming the ROW was issued before the valid mining claim was filed.
- On the basis of the amount of land required for comparably rated facilities, power tower, dish engine, and PV technologies require about 80% more land area than parabolic trough technologies, resulting in larger areas being excluded from potential mineral development.

4.6.1.2 Wind Energy Development

The Wind Energy PEIS does not analyze the potential impacts of wind energy development on mineral resources. The Wind PEIS discusses mineral resources only briefly, as summarized below.

Wind energy development site monitoring and testing would generally result in temporary, localized impacts to existing land uses (including mineral resource lease activities) associated with the meteorological towers and minimum-specification access roads (if required). Meteorological data is generally collected for 1 to 3 years and would require the installation of meteorological towers to characterize the wind regime at a potential wind tower location. Since a meteorological tower would occupy only a few square feet, only a negligible impact to most existing land uses would be expected. However, the presence of the towers and possible access roads may impact more remote activities.

Construction activities would generally result in temporary impacts to existing land uses. Permanent land use impacts are based on the amount of land that would be displaced by a proposed project and by the compatibility of the proposed use with existing, adjacent uses. A significant permanent land use impact would occur from an uncompensated loss of the current productive use of the site or foreclosure of future land uses; however, permanently

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converted acreage would usually compose only a small portion of that available within a project area.

4.6.1.3 Geothermal Energy Development

Geothermal energy development activities, including siting and exploration, operations and maintenance, and reclamation and decommissioning, could result in impacts to mineral resources. Impacts include, but are not limited to: national, regional, and local laws, regulations, policies, and guidelines associated with protecting other environmental resources (e.g., endangered species) that constrain the development of mineral resources on federal lands. These protections include withdrawing or closing lands to mineral resource activities, exclusion areas, buffer zones around sensitive areas, limitations on surface occupancy, seasonal limitations, and other permit stipulations. These regulations and policies may be changed to increase or decrease the land available for mineral resource development.

The impacts on mineral resources from potential geothermal exploration and development activities depend on the local presence and characteristics of mineral resources. Due to the inability to predict future development scenarios, including types of development, timing, and location, the following impact analysis provides a general description of common impacts on mineral resources from geothermal resource development.

Common impacts from geothermal energy development include:

- Vegetation loss, air quality impacts from fugitive dust and diesel exhaust, noise emissions, soil erosion and compaction, and hazardous waste generation.
- Any land being used for geothermal exploration and development activities would become unavailable for developing other mineral resources (e.g., aggregates, solid minerals). Drilling operations would preclude developing any other mineral resources on the same land.
- Improving existing roads and constructing new roads for geothermal resource exploration would have a negligible to minor impact on the exploration for other energy and mineral resources in the immediate area. The degree of impact would depend on the existing limits to access in the area and the distance of the roads to the other mineral resources.
- In general, any infrastructure improvements (e.g., roads, transmission lines, pipelines) associated with the exploration and development of geothermal resources would have a minor to major advantage for the exploration and development of other energy and mineral resources within the immediate area.

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Mineral resource developments would be encouraged due to the new availability of infrastructure for their operations. These impacts would be reduced with increased distance from the power plant, roads, and transmission lines.

- The cost of improving roads would be less for later developments because roads accessing the general area would have already been developed. These impacts would be reduced with increased distance from the new roads.
- During the utilization phase, other operations in the immediate area of the power plant might be able to take advantage of the downstream heat from the power plant. Utilization of the geothermal resources would have minor or no impact on other energy or mineral resources.
- Upon reclamation and abandonment of geothermal operations, any other ongoing operations in the area would have to take over maintenance of shared facilities (e.g., roads, transmission lines).

4.6.2 Methodology and Assumptions for Analysis

Analysis of impacts to mineral resources for each alternative is based on the description of Covered Activities on federal and non-federal lands and the overall conservation strategy within the Plan Area. Covered Activities are those actions associated with renewable energy development that would be permitted within DFAs. Transmission development may also occur outside the DFAs, but would be subject to permitting and management conditions set by the Plan. Development and operation would be permitted under the DRECP.

Assumptions used in the analysis of mineral resource impacts include the following:

- Existing leases and claims would not be affected by identifying lands as DFAs or within the proposed Conservation Planning Area.

The DRECP EIR/EIS is a programmatic document; therefore, the analysis is primarily for typical impacts and does not evaluate site-specific impacts associated with specific projects. Project-specific impacts would be assessed during the permitting process and in future separate NEPA/CEQA documents. It is important to note that because it is currently unknown where alternative energy projects may occur, it is feasible that mineral resources could be avoided within the DFAs. The impact analysis is built around tables displaying known geothermal resource areas, high potential mineral area acres, and existing high-priority mineral or energy locations within each of the 10 ecoregions and within DFAs or Conservation Planning Areas.

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4.6.3 Impacts by Alternative

4.6.3.1 *Alternative 1*

4.6.3.1.1 Geothermal Resources

There are two KGRAs within the DRECP Plan Area, consisting of 110,477 acres within the Imperial and Borrego Valley ecoregion and 10,309 acres in the Owens River Valley ecoregion. Under Alternative 1, 71,338 acres of KGRAs within these ecoregions would occur within DFAs, with 9,451 of these acres within the DFA development footprint (Table 4.6-1a). The majority of KGRA acres within DFAs would occur in the Imperial Borrego Valley ecoregion (8,720 acres). As also shown in Table 4.6-1a, 18,228 acres, or 15%, of KGRAs would occur within the existing or proposed Conservation Planning Areas, primarily within the Imperial Borrego Valley ecoregion. Any development of KGRAs within existing or proposed Conservation Planning Areas would occur through directional drilling with no surface occupancy (no surface disturbance) within the conservation lands.

As shown in Table 4.6-1b, approximately 1,020 acres of KGRAs would occur within DCLs, and 49,170 acres would occur within non-DCLs, primarily within the Imperial Borrego Valley ecoregion.

4.6.3.1.2 Mineral Resource Potential

As described in Chapter 3 and shown in Table 4.6-2a, all ecoregions contain high potential mineral areas. Under Alternative 1, of the 1,519,381 acres of high potential mineral areas, 31,078 acres would occur within DFAs, with 4,183 of these acres within the DFA development footprint (Table 4.6-2a). The majority of these acres (2,815 acres) would occur within the West Mojave and Eastern Slopes ecoregion. As also shown in Table 4.6-2a, 1,263,474 acres, or 83%, of high potential mineral areas would occur within the existing or proposed Conservation Planning Areas. As shown in Table 4.6-2b, approximately 422,193 acres of high potential mineral areas would occur within DCLs, and 415,265 acres would occur within non-DCLs.

4.6.3.1.3 Existing High Priority Mineral or Energy Locations

Under Alternative 1, no existing high priority mineral or energy locations would occur within DFAs. Five of the seven high priority mineral and energy locations would occur within existing or proposed Conservation Planning Areas, including: Briggs AU, Etna; Cadiz Evaporates; Hector Mine; MolyCorp (Mountain Pass Mine rare earth elements); and Searles Dry Lake (evaporate) operation. The Bristoll Dry Lake (evaporate) Operation and Mesquite Gold Mine both would occur within BLM solar variance lands.

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4.6.3.1.4 Rare Earth Element Areas

Under Alternative 1, no rare earth element areas would occur within DFAs or BLM solar variance lands. The majority of the rare earth element areas (59,009 acres) would occur within existing or proposed Conservation Planning Areas.

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Table 4.6-1a

Estimated Number of Acres of KGRAs in DFAs and Conservation Planning Areas by Ecoregion – Alternative 1

Ecoregion	KGRA Acres	KGRAs in DFAs (acres)	KGRAs in DFA Development Footprint (acres)	KGRAs in Existing & Conservation Planning Area (acres)			% of KGRA Acres in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0	0%
Imperial Borrego Valley	110,477	61,842	8,720	16,563	900	63	16%
Kingston and Funeral Mountains	0	0	0	0	0	0	0%
Mojave and Silurian Valley	0	0	0	0	0	0	0%
Owens River Valley	10,309	9,496	731	0	696	5	7%
Panamint Death Valley	0	0	0	0	0	0	0%
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	0%
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	0%
Providence and Bullion Mountains	0	0	0	0	0	0	0%
West Mojave and Eastern Slopes	0	0	0	0	0	0	0%
Total	120,786	71,338	9,451	16,563	1,597	68	49%

Note: Acreages are estimates and subject to change

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Table 4.6-1b
Estimated Number of Acres of KGRAs in BLM Proposed Conservation – Alternative 1

Ecoregion	KGRAs in DCLs (acres)			KGRAs in Non-DCLs		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0
Imperial Borrego Valley	11	577	588	22,833	17,484	40,317
Kingston and Funeral Mountains	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0
Owens River Valley	432	0	432	8,853	0	8,853
Panamint Death Valley	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0
Total	443	577	1,019	31,685	17,484	49,170

Note: Acreages are estimates and subject to change

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Table 4.6-2a

**Estimated Number of Acres of High Potential Mineral Areas in DFAs and Conservation Planning Areas by Ecoregion–
Alternative 1**

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in DFAs (acres)	High Potential Mineral Areas in DFA Development Footprint (acres)	High Potential Mineral Areas in Existing & Conservation Planning Area (acres)			% of High Potential Mineral Areas in Conservation Planning Areas
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	239,656	995	191	101,486	72,632	50,533	94%
Imperial Borrego Valley	195,140	6,629	935	13,347	57,575	16,968	45%
Kingston and Funeral Mountains	131,830	0	0	70,497	26,818	28,638	0%
Mojave and Silurian Valley	159,082	141	19	72,094	61,105	9,147	90%
Owens River Valley	443	441	34	0	1	0	.2%
Panamint Death Valley	309,749	0	0	259,954	14,725	32,080	99%
Pinto Lucerne Valley and Eastern Slopes	92,707	1,054	190	14,574	44,221	5,433	69%
Piute Valley and Sacramento Mountains	37,763	0	0	24,467	11,211	2,000	99%
Providence and Bullion Mountains	246,813	0	0	125,677	28,318	66,517	89%
West Mojave and Eastern Slopes	106,196	21,820	2,815	1,464	33,933	18,060	50%
Total	1,519,379	31,078	4,183	683,560	350,539	229,375	83%

Note: Acreages are estimates and subject to change

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Table 4.6-2b

Estimated Number of Acres of High Mineral Potential Areas in BLM Proposed Conservation – Alternative 1

Ecoregion	High Potential Mineral Areas in DCLs (acres)			High Potential Mineral Areas in Non-DCLs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	95,224	22,268	117,492	98,488	0	98,488
Imperial Borrego Valley	27,637	22,677	50,314	70,388	22,328	92,716
Kingston and Funeral Mountains	41,374	4,532	45,906	33,552	195	33,747
Mojave and Silurian Valley	19,419	18,709	38,128	28,015	11,144	39,159
Owens River Valley	1	0	1	437	0	437
Panamint Death Valley	24	11,141	11,166	22,842	7,678	30,521
Pinto Lucerne Valley and Eastern Slopes	36,798	6,483	43,280	1,902	21,300	23,202
Piute Valley and Sacramento Mountains	18,487	8,526	27,013	7,089	341	7,431
Providence and Bullion Mountains	55,737	16,390	72,127	71,597	3,394	74,992
West Mojave and Eastern Slopes	7,380	9,386	16,766	4,241	10,332	14,573
Total	302,081	120,112	422,193	338,552	76,713	415,265

Note: Acreages are estimates and subject to change

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4.6.3.2 Alternative 2

4.6.3.2.1 Geothermal Resources

Under Alternative 2, 88,981 acres of KGRAs would occur within DFAs, with 7,660 of these acres within the DFA development footprint (Table 4.6-3a). The majority of KGRA acres within DFAs would occur in the Imperial Borrego Valley ecoregion (7,233 acres). As also shown in Table 4.6-3a, 18,198 acres, or 15%, of KGRAs would occur within the existing or proposed Conservation Planning Areas, the majority in the Imperial Borrego Valley ecoregion. Any development of KGRAs within existing or proposed Conservation Planning Areas would occur through directional drilling with no surface occupancy (no surface disturbance) within the conservation lands.

As shown in Table 4.6-3b, approximately 1,020 acres of KGRAs would occur within DCLs, and 49,170 acres would occur within non-DCLs.

4.6.3.2.2 Mineral Resource Potential

Under Alternative 2, of the 1,519,381 acres of high potential mineral areas, 43,992 acres would occur within DFAs, with 4,992 of these acres within the DFA development footprint (Table 4.6-4a). As also shown in Table 4.6-4a, 93,341 acres, or 6%, of high potential mineral areas would occur within the existing or proposed Conservation Planning Areas. As shown in Table 4.6-4b, approximately 422,193 acres of high potential mineral areas would occur within DCLs, and 415,265 acres would occur within non-DCLs.

4.6.3.2.3 Existing High Priority Mineral or Energy Locations

Under Alternative 2, no existing high priority mineral or energy locations occur within DFAs. All seven high priority mineral and energy locations would occur within existing or proposed Conservation Planning Areas under Alternative 2.

4.6.3.2.4 Rare Earth Element Areas

Under Alternative 2, no rare earth element areas would occur within DFAs or BLM solar variance lands. The majority of the rare earth element areas (59,009 acres) would occur within existing or proposed Conservation Planning Areas.

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Table 4.6-3a

Estimated Number of Acres of KGRAs in DFAs and Conservation Planning Areas by Ecoregion– Alternative 2

Ecoregion	KGRA Acres	KGRAs in DFAs (acres)	KGRAs in DFA Development Footprint (acres)	KGRAs in Existing & Conservation Planning Area (acres)			% of KGRA Acres in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0	0%
Imperial Borrego Valley	110,477	79,485	7,233	16,563	900	33	16%
Kingston and Funeral Mountains	0	0	0	0	0	0	0%
Mojave and Silurian Valley	0	0	0	0	0	0	0%
Owens River Valley	10,309	9,496	427	0	696	5	7%
Panamint Death Valley	0	0	0	0	0	0	0%
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	0%
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	0%
Providence and Bullion Mountains	0	0	0	0	0	0	0%
West Mojave and Eastern Slopes	0	0	0	0	0	0	0%
Total	120,786	88,981	7,660	16,563	1,596	38	15%

Note: Acreages are estimates and subject to change

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Table 4.6-3b
Estimated Number of Acres of KGRAs in BLM Proposed Conservation – Alternative 2

Ecoregion	KGRAs in DCLs (acres)			KGRAs in Non-DCLs		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0
Imperial Borrego Valley	11	577	588	35,574	4,743	40,317
Kingston and Funeral Mountains	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0
Owens River Valley	432	0	432	8,853	0	8,853
Panamint Death Valley	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0
Total	443	577	1,020	44,427	4,743	49,170

Note: Acreages are estimates and subject to change

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Table 4.6-4a
Estimated Number of Acres of High Potential Mineral Areas in DFAs and Conservation Planning Areas by Ecoregion–
Alternative 2

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in DFAs (acres)	High Potential Mineral Areas in DFA Development Footprint (acres)	High Potential Mineral Areas in Existing & Conservation Planning Areas (acres)			% of High Potential Mineral Areas in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	239,656	2,730	598	19,485	13,945	9,702	18%
Imperial Borrego Valley	195,140	11,923	1,085	1,882	8,118	2,392	6%
Kingston and Funeral Mountains	131,830	859	0	0	0	0	0%
Mojave and Silurian Valley	159,082	160	10	9,805	8,310	1,244	12%
Owens River Valley	443	441	20	0	0	0	0%
Panamint Death Valley	309,749	33	0	0	0	0	0%
Pinto Lucerne Valley and Eastern Slopes	92,707	2,363	451	2,623	7,960	978	13%
Piute Valley and Sacramento Mountains	37,763	0	0	0	0	0	0%
Providence and Bullion Mountains	246,813	0	0	0	0	0	0%
West Mojave and Eastern Slopes	106,196	25,481	2,828	189	4,377	2,330	7%
Total	1,519,379	43,992	4,992	33,984	42,711	16,646	6%

Note: Acreages are estimates and subject to change

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Table 4.6-4b

Estimated Number of Acres of High Potential Mineral Areas in BLM Proposed Conservation – Alternative 2

Ecoregion	High Potential Mineral Areas in BCLs (acres)			High Potential Mineral Areas in Non-BCLs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	95,224	22,268	117,492	98,488	0	98,488
Imperial Borrego Valley	27,637	22,677	50,314	70,388	22,328	92,716
Kingston and Funeral Mountains	41,374	4,532	45,906	33,552	195	33,747
Mojave and Silurian Valley	19,419	18,709	38,128	28,015	11,144	39,159
Owens River Valley	1	0	1	437	0	437
Panamint Death Valley	24	11,141	11,166	22,842	7,678	30,521
Pinto Lucerne Valley and Eastern Slopes	36,798	6,483	43,280	1,902	21,300	23,202
Piute Valley and Sacramento Mountains	18,487	8,526	27,013	7,089	341	7,431
Providence and Bullion Mountains	55,737	16,390	72,127	71,597	3,394	74,992
West Mojave and Eastern Slopes	7,380	9,386	16,766	4,241	10,332	14,573
Total	302,081	120,112	422,193	338,552	76,713	415,265

Note: Acreages are estimates and subject to change

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4.6.3.3 Alternative 3

4.6.3.3.1 Geothermal Resources

Under Alternative 3, 88,967 acres of KGRAs would occur within DFAs, with 4,459 of these acres within the DFA development footprint (Table 4.6-5a). The majority of KGRA acres within DFAs would occur in the Imperial Borrego Valley ecoregion (4,212 acres). As also shown in Table 4.6-5a, 18,198 acres, or 15%, of KGRAs would occur within the existing or proposed Conservation Planning Areas. Any development of KGRAs within existing or proposed Conservation Planning Areas would occur through directional drilling with no surface occupancy (no surface disturbance) within the conservation lands.

As shown in Table 4.6-5b, approximately 1,020 acres of KGRAs would occur within DCLs and 49,170 acres would occur within non-DCLs.

4.6.3.3.2 Mineral Resource Potential

Under Alternative 3, of the 1,519,381 acres of high potential mineral areas, 39,647 acres would occur within DFAs, with 4,129 of these acres within the DFA development footprint (Table 4.6-6a). The majority of high potential mineral area acres within DFAs would occur in the Owens River Valley ecoregion (3,043 acres). As also shown in Table 4.6-6a, 1,224,240 acres, or 88%, of high potential mineral areas would occur within the existing or proposed Conservation Planning Areas. As shown in Table 4.6-6b, approximately 437,975 acres of high potential mineral areas would occur within DCLs and 399,482 acres would occur within non-DCLs.

4.6.3.3.3 Existing High Priority Mineral or Energy Locations

Under Alternative 3, no existing high priority mineral or energy locations would occur within DFAs. All seven high priority mineral and energy locations would occur within existing or proposed Conservation Planning Areas under this alternative.

4.6.3.3.4 Rare Earth Element Areas

Under Alternative 3, no rare earth element areas would occur within DFAs or BLM solar variance lands. The majority of the rare earth element areas (59,009 acres) would occur within existing or proposed Conservation Planning Areas.

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Table 4.6-5a

Estimated Number of Acres of KGRAs in DFAs and Conservation Planning Areas by Ecoregion – Alternative 3

Ecoregion	KGRA Acres	KGRAs in DFAs (acres)	KGRAs in DFA Development Footprint (acres)	KGRAs in Existing & Conservation Planning Area (acres)			% of KGRA Acres in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0	0%
Imperial Borrego Valley	110,477	79,471	4,212	16,563	900	33	16%
Kingston and Funeral Mountains	0	0	0	0	0	0	0%
Mojave and Silurian Valley	0	0	0	0	0	0	0%
Owens River Valley	10,309	9,496	247	0	696	5	7%
Panamint Death Valley	0	0	0	0	0	0	0%
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	0%
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	0%
Providence and Bullion Mountains	0	0	0	0	0	0	0%
West Mojave and Eastern Slopes	0	0	0	0	0	0	0%
Total	120,786	88,967	4,459	16,563	1,596	38	15%

Note: Acreages are estimates and subject to change

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Table 4.6-5b
Estimated Number of Acres of KGRAs in BLM Proposed Conservation – Alternative 3

Ecoregion	KGRAs in DCLs (acres)			KGRAs in Non-DCLs		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0
Imperial Borrego Valley	11	577	588	35,572	4,745	40,317
Kingston and Funeral Mountains	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0
Owens River Valley	432	0	432	8,853	0	8,853
Panamint Death Valley	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0
Total	443	577	1,020	44,425	4,745	49,170

Note: Acreages are estimates and subject to change

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Table 4.6-6a

Estimated Number of Acres of High Potential Mineral Areas in DFAs and Conservation Planning Areas by Ecoregion – Alternative 3

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in DFAs (acres)	High Potential Mineral Areas in DFA Development Footprint (acres)	High Potential Mineral Areas in Existing & Conservation Planning Area (acres)			% of High Potential Mineral Areas in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	239,656	1,207	135	101,489	77,881	54,252	18%
Imperial Borrego Valley	195,140	11,740	662	13,347	92,825	22,188	6%
Kingston and Funeral Mountains	131,830	0	0	70,518	26,860	34,238	0%
Mojave and Silurian Valley	159,082	143	18	72,097	62,307	9,589	12%
Owens River Valley	443	441	11	0	1	0	0%
Panamint Death Valley	309,749	0	0	259,954	14,725	32,080	0%
Pinto Lucerne Valley and Eastern Slopes	92,707	1,342	260	14,574	49,920	0	13%
Piute Valley and Sacramento Mountains	37,763	0	0	24,467	11,212	2,010	99%
Providence and Bullion Mountains	246,813	0	0	125,678	30,061	85,888	98%
West Mojave and Eastern Slopes	106,196	24,774	3,043	1,464	42,086	2,528	43%
Total	1,519,379	39,647	4,129	683,589	407,877	242,774	88%

Note: Acreages are estimates and subject to change

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Table 4.6-6b

Estimated Number of Acres of High Mineral Potential Areas in BLM Proposed Conservation – Alternative 3

Ecoregion	High Potential Mineral Areas in DCLs (acres)			High Potential Mineral Areas in Non-DCLs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	103,019	22,268	125,287	90,694	0	90,694
Imperial Borrego Valley	37,997	22,677	60,674	60,028	22,328	82,356
Kingston and Funeral Mountains	41,562	4,540	46,103	33,363	186	33,550
Mojave and Silurian Valley	19,427	18,709	38,136	28,006	11,144	39,150
Owens River Valley	1	0	1	437	0	437
Panamint Death Valley	24	11,141	11,166	22,842	7,678	30,521
Pinto Lucerne Valley and Eastern Slopes	34,285	6,232	40,517	4,636	21,329	25,965
Piute Valley and Sacramento Mountains	18,487	8,526	27,013	7,089	341	7,431
Providence and Bullion Mountains	58,279	16,390	74,668	69,056	3,394	72,450
West Mojave and Eastern Slopes	7,741	6,668	14,409	7,618	9,312	16,930
Total	320,823	117,152	437,975	323,769	75,713	399,482

Note: Acreages are estimates and subject to change

Description and Comparative Evaluation of Draft DRECP Alternatives

4.6.3.4 Alternative 4

4.6.3.4.1 Geothermal Resources

Under Alternative 4, 88,982 acres of KGRAs would occur within DFAs, with 9,265 of these acres within the DFA development footprint (Table 4.6-7a). The majority of KGRA acres within DFAs would occur within the Imperial Borrego Valley ecoregion (8,743 acres). As also shown in Table 4.6-7a, 18,198 acres, or 15%, of KGRAs would occur within the existing or proposed Conservation Planning Areas. Any development of KGRAs within existing or proposed Conservation Planning Areas would occur through directional drilling with no surface occupancy (no surface disturbance) within the conservation lands.

As shown in Table 4.6-7b, approximately 1,020 acres of KGRAs would occur within DCLs and 49,170 acres would occur within non-DCLs.

4.6.3.4.2 Mineral Resource Potential

Under Alternative 4, of the 1,519,381 acres of high potential mineral areas, 58,826 acres would occur within DFAs, with 4,850 of these acres within the DFA development footprint (Table 4.6-8a). The majority of high potential mineral area acres within DFAs would occur within the Owens River Valley ecoregion (3,023 acres). As also shown in Table 4.6-8a, 1,320,522 acres, or 87%, of high potential mineral areas would occur within the existing or proposed Conservation Planning Areas. As shown in Table 4.6-8b, approximately 443,547 acres of high potential mineral areas would occur within DCLs and 393,910 acres would occur within non-DCLs.

4.6.3.4.3 Existing High Priority Mineral or Energy Locations

Under Alternative 4, the Searles Dry Lake (evaporate) operation, a high priority mineral or energy location, would occur within a DFA. The remaining six high priority mineral and energy locations would occur within existing or proposed Conservation Planning Areas, including: Briggs AU, Etna; Bristoll Dry Lake (evaporate) operation; Cadiz Evaporates; Hector Mine; Mesquite Gold Mine; and MolyCorp (Mountain Pass Mine rare earth elements).

4.6.3.4.4 Rare Earth Element Areas

Under Alternative 4, no rare earth element areas would occur within DFAs or BLM solar variance lands. The majority of the rare earth element areas (59,009 acres) would occur within existing or proposed Conservation Planning Areas.

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Table 4.6-7a

Estimated Number of Acres of KGRAs in DFAs and Conservation Planning Areas by Ecoregion – Alternative 4

Ecoregion	KGRA Acres	KGRAs in DFAs (acres)	KGRAs in DFA Development Footprint (acres)	KGRAs in Existing & Conservation Planning Area (acres)			% of KGRA Acres in Conservation Planning Area
				<i>Existing Conservation Lands</i>	<i>HBS</i>	<i>MBS</i>	
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0	0%
Imperial Borrego Valley	110,477	79,485	8,743	16,563	900	33	16%
Kingston and Funeral Mountains	0	0	0	0	0	0	0%
Mojave and Silurian Valley	0	0	0	0	0	0	0%
Owens River Valley	10,309	9,496	522	0	696	5	7%
Panamint Death Valley	0	0	0	0	0	0	0%
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	0%
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	0%
Providence and Bullion Mountains	0	0	0	0	0	0	0%
West Mojave and Eastern Slopes	0	0	0	0	0	0	0%
Total	120,786	88,982	9,265	16,563	1,597	38	15%

Note: Acreages are estimates and subject to change

Description and Comparative Evaluation of Draft DRECP Alternatives

Table 4.6-7b
Estimated Number of Acres of KGRAs in BLM Proposed Conservation – Alternative 4

Ecoregion	KGRAs in DCLs (acres)			KGRAs in Non-DCLs		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0
Imperial Borrego Valley	11	577	588	22,833	17,484	40,317
Kingston and Funeral Mountains	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0
Owens River Valley	432	0	432	8,853	0	8,853
Panamint Death Valley	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0
Total	443	577	1,020	31,685	17,484	49,170

Note: Acreages are estimates and subject to change

Description and Comparative Evaluation of Draft DRECP Alternatives

Table 4.6-8a

Estimated Number of Acres of High Potential Mineral Areas in DFAs and Conservation Planning Areas by Ecoregion – Alternative 4

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in DFAs (acres)	High Potential Mineral Areas in DFA Development Footprint (acres)	High Potential Mineral Areas in Existing & Conservation Planning Area (acres)			% of High Potential Mineral Areas in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	239,656	1,207	217	101,489	77,881	54,252	98%
Imperial Borrego Valley	195,140	11,924	1,312	13,347	92,824	22,181	66%
Kingston and Funeral Mountains	131,830	0	0	70,518	26,860	34,238	99%
Mojave and Silurian Valley	159,082	143	14	72,097	62,307	9,589	91%
Owens River Valley	443	441	24	0	1	0	0.2%
Panamint Death Valley	309,749	21,376	0	259,954	14,725	10,704	92%
Pinto Lucerne Valley and Eastern Slopes	92,707	1,342	260	14,574	44,435	5,486	70%
Piute Valley and Sacramento Mountains	37,763	0	0	24,467	2,010	2,010	75%
Providence and Bullion Mountains	246,813	0	0	125,678	30,061	85,888	98%
West Mojave and Eastern Slopes	106,196	22,390	3,023	1,464	34,104	18,174	51%
Total	1,519,379	58,826	4,850	683,589	394,410	242,523	87%

Note: Acreages are estimates and subject to change

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Table 4.6-8b

Estimated Number of Acres of High Potential Mineral Areas in BLM Proposed Conservation – Alternative 4

Ecoregion	High Potential Mineral Areas in DCLs (acres)			High Potential Mineral Areas in Non-DCLs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	103,019	22,268	125,287	90,694	0	90,694
Imperial Borrego Valley	37,997	22,677	60,674	60,028	22,328	82,356
Kingston and Funeral Mountains	41,562	4,540	46,103	33,363	186	33,550
Mojave and Silurian Valley	19,427	18,709	38,136	28,006	11,144	39,150
Owens River Valley	1	0	1	437	0	437
Panamint Death Valley	21	11,129	11,150	22,846	7,691	30,537
Pinto Lucerne Valley and Eastern Slopes	37,262	6,378	43,640	1,438	21,405	22,842
Piute Valley and Sacramento Mountains	18,487	8,526	27,013	7,089	341	7,431
Providence and Bullion Mountains	58,279	16,390	74,668	69,056	3,394	72,450
West Mojave and Eastern Slopes	7,489	9,386	16,875	4,192	10,272	14,464
Total	323,544	120,003	443,547	317,149	76,761	393,910

Note: Acreages are estimates and subject to change

Description and Comparative Evaluation of Draft DRECP Alternatives

4.6.3.5 Alternative 5

4.6.3.5.1 Geothermal Resources

Under Alternative 5, 88,982 acres of KGRAs would occur within DFAs, with 7,798 of these acres within the DFA development footprint (Table 4.6-9a). The majority of KGRA acres within DFAs occur within the Imperial Borrego Valley ecoregion (6,677 acres). As also shown in Table 4.6-9a, 18,198 acres, or 15%, of KGRAs would occur within the existing or proposed Conservation Planning Areas. Any development of KGRAs within existing or proposed Conservation Planning Areas would occur through directional drilling with no surface occupancy (no surface disturbance) within the conservation lands.

As shown in Table 4.6-9b, approximately 1,020 acres of KGRAs would occur within DCLs and 49,170 acres would occur within non-DCLs.

4.6.3.5.2 Mineral Resource Potential

Under Alternative 5, of the 1,519,381 acres of high potential mineral areas, 132,919 acres would occur within DFAs, with 5,306 of these acres within the DFA development footprint (Table 4.6-10a). The majority of high potential mineral area acres within DFAs would occur within the Imperial Borrego Valley ecoregion (3,823 acres). As also shown in Table 4.6-10a, 1,246,708 acres, or 82%, of high potential mineral areas would occur within the existing or proposed Conservation Planning Areas. As shown in Table 4.6-10b, approximately 408,948 acres of high potential mineral areas would occur within DCLs and 428,509 acres would occur within non-DCLs.

4.6.3.5.3 Existing High Priority Mineral or Energy Locations

Under Alternative 5, the Searles Dry Lake (evaporate) operation, a high priority mineral or energy location, would occur within a DFA. The remaining six high priority mineral and energy locations would occur within existing or proposed Conservation Planning Areas, including: Briggs AU, Etna; Bristoll Dry Lake (evaporate) operation; Cadiz Evaporates; Hector Mine; Mesquite Gold Mine; and MolyCorp (Mountain Pass Mine rare earth elements).

4.6.3.5.4 Rare Earth Element Areas

Under Alternative 5, no rare earth element areas would occur within DFAs or BLM solar variance lands. The majority of the rare earth element areas (59,009 acres) would occur within existing or proposed Conservation Planning Areas.

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Table 4.6-9a

Estimated Number of Acres of KGRAs in DFAs and Conservation Planning Areas by Ecoregion – Alternative 5

Ecoregion	KGRA Acres	KGRAs in DFAs (acres)	KGRAs in DFA Development Footprint (acres)	KGRAs in Existing & Conservation Planning Area (acres)			% of KGRA Acres in Conservation Planning Area
				<i>Existing Conservation Lands</i>	<i>HBS</i>	<i>MBS</i>	
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0	0%
Imperial Borrego Valley	110,477	79,485	6,677	16,563	933	0	16%
Kingston and Funeral Mountains	0	0	0	0	0	0	0%
Mojave and Silurian Valley	0	0	0	0	0	0	0%
Owens River Valley	10,309	9,496	1,121	0	696	5	7%
Panamint Death Valley	0	0	0	0	0	0	0%
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	0%
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	0%
Providence and Bullion Mountains	0	0	0	0	0	0	0%
West Mojave and Eastern Slopes	0	0	0	0	0	0	0%
Total	120,786	88,982	7,798	16,563	1,630	5	15%

Note: Acreages are estimates and subject to change

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Table 4.6-9b
Estimated Number of Acres of KGRAs in BLM Proposed Conservation – Alternative 5

Ecoregion	KGRAs in DCLs (acres)			KGRAs in Non-DCLs		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0
Imperial Borrego Valley	11	577	588	35,574	4,743	40,317
Kingston and Funeral Mountains	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0
Owens River Valley	432	0	432	8,853	0	8,853
Panamint Death Valley	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0
Total	443	577	1,020	44,427	4,743	49,170

Note: Acreages are estimates and subject to change

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Table 4.6-10a

Estimated Number of Acres of High Potential Mineral Areas in DFAs and Conservation Planning Areas by Ecoregion – Alternative 5

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in DFAs (acres)	High Potential Mineral Areas in DFA Development Footprint (acres)	High Potential Mineral Areas in Existing & Conservation Planning Area (acres)			% of High Potential Mineral Areas in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	239,656	2,730	160	101,489	129,035	1,047	97%
Imperial Borrego Valley	195,140	73,009	3,823	13,347	45,994	7,929	35%
Kingston and Funeral Mountains	131,830	859	0	70,518	26,844	33,395	99%
Mojave and Silurian Valley	159,082	160	7	72,097	62,307	9,572	91%
Owens River Valley	443	441	15	0	1	0	0.2%
Panamint Death Valley	309,749	21,376	0	259,954	14,725	10,704	92%
Pinto Lucerne Valley and Eastern Slopes	92,707	1,372	48	14,574	49,894	0	70%
Piute Valley and Sacramento Mountains	37,763	0	0	24,467	11,212	2,010	99%
Providence and Bullion Mountains	246,813	6,467	246	125,678	27,647	81,834	95%
West Mojave and Eastern Slopes	106,196	26,504	1,007	1,464	46,300	2,668	48%
Total	1,519,379	132,919	5,306	683,589	413,959	149,160	82%

Note: Acreages are estimates and subject to change

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Table 4.6-10b

Estimated Number of Acres of High Potential Mineral Areas in BLM Proposed Conservation – Alternative 5

Ecoregion	High Potential Mineral Areas in DCLs (acres)			High Potential Mineral Areas in Non-DCLs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	99,639	22,268	121,907	94,074	0	94,074
Imperial Borrego Valley	12,489	22,676	35,165	85,540	22,325	107,864
Kingston and Funeral Mountains	40,748	4,540	45,289	34,177	186	34,364
Mojave and Silurian Valley	19,410	18,709	38,119	28,023	11,144	39,167
Owens River Valley	1	0	1	437	0	437
Panamint Death Valley	21	11,129	11,150	22,935	7,602	30,537
Pinto Lucerne Valley and Eastern Slopes	36,864	6,378	43,243	2,056	21,184	23,240
Piute Valley and Sacramento Mountains	18,487	8,526	27,013	7,089	341	7,431
Providence and Bullion Mountains	53,854	16,390	70,244	73,481	3,394	76,875
West Mojave and Eastern Slopes	7,433	9,386	16,818	5,237	9,283	14,521
Total	288,946	120,002	408,948	353,050	75,460	428,509

Note: Acreages are estimates and subject to change

Description and Comparative Evaluation of Draft DRECP Alternatives

4.6.3.6 Alternative 6

4.6.3.6.1 Geothermal Resources

Under Alternative 6, 71,368 acres of KGRAs would occur within DFAs, with 6,600 of these acres within the DFA development footprint (Table 4.6-11a). The majority of KGRA acres within DFAs occur within the Imperial Borrego Valley ecoregion (6,125 acres). As also shown in Table 4.6-11a, 1,767 acres, or 2%, of KGRAs would occur within the existing or proposed Conservation Planning Areas. Any development of KGRAs within existing or proposed Conservation Planning Areas would occur through directional drilling with no surface occupancy (no surface disturbance) within the conservation lands.

As shown in Table 4.6-11b, approximately 1,020 acres of KGRAs would occur within DCLs and 49,170 acres would occur within non-DCLs. There would be 17,703 acres of land that occur within BLM solar variance lands that overlap with DCLs and non-DCLs (Table 4.7-11b).

4.6.3.6.2 Mineral Resource Potential

Under Alternative 6, of the 1,519,381 acres of high potential mineral areas, 36,811 acres would occur within DFAs, with 4,588 of these acres within the DFA development footprint (Table 4.6-12a). The majority of high potential mineral area acres within DFAs would occur within the West Mojave and Eastern Slopes ecoregion (2,907 acres). As also shown in Table 4.6-12a, 1,259,420 acres, or 83%, of high potential mineral areas would occur within the existing or proposed Conservation Planning Areas.

As shown in Table 4.6-12b, approximately 420,055 acres of high potential mineral areas would occur within DCLs and 417,404 acres would occur within non-DCLs. There would be 87,023 acres of land that occur within BLM solar variance lands that overlap with DCLs and non-DCLs (Table 4.6-12b).

4.6.3.6.3 Existing High Priority Mineral or Energy Locations

Under Alternative 6, no existing high priority mineral or energy locations occur within DFAs. Five of the seven high priority mineral and energy locations occur within existing or proposed Conservation Planning Areas, including: Briggs AU, Etna; Cadiz Evaporates; Hector Mine; MolyCorp (Mountain Pass Mine rare earth elements); and Searles Dry Lake (evaporate) operation. The Bristoll Dry Lake (evaporate) operation and Mesquite Gold Mine both occur within the BLM Solar PEIS variance lands.

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4.6.3.3.4 Rare Earth Element Areas

Under Alternative 6, no rare earth element areas would occur within DFAs. Approximately 66 acres of rare earth element areas within the Kingston and Funeral Mountains ecoregion would occur within BLM solar variance lands. The majority of the rare earth element areas (58,942 acres) would occur within existing or proposed Conservation Planning Areas.

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Table 4.6-11a

Estimated Number of Acres of KGRAs in DFAs and Conservation Planning Areas by Ecoregion – Alternative 6

Ecoregion	KGRA Acres	KGRAs in DFAs (acres)	KGRAs in DFA Development Footprint (acres)	KGRAs in Existing & Conservation Planning Areas (acres)			% of KGRA Acres in Conservation Planning Area
				<i>Existing Conservation Lands</i>	<i>HBS</i>	<i>MBS</i>	
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0	
Imperial Borrego Valley	110,477	61,872	6,125	1,640	89	3	2%
Kingston and Funeral Mountains	0	0	0	0	0	0	
Mojave and Silurian Valley	0	0	0	0	0	0	
Owens River Valley	10,309	9,496	475	0	35	0	<1%
Panamint Death Valley	0	0	0	0	0	0	
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	
Providence and Bullion Mountains	0	0	0	0	0	0	
West Mojave and Eastern Slopes	0	0	0	0	0	0	
Total	120,786	71,368	6,600	1,640	124	3	2%

Note: Acreages are estimates and subject to change

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**Table 4.6-11b
Estimated Number of Acres of KGRAs in BLM Proposed Conservation – Alternative 6**

Ecoregion	KGRAs in DCLs (acres)			KGRAs in Non-DCLs (acres)			Estimated # within BLM Solar Variance (acres)
	Non-SRMA	SRMA	Subtotal	Non-SRMA	SRMA	Subtotal	
Cadiz Valley and Chocolate Mountains	11	577	588	35,574	4,743	40,317	0
Imperial Borrego Valley	432	0	432	8,853	0	8,853	17,703
Kingston and Funeral Mountains	0	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0	0
Owens River Valley	0	0	0	0	0	0	0
Panamint Death Valley	0	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0	0
Total	443	577	1,020	44,427	0	49,170	17,703

Note: Acreages are estimates and subject to change

Description and Comparative Evaluation of Draft DRECP Alternatives

Table 4.6-12a

Estimated Number of Acres of High Potential Mineral Areas in DFAs and Conservation Planning Areas by Ecoregion – Alternative 6

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in DFAs (acres)	High Potential Mineral Areas in DFA Development Footprint (acres)	High Potential Mineral Areas in Existing & Conservation Planning Area (acres)			% of High Potential Mineral Areas in Conservation Planning Area
				Existing Conservation Lands	HBS	MBS	
Cadiz Valley and Chocolate Mountains	239,656	2,518	561	101,486	72,646	48,998	93%
Imperial Borrego Valley	195,140	6,629	656	13,347	61,571	12,972	45%
Kingston and Funeral Mountains	131,830	0	0	70,497	26,818	28,638	96%
Mojave and Silurian Valley	159,082	143	11	72,094	65,689	4,560	90%
Owens River Valley	443	441	22	0	1	0	<1%
Panamint Death Valley	309,749	33	0	259,954	14,725	32,047	99%
Pinto Lucerne Valley and Eastern Slopes	92,707	2,199	431	14,574	49,528	117	69%
Piute Valley and Sacramento Mountains	37,763	0	0	24,467	11,211	2,000	99%
Providence and Bullion Mountains	246,813	0	0	125,677	39,216	55,620	89%
West Mojave and Eastern Slopes	106,196	24,848	2,907	1,464	36,525	12,978	48%
Total	1,519,379	36,811	4,588	683,560	377,930	197,930	83%

Note: Acreages are estimates and subject to change

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Table 4.6-12b
Estimated Number of Acres of High Potential Mineral Areas in BLM Proposed Conservation – Alternative 6

Ecoregion	High Potential Mineral Areas in DCLs (acres)			High Potential Mineral Areas in Non-DCLs (acres)			Estimated # within BLM Solar Variance (acres)
	Non-SRMA	SRMA	Subtotal	Non-SRMA	SRMA	Subtotal	
Cadiz Valley and Chocolate Mountains	93,742	22,268	116,010	99,970	0	99,970	9,650
Imperial Borrego Valley	27,636	22,677	50,314	70,389	22,327	92,716	46,798
Kingston and Funeral Mountains	41,373	4,532	45,905	33,561	186	33,748	5,665
Mojave and Silurian Valley	19,419	18,709	38,128	28,015	11,144	39,159	1,744
Owens River Valley	1	0	1	437	0	437	0
Panamint Death Valley	21	11,129	11,150	22,860	7,677	30,537	0
Pinto Lucerne Valley and Eastern Slopes	36,275	6,366	42,641	2,436	21,405	23,841	582
Piute Valley and Sacramento Mountains	18,487	8,526	27,013	7,092	339	7,431	12
Providence and Bullion Mountains	55,737	16,390	72,127	72,822	2,169	74,992	21,548
West Mojave and Eastern Slopes	7,380	9,386	16,766	4,502	10,072	14,573	1,024
Total	300,071	119,983	420,055	342,084	75,319	417,404	87,023

Note: Acreages are estimates and subject to change

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4.6.3.7 Alternative 7

4.6.3.7.1 Geothermal Resources

Under Alternative 7, XX,XXX acres of KGRAs would occur within available development areas (Table 4.6-13a). The majority of KGRA acres within the available development area occur within the Imperial Borrego Valley ecoregion (X,XXX acres). As also shown in Table 4.6-13a, 16,563 acres, or 14%, of KGRAs would occur within the existing conservation lands, primarily within the Imperial Borrego Valley ecoregion. As shown in Table 4.6-13b, approximately 423 acres of KGRAs would occur within ACECs and 48,184 acres would occur within non-ACECs.

4.6.3.7.2 Mineral Resource Potential

Under Alternative 7, of the 1,519,381 acres of high potential mineral areas, XX,XXX acres would occur within available development areas (Table 4.6-14a). The majority of high potential mineral acres within available development areas occur within the Imperial Borrego Valley and West Mojave and Eastern Slopes ecoregions (XX,XXX acres). As also shown in Table 4.6-14a, 683,588 acres, or 45%, of high mineral potential areas would occur within the existing conservation lands. As shown in Table 4.6-14b, approximately 188,920 acres of high mineral potential areas would occur within ACECs and 640,840 acres would occur within non-ACECs.

4.6.3.7.3 Existing High Priority Mineral or Energy Locations

Under Alternative 7, 6 of the existing high priority mineral and energy locations occur within available development areas, including: Bristoll Dry Lake (evaporative) operation; Cadiz Evaporites; Hector Mine; Mesquite Gold Mine; MolyCorp (Mountain Pass Mine rare earth elements); and Searles Dry Lake (evaporate) operation. The Briggs AU, Etna location occurs outside of available development areas as well as outside existing conservation areas under Alternative 7.

4.6.3.7.4 Rare Earth Element Areas

Under Alternative 7, no rare earth element areas would occur within available development areas. Approximately 66 acres of rare earth element areas within the Kingston and Funeral Mountains ecoregion would occur within BLM solar variance lands. Approximately 43% (25,611 acres) of the rare earth element areas occur within existing conservation lands.

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Table 4.6-13a

**Estimated Number of Acres of KGRAs in Available Development Areas and Existing Conservation Areas by Ecoregion –
Alternative 7**

Ecoregion	KGRAs (acres)	KGRAs in Available Development Areas (acres)	KGRAs in Existing Conservation Lands (acres)	% of KGRAs in Conservation Lands (acres)
Cadiz Valley and Chocolate Mountains	0		0	0%
Imperial Borrego Valley	110,477		16,563	15%
Kingston and Funeral Mountains	0		0	0%
Mojave and Silurian Valley	0		0	0%
Owens River Valley	10,309		0	0%
Panamint Death Valley	0		0	0%
Pinto Lucerne Valley and Eastern Slopes	0		0	0%
Piute Valley and Sacramento Mountains	0		0	0%
Providence and Bullion Mountains	0		0	0%
West Mojave and Eastern Slopes	0		0	0%
Total	120,786		16,563	14%

Note: Acreages are estimates and subject to change

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Table 4.6-13b
Estimated Number of Acres of KGRAs in BLM Existing Conservation – Alternative 7

Ecoregion	KGRAs in ACECs (acres)			KGRAs in Non-ACECs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	0	0	0	0	0	0
Imperial Borrego Valley	0	0	0	21,540	17,886	39,426
Kingston and Funeral Mountains	0	0	0	0	0	0
Mojave and Silurian Valley	0	0	0	0	0	0
Owens River Valley	0	423	423	0	8,816	8,816
Panamint Death Valley	0	0	0	0	0	0
Pinto Lucerne Valley and Eastern Slopes	0	0	0	0	0	0
Piute Valley and Sacramento Mountains	0	0	0	0	0	0
Providence and Bullion Mountains	0	0	0	0	0	0
West Mojave and Eastern Slopes	0	0	0	0	0	0
Total	0	423	423	21,503	26,681	48,184

Note: Acreages are estimates and subject to change

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Table 4.6-14a

Estimated Number of Acres of High Potential Mineral Areas in Available Development Areas and Existing Conservation Areas by Ecoregion – Alternative 7

Ecoregion	High Potential Mineral Areas (acres)	High Potential Mineral Areas in Available Development Areas (acres)	High Potential Mineral Areas in Existing Conservation Lands (acres)	% of High Potential Mineral Areas in Existing Conservation Lands (acres)
Cadiz Valley and Chocolate Mountains	239,656		101,489	42%
Imperial Borrego Valley	195,140		13,347	7%
Kingston and Funeral Mountains	131,830		70,518	54%
Mojave and Silurian Valley	159,082		72,097	45%
Owens River Valley	443		0	0%
Panamint Death Valley	309,749		259,954	84%
Pinto Lucerne Valley and Eastern Slopes	92,707		14,574	16%
Piute Valley and Sacramento Mountains	37,763		24,467	65%
Providence and Bullion Mountains	246,813		125,678	51%
West Mojave and Eastern Slopes	106,196		1,464	1%
Total	1,519,379		683,588	45%

Note: Acreages are estimates and subject to change

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**Table 4.6-14b
Estimated Number of Acres of High Potential Mineral Areas in BLM Existing Conservation – Alternative 7**

Ecoregion	High Mineral Potential Areas in ACECs (acres)			High Potential Mineral Areas in Non-ACECs (acres)		
	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>	<i>Non-SRMA</i>	<i>SRMA</i>	<i>Subtotal</i>
Cadiz Valley and Chocolate Mountains	28,880	0	28,880	186,049	0	186,049
Imperial Borrego Valley	2,502	19,837	22,339	94,286	25,160	119,446
Kingston and Funeral Mountains	9,249	0	9,249	70,420	0	70,420
Mojave and Silurian Valley	18,984	17,666	36,650	28,231	11,788	40,019
Owens River Valley	0	1	1	0	435	435
Panamint Death Valley	0	827	827	214	40,458	40,672
Pinto Lucerne Valley and Eastern Slopes	31,052	4,367	35,419	7,205	23,139	30,344
Piute Valley and Sacramento Mountains	26,398	0	26,398	7,873	0	7,873
Providence and Bullion Mountains	15,130	64	15,194	129,507	6	129,512
West Mojave and Eastern Slopes	6,702	7,261	13,963	4,607	11,462	16,070
Total	138,897	50,023	188,920	528,392	112,450	640,840

Note: Acreages are estimates and subject to change

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4.6.4 Summary of Conservation and Management Actions, including Allowable Uses and Use Restrictions

Refer to Appendix E for specific guidance.