IV.17 WILD HORSES AND BURROS

This chapter analyzes potential impacts to wild horse and burro herd management areas (HMAs) and herd areas from implementation of the Desert Renewable Energy Conservation Plan (DRECP or Plan) alternatives. For this programmatic-level analysis, existing conditions for wild horse and burro HMAs are described in Volume III, Chapter III.17, Wild Horses and Burros. The primary purpose in quantifying impacts in this chapter is to identify the extent to which HMAs and herd areas intersect with proposed Development Focus Areas (DFAs) and existing and proposed Conservation Planning Areas for each alternative.

IV.17.1 Approach to Impact Analysis

IV.17.1.1 General Methods

This section focuses on solar, wind, geothermal, and transmission developments within DFAs and Bureau of Land Management (BLM) Land Use Plan Amendment and their potential to disturb wild horses and burros or either reduce or alter their HMAs. Impacts of the reserve design on wild horses and burros would be primarily beneficial because the reserve design would preserve, enhance, or restore vegetation communities and important wild horse and burro habitat features that would benefit their populations.

The general threshold in determining the significance of impacts to wild horses and burros addresses the following foundational question:

- Would the proposed project result in a loss of HMA or herd area acres?

The DRECP Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is a programmatic document designed primarily to analyze typical impacts rather than site-specific impacts. Project-specific impacts would be assessed during the permitting process and in supplemental National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) documents. It is important to note that because it is not yet known where alternative energy projects may be developed, it is possible that wild horse and burro HMAs or herd areas could be unaffected. This impact analysis is built around tables displaying HMAs and herd area acreage in the 10 DRECP ecoregion subareas and within DFAs or Conservation Planning Areas.

IV.17.1.2 CEQA Standards of Significance

Both wild horses and burros are located predominantly on federal lands, mainly within HMAs and herd areas located within BLM-administered lands; therefore, a CEQA-level analysis does not apply to wild horses and burros.

IV.17.2 Typical Impacts Common to All Action Alternatives

The potential effects of renewable energy development (solar, wind, and geothermal) and its associated right-of-way (ROW) requirements (major transmission, generator tie lines [gen-ties], and substations) on wild horse and burro HMAs and herd areas within the Plan Area were evaluated by reviewing the Solar Programmatic EIS (Solar PEIS), Wind Programmatic EIS, and Geothermal Programmatic EIS, and assessing their future potential effects.

This section analyzes the impacts—direct and indirect—typical of solar, wind, and geothermal energy development and its associated ROW requirements. DRECP alternatives would ultimately result in future renewable energy development within identified DFAs, and each project would undergo an individual NEPA and/or CEQA analysis. Impacts related to renewable energy projects and their associated facilities would vary depending upon the technology proposed, the location of the project area, the time and degree of disturbance, and the size and complexity of the facility.

Short-term impacts would happen both during and following construction (e.g., construction noise during development). Long-term impacts would happen after completion of both development and construction; all ground disturbances are considered to be long-term impacts.

IV.17.2.1 Impacts of Renewable Energy and Transmission Development

IV.17.2.1.1 Impacts of Site Characterization

Site characterization for individual projects may include construction of temporary access roads, erection of meteorological towers, construction of geotechnical borings, or other activities associated with site reconnaissance. Activities and noise from pre-construction site characterization could force wild horses and burros to change their travel routes and grazing grounds. Surveying activities could alter migration routes if additional roads or routes are developed, especially if fence construction blocks travel paths. Pre-construction fencing activities would be expected to be minimal. Additional roads would improve human access to previously inaccessible areas and potentially degrade habitat. Noise from vehicles and drilling (primarily for geothermal exploration) could disrupt grazing activities and alter travel routes as animals avoid those areas. The magnitude and extent of the impact of these behavioral changes would depend upon current land use (BLM 2008).

IV.17.2.1.2 Impacts of Construction and Decommissioning

Activities associated with construction of individual projects may include ground-disturbing activities (e.g., grading and vegetation clearing), excavation, construction of large-scale fencing (in particular for solar and geothermal projects), and construction traffic. The

construction and decommissioning of renewable energy and transmission facilities could alter both rangeland vegetation and wild horse and burro behavior in HMAs or herd areas in a number of ways.

Potential effects to vegetation and rangeland health within HMAs include (Lovich and Ennen 2011):

- Loss of forage and water for wild horses and burros in areas cleared of vegetation for renewable energy and transmission facility development.
- Wild horses and burros may be displaced from the areas of renewable energy and transmission facility development. This would be especially true for larger projects that require fencing such as solar PV or solar thermal projects.
- Depending on the vegetation in individual HMAs, it might be necessary to reduce the appropriate management level (AML), which is the maximum number of animals sustainable on an annual basis as matched to the forage availability on the remaining portion(s) of HMAs (BLM 2012). A reduction of AML could necessitate the gathering, care, and holding of animals in excess of the revised AML, and would be subject to the requirements of the Wild Free-Roaming Horses and Burros Act of 1971. This can be a lengthy, time-consuming effort that would be subject to [workforce] and budget constraints (BLM 2012).
- Construction of renewable energy and transmission facility projects may introduce non-native invasive plant species during construction and decommissioning phases. Vehicles entering sites from various locations and habitats can introduce non-native invasive species; soil disturbance during construction can also provide opportunities for non-native invasive species to encroach upon native vegetation and alter the nature of the forage available to wild horses and burros.
- Placement of renewable energy and transmission facilities may fragment rangeland habitat within the HMAs and reduce the long-term sustainability and quality of the habitat and forage for wild horses and burros.
- For geothermal energy development, sump pits could provide a catch basin for rainwater (an assumed water source). Sump pits often contain high concentrations of minerals and chemicals from the drilling fluids, which can be toxic to wild horses and burros. Acreage dedicated to well pads and needed equipment would reduce habitat. Aboveground pipelines could pose minimal-to-moderate obstacles in migration, depending upon their placement and size (BLM 2008).

Renewable energy and transmission facility construction and decommissioning may include the following potential effects to the well-being and behavior of wild horses and burros:

- Avoidance of construction noise may lead to disrupted foraging and movement patterns of wild horses and burros, particularly during the peak foaling season of March through June.
- Construction may require the physical removal or relocation of wild horses and burros, which could in turn disrupt foraging and movement patterns.
- Blockage of frequently used habitat or movement corridors due to facility development could affect wild horses and burros, depending on the proximity of the HMAs to development locations.
- Fugitive dust created by construction vehicles may reduce road visibility and increase the probability that wild horses or burros may be either wounded or killed by vehicle traffic.

IV.17.2.1.3 Impacts of Operations and Maintenance

The operations and maintenance of renewable energy and transmission facilities would generally have minimal impacts to horses and burros in HMAs or herd areas other than the displacement and loss of foraging habitat described under construction. Wind and transmission facilities would generally have lower operations-related impacts due to the smaller footprints of these technologies and because the technologies do not require large-scale ROW fencing. Once constructed, wind and transmission facilities would not prevent horse or burro land use other than in areas physically occupied by the facilities (BLM 2012). Access to renewable energy facilities (especially in remote locations) for operations or maintenance may cause disturbance, injury, or harassment of wild horses and burros by vehicles and activity noise along roadways and other ROWs. For geothermal facilities, noise disturbance from operations and maintenance may impact wild horses and burros (Lovich and Ennen 2011).

IV.17.2.2 Impacts of the Reserve Design

Impacts on wild horses and burros from Reserve Design Lands would be primarily beneficial, specifically due to conservation actions within and adjacent to HMAs. Conservation actions that preserve, enhance, or restore vegetation communities and important wild horse and burro habitat features would also benefit their populations. In addition, the designation of conservation areas within and adjacent to wild horse and burro HMAs would preclude development, removing potential future disturbances.

Many Conservation and Management Actions (CMAs) under the action alternatives would benefit wild horses and burros, particularly those that conserve water, vegetation, or habitat resources. Resource setback standards (AM-PW-3) would also benefit wild horses and burros, particularly those in riparian areas that provide water and forage sources.

CMAs specific to wild horses and burros require compliance with the Wild Free-Roaming Horses and Burros Act of 1971 for guidance (e.g., access to forage, water, shelter, open space, and retaining the HMA boundaries). Expansion of HMA boundaries would require a Land Use Plan Amendment (LUPA), which would be paid for by the project applicant if they wanted to develop in the HMA.

Conservation actions requiring on-the-ground surveys or other ground-disturbing activities may adversely impact both wild horses and burros, though these impacts would be both minimal and temporary.

IV.17.2.3 Impacts of BLM Land Use Plan Decisions

IV.17.2.3.1 Impacts of Renewable Energy Development and Transmission on BLM Lands

The typical impacts from the various renewable energy and transmission technologies on BLM lands would be the same as those described in Section IV.17.2.1. However, the specific locations in which renewable energy and transmission development will be allowed by LUPA decisions vary by alternative, which may either encourage or restrict development in some areas, including wild horse and burro HMAs.

IV.17.2.3.2 Impacts of BLM Land Designations and Management Actions

Because the BLM LUPA land designations would be managed to protect ecological, historic, cultural, scenic, scientific, and recreation resources and values, they would also confer general protection for wild horses and burros, particularly in areas adjacent to HMAs. While other land uses are allowed within these areas, other uses must be compatible with the resources and values that the land designation is intended to protect, including natural resources used by wild horses and burros.

Details on allowable uses and management within National Landscape Conservation System (NLCS) lands are presented in the proposed Land Use Plan Amendment described in Volume II. Details on the goals, objectives, allowable uses, and management actions for each Area of Critical Environmental Concern (ACEC) and Special Recreation Management Area (SRMA) are presented in the LUPA worksheets in Appendix H.

IV.17.2.4 Impacts of Natural Community Conservation Plan and General Conservation Plan

The Natural Community Conservation Plan (NCCP) would be administered by the California Department of Fish and Wildlife (CDFW) and apply to the entire Plan Area. The General Conservation Plan (GCP) would be administered by the U.S. Fish and Wildlife Service (USFWS) and would apply to nonfederal lands, a subset of the entire Plan Area.

IV.17.2.4.1 Natural Community Conservation Plan

The impacts of renewable energy development permitted under the NCCP would be the same as those defined for the Plan-wide impacts, including the typical impacts described in Section IV.17.2 and for each alternative.

IV.17.2.4.2 General Conservation Plan

Renewable energy development permitted under the GCP would be applicable to nonfederal land only. The Wild Free Roaming Horses and Burros Act protects these resources only on BLM and U.S. Forest Service (USFS) lands. Therefore, impacts to HMAs and herd areas are analyzed for BLM lands only.

IV.17.3 Impact Analysis by Alternative

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

IV.17.3.1 No Action Alternative

The No Action Alternative assumes that the state's renewable energy goals would be achieved without the DRECP and that renewable energy (approximately 20,000 megawatts [MW]), transmission development, and mitigation for projects in the Plan Area would be developed on a project-by-project basis in a pattern consistent with past and ongoing renewable energy and transmission projects.

Any areas currently excluded from development by statute, regulation, or proclamation would retain those exclusions. Any areas administratively excluded would continue to be assessed based on management guidance from BLM field office land use plans. Without the DRECP, renewable energy development would likely continue to be fragmented, resulting in the increased likelihood of fragmentation of wild horse and burro ranges, resources, and habitat.

IV.17.3.1.1 Impacts Within the Entire Plan Area in No Action Alternative

IV.17.3.1.1.1 Impacts and Mitigation for Renewable Energy and Transmission Development in No Action Alternative

Potential impacts to wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under the No Action Alternative follow.

Impact Assessment

Under the No Action Alternative, there are approximately 563,000 HMA acres within the California Desert Conservation Area (CDCA) boundaries, and approximately 1,644,000 herd area acres that overlap with available development areas (Figure IV.17-1).

- **HMAs:** Under the No Action Alternative, potential solar energy development (available development areas) would overlap with wild horse and burro HMAs on approximately 3,000 acres within the Chicago Valley HMA in the Kingston and Funeral Mountains ecoregion subarea (Figure IV.17-1).
- **Herd Areas:** Available solar energy development areas would overlap with herd areas on approximately 9,000 acres and transmission would overlap with approximately 500 herd area acres, primarily within the Kingston and Funeral Mountains and Cadiz Valley and Chocolate Mountains ecoregion subareas (Figure IV.17-1).
- Total potential overlap of HMAs and herd areas with renewable energy and transmission facility development within available development areas would be approximately 12,000 acres for solar energy and 500 acres for transmission development.

Potential impacts to wild horses and burros under the No Action Alternative follow.

Impact WH-1: Plan components would result in loss of forage for wild horses and burros.

Renewable energy and transmission facilities could be built on approximately 12,000 acres of HMAs and herd areas. Construction and decommissioning may result in the long-term loss of forage for wild horses and burros in areas cleared of vegetation. Non-native invasive plant species may also be introduced to project areas during construction and decommissioning. Soil disturbance during construction can also allow non-native invasive species to encroach upon native vegetation and alter the nature of the forage available to wild horses and burros. The loss of forage would be analyzed on a case-by-case basis for each potential renewable energy project, and mitigation similar to that used for existing projects would reduce impacts.

Impact WH-2: Plan components would result in displacement of wild horses and burros.

Construction and decommissioning activities (e.g., dust, noise, vegetation removal, human presence) may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (Peak foaling season is March through June).

Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features (e.g., forage, water) within HMAs and reduce the long-term sustainability and quality of both habitat and forage. If renewable energy and transmission development reduces access to wild horse and burro habitat, it may require relocation of the animals or a reduced AML, which could disrupt foraging and movement patterns. Any relocation would be subject to appropriate laws and regulations.

Renewable energy and transmission facilities could fragment rangeland habitat within the HMAs, and reduce the long-term sustainability and quality of both habitat and forage. Concentration of minerals and chemicals from geothermal development could also be toxic to wild horses and burros, further reducing available foraging habitat.

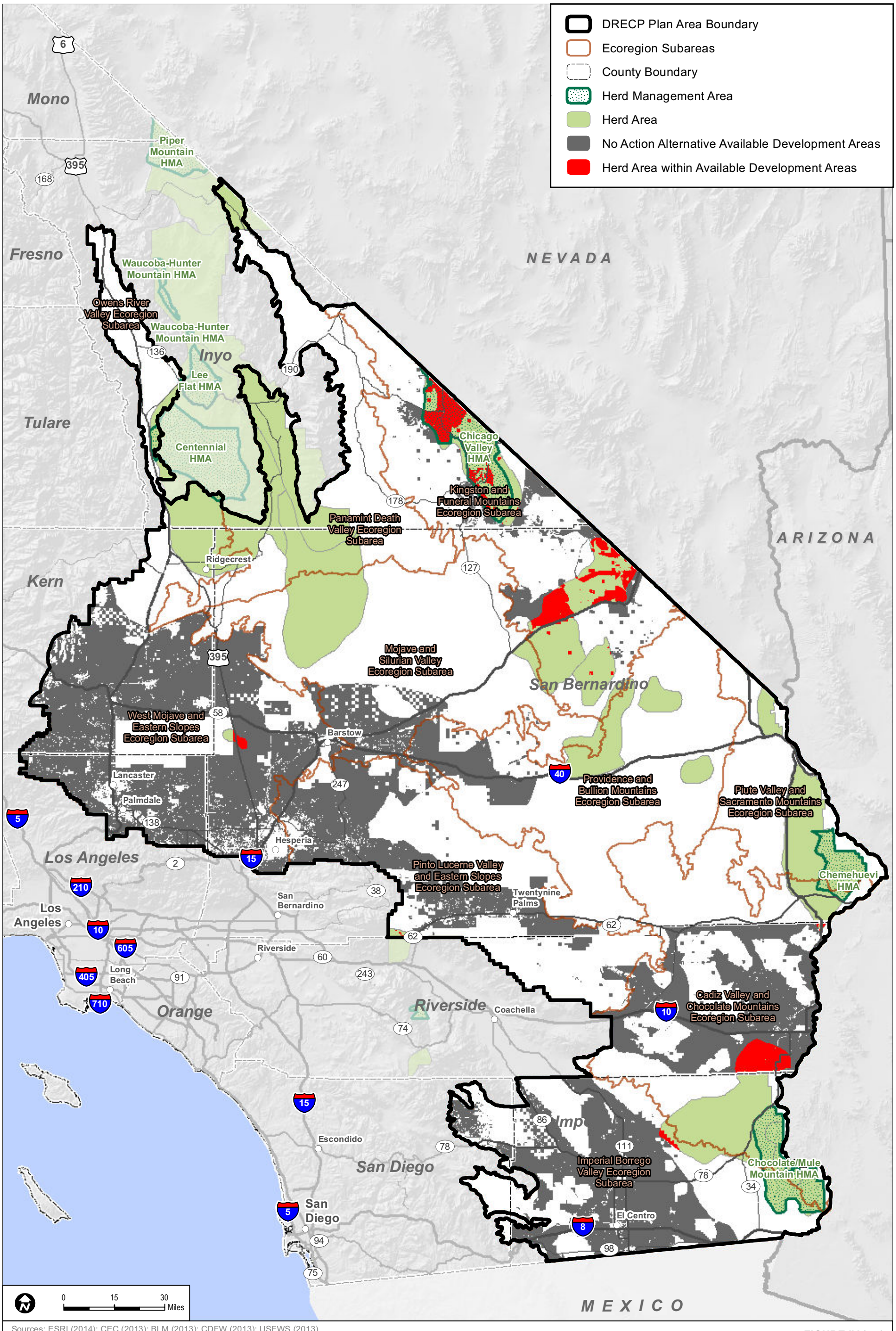
Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.

Construction and decommissioning activities would result in fugitive dust from construction vehicles that could reduce road visibility and increase wild horse and burro injury and death from vehicle traffic (generally a short-term impact). Operations and maintenance activities may result in long-term disturbance, injury, or harassment of wild horses and burros by vehicles and noise along roadways and other ROWs.

Laws and Regulations

Existing laws and regulations would reduce the impacts of renewable energy development projects in the absence of the DRECP. Relevant regulations are presented in the Regulatory Setting in Volume III. Because this EIR/EIS addresses amendments to BLM's land use plans, those plans are addressed separately and are not included in this chapter. The requirements of relevant regulations would reduce impacts through the following mechanisms:

- The Wild Free-Roaming Horses and Burros Act of 1971 (16 United States Code [U.S.C.] 1331-1340), as amended by the Federal Land Policy and Management Act (FLPMA) and the Public Rangelands Improvement Act of 1978, provides for protection of wild, free-roaming horses and burros. It directs BLM and USFS to manage such animals on the public lands under their jurisdiction.



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

FIGURE IV.17-1

HMAs and Herd Areas within Available Development Areas - No Action

Draft DRECP and EIR/EIS

August 2014

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Mitigation

Mitigation measures adopted for recently approved renewable energy and transmission development projects would likely be the same as those applied under the No Action Alternative. Examples include:

- Coordinating with BLM and other stakeholders to avoid, minimize, and/or mitigate impacts to wild horses and burros and their herd management areas.
- Identifying wild horses and burros and their HMAs near a proposed project and managing impacts by installing fences and access control, providing movement corridors, delineating open range, and requiring traffic management measures.
- Providing access to water sources or avoiding impacts to water sources.

IV.17.3.1.1.2 Impacts From Reserve Design in the No Action Alternative

The No Action Alternative has no reserve design, but without approval of an action alternative, there would be continued protection of existing Legislatively and Legally Protected Areas (LLPAs) like wilderness areas and other conservation areas including ACECs, HMAs, and Desert Wildlife Management Areas. In addition, under the No Action Alternative, renewable energy projects would continue to be evaluated and approved in accordance with project-specific mitigation requirements.

Potential impacts to wild horse and burro HMAs and herd areas from existing BLM conservation land designations (such as ACECs and SRMAs) under the No Action Alternative, follow:

- **HMAs:** Under the No Action Alternative, approximately 12,000 HMA acres overlap existing ACECs, and approximately 25,000 HMA acres overlap with existing SRMAs and areas managed for recreation emphasis (total of approximately 37,000 acres, or about 7% of HMA acres in the Plan Area).
- **Herd Areas:** Under the No Action Alternative, there are approximately 413,000 acres within ACECs and approximately 28,000 within SRMAs and areas managed for recreation (total of approximately 441,000 acres, or about 27% of herd area acres in the Plan Area).

Under the No Action Alternative, there would be no change to existing BLM Conservation Designations, HMAs, or herd areas. There would be no impacts from conservation land designations on HMAs and herd areas.

Any mitigation measures within or adjacent to HMAs or herd areas, under the No Action Alternative, would likely result in beneficial effects such as improved forage from revegetation efforts and improved water sources or access to water. However, the No Action Alter-

native would not establish a reserve design to guide locations of future BLM land designations or where reserves could be assembled. In addition, renewable energy development would continue in a fragmented and scattered manner. Conservation or mitigation measures would continue to be determined on a case-by-case basis.

IV.17.3.1.2 Impacts on BLM Lands of Existing BLM Land Use Plans in No Action Alternative

Under the No Action Alternative, existing BLM land use plans within the Plan Area would continue to be implemented within BLM-administered lands. These land use plans would continue to allow for renewable energy and transmission development within certain land designations, including Solar PEIS Solar Energy Zones (SEZs), Solar PEIS Variance Lands, and designated corridors. These projects would continue to require LUPAs if they are sited outside of SEZs, Variance Lands and designated corridors.

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts to wild horses and burros on BLM-administered lands under existing land use plans would be the same as discussed in Section IV.17.3.1.1.1.

IV.17.3.1.3 Impacts of Natural Community Conservation Plan in No Action Alternative

The NCCP would apply to all lands within the Plan Area. In the absence of Plan implementation, the NCCP would not be approved and no incidental take permits would be issued under the NCCP. Projects would continue to be considered by the appropriate lead agency on an individual basis. The impacts that would occur in the absence of the NCCP would be the same as those described in Section IV.17.3.1.1.1 (Plan-wide analysis).

IV.17.3.1.4 Impacts of General Conservation Plan in No Action Alternative

As described in Appendix M, the GCP would apply to nonfederal lands in the Plan Area. Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands; therefore, the GCP would have little impact on wild horse and burro resources.

IV.17.3.1.5 Impacts Outside the Plan Area in No Action Alternative

IV.17.3.1.5.1 Impacts of Transmission Outside the Plan Area

Additional transmission lines would be needed to deliver renewable energy to load centers (areas of high demand) outside the Plan Area. It is assumed that new Outside of Plan Area

transmission lines would use existing transmission corridors between the Plan Area and existing substations in the more heavily populated portions of the state. Transmission line development occurs within long linear corridors that traverse all types of land uses, including urban areas with high-density residential and commercial land uses. The Out of Plan areas through which new transmission lines might be constructed include the San Diego, Los Angeles, North Palm Springs–Riverside, and Central Valley areas. These areas and corridors are described in Volume III, Section III.17.5.

The only transmission area with wild horse and burro HMAs and herd areas is in the North Palm Springs–Riverside area. Approximately 4 miles of the Morongo herd area would be traversed by a corridor. The Palm Canyon HMA and herd area would be approximately 1.5 miles from a corridor.

Transmission lines are linear features with mostly cleared land under them. They would not create a barrier to or displace horses and burros. In addition, limited herd area is traversed by a corridor. Impacts on wild horses and burros within the Plan Area would therefore not occur outside the Plan Area.

Impacts within the Plan Area, but not expected to occur outside the Plan Area transmission corridors, are:

- WH-1: Plan components would result in loss of forage for wild horses and burros.
- WH-2: Plan components would result in displacement of wild horses and burros.
- WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.
- WH-4: Plan components would result in injury, harassment, or increased mortality from construction, operations, or maintenance activities.

IV.17.3.1.5.2 Impacts of Existing BLM Land Use Plans Outside the Plan Area

Under the No Action Alternative, the existing BLM CDCA Plan would continue to be implemented on CDCA lands. The existing land designations, such as existing protected areas, ACECs, and National Historic Trails, would continue to be managed to protect their associated values and resources. Renewable energy and transmission projects would continue to be developed through BLM's existing policies. Impacts on wild horses and burros would be of the types described in Section IV.17.2.1, with similar mitigation measures undertaken on a case-by-case basis.

Potential impacts to wild horse and burro HMAs and herd areas resulting from BLM land use plan decisions outside the Plan Area follow. There are approximately 248,000 acres of

wild horse and burro HMAs and approximately 547,000 acres of herd areas on BLM LUPA lands outside the Plan Area (total of approximately 795,000 acres).

- **HMAs:** Under the No Action Alternative, there are approximately 6,000 HMA acres within ACECs, and approximately 182,000 HMA acres within SRMAs and areas managed for recreation (total of approximately 188,000 acres or about 75% of HMA acres outside the Plan Area).
- **Herd Areas:** For herd areas, there are approximately 33,000 acres within ACECs and approximately 257,000 acres within SRMAs and areas managed for recreation emphasis (total of approximately 290,000 acres or about 53% of herd area acres in the Plan Area).

Impacts to wild horses and burros on BLM-administered lands under existing land use plans outside the Plan Area would be the same as discussed in Section IV.17.3.1.1.1.

IV.17.3.2 Preferred Alternative

IV.17.3.2.1 Plan Wide Impacts of Implementing the DRECP: Preferred Alternative

IV.17.3.2.1.1 Plan-wide Impacts and Mitigation Measures From Renewable Energy and Transmission Development

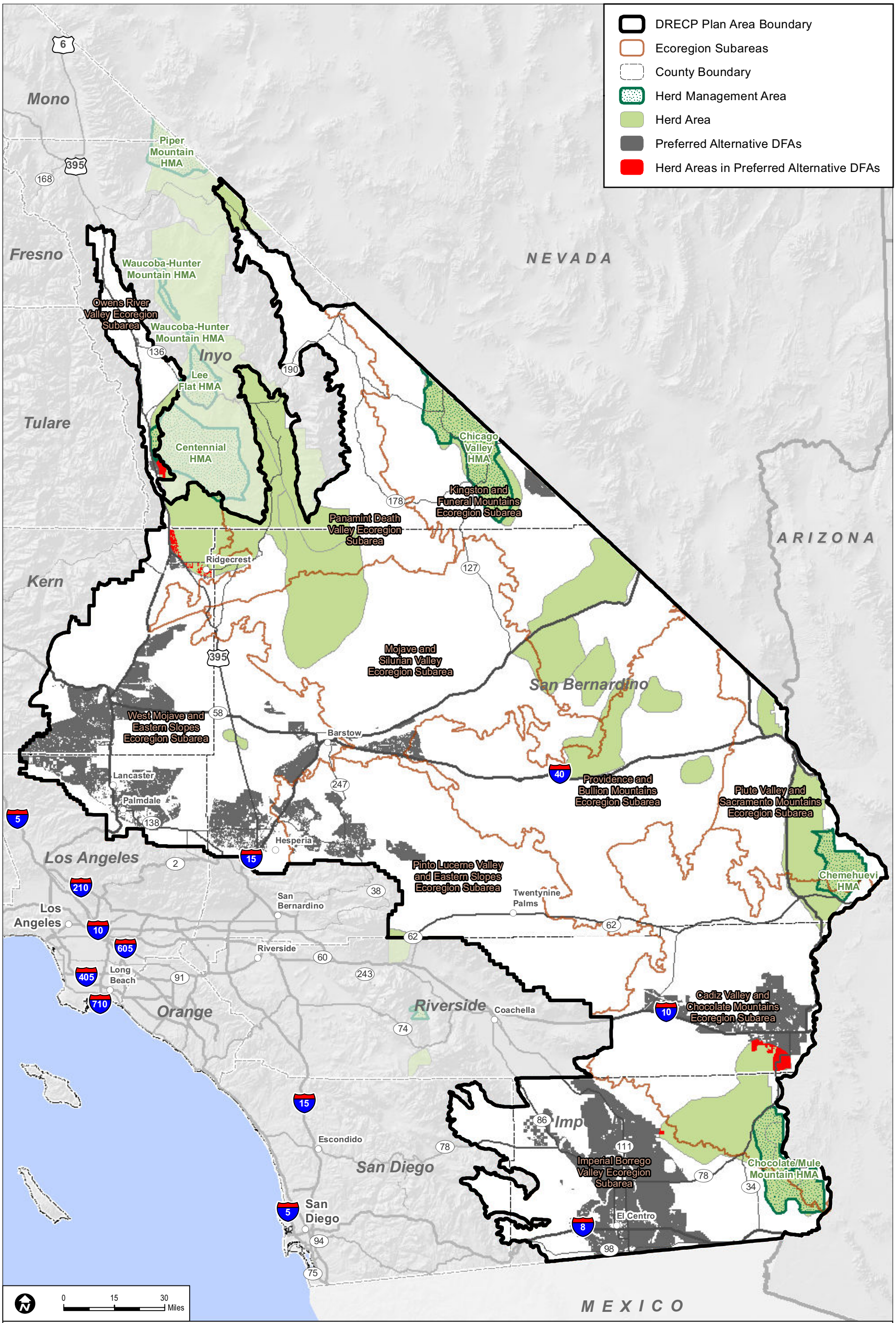
Potential impacts to wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under the Preferred Alternative are summarized and shown in Figure IV.17-2.

Impact Assessment

Under the Preferred Alternative, wild horse and burro herd areas would overlap with DFAs as follows:

- **HMAs:** Under the Preferred Alternative, no HMA acres would occur within DFAs (Figure IV.17-2).
- **Herd Areas:** Under the Preferred Alternative, approximately 3,000 herd area acres would occur within DFAs (1,700 acres solar, 200 acres wind, 500 geothermal, and 200 acres in transmission corridors), primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea (Figure IV.17-2).

In areas where DFAs overlap with herd areas, potential renewable energy and transmission development would have the following impacts:



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

FIGURE IV.17-2

HMAs and Herd Areas within Development Focus Areas - Preferred Alternative

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Impact WH-1: Plan components would result in loss of forage for wild horses and burros.

Renewable energy and transmission facilities could potentially be developed on approximately 3,000 acres of herd areas in the Plan Area. As described under the No Action Alternative, this may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that may alter the nature of available forage.

Impact WH-2: Plan components would result in displacement of wild horses and burros.

Construction and decommissioning activities on or near herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (Peak foaling season is March through June).

Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation may occur if projects are located in herd areas.

Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.

Construction and decommissioning activities would result in fugitive dust from construction vehicles that could reduce road visibility and increase the possibility of wild horse and burro injury or death from traffic (generally a short-term impact). Operations and maintenance activities may result in long-term disturbance, injury, or harassment of wild horses and burros by vehicles and noise along roadways and other ROWs.

Impacts in Study Area Lands

Study Area Lands refer to three categories of lands shown on alternative maps: Future Assessment Areas (FAAs), Special Analysis Areas (SAAs) and DRECP Variance Lands.

Future Assessment Areas. Lands within FAAs are neither reserve lands nor DFAs; they are simply areas that are deferred for future assessment. The future assessment will determine their suitability for renewable energy development or for ecological conservation. If renewable energy facilities are built FAA lands, a LUPA would not be required. FAAs for each alternative are shown in Table IV.1-2 and Figure III.3-1 in Volume II. The FAAs represent areas where renewable energy development or inclusion in the reserve design could

be implemented through an amendment to the DRECP, though additional assessment would be required.

Development of the FAAs would not impact wild horses and burros or their associated HMAs and herd areas.

Special Analysis Areas. There are two areas defined as SAAs, which are areas subject to ongoing analysis. These areas (located in the Silurian Valley and just west of U.S. Route 395 (U.S. 395) have high value for renewable energy development, and also high value for ecological and cultural conservation and recreation. SAA lands are expected to be designated in the Final DRECP as DFAs or included in the reserve design. Development of the SAAs would not impact wild horses and burros or their HMAs and herd areas.

DRECP Variance Lands. DRECP Variance Lands represent the BLM Solar PEIS Variance Lands as screened for the DRECP and based on BLM screening criteria. Covered Activities could be permitted for NCCP purposes only through an NCCP plan amendment. However, development of renewable energy projects on Variance Lands would not require a BLM LUPA, so the environmental review process would be somewhat simpler than if the location were undesignated. Development of the DRECP Variance Lands would not impact wild horses and burros or their HMAs and herd areas.

Impact Reduction Strategies and Mitigation

The implementation of the Plan 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 Plan would be lessened in several ways. First, the Plan incorporates CMAs for each alternative, including specific biological reserve design components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development. If significant impacts would still result after implementation of CMAs and compliance with applicable laws and regulations, then specific mitigation measures are recommended in this section.

Conservation and Management Actions

The conservation strategy for the Preferred Alternative (presented in Volume II, Section II.3.1.1) defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes definition of the reserve design and specific CMAs for the Preferred Alternative. While the CMAs were developed for BLM lands only, this analysis assumes that all CMAs would also apply to nonfederal lands.

CMAs for wild horses and burros, including HMAs and herd areas, on BLM-administered lands are listed in Volume II and include actions that apply to project-specific activities.

The CMAs pertinent to wild horses and burros for DFAs, DRECP Variance Lands, FAAs, and SAAs for the Preferred Alternative follow:

- Incorporate all guidance provided by the Wild Free-Roaming Horses and Burros Act of 1971, its amendments, associated regulations, and any pertinent court rulings.
- Do not allow development that would reduce burros' access to forage, water, shelter, or space or impede their wild, free-roaming behavior in HMAs.
- Mitigation can only occur on lands where the animals were found at the time of passage of the Act. To expand the boundaries of an HMA back into the herd area would require a land use plan amendment, the cost of which would be incurred by the applicant wishing to develop in the HMA.

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations would reduce certain impacts of Plan implementation. Relevant regulations are presented in the Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized above for the No Action Alternative in Section IV.17.3.1.1.1.

Mitigation Measures

After implementation of the CMAs and existing laws and regulations, mitigation measures would be applied to further reduce the DRECP's adverse impacts. Mitigation measures for impacts WH-1, WH-2, WH-3, and WH-4 include:

Mitigation Measures for Impact WH1: Plan components would result in loss of forage for wild horses and burros.

Mitigation is required to ensure that forage lands and water sources for wild horses and burros remain intact.

WH-1a **Ensure access to water sources.** During the lifetime of renewable energy facilities, renewable energy development areas should not eliminate access to water sources and routes to water sources, or alternate water sources or routes should be provided.

WH-1b **Coordinate with stakeholders to mitigate impacts.** Coordinate with BLM and other stakeholders early in the planning process to consider options to avoid, minimize, and mitigate impacts on wild horses and burros and their HMAs.

WH-1c **Delineate habitat to protect wild horses and burros.** Minimize impacts to wild horses and burros and their HMAs by implementing the following: (1) install fencing and access control, (2) provide movement corridors, (3) delineate open range, (4) require traffic management measures such as vehicle speed limits, (5) ensure access to or replace water sources, and (6) exclude wild horses and burros from renewable energy sites.

Mitigation Measures for Impact WH-2: Plan components would result in displacement of wild horses and burros. Mitigation Measures WH-1b and WH-1c would prevent displacement of wild horses and burros.

Mitigation Measures for Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation. Mitigation Measures WH-1a, WH-1b, and WH-1c would ensure continuing access to habitat for wild horses and burros.

Mitigation Measures for Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities. Mitigation Measures WH-1b, and WH-1c would ensure that wild horses and burros remain protected from the construction and operation of renewable energy facilities.

IV.17.3.2.1.2 Impacts of the Reserve Design

Under the Preferred Alternative, potential impacts on wild horse and burro HMAs and herd areas from Reserve Design Lands would be beneficial. The objective of the reserve design under the Preferred Alternative is to ensure that renewable energy development projects have no negative impacts on sensitive resources, including wild horses and burros. The proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because of disturbance caps designed to conserve and protect resource values. Development in NLCS lands would be limited to 1% of total authorized disturbance, or to the level allowed by collocated ACEC/wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby provide protection for HMAs and herd areas as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on allowable uses within the SRMAs.

Potential impacts to wild horse and burro HMAs and herd areas resulting from Reserve Design Lands designations under the Preferred Alternative follow.

- **HMAs:** Under the Preferred Alternative, approximately 302,000 HMA acres (54% of HMA acres in the Plan Area) would occur within existing and proposed Reserve Design Lands (approximately 224,000 acres in NLCS lands, 5,000 acres in ACECs, 22,000 in SRMAs, 34,000 acres within National Trail Management Corridors, and 18,000 in lands with wilderness characteristics).
- **Herd Areas:** Under the Preferred Alternative, approximately 1,198,000 herd area acres (73% of herd area acres in the Plan Area) would occur within existing and proposed Reserve Design Lands (approximately781,000 acres in NLCS lands, 209,000 acres in ACECs, 23,000 in SRMAs, 58,000 acres within Trail Management Corridors, and 128,000 in lands with wilderness characteristics).

IV.17.3.2.2 Impacts of DRECP Land Use Plan Amendment on BLM Land: Preferred Alternative

This section addresses two components of effects of the BLM LUPA: the streamlined development of renewable energy and transmission on BLM land under the LUPA, and the impacts of the amended land use plans themselves.

IV.17.3.2.2.1 Impacts From Renewable Energy and Transmission Development on BLM Land

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of renewable energy and transmission development (within DFAs) to wild horses and burros on BLM-administered lands under the Preferred Alternative would be the same as discussed in Section IV.17.3.2.1.1.

IV.17.3.2.2.2 Impacts of Changes to BLM Land Designations

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of BLM land designations to wild horses and burros on BLM-administered lands under the Preferred Alternative would be the same as discussed in Section IV.17.3.2.1.2.

IV.17.3.2.3 Impacts of Natural Community Conservation Plan: Preferred Alternative

The analysis of Covered Activities under the NCCP is equivalent to the Plan-wide analysis of the interagency alternatives. Reserve design features and other conservation actions under the NCCP alternatives represent more detailed categories of the reserve design under the interagency Plan-wide alternatives. These NCCP differences in reserve design features do

not affect nonbiological resources analyzed in this document, and the analysis of reserve design and CMAs under the NCCP is therefore equivalent to the Plan-wide analysis of the interagency alternatives, as described in Section IV.17.3.2.1.

IV.17.3.2.4 Impacts of General Conservation Plan

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands. The GCP applies to nonfederal lands and would have little impact on wild horse and burros.

IV.17.3.2.5 Impacts Outside the Plan Area

IV.17.3.2.5.1 Impacts of Transmission Outside the Plan Area

No impacts on wild horses and burros are expected from transmission outside the Plan Area, as discussed for the No Action Alternative in Section IV.17.3.1.5.1, Impacts of Transmission Outside of Plan Area.

IV.17.3.2.5.2 Impacts of BLM LUPA Decisions Outside the Plan Area

Under the Preferred Alternative, there are approximately 248,000 acres of wild horse and burro HMAs and 547,000 acres of herd areas on BLM LUPA lands outside the Plan Area (total of approximately 795,000 acres). Potential impacts to wild horse and burro HMAs and herd areas from BLM LUPA decisions under the Preferred Alternative for the CDCA outside the Plan Area are summarized and presented in Table R2.17-6 (Appendix R2).

- **HMAs:** Under the Preferred Alternative, approximately 104,000 HMA acres (42% of the HMA acres outside the Plan Area) would occur within existing and proposed Reserve Design Lands (approximately 65,000 acres in NLCS lands, 36,000 acres in ACECs, and 2,000 acres within Trail Management Corridors).
- **Herd Areas:** For herd areas, approximately 298,000 acres (54% of the herd area acres outside the Plan Area) would occur within existing and proposed Reserve Design Lands (126,000 acres in NLCS lands, 148,000 acres in ACECs, and 24,000 acres within Trail Management Corridors).

Impacts of BLM land designations outside the Plan Area to wild horses and burros on BLM-administered lands under the Preferred Alternative would be the same as discussed in Section IV.17.3.2.1.2.

IV.17.3.2.6 Comparison of the Preferred Alternative With No Action Alternative

Chapter IV.27 presents a comparison of all action alternatives and the No Action Alternative across all disciplines. This section summarizes the comparison of the Preferred Alternative with the No Action Alternative.

IV.17.3.2.6.1 Preferred Alternative Compared With No Action Alternative for Plan-wide DRECP

The Preferred Alternative would result in fewer impacts, overall, to wild horses and burros compared with the No Action Alternative. The differences between the Preferred Alternative and No Action Alternative within DFAs follow.

- **HMAs:** Under the Preferred Alternative, no HMA acres would occur within DFAs (Figure IV.17-2), as compared with approximately 3,000 acres under the No Action Alternative.
- **Herd Areas:** Under the Preferred Alternative, approximately 3,000 herd area acres would overlap with DFAs compared with the 9,000 herd area acres under the No Action Alternative.
- The overall number of acres of potential impacts from renewable energy and transmission development within DFAs would be reduced in the Preferred Alternative when compared with the No Action Alternative. The DFAs under the Preferred Alternative would create more concentrated areas of development and therefore result in reduced potential adverse impacts on HMAs and herd areas when compared with the fragmented available development areas under the No Action Alternative (See Figures IV.17-1 and IV.17-2).

The differences follow between the Preferred Alternative and No Action Alternative within Reserve Design Lands.

- **HMAs:** Under the No Action Alternative, approximately 37,000 acres occur within existing ACECs and SRMAs, which is nearly 11,000 acres greater than under the Preferred Alternative (26,000 acres of ACECs and SRMAs under the Preferred Alternative). However, the Preferred Alternative would designate more overall acres of NLCS and Reserve Design Land than the No Action Alternative and would potentially have greater benefit to wild horses and burros. The reserve design under the Preferred Alternative would create more concentrated areas of conservation and would, therefore, result in greater potential beneficial impacts on HMAs and herd areas as compared with the fragmented conservation efforts under the No Action Alternative.

- **Herd Areas:** Under the No Action Alternative, approximately 441,000 herd area acres occur within existing ACECs, SRMAs, and areas managed for recreation emphasis, which is about 175,000 acres greater than under the Preferred Alternative (209,000 acres of existing and proposed ACECs and SRMAs under the Preferred Alternative). However, the Preferred Alternative would designate more overall acres of NLCS and Reserve Design Lands than the No Action Alternative.
- Overall, there would be lower impacts to wild horse and burro HMAs and herd areas under the Preferred Alternative because of the increased acreage of BLM land designations (Reserve Design Lands in addition to existing and proposed ACECs and SRMAs) compared with the No Action Alternative. The Reserve Design Lands would benefit wild horses and burros by protecting habitat and forage lands and capping the amount of future development near HMAs.

IV.17.3.2.6.2 Preferred Alternative Compared With No Action Alternative for the BLM Land Use Plan Amendment

Impacts of BLM land designations to wild horses and burros on BLM-administered lands under the Preferred Alternative as compared with the No Action Alternative would be the same as discussed for the Plan-wide analysis.

IV.17.3.2.6.3 Preferred Alternative Compared With No Action Alternative for NCCP

The impacts of the NCCP for the Preferred Alternative are the same as those defined in Section IV.17.3.2.1 for the Plan-wide analysis. As a result, the comparison of the Preferred Alternative with the No Action Alternative for the NCCP is the same as described for the Plan-wide DRECP.

IV.17.3.2.6.4 Preferred Alternative Compared With No Action Alternative for the GCP

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands; therefore, the GCP would have little impact on wild horses and burros.

IV.17.3.3 Alternative 1

IV.17.3.3.1 Plan-wide Impacts of Implementing the DRECP: Alternative 1

IV.17.3.3.1.1 Plan-wide Impacts and Mitigation Measures From Renewable Energy and Transmission Development

Potential impacts to wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under Alternative 1 are summarized and shown in Figure IV.17-3.

Impact Assessment

Under Alternative 1, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 1, approximately 100 HMA acres would occur within DFAs (primarily solar within the Centennial HMA in the Owens River Valley ecoregion subarea) (Figure IV.17-3).
- **Herd Areas:** Under Alternative 1, approximately 3,000 herd area acres would occur within DFAs (nearly 3,000 acres solar and 200 acres transmission), primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea (Figure IV.17-3).

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following impacts:

Impact WH-1: Plan components would result in loss of forage for wild horses and burros.

There is potential renewable energy and transmission development on approximately 3,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in long-term loss of forage for wild horses and burros. The introduction of non-native invasive plant species may also alter the nature of available forage.

Impact WH-2: Plan components would result in displacement of wild horses and burros.

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (Peak foaling season is March through June).

Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.

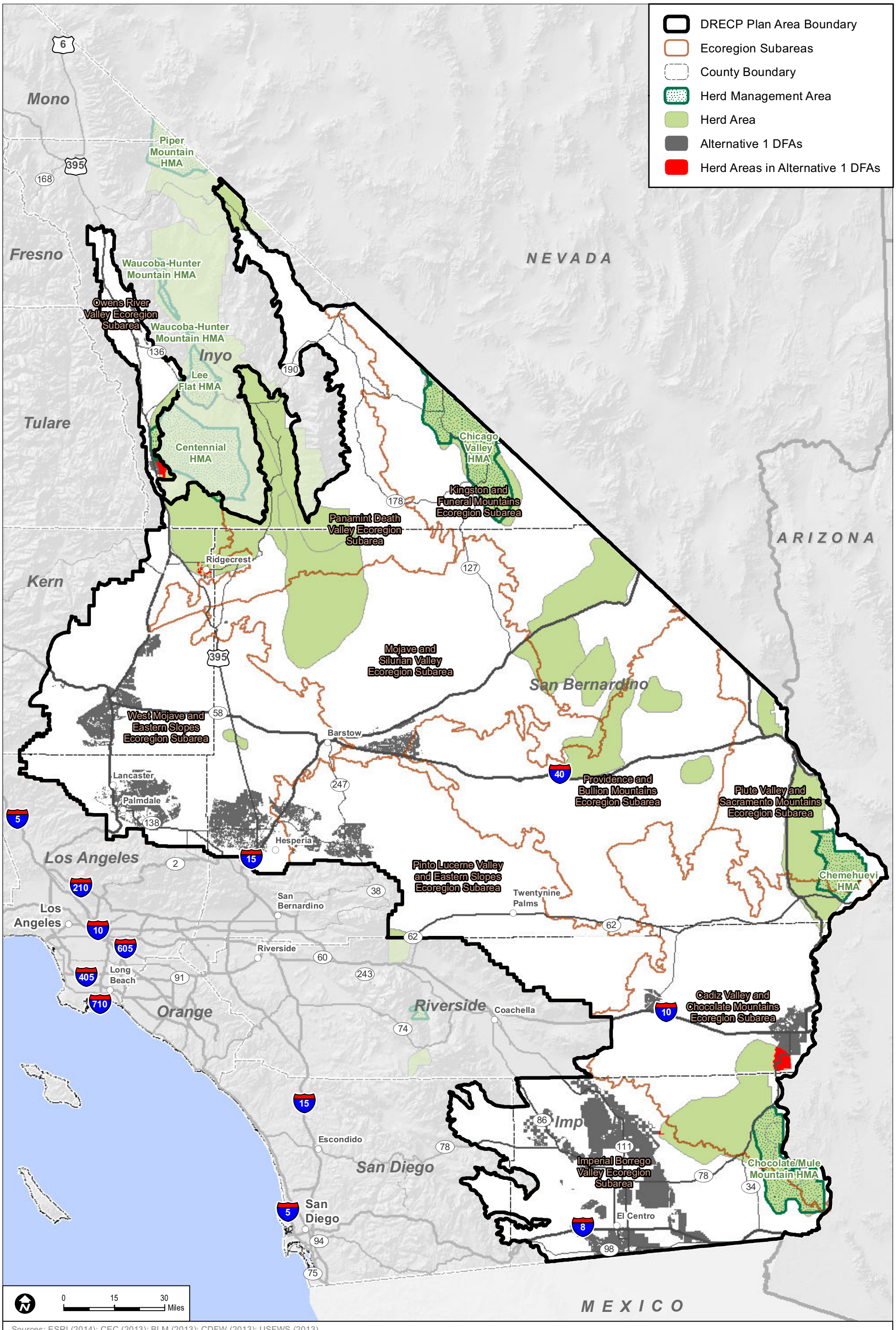
Construction and decommissioning activities would cause fugitive dust from construction vehicles that could reduce road visibility and increase the possibility of wild horse or burro injury or death from traffic (generally short-term impact). Operations and maintenance activities may result in long-term disturbance, injury, or harassment of wild horses and burros by vehicles and noise along roadways and other ROWs.

Impacts in Study Area Lands

Future Assessment Areas. There are no FAAs in Alternative 1.

Special Analysis Areas. Designating the SAAs as conservation would have no impact on wild horses and burros or their HMAs and herd areas. Impacts would be the same as those described for the Plan-wide reserve design in Section IV.17.3.3.1.2 (Impacts from Reserve Design).

DRECP Variance Lands. DRECP Variance Lands represent the BLM Solar PEIS Variance Lands screened for the DRECP and based on BLM screening criteria. Covered Activities could be permitted for NCCP purposes only through an NCCP plan amendment. However, the development of renewable energy on Variance Lands would not require a BLM LUPA so the environmental review process would be somewhat simpler than if the location were undesignated. Development of DRECP Variance Lands would not impact wild horses and burros or their HMAs and herd areas.



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

FIGURE IV.17-3

HMAs and Herd Areas within Development Focus Areas - Alternative 1

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Impact Reduction Strategies and Mitigation

The implementation of the Plan 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 Plan would be lessened in several ways. First, the Plan incorporates CMAs for each alternative, including specific biological reserve design components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development. If significant impacts would still result after implementation of CMAs and compliance with applicable laws and regulations, then specific mitigation measures are recommended in this section.

Conservation and Management Actions

The conservation strategy for Alternative 1 (presented in Volume II, Section II.3.1.1) defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes definition of the reserve design and specific CMAs for Alternative 1. The CMAs for Alternative 1 for wild horses and burros are the same as those presented for the Preferred Alternative in Section IV.17.3.2.1.1.

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of Plan implementation. Relevant regulations are presented in the Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized above for the No Action Alternative in Section IV.17.3.1.1.1.

Mitigation Measures

After implementation of the CMAs and existing laws and regulations, implementation of mitigation measures is required to reduce the adverse impacts described for impacts WH-1 through WH-4. Mitigation Measures WH-1a through WH-1c would be applied to further reduce some of these adverse impacts. Mitigation measures for Alternative 1 are the same as those described under the Preferred Alternative in Section IV.17.3.2.1.1.

IV.17.3.3.1.2 Impacts From Reserve Design

Under Alternative 1, potential impacts on wild horse and burro HMAs and herd areas from Reserve Design Lands would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because disturbance caps are designed to conserve and protect resource values. Development in NLCS lands would be limited to 1% of total authorized disturbance, or to the level allowed by collocated ACEC/wildlife

allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and provide protection for HMAs and herd areas, as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

Potential impacts to wild horse and burro HMAs and herd areas resulting from Reserve Design Lands designations under Alternative 1 follow.

- **HMAs:** Under Alternative 1, there would be 271,000 HMA acres (48% of HMA acres in the Plan Area) within existing and proposed Reserve Design Lands (approximately 99,000 acres in NLCS lands, 87,000 acres in ACECs, 22,000 in SRMAs, 43,000 acres in wildlife allocations, 4,000 acres within National Trail Management Corridors, and 18,000 in lands with wilderness characteristics).
- **Herd Areas:** Under Alternative 1, there would be 1,083,000 herd area acres (66% of herd area acres in the Plan Area) within existing and proposed Reserve Design Lands (approximately 356,000 acres in NLCS lands, 451,000 acres in ACECs, 120,000 acres in wildlife allocations, 23,000 in SRMAs, 6,000 acres within Trail Management Corridors, and 128,000 in lands with wilderness characteristics).

IV.17.3.3.2 Impacts of DRECP Land Use Plan Amendment on BLM Land: Alternative 1

This section addresses two components of effects of the BLM LUPA: the streamlined development of renewable energy and transmission on BLM land under the LUPA, and the impacts of the amended land use plans themselves.

IV.17.3.3.2.1 Impacts From Renewable Energy and Transmission Development on BLM Land

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of renewable energy and transmission development (within DFAs) to wild horses and burros on BLM-administered lands under Alternative 1 would be the same as discussed above in Section IV.17.3.3.1.1.

IV.17.3.3.2.2 Impacts of Changes to BLM Land Designations

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of BLM land designations on wild horses and burros on BLM-administered lands under Alternative 1 would be the same as discussed in Section IV.17.3.3.1.2.

IV.17.3.3.3 Impacts of Natural Community Conservation Plan: Alternative 1

The analysis of Covered Activities under the NCCP is equivalent to the Plan-wide analysis of the interagency alternatives. Reserve design features and other conservation actions under the NCCP alternatives represent more detailed categories of the reserve design under the interagency Plan-wide alternatives. These NCCP differences in reserve design features do not affect nonbiological resources analyzed in this document, and the analysis of reserve design and CMAs under the NCCP is therefore equivalent to the Plan-wide analysis of the interagency alternatives, as described in Section IV.17.3.3.1.

IV.17.3.3.4 Impacts of General Conservation Plan

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands. The GCP applies to nonfederal lands and would have little impact on wild horse and burro resources.

IV.17.3.3.5 Impacts Outside the Plan Area

IV.17.3.3.5.1 Impacts of Transmission Outside the Plan Area

No impacts on wild horses and burros are expected from transmission outside the Plan Area, as discussed for the No Action Alternative in Section IV.17.3.1.5.1, Impacts of Transmission Outside of Plan Area.

IV.17.3.3.5.2 Impacts of BLM LUPA Decisions Outside the Plan Area

Potential impacts to wild horses and burros, HMAs, and herd areas resulting from BLM LUPA decisions under Alternative 1 follow.

The BLM LUPA for wild horse and burro HMAs and herd areas includes BLM-administered lands under the BLM CDCA Plan. There are approximately 248,000 acres of wild horse and burro HMAs and 547,000 acres of herd areas on BLM LUPA lands outside the Plan Area (total of approximately 795,000 acres).

- **HMAs:** Under Alternative 1, there would be approximately 83,000 HMA acres (33% of HMA acres outside the Plan Area) within existing and proposed Reserve Design Lands (approximately 50,000 acres in NLCS lands and 33,000 acres in ACECs).
- **Herd Areas:** For herd areas, 162,000 acres (30% of herd area acres outside the Plan Area) would occur within existing and proposed Reserve Design Lands (approximately 91,000 acres in NLCS lands, 68,000 acres in ACECs, and 3,000 acres within Trail Management Corridors).

Impacts of BLM land designations outside the Plan Area to wild horses and burros on BLM-administered lands under Alternative 1 would be the same as discussed above in Section IV.17.3.2.1.2.

IV.17.3.3.6 Comparison of Alternative 1 With the Preferred Alternative

Chapter IV.27 presents a comparison of all action alternatives and the No Action Alternative across all disciplines. This section summarizes the comparison of Alternative 1 with the Preferred Alternative.

IV.17.3.3.6.1 Alternative 1 Compared With Preferred Alternative for Plan-wide DRECP

Below is a comparison of impacts of the Plan-wide DRECP to HMAs and herd areas between Alternative 1 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, no HMA acres would occur within DFAs (see Figure IV.17-2), compared with approximately 100 HMA acres under Alternative 1.
- **Herd Areas:** Under the Preferred Alternative and Alternative 1, approximately 3,000 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea (See Figures IV.17-2 and IV.17-3).
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs to wild horse and burro HMAs and herd areas would be similar to those under Alternative 1, as compared with the Preferred Alternative. Impacts would be in the same ecoregion subareas under both the Preferred Alternative and Alternative 1 (See Figures IV.17-2 and IV.17-3). Because the difference between impacts to HMAs and herd areas between the Preferred Alternative and Alternative 1 is essentially the same, the overall potential impacts between the two alternatives would also be similar.

The differences between the Preferred Alternative and Alternative 1 within Reserve Design Lands follow.

- **HMAs:** Under the Preferred Alternative, approximately 302,000 HMA acres would occur within existing and proposed Reserve Design Lands, compared with approximately 271,000 HMA acres under Alternative 1 (31,000 fewer HMA acres).
- **Herd Areas:** Under the Preferred Alternative, approximately 1,199,000 herd area acres would occur within existing and proposed Reserve Design Lands, compared with approximately 1,083,000 herd area acres under Alternative 1 (approximately 116,000 fewer herd area acres).

- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed Reserve Design Lands to wild horse and burro HMAs and herd areas would be reduced under Alternative 1, as compared with the Preferred Alternative.

IV.17.3.3.6.2 Alternative 1 Compared With Preferred Alternative for the BLM Land Use Plan Amendment

Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 1 as compared to the Preferred Alternative would be the same as discussed for the Plan-wide analysis.

IV.17.3.3.6.3 Alternative 1 Compared With Preferred Alternative for NCCP

The impacts of the NCCP for Alternative 1 are the same as those defined in Section IV.17.3.3.1 for the Plan-wide analysis. As a result, the comparison of Alternative 1 with the No Action Alternative for the NCCP is the same as described for Plan-wide DRECP.

IV.17.3.3.6.4 Alternative 1 Compared With Preferred Alternative for the GCP

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands; therefore, the GCP would have little impact on wild horse and burro resources.

IV.17.3.4 Alternative 2

IV.17.3.4.1 Plan-wide Impacts of Implementing the DRECP: Alternative 2

IV.17.3.4.1.1 Plan-wide Impacts and Mitigation Measures From Renewable Energy and Transmission Development

Potential impacts to wild horse and burro HMAs and herd areas resulting from renewable energy and transmission facility development under Alternative 2 are summarized and shown in Figure IV.17-4.

Impact Assessment

Under Alternative 2, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 2, there would be approximately 2,000 HMA acres within DFAs (approximately 1,000 acres solar, 1,000 acres wind, and 60 acres geothermal),

all within the Centennial HMA only in the Owens River Valley, Cadiz Valley and Chocolate Mountains and Imperial Borrego Valley ecoregion subareas (Figure IV.17-4).

- **Herd Areas:** Under Alternative 2, there would be approximately 5,000 herd area acres within DFAs (3,000 acres solar, 1,000 acres wind, 1,000 acres geothermal, and 200 acres transmission), primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (Figure IV.17-4).

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following impacts:

Impact WH-1: Plan components would result in loss of forage for wild horses and burros.

There is potential renewable energy and transmission development on approximately 7,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that may alter the nature of available forage.

Impact WH-2: Plan components would result in displacement of wild horses and burros.

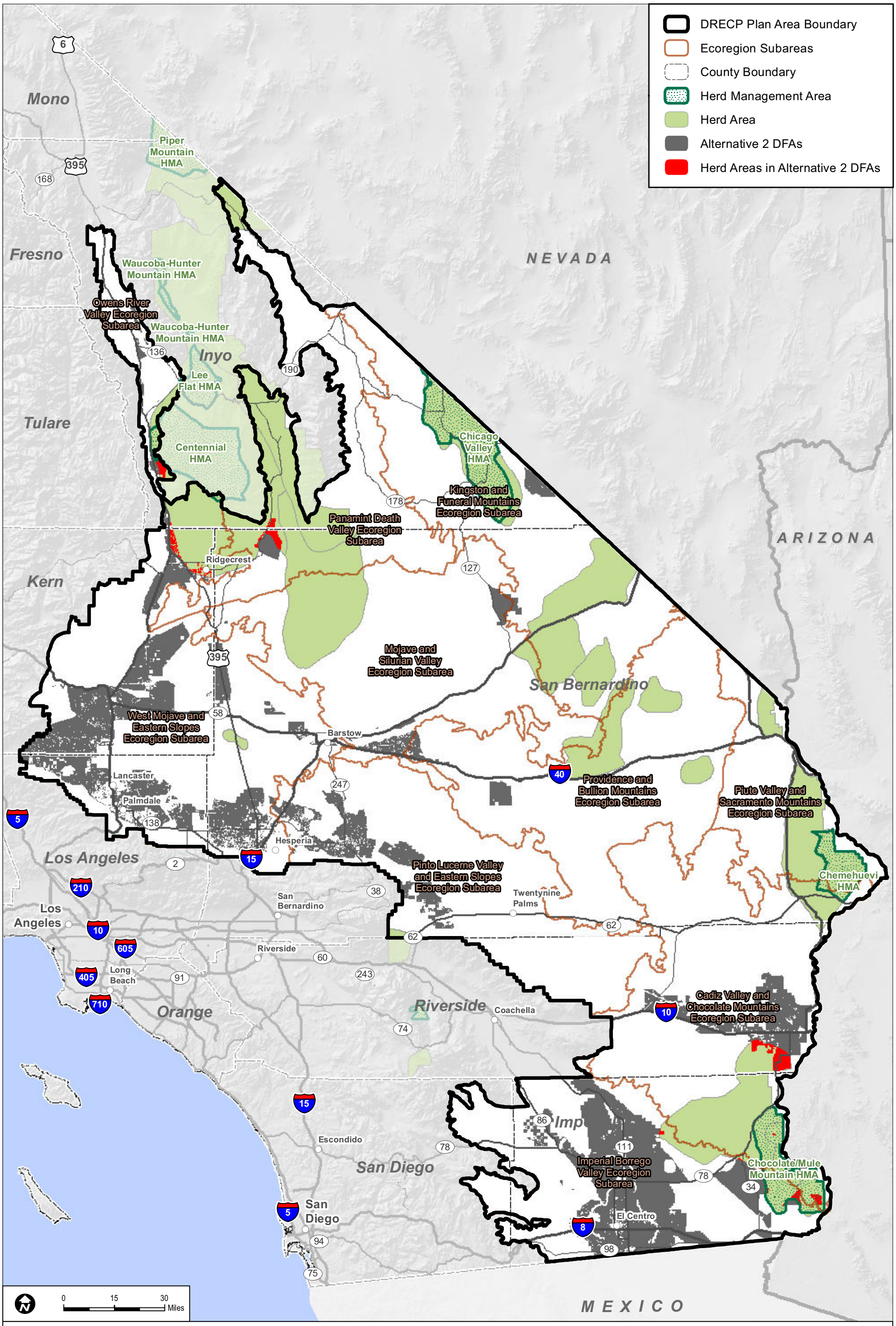
Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (Peak foaling season is March through June).

Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat, or block access of important habitat features, within HMAs and reduce the long-term sustainability and quality of the habitat and/or forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.

Construction and decommissioning activities would result in fugitive dust created by construction vehicles that could reduce road visibility and increase the probability that wild horses or burros could be either wounded or killed by vehicle traffic during these activities (generally short-term impact). Operations and maintenance activities may result in long-term disturbance, injury, or harassment of wild horses and burros by vehicles and activity noise along roadways and other ROWs used to access facilities.



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

FIGURE IV.17-4

HMAs and Herd Areas within Development Focus Areas - Alternative 2

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Impacts in Study Area Lands

Future Assessment Areas. Lands within FAAs are neither reserve lands nor DFAs; they are simply areas that are deferred for future assessment. The future assessment will determine their suitability for renewable energy development or for ecological conservation. If renewable energy development occurs on FAA lands, a LUPA would not be required. FAAs for each alternative are included and located as shown in Table IV.1-2 and Figure III.5-1 in Volume II. The FAAs represent areas where renewable energy development or inclusion to the reserve design could be implemented through an amendment to the DRECP but additional assessment would be needed.

Because most of the FAAs are presented as undesignated areas in the action alternatives, there would be no difference between the FAAs in the Preferred Alternative except that renewable development in an FAA would not require a BLM LUPA so the environmental review process would be somewhat simpler than if the location were left undesignated. Development of the FAAs would not impact wild horses and burros, or their associated HMAs and herd areas.

Special Analysis Areas. There are two areas defined as SAAs, representing areas subject to ongoing analysis. These areas (located in the Silurian Valley and just west of Highway 395 in Kern County) have high value for renewable energy development, and also high value for ecological and cultural conservation, as well as recreation. SAA lands are expected to be designated in the DRECP as either DFAs or included in the reserve design. Development of the SAAs would not impact wild horses and burros, or their associated HMAs and herd areas.

DRECP Variance Lands. DRECP Variance Lands represent the BLM Solar PEIS Variance Lands as screened for the DRECP and EIR/EIS based on BLM screening criteria. Covered Activities could be permitted for NCCP purposes only through an NCCP plan amendment. However, development of renewable energy on variance lands would not require a BLM LUPA so the environmental review process would be somewhat simpler than if the location were left undesignated. Development of the DRECP Variance Lands would not impact wild horses and burros, or their associated HMAs and herd areas.

Impact Reduction Strategies and Mitigation

The implementation of the Plan 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 Plan would be lessened in several ways. First, the Plan incorporates CMAs for each alternative, including specific biological reserve design components and LUPA components. Also, the implemen-

tation of existing laws, orders, regulations, and standards would reduce the impacts of project development. If significant impacts would still result after implementation of CMAs and compliance with applicable laws and regulations, then specific mitigation measures are recommended in this section.

Conservation and Management Actions

The conservation strategy for Alternative 2 (presented in Volume II, Section II.3.1.1) defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes definition of the reserve design and specific CMAs for Alternative 2. The CMAs for Alternative 2 for wild horses and burros are the same as those presented for the Preferred Alternative in Section IV.17.3.2.1.1.

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of Plan implementation. Relevant regulations are presented in the Regulatory Setting in Volume III. The requirements of relevant laws and regulations are summarized above for the No Action Alternative in Section IV.17.3.1.1.1.

Mitigation Measures

After implementation of the CMAs and existing laws and regulations, implementation of mitigation measures is required to reduce the adverse impacts described for impacts WH-1 through WH-4. Mitigation Measures WH-1a through WH-1c would be applied to further reduce some of these adverse impacts. Mitigation measures for Alternative 2 are the same as those described under the Preferred Alternative in Section IV.17.3.2.1.1.

IV.17.3.4.1.2 Impacts From Reserve Design

Under Alternative 2, potential impacts on wild horse and burro HMAs and herd areas from Reserve Design Lands would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas as a result of disturbance caps in these areas designed to conserve and protect the resource values. Development in NLCS lands would be limited to 0.25% of total authorized disturbance, or to the level allowed by collocated ACEC/wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby provide protection for HMAs and herd areas as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

Potential impacts to wild horse and burro HMAs and herd areas resulting from Reserve Design Land designations under Alternative 2 are summarized below.

- **HMAs:** Under Alternative 2, there would be approximately 377,000 HMA acres (67% of HMA acres in the Plan Area) within existing and proposed Reserve Design Lands (approximately 263,000 acres in NLCS lands, 4,000 acres in ACECs, 93,000 acres within Trail Management Corridors, and 18,000 acres in lands with wilderness characteristics).
- **Herd Areas:** Under Alternative 2, there would be approximately 1,369,000 herd area acres (83% of herd area acres in the Plan Area) within existing and proposed Reserve Design Lands (approximately 987,000 acres in NLCS lands, 93,000 acres in ACECs, 1,000 acres in SRMAs, 161,000 acres within Trail Management Corridors, and 128,000 acres in lands with wilderness characteristics).

IV.17.3.4.2 Impacts of DRECP Land Use Plan Amendment on BLM Land: Alternative 2

This section addresses two components of effects of the BLM LUPA: the streamlined development of renewable energy and transmission on BLM land under the LUPA, and the impacts of the amended land use plans themselves.

IV.17.3.4.2.1 Impacts From Renewable Energy and Transmission Development on BLM Land

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of renewable energy and transmission development (within DFAs) to wild horses and burros on BLM-administered lands under Alternative 2 would be the same as discussed above in Section IV.17.3.4.1.1.

IV.17.3.4.2.2 Impacts of Changes to BLM Land Designations

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 2 would be the same as discussed above in Section IV.17.3.4.1.2.

IV.17.3.4.3 Impacts of Natural Community Conservation Plan: Alternative 2

The analysis of Covered Activities under the NCCP is equivalent to the Plan-wide analysis of the interagency alternatives. Reserve design features and other conservation actions under the NCCP alternatives represent more detailed categories of the reserve design under the interagency Plan-wide alternatives. These NCCP differences in reserve design features do not affect nonbiological resources analyzed in this document, and the analysis of reserve

design and CMAs under the NCCP is therefore equivalent to the Plan-wide analysis of the interagency alternatives, as described in Section IV.17.3.4.1.

IV.17.3.4.4 Impacts of General Conservation Plan

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands. The GCP applies to nonfederal lands and would have little impact on wild horse and burro resources.

IV.17.3.4.5 Impacts Outside the Plan Area

IV.17.3.4.5.1 Impacts of Transmission Outside the Plan Area

No impacts on wild horses and burros are expected from transmission outside the Plan Area, as discussed for the No Action Alternative in Section IV.17.3.1.5.1, Impacts of Transmission Outside of Plan Area.

IV.17.3.4.5.2 Impacts of BLM LUPA Decisions Outside the Plan Area

Potential impacts to wild horse and burro HMAs and herd areas resulting from BLM LUPA decisions under Alternative 2 are summarized below.

The BLM LUPA Decisions for wild horse and burro HMAs and herd areas include BLM-administered lands under the BLM CDCA Plan. There are approximately 248,000 acres of wild horse and burro HMAs and 547,000 acres of herd areas on BLM LUPA lands outside the Plan Area (total of approximately 795,000 acres).

- **HMAs:** Under Alternative 2, there would be approximately 142,000 HMA acres (57% of HMA acres outside the Plan Area) within existing and proposed Reserve Design Lands (103,000 acres in NLCS lands, 36,000 acres in ACECs, and 3,000 acres in Trail Management Corridors).
- **Herd Areas:** For herd areas, approximately 398,000 acres (73% of herd areas outside the Plan Area) would occur within existing and proposed Reserve Design Lands (225,000 acres in NLCS lands, 148,000 acres in ACECs, and 25,000 acres within Trail Management Corridors).

Impacts of BLM land designations outside the Plan Area to wild horses and burros on BLM-administered lands under Alternative 2 would be the same as discussed above in Section IV.17.3.2.1.2.

IV.17.3.4.6 Comparison of Alternative 2 With Preferred Alternative

Chapter IV.27 presents a comparison of all action alternatives and the No Action Alternative across all disciplines. This section summarizes the comparison of Alternative 2 with the Preferred Alternative.

IV.17.3.4.6.1 Alternative 2 Compared With Preferred Alternative for Plan-wide DRECP

Below is a comparison of impacts to HMAs and herd areas between Alternative 2 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, no HMA acres would occur within DFAs (see Figure IV.17-2), compared to 2,000 HMA acres under Alternative 2 within both the Centennial HMA and the Chocolate/Mule Mountain HMA (see Figure IV.17-4).
- **Herd Areas:** Under the Preferred Alternative, approximately 3,000 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea, compared to 4,000 acres within DFAs under Alternative 2 (about 1,000 more acres) primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (see Figures IV.17-2 and IV.17-4).
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs to wild horse and burro HMAs and herd areas would be greater under Alternative 2 as compared to the Preferred Alternative.

The differences between the Preferred Alternative and Alternative 2 within Reserve Design Lands are summarized below.

- **HMAs:** Under the Preferred Alternative, approximately 302,000 HMA acres would occur within existing and proposed Reserve Design Lands, compared to 377,000 HMA acres under Alternative 2 (about 75,000 more HMA acres).
- **Herd Areas:** Under the Preferred Alternative, 1,199,000herd area acres would occur within existing and proposed Reserve Design Lands, compared to 1,369,000 herd area acres under Alternative 2 (about 171,000 more herd area acres).
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed Reserve Design Lands to wild horse and burro HMAs and herd areas would be greater under Alternative 2 as compared to the Preferred Alternative.

IV.17.3.4.6.2 Alternative 2 Compared With Preferred Alternative for the BLM Land Use Plan Amendment

Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 2 as compared to the Preferred Alternative would be the same as discussed for the Plan-wide analysis.

IV.17.3.4.6.3 Alternative 2 Compared With Preferred Alternative for NCCP

The impacts of the NCCP for Alternative 2 are the same as those defined in Section IV.17.3.2.1 for the Plan-wide analysis. As a result, the comparison of Alternative 2 with the Preferred Alternative for the NCCP is the same as described above for Plan-wide DRECP.

IV.17.3.4.6.4 Alternative 2 Compared With Preferred Alternative for the GCP

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands; therefore, the GCP would have little impact on wild horse and burro resources.

IV.17.3.5 Alternative 3

IV.17.3.5.1 Plan-wide Impacts of Implementing the DRECP: Alternative 3

IV.17.3.5.1.1 Plan-wide Impacts and Mitigation Measures From Renewable Energy and Transmission Development

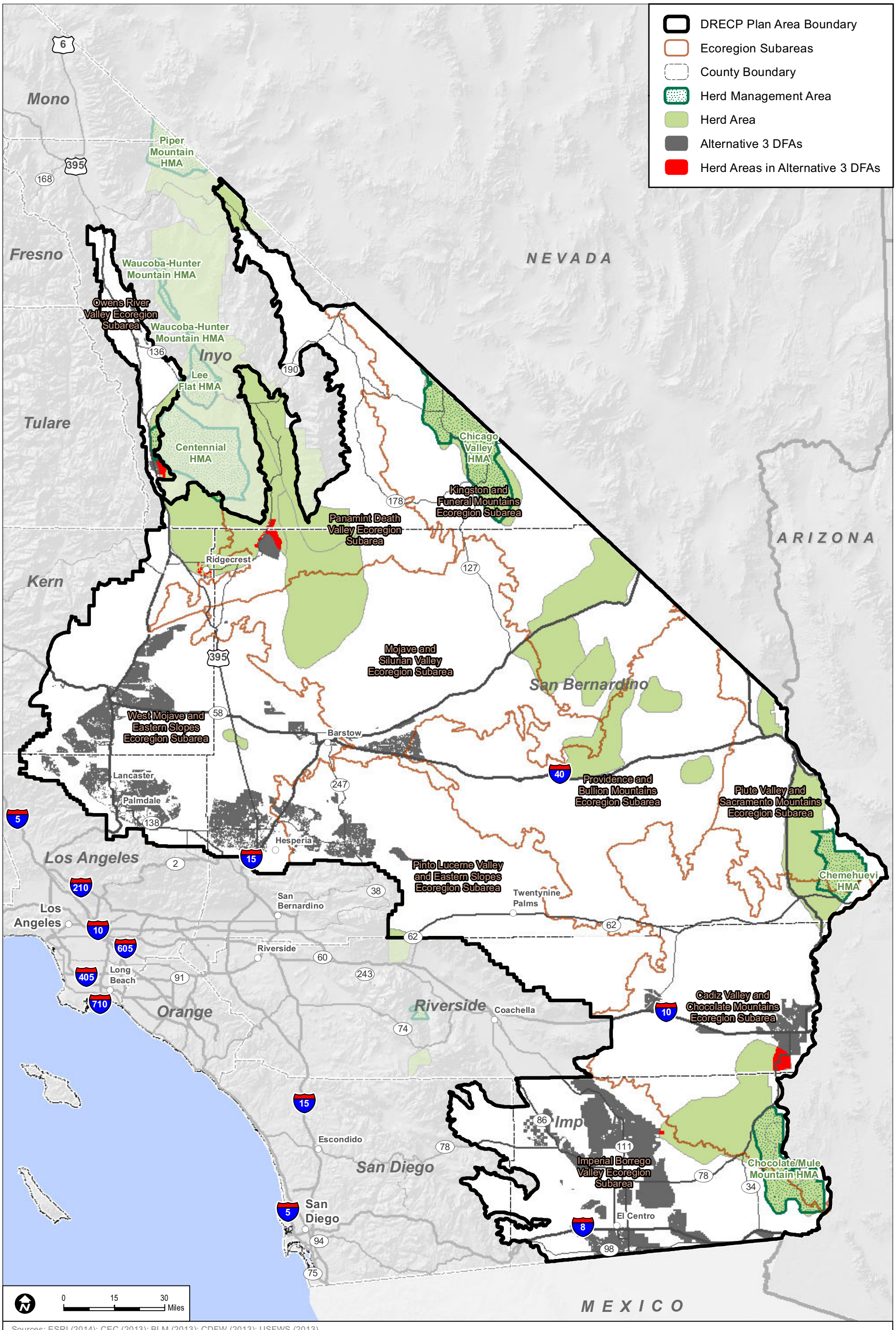
Potential impacts to wild horse and burro HMA and herd areas resulting from renewable energy and transmission facility development under Alternative 3 are summarized below and shown in Figure IV.17-5.

Impact Assessment

Under Alternative 3, wild horse and burro HMAs and herd areas would overlap with DFAs (renewable energy and transmission development areas) as follows:

- **HMAs:** Under Alternative 3, there would be approximately 200 HMA acres within DFAs (100 acres solar, 100 acres geothermal, and 20 acres transmission; all within the Centennial HMA in the Owens River Valley ecoregion subarea) (Figure IV.17-5).
- **Herd Areas:** Under Alternative 3, there would be approximately 2,000 herd area acres within where DFAs overlap with HMAs and herd areas, primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (Figure IV.17-5).

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following impacts:



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

FIGURE IV.17-5

HMAs and Herd Areas within Development Focus Areas - Alternative 3

Draft DRECP and EIR/EIS

August 2014

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Impact WH-1: Plan components would result in loss of forage for wild horses and burros.

There is potential renewable energy and transmission development on approximately 2,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that alter the nature of available forage.

Impact WH-2: Plan components would result in displacement of wild horses and burros.

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (Peak foaling season is March through June).

Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.

Construction and decommissioning activities would cause fugitive dust from construction vehicles that could reduce road visibility and increase the probability of wild horse or burro injury or death from traffic (generally short-term impact). Operations and maintenance activities may result in long-term disturbance, injury, or harassment of wild horses and burros by vehicles and noise along roadways and other ROWs.

Impacts in Study Area Lands

Future Assessment Areas. Lands within FAAs are neither reserve lands nor DFAs; they are simply areas that are deferred for future assessment. The future assessment will determine their suitability for renewable energy development or ecological conservation. If renewable energy development occurs on FAA lands, a LUPA would not be required. FAAs for each alternative are shown in Table IV.1-2 and Figure III.6-1 in Volume II. The FAAs represent areas where renewable energy development or inclusion to the reserve design could be implemented through an amendment to the DRECP, though additional assessment would be required.

Because most of the FAAs are presented as undesignated areas in the action alternatives, there would be no difference between the FAAs in the Preferred Alternative except that renewable development in an FAA would not require a BLM LUPA, so the environmental review process would be somewhat simpler than if the location were undesignated. Development of the FAAs would not impact wild horses and burros or their HMAs and herd areas.

Special Analysis Areas. Designating the SAAs as conservation would have no impact on wild horses and burros or to their HMAs and herd areas. Impacts would be the same as those described for the Plan-wide reserve design Section IV.17.3.5.1.2 Impacts From Reserve Design.

DRECP Variance Lands. DRECP Variance Lands represent the BLM Solar PEIS Variance Lands screened for the DRECP and based on BLM screening criteria. Covered Activities could be permitted for NCCP purposes only through an NCCP plan amendment. However, development of renewable energy on variance lands would not require a BLM LUPA so the environmental review process would be somewhat simpler than if the location were left undesignated. Development of the DRECP Variance Lands would not impact wild horses and burros or their HMAs and herd areas.

Impact Reduction Strategies and Mitigation

The implementation of the Plan 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 Plan would be lessened in several ways. First, the Plan incorporates CMAs for each alternative, including specific biological reserve design components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development. If significant impacts would still result after implementation of CMAs and compliance with applicable laws and regulations, then specific mitigation measures are recommended in this section.

Conservation and Management Actions

The conservation strategy for Alternative 3 (presented in Volume II, Section II.3.1.1) defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes definition of the reserve design and specific CMAs for Alternative 3. The CMAs for Alternative 3 for wild horses and burros are the same as those presented for the Preferred Alternative in Section IV.17.3.2.1.1.

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of Plan 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.17.3.1.1.1.

Mitigation Measures

After implementation of the CMAs and existing laws and regulations, implementation of mitigation measures is required to reduce the adverse impacts described for impacts WH-1 through WH-4. Mitigation Measures WH-1a through WH-1c would be applied to further reduce some of these adverse impacts. Mitigation measures for Alternative 3 are the same as those described under the Preferred Alternative in Section IV.17.3.2.1.1.

IV.17.3.5.1.2 Impacts From Reserve Design

Under Alternative 3, potential impacts on wild horse and burro HMAs and herd areas from Reserve Design Lands would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because of disturbance caps designed to conserve and protect resource values. Development in NLCS lands would be limited to 0.25% of total authorized disturbance, or to the level allowed by collocated ACEC/wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby protect HMAs and herd areas as well as adjacent lands. Proposed SRMAs could potentially have either adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

Potential impacts to wild horse and burro HMAs and herd areas from Reserve Design Land designations under Alternative 3 follow.

- **HMAs:** Under Alternative 3, there would be approximately 302,000 HMA acres (54% of HMA acres in the Plan Area) within existing and proposed Reserve Design Lands (approximately 219,000 acres in NLCS lands, 10,000 acres in ACECs, 22,000 acres in SRMAs, 34,000 acres within Trail Management Corridors, and 18,000 acres in lands with wilderness characteristics).

- **Herd Areas:** Under Alternative 3, there would be approximately 1,201,000 herd area acres (73% of herd areas in the Plan Area) within existing and proposed Reserve Design Lands (730,000 acres in NLCS lands, 262,000 acres in ACECs, 23,000 acres in SRMAs, 58,000 acres within Trail Management Corridors, and 128,000 acres in lands with wilderness characteristics).

IV.17.3.5.2 Impacts of DRECP Land Use Plan Amendment on BLM Land: Alternative 3

This section addresses two components of effects of the BLM LUPA: the streamlined development of renewable energy and transmission on BLM land under the LUPA, and the impacts of the amended land use plans themselves.

IV.17.3.5.2.1 Impacts From Renewable Energy and Transmission Development on BLM Land

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of renewable energy and transmission development (within DFAs) to wild horses and burros on BLM-administered lands under Alternative 3 would be the same as discussed in Section IV.17.3.4.1.1.

IV.17.3.5.2.2 Impacts of Changes to BLM Land Designations

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 3 would be the same as discussed in Section IV.17.3.4.1.2.

IV.17.3.5.3 Impacts of Natural Community Conservation Plan: Alternative 3

The analysis of Covered Activities under the NCCP is equivalent to the Plan-wide analysis of the interagency alternatives. Reserve design features and other conservation actions under the NCCP alternatives represent more detailed categories of the reserve design under the interagency Plan-wide alternatives. These NCCP differences in reserve design features do not affect nonbiological resources analyzed in this document, and the analysis of reserve design and CMAs under the NCCP is therefore equivalent to the Plan-wide analysis of the interagency alternatives, as described in Section IV.17.3.5.1.

IV.17.3.5.4 Impacts of General Conservation Plan: Alternative 3

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands. The GCP applies to nonfederal lands and would have little impact on wild horse and burro resources.

IV.17.3.5.5 Impacts Outside the Plan Area

IV.17.3.5.5.1 Impacts of Transmission Outside the Plan Area

No impacts on wild horses and burros are expected from transmission outside the Plan Area, as discussed for the No Action Alternative in Section IV.17.3.1.5.1, Impacts of Transmission Outside of Plan Area.

IV.17.3.5.5.2 Impacts of BLM LUPA Decisions Outside the Plan Area

Potential impacts to wild horses and burros, HMAs, and herd areas resulting from BLM LUPA decisions under Alternative 3 follow.

The BLM LUPA decisions for wild horse and burro HMAs and herd areas include BLM-administered lands under the BLM CDCA Plan. There are approximately 248,000 acres of wild horse and burro HMAs and 547,000 acres of herd areas on BLM LUPA lands outside the Plan Area (total of approximately 795,000 acres).

- **HMAs:** Under Alternative 3, there would be 62,000 HMA acres (25% of HMAs outside the Plan Area) within existing and proposed Reserve Design Lands (approximately 54,000 acres in NLCS lands, 6,000 acres in ACECs, and 2,000 acres in National Trail Management Corridors).
- **Herd Areas:** For herd areas, 160,000 acres (29% of herd area acres outside the Plan Area) would occur within existing and proposed Reserve Design Lands (102,000 acres in NLCS lands, 33,000 acres in ACECs, and 24,00 acres within Trail Management Corridors).

Impacts of BLM land designations outside the Plan Area to wild horses and burros on BLM-administered lands under Alternative 3 would be the same as discussed in Section IV.17.3.2.1.2.

IV.17.3.5.6 Comparison of Alternative 3 With Preferred Alternative

Chapter IV.27 presents a comparison of all action alternatives and the No Action Alternative across all disciplines. This section summarizes the comparison of Alternative 3 with the Preferred Alternative.

IV.17.3.5.6.1 Alternative 3 Compared With Preferred Alternative for Plan-wide DRECP

Below is a comparison of impacts to HMAs and herd areas between Alternative 3 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, no HMA acres would occur within DFAs (see Figure IV.17-2), compared with approximately 100 HMA acres under Alternative 3 (100 more HMA acres within the Centennial HMA; see Figure IV.17-5).
- **Herd Areas:** Under the Preferred Alternative, approximately 3,000 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea, compared with 2,000 acres within DFAs under Alternative 3 (1,000 fewer herd acres), primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (See figures IV.17-2 and IV.17-5).
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs to wild horse and burro HMAs would be greater under Alternative 3 as compared with the Preferred Alternative, and lower for herd areas. Under Alternative 3, potential impacts may occur within two ecoregion subareas.

The differences between the Preferred Alternative and Alternative 3 within Reserve Design Lands follow.

- **HMAs:** Under the Preferred Alternative, approximately 302,000 HMA acres would occur within existing and proposed Reserve Design Lands, which would be the same as under Alternative 3 (about 302,000 HMA acres).
- **Herd Areas:** Under the Preferred Alternative, approximately 1,198,000 herd area acres would occur within existing and proposed Reserve Design Lands, compared with 1,201,000 herd area acres under Alternative 3 (approximately 3,000 more herd area acres).
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed Reserve Design Lands to wild horse and burro HMAs and herd areas would be about the same under Alternative 3 compared with the Preferred Alternative, with minimally greater potential beneficial impacts for herd areas under Alternative 3.

IV.17.3.5.6.2 Alternative 3 Compared With Preferred Alternative for the BLM Land Use Plan Amendment

Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 3 as compared with the Preferred Alternative would be the same as discussed for the Plan-wide analysis.

IV.17.3.5.6.3 Alternative 3 Compared With Preferred Alternative for NCCP

The impacts of the NCCP for Alternative 3 are the same as those defined in Section IV.17.3.2.1 for the Plan-wide analysis. As a result, the comparison of Alternative 3 with the Preferred Alternative for the NCCP is the same as described for Plan-wide DRECP.

IV.17.3.5.6.4 Alternative 3 Compared With Preferred Alternative for the GCP

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands; therefore, the GCP would have little impact on wild horses and burros.

IV.17.3.6 Alternative 4

IV.17.3.6.1 Plan-wide Impacts of Implementing the DRECP: Alternative 4

IV.17.3.6.1.1 Plan-wide Impacts and Mitigation Measures From Renewable Energy and Transmission Development

Potential impacts to wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under Alternative 4 are summarized and shown in Figure IV.17-6.

Impact Assessment

Under Alternative 4, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 4, there would be approximately 100 HMA acres within DFAs (primarily solar and geothermal), all within the Centennial HMA only, Figure IV.17-5).
- **Herd Areas:** Under Alternative 4, there would be approximately 4,000 herd area acres within DFAs (approximately 3,000 acres solar, 100 acres wind, 700 acres geothermal, and 200 acres transmission), primarily within the Owens River Valley ecoregion subarea.

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following impacts:

Impact WH-1: Plan components would result in loss of forage for wild horses and burros.

There is potential renewable energy and transmission development on approximately 4,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As

described under the Preferred Alternative, this development may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that may alter the nature of available forage.

Impact WH-2: Plan components would result in displacement of wild horses and burros.

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (Peak foaling season is March through June).

Impact WH-3: Plan components would reduce access to wild horse and burro habitat or require relocation.

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat, or block access to important habitat features within HMAs, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

Impact WH-4: Plan components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.

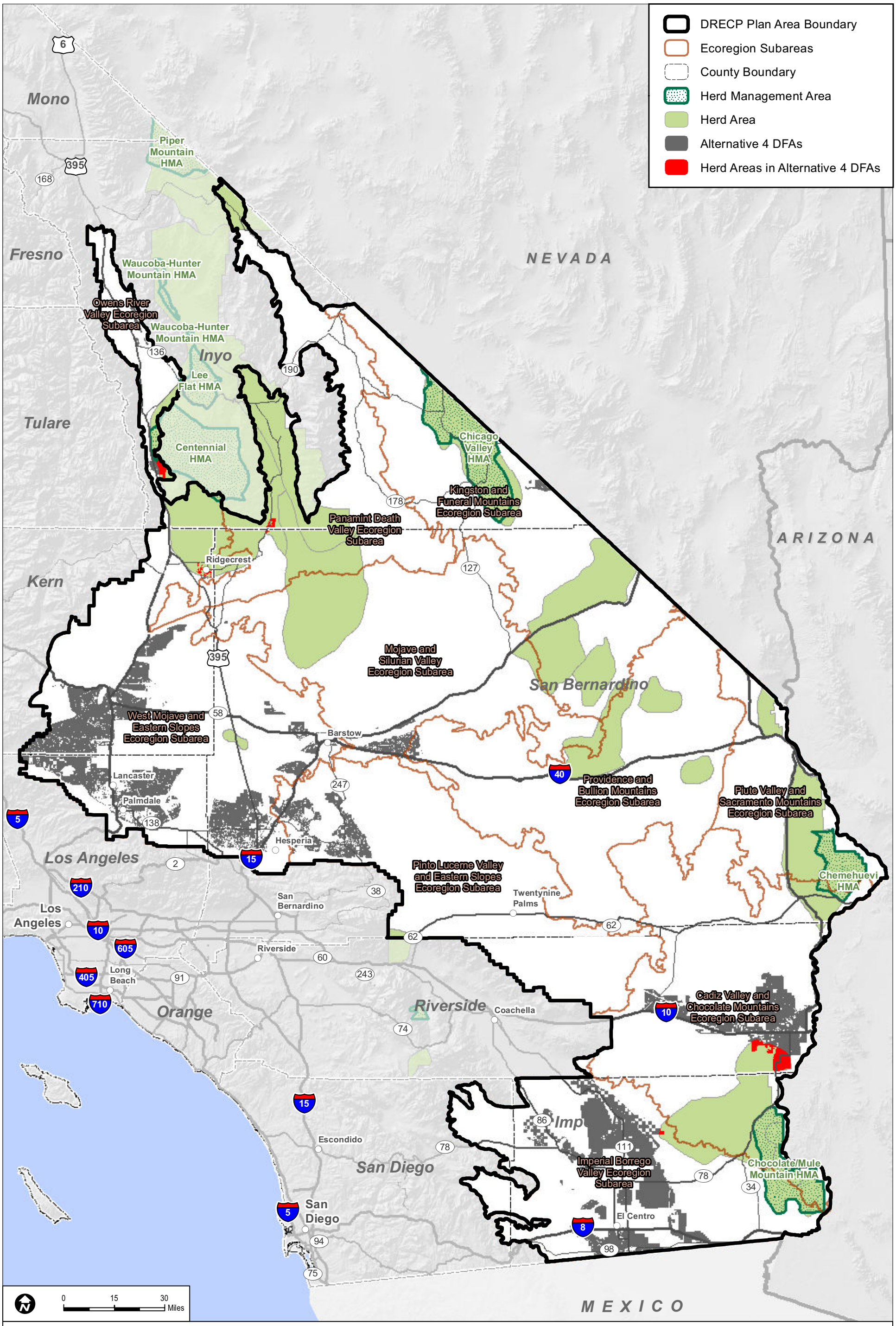
Construction and decommissioning activities would cause fugitive dust by construction vehicles that could reduce road visibility and increase the possibility that wild horses and burros could be injured or killed by traffic (generally short-term impact. Operations and maintenance activities may result in long-term disturbance, injury, or harassment of wild horses and burros by vehicles and noise along roadways and other ROWs.

Impacts in Study Area Lands

Future Assessment Areas. There would be no FAAs in Alternative 4.

Special Analysis Areas. Designating the SAAs as conservation would have no impact on wild horses and burros or their HMAs and herd areas. Impacts would be the same as those explained for the Plan-wide reserve design in Section IV.17.3.6.1.2 Impacts From Reserve Design.

DRECP Variance Lands. DRECP Variance Lands represent the BLM Solar PEIS Variance Lands screened for the DRECP and based on BLM screening criteria. Covered Activities could be permitted for NCCP purposes only through an NCCP plan amendment. However, development of renewable energy on Variance Lands would not require a BLM LUPA, so the environmental review process would be somewhat simpler than if the location were undesignated. Development of the DRECP Variance Lands would not impact wild horses and burros or their HMAs and herd areas.



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

FIGURE IV.17-6

HMAs and Herd Areas within Development Focus Areas - Alternative 4

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Impact Reduction Strategies and Mitigation

The implementation of the Plan 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 Plan would be lessened in several ways. First, the Plan incorporates CMAs for each alternative, including specific biological reserve design components and LUPA components. Also, the implementation of existing laws, orders, regulations, and standards would reduce the impacts of project development. If significant impacts would still result after implementation of CMAs and compliance with applicable laws and regulations, then specific mitigation measures are recommended in this section.

Conservation and Management Actions

The conservation strategy for Alternative 4 (presented in Volume II, Section II.3.1.1) defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes definition of the reserve design and specific CMAs for Alternative 4. The CMAs for Alternative 4 for wild horses and burros are the same as those presented for the Preferred Alternative in Section IV.17.3.2.1.1.

Laws and Regulations

Similar to the No Action Alternative, existing laws and regulations will reduce certain impacts of Plan 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.17.3.1.1.1.

Mitigation Measures

After implementation of the CMAs and existing laws and regulations, mitigation measures will be applied to further reduce some of the DRECP's adverse impacts. Potentially applicable mitigation measures for Alternative 4 are the same as those described under the Preferred Alternative in Section IV.17.3.2.1.1.

IV.17.3.6.1.2 Impacts From Reserve Design

Under Alternative 4, potential impacts on wild horse and burro HMAs and herd areas from Reserve Design Lands would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because disturbance caps are designed to conserve and protect resource values. Development in NLCS lands would be limited to 1% of total authorized disturbance, or to the level allowed by collocated ACEC/wildlife allocations, whichever is more restrictive. These disturbance caps and other management

actions would minimize surface disturbance and thereby provide protection for HMAs and herd areas, as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

Potential impacts to wild horse and burro HMAs and herd areas resulting from Reserve Design Lands designations under Alternative 4 follow.

- **HMAs:** Under Alternative 4, there would be approximately 234,000 HMA acres (42% of HMA acres in the Plan Area) within existing and proposed Reserve Design Lands (approximately 176,000 acres in NLCS lands, 7,000 acres in ACECs, 500 acres within wildlife allocations, 22,000 within SRMAs, 11,000 acres in Trail Management Corridors, and 18,000 within lands with wilderness characteristics).
- **Herd Areas:** For herd areas, approximately 1,043,000 acres (63% of herd areas in the Plan Area) would occur within existing and proposed Reserve Design Lands (595,000 acres in NLCS lands, 277,000 acres in ACECs, 1,000 acres within wildlife allocations, 19,000 acres within Trail Management Corridors, and 128,000 within lands with wilderness characteristics).

IV.17.3.6.2 Impacts of DRECP Land Use Plan Amendment on BLM Land: Alternative 4

This section addresses two components of effects of the BLM LUPA: the streamlined development of renewable energy and transmission on BLM land under the LUPA, and the impacts of the amended land use plans themselves.

IV.17.3.6.2.1 Impacts From Renewable Energy and Transmission Development on BLM Land

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of renewable energy and transmission development (within DFAs) to wild horses and burros on BLM-administered lands under Alternative 4 would be the same as discussed in Section IV.17.3.6.1.1.

IV.17.3.6.2.2 Impacts of Changes to BLM Land Designations

Wild horse and burro HMAs and herd areas are located predominantly within BLM-administered lands within the DRECP. Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 4 would be the same as discussed in Section IV.17.3.6.1.2.

IV.17.3.6.3 Impacts of Natural Community Conservation Plan: Alternative 4

The analysis of Covered Activities under the NCCP is equivalent to the Plan-wide analysis of the interagency alternatives. Reserve design features and other conservation actions under the NCCP alternatives represent more detailed categories of the reserve design under the interagency Plan-wide alternatives. These NCCP differences in reserve design features do not affect nonbiological resources analyzed in this document, and the analysis of reserve design and CMAs under the NCCP is therefore equivalent to the Plan-wide analysis of the interagency alternatives, as described in Section IV.17.3.6.1.

IV.17.3.6.4 Impacts of General Conservation Plan: Alternative 4

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands. The GCP applies to nonfederal lands and would have little impact on wild horses and burros.

IV.17.3.6.5 Impacts Outside the Plan Area

IV.17.3.6.5.1 Impacts of Transmission Outside the Plan Area

No impacts on wild horses and burros are expected from transmission outside the Plan Area, as discussed for the No Action Alternative in Section IV.17.3.1.5.1, Impacts of Transmission Outside of Plan Area.

IV.17.3.6.5.2 Impacts of BLM LUPA Decisions Outside the Plan Area

Potential impacts to wild horses and burro HMAs and herd areas resulting from BLM LUPA decisions under Alternative 4 follow.

The BLM LUPA decisions for wild horse and burro HMAs and herd areas include BLM-administered lands under the BLM CDCA Plan. There are approximately 249,000 acres of wild horse and burro HMAs and 547,000 acres of herd areas on BLM LUPA lands outside the Plan Area (total of 796,000 acres).

- **HMAs:** Under Alternative 4, there would be 62,000 HMA acres (25% of HMAs outside the Plan Area) within existing and proposed Reserve Design Lands (54,000 acres in NLCS lands, 6,000 acres in ACECs, and 2,000 acres in Trail Management Corridors).
- **Herd Areas:** For herd areas, 160,000 acres (29% of herd areas outside the Plan Area) would occur within existing and proposed Reserve Design Lands (102,000 acres in NLCS lands, 33,000 acres in ACECs, and 24,000 acres within Trail Management Corridors).

Impacts of BLM land designations outside the Plan Area to wild horses and burros on BLM-administered lands under Alternative 4 would be the same as discussed in Section IV.17.3.2.1.2.

IV.17.3.6.6 Comparison of Alternative 4 With Preferred Alternative

Chapter IV.27 presents a comparison of all action alternatives and the No Action Alternative across all disciplines. This section summarizes the comparison of Alternative 4 with the Preferred Alternative.

IV.17.3.6.6.1 Alternative 4 Compared With Preferred Alternative for Plan-wide DRECP

Below is a comparison of impacts to HMAs and herd areas between Alternative 4 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, no HMA acres would occur within DFAs (see Figure IV.17-2), compared with approximately 100 HMA acres under Alternative 4.
- **Herd Areas:** Under the Preferred Alternative, approximately 3,000 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea, compared with 4,000 acres within DFAs under Alternative 4 (1,000 more herd acres) within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas.
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs to wild horse and burro HMAs and herd areas would be greater under Alternative 4 as compared with the Preferred Alternative. Under Alternative 4, potential impacts may occur within two ecoregion subareas.

The differences between the Preferred Alternative and Alternative 4 within Reserve Design Lands follow.

- **HMAs:** Under the Preferred Alternative, approximately 302,000 HMA acres would occur within existing and proposed Reserve Design Lands, compared with 234,000 HMA acres under Alternative 4 (about 68,00 fewer HMA acres).
- **Herd Areas:** Under the Preferred Alternative, 1,198,000 herd area acres would occur within existing and proposed Reserve Design Lands, compared with 1,043,000 herd area acres under Alternative 4 (about 155,000 fewer herd area acres).
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed Reserve Design Lands to wild horse and burro HMAs and

herd areas would be lower under Alternative 4 as compared with the Preferred Alternative.

IV.17.3.6.6.2 Alternative 4 Compared With Preferred Alternative for the BLM Land Use Plan Amendment

Impacts of BLM land designations to wild horses and burros on BLM-administered lands under Alternative 4 as compared with the Preferred Alternative would be the same as discussed for the Plan-wide analysis.

IV.17.3.6.6.3 Alternative 4 Compared With Preferred Alternative for NCCP

The impacts of the NCCP for Alternative 4 are the same as those defined in Section IV.17.3.2.1 for the Plan-wide analysis. As a result, the comparison of Alternative 4 with the Preferred Alternative for the NCCP is the same as described for Plan-wide DRECP.

IV.17.3.6.6.4 Alternative 4 Compared With Preferred Alternative for the GCP

Wild horses and burros are found predominately on federal lands, mainly within HMAs and herd areas located on BLM-administered lands; therefore, the GCP would have little impact on wild horses and burros.

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