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Via Electronic Mail

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Dockets Office, MS-4
Docket No. 09-RENEW EO-01
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COMMENTS ON THE DRAFT DESERT RENEWABLE ENERGY CONSERVATION PLAN

Dear Director Beale:

Enclosed please find comments by the National Parks Conservation Association ("NPCA") on the Draft Desert Renewable Energy Conservation Plan ("DRECP"). These comments were prepared on behalf of NPCA by the Stanford Environmental Law Clinic.

These comments are intended to supplement NPCA’s comments on the Draft DRECP by providing information related specifically to the Eagle Mountain lands outside Joshua Tree National Park. As the enclosed comments make clear, NPCA has serious concerns about the lack of protection afforded these lands under the DRECP, and about the potentially significant adverse effects on valuable ecological and historical resources from proposed development in the Eagle Mountain region.

Thank you for your consideration of these comments. NPCA looks forward to participating further in the administrative processes associated with the DRECP.

Respectfully submitted,

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The National Parks Conservation Association (“NPCA”) applauds landscape-level planning efforts that aim for systematic and comprehensive approaches to renewable energy development and prioritize the avoidance of harm to desert landscapes and vulnerable wildlife. To that end, NPCA recognizes the Desert Renewable Energy Conservation Plan (“DRECP”) as an important step in developing a necessary framework for renewable energy policy and landscape-level conservation in California’s deserts. NPCA is hopeful that the DRECP can achieve long-lasting habitat conservation with efficient development of renewable energy in appropriate locations.

The goal of the DRECP is to identify the most suitable places in the desert for renewable energy development, while conserving areas important for wildlife, wilderness, recreation, and other values. The DRECP also aims to address the impacts of climate change on ecosystems by guiding renewable development to lands with low resource conflicts and ensuring conservation of habitats that will allow plants and animals to move and adapt to changing environmental conditions.

NPCA has serious concerns, however, that elements of the conservation strategy of the DRECP will fail to provide long-term protection for sensitive desert wildlife. For example, the Draft DRECP leaves areas critical for wildlife habitat and movement entirely unprotected. Specifically, NPCA is concerned that the Draft DRECP does not address the highly valuable ecological and biological resources of the public lands in and around the former Eagle Mountain iron mine, just outside the boundary of Joshua Tree National Park. Located in an area carved out of the national park system in the 1950s, these lands support critical habitat and linkage corridors for imperiled species like desert tortoise, bighorn sheep, and golden eagle. The value of these public lands, particularly in light of the need to maintain corridors that allow adaptive movement in response to climate change, support their designation as National Conservation Lands under the DRECP. The lands in the Eagle Mountain region have similar or higher ecological value than other lands currently being considered as conservation lands, and several agencies, including the National Park Service (“NPS”) and the U.S. Fish and Wildlife Service (“FWS”), as well as numerous other stakeholders, including NPCA and other nonprofit organizations, have described the biological importance of the Eagle Mountain region.

Yet, despite the significance of this region, the Draft DRECP leaves these lands largely unprotected and unclassified. As an area that supports critical wildlife connectivity, the Eagle Mountain region must play an important role in any landscape-level planning effort and thus deserves recognition under the DRECP process. As a significant and powerful conservation effort, the DRECP represents the appropriate process, forum, and time in which to recognize the conservation value of these lands and protect them. The failure to protect these lands now will expose the region to projects that could undermine the very values the DRECP is trying to protect. The Eagle Mountain lands and surrounding national park units face real and imminent threats from existing development proposals, making the timely protection of these lands even more critical. The incomplete protection of the Eagle Mountain lands under the DRECP process is inconsistent with the DRECP planning goals and objectives and applicable laws, regulations, management plans, and policies.
I. Background

A. Secretarial Order 3330

Secretarial Order 3330 calls for the development of a coordinated national strategy to ensure early and lasting consideration of ecological and cultural resources in long-term infrastructure development planning. In executing this strategy, the Department of the Interior “seeks to avoid potential environmental impacts from projects through steps such as advanced landscape-level planning that identifies areas suitable for development because of low or relatively low natural and cultural resource conflicts.”

Landscape-level planning efforts carried out under the direction of orders like Secretarial Order 3330 work toward fulfilling the President’s vision for a clean energy economy while recognizing that protecting the integrity of public lands and resources is critically important for ensuring the long term resilience of native species and ecosystems and for protecting significant cultural, historic, scenic, and recreational treasures. The order’s proposed coordinated strategy demands that planning efforts consider a region’s existing management plans and coordinating agency objectives. In the southern California desert, multiple national park units have general management plans that identify guidelines for park management and strategies for protecting regionally important resources. For instance, the general management plan for Joshua Tree National Park identifies management objectives including managing lands and wilderness “to preserve them unimpaired for future generations”; “participat[ing] cooperatively in the preservation of ecological units that extend beyond the park boundary”; and “facilitate[ing] cooperative planning throughout the California Desert ecosystem with other public agencies and communities.”

The management plan also identifies increased visitation and escalating development and human activity around the park boundary as the primary planning concerns for the Park, explaining that “[d]evelopment and other land uses adjacent to the boundary threaten the integrity of the park’s resources, views, and wilderness values.” The plan also specifically discusses the impacts of historical changes to the Park’s boundary to accommodate mineral extraction: the “configuration that had been designed by biologists to protect the natural systems of [the Mojave and Colorado/Sonoran Deserts] was destroyed in many areas[,]” fragmenting wildlife and vegetation systems. Additionally, the plan notes concerns over the then-proposed Eagle Mountain landfill, identifying issues of adverse impacts to the desert tortoise and other wildlife, increased trash, and air quality degradation.

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2 Id. at 2.
4 Id. at 12.
5 Id. at 13.
6 Id. at 13.
7 Id. at 13.
B. Draft DRECP

The Desert Renewable Energy Conservation Plan is a landscape-level planning effort intended to help California meet state and federal renewable energy objectives while providing an ecosystem approach to impact mitigation and natural resources conservation. The DRECP and accompanying Environmental Impact Statement (“EIS”)/Environmental Impact Report (“EIR”) attempt to identify the most appropriate areas for utility-scale renewable development in the deserts of southern California where conflict with sensitive and protected resources will be minimized.\(^8\) Development will be prioritized in these locations and will benefit from coordinated and streamlined permitting and environmental review.\(^9\) Indeed, the Draft DRECP expressly states that it “uses science to inform the siting of renewable energy development projects and the conservation of species, creating systematic habitat protection and connectivity improvements across the Mojave and Colorado/Sonoran desert regions.”\(^10\)

**DRECP Conservation Strategy**

The DRECP conservation strategy is the approach for conserving “Covered Species,” natural habitats, and ecosystem processes within the DRECP Plan Area.\(^11\) The strategy includes the identification of multiple biological goals and objectives (“BGOs”) and the development of a reserve design.\(^12\) The reserve design process identifies important areas for conservation in the DRECP Plan Area, outside existing protected areas, to meet the DRECP Plan-Wide BGOs. Conservation planning principles guiding the development of the reserve design, include “maximize[ing] conservation area size”; “maintain[ing] connectivity”; “minimize[ing] edge effects”; and “buffer[ing] urban and rural use impacts”; “preserv[ing] irreplaceable and threatened biological resources”; “fully represent[ing] environmental gradients”; consider[ing] ecoregions and watersheds”; “consider[ing] full ecological diversity within communities”; and “contribut[ing] to the long-term conservation of all Covered Species.”\(^13\)

The BGOs are biological conservation targets that articulate the desired outcome of the conservation strategy. At the landscape level, the primary Plan-wide BGO is “to create a DRECP-wide, connected landscape-scale reserve system consisting of a mosaic of large habitat blocks of constituent natural communities that maintains ecological integrity, ecosystem function, and biological diversity and that allows adaptation to changing conditions (including activities that are not covered by the Plan).”\(^14\) The primary goal at the natural community level is “to promote biodiversity and ecological function within each natural community, and benefit

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\(^9\) Id.

\(^10\) Id.

\(^11\) Id. at 17.

\(^12\) Id.

\(^13\) Id. at 19-20.

\(^14\) Id. at 19.
covered or native species dependent on, or closely associated with, each natural community.”  

And at the species level, the primary goal is “to protect, manage, and contribute to recovery of viable self-sustaining populations of Covered Species throughout the species’ distribution in the Plan Area, including conserving sufficient habitat and resources to allow adaptation to environmental change over time.”  

DRECP “Step-Down” biological objectives describe the desired conservation and targeted conditions of implementing the DRECP and express how implementation of the DRECP would contribute to meeting the Plan-wide BGOs.  

Projects and activities that would prevent the DRECP from meeting its BGOs would be inconsistent with the DRECP.  

II. Eagle Mountain  

The former Kaiser Eagle Mountain iron ore mine is located south and east of Joshua Tree National Park, along the northeastern edge of the Eagle Mountains in the Colorado Desert in eastern Riverside County, California.  

The Eagle Mountains are bounded on the northeast by the Coxcomb Mountains, the southeast by the Chuckwalla Valley, the north by Pinto Basin, and the south by the Orocopia, Chuckwalla, and Cottonwood Mountains. The region is “generally lacking in infrastructure” with “little urban and suburban development.” The mine and surrounding lands, including the Eagle Mountain townsite, were originally removed from Joshua Tree (then a National Monument) in 1950 to further national objectives of mining and development of the steel industry.  

After the mine closed in 1986, Kaiser proposed converting the old mine site into the Eagle Mountain Landfill and Recycling Project. In 1989, Kaiser proposed a land exchange to acquire scattered public lands in and around the mine site in addition to the federal reversionary interest in the Eagle Mountain townsite (which had been conveyed to Kaiser in 1950).
The proposed land exchange was completed in 1999 and 3,481 acres of BLM land were conveyed to Kaiser. The landfill proposal has since been abandoned, and years of protracted litigation over the site recently resulted in a settlement and reversal of the land exchange.

Despite these recent events, the significant ecological, cultural, and historical resources present in and around the Eagle Mountain mine and townsite remain highly vulnerable to other pending development proposals. In fact, the Eagle Mountain Pumped Storage Facility, a hydroelectric development project, has since been proposed for the former Eagle Mountain mine site, and in June 2014, the Federal Energy Regulatory Commission (“FERC”) issued a license for the project.

Recognizing the vulnerability and high resource value of the Eagle Mountain region, numerous agencies and stakeholders, including NPS and FWS, have already expressed concerns over the impacts of the proposed storage facility on multiple occasions. NPS and FWS have highlighted potential adverse impacts of the pumped storage project on desert tortoise and other sensitive species, including loss of dispersal areas and increased depredation from predators attracted to the project site. These agencies have also raised concerns over the cumulative effects of the proposed project on habitat connectivity, particularly in light of other renewable projects that have been proposed for or are already under operation within the vicinity of the Eagle Mountain area.

The State Water Board has acknowledged that where native habitat on the site “supports desert tortoise and construction could have direct effects on this species, the Project’s

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24 Id.
25 Id.
26 A U.S. District Court signed a final judgment and order on the Eagle Mountain Land Exchange on December 18, 2014, ending litigation that had been ongoing for almost twenty years. The order will result in a reversion of lands conveyed to Kaiser in the 1999 land exchange back to BLM and requires that the lands remain in federal ownership. Certain mining claims originally relinquished by Kaiser in the land exchange were reinstated by the order. See id.; Eagle Mountain land Exchange, BLM, http://www.blm.gov/ca/st/en/fo/palmsprings/Eagle_Mountain_Land_Exchange.html (last visited Feb. 23, 2015)
28 See, e.g., Letter from Kennon Corey, Asst. Field Supervisor, U.S. Fish & Wildlife Service to Paul Murphy, State Water Res. Control Bd. (Oct. 27, 2010), available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/eagle_mountain_pumped_ferc13123/comments012513/eaglemtm_deir_pkg1.pdf (hereinafter “Letter from FWS”) (“We have previously documented our concerns with GEI Consultants, Inc. and the Federal Energy Regulatory Commission (FERC) regarding the direct, indirect, and cumulative effects this proposed alignment may have on the desert tortoise, its designated critical habitat, and recovery efforts within the Chuckwalla Desert Wildlife Management Area and adjoining areas.”).
30 See Letter from FWS at 2; see also Letter from NFS at 2-3.
contribution to this cumulative impact would be considerable prior to implementation of the mitigation program.” Moreover, in a final Biological Assessment issued in 2011, FERC staff concluded that the proposed project was likely to adversely affect the desert tortoise, “because the project would disturb desert tortoise habitat and would increase desert tortoise predation at and near the project by attracting desert tortoise predators.”

In addition to potential impacts on individual species and habitat connectivity, the pumped storage project will likely cause significant adverse impacts to limited and sensitive groundwater resources. In addition to concerns expressed by NPS and FWS, BLM has suggested that aquifer recharge in the region has been overestimated and “predicts that the Eagle Mountain Project and the nearby Desert Harvest (Solar) Project and other water users in the valley will cause overdraft conditions in the Chuckwalla Valley Groundwater Basin during each year between 2014 and 2025.” The Eagle Mountain area has already seen surrounding aquifer levels decline over the last several decades, and the proposed project operation “has the potential to adversely affect groundwater levels in the Chuckwalla groundwater basin.” Changes in groundwater levels could also affect the flow direction within the Chuckwalla groundwater basin and impact other connected areas of adjacent groundwater basins.


32 FERC Order at 14.

33 See, e.g., Letter from NPS at NPS-27 to -28 (“Groundwater storage depletion has been occurring in the Chuckwalla Valley for years as a result of past/existing pumping exceeding the significantly lower annual recharge occurring in the area. . . Pumping effects from the applicant’s proposed Project will likely add to the deficit in the aquifer volume already occurring by further depleting the aquifer volume an estimated 440,000 acre-feet and lowering the local groundwater table by an estimated 7 feet during the life of the Project. . . Based on this evidence, the potential impact to the basin overdraft from the proposed Project pumping should be considered significant as it will continue to contribute to groundwater storage depletion and declining water levels already occurring in the basin. The NPS does agree with the applicant’s conclusion that in combination with pumping for all reasonably foreseeable projects, basin overdraft is likely to occur over the life of the project, and that the project would contribute to a significant adverse cumulative effect. However, the applicant’s cumulative overdraft estimate contributing to a 9-foot decline in water levels is under-estimated for the same reasons noted above, and may be closer to a 40-foot decline.”).

34 FERC Order at 17; Comments from Noel Ludwig & Peter Godfrey, BLM on Eagle Mountain Pumped Storage Project, FERC Project 13123 (Oct. 7, 2010), available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/eagle_mountain_pumped_ferc13123/comments012513/eaglemtn_deir_pkg1.pdf (“At present, the Bureau of Land Management (BLM) has identified considerable uncertainty regarding groundwater recharge estimates and potential impacts to the Colorado River from proposed groundwater pumping in support of the Eagle Mountain Pumped Storage Project. . . There is a potential for overdraft conditions to occur within the Chuckwalla Basin. There is also the potential for impacts to occur to Colorado River flows.”).

35 EAGLE MOUNTAIN PUMPED STORAGE EIS at 74.

36 EAGLE MOUNTAIN PUMPED STORAGE EIS at 102 (“The proposed project pumping would potentially cause temporary overdraft of the Chuckwalla groundwater basin, causing local and regional groundwater levels to drop and flow directions to locally change. Overall, the initial reservoir filling during the first 4 years of project operation would result in adverse effects on groundwater storage and water levels because pumping is expected to exceed recharge rates during this period.”).

37 Id.
Despite these concerns over the pumped storage project, the valuable resources present in the Eagle Mountain region are not protected under the Draft DRECP and remain vulnerable to future development proposals. With the exception of identifying a few, limited “Conservation Planning Areas” in the region, the Draft DRECP designates the Eagle Mountain carve-out lands as either “Unclassified Lands” or “impervious and urban built-up land.”

III. The public lands in the Eagle Mountain region deserve protection and should be designated as National Conservation Lands under the DRECP

The Draft DRECP does not protect the significant ecological and cultural resources of the Eagle Mountain area, particularly the important habitat connectivity of the site with surrounding national park units. There is broad and longstanding agreement on the value of this region. In fact, the Eagle Mountains were ranked 35 out of 137 potential Wilderness Study Areas in a BLM assessment. Because no alternative under the Draft DRECP — including the preferred alternative — would fully protect this special region, leaving it increasingly vulnerable to future development projects that might significantly degrade its landscape and resources, the Draft DRECP is inconsistent with applicable laws and management plans for the region and in conflict with the resource objectives outlined in the DRECP.

A. Habitat connectivity value of the Eagle Mountain area

The Eagle Mountain mining lands are encircled by a remote region of Joshua Tree National Park and serve as an important movement corridor for wildlife. Their linkage value is well-documented, and the long-term viability of the Mojave and Colorado Deserts’ remarkable biodiversity depends on the preservation of habitat connectivity. Connectivity is a necessary component of many ecological processes, including gene flow migration, dispersal, range shifts in response to climate change and other environmental factors, and metapopulation dynamics. Disruption of movement corridors can alter essential ecosystem functions, and without the ability to move in response to environmental changes, species become more susceptible to disturbance and extinction. Thus, intact habitat linkages and landscape connectivity are fundamental to maintaining biodiversity and the long-term survival of species.

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39 BLM, CALIFORNIA DESERT CONSERVATION AREA, FINAL ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED PLAN, App. III: Vol. B, 597-98 (Sept. 1980) (“The vast majority of this area generally appears to have been affected primarily by natural forces, with man’s imprint substantially unnoticeable. Within the interior…only a few past mining activities are visible, and most do not detract from the primeval character and influence of the land.”).
42 See PENROD ET AL. at 1
43 Id.
The Eagle Mountain area provides important corridor habitat in a region of great biological significance. The Eagle Mountains serve as an ecological transition zone between the Mojave and Colorado Deserts and support a unique and diverse assemblage of plant communities. These communities in turn provide habitat for a variety of wildlife, including many federally and state-listed endangered, threatened, and sensitive species. Preserving the essential, known habitat linkages in the Eagle Mountains is necessary to maintain the ecological viability of the region as a whole. A 2009 study evaluating 47 movement corridors in California’s deserts (whose existence are particularly crucial to conserving biodiversity) modeled habitat suitability and movement needs of the species associated with the identified linkages. Two major “least cost corridors,” or movement corridors that pose the least relative resistance to a species’ movement, connect to the Eagle Mountain region: the primarily east-west Joshua Tree National Park-Palen McCoy Mountains corridor and the north-south Joshua Tree National Park-Chocolate Mountains corridor. These lower elevation corridors are particularly important for wide-ranging species that rely on the corridors to disperse and for seasonal habitat. Additionally, a 2010 statewide study examining and identifying relatively natural habitat blocks that support native biodiversity and the areas essential for ecological connectivity between them delineates the entire Eagle Mountain region as an “essential connectivity area.”

Desert Tortoise

These identified linkages are critical for species like the threatened desert tortoise (Gopherus agassizii). Specifically, given the development projected for the Eagle Mountain area, the failure to protect this region under the DRECP process could adversely impact the tortoise by fragmenting already vulnerable populations and destroying an important regional movement corridor. Habitat loss and fragmentation are often considered the most important factors in declining tortoise population numbers. Development can directly reduce available tortoise habitat and introduce indirect effects like attracting predators and invasive plant species and erecting barriers to tortoise movement that fragment populations into smaller subpopulations. Numerous studies have documented the importance of habitat connectivity to the desert tortoise, with one study explaining that “[f]or gene flow to reliably occur across the range, and for populations within existing conservation areas to be buffered against detrimental

44 Id. at 2.
45 Id. at 2-3.
46 Id. at 23, 32-33, 35-36, 50-51, 63-64.
effects of low numbers or density, populations need to be connected by areas of habitat occupied by tortoises.”
Increasing drought and the warming effects of climate change, particularly in regions like the Colorado Desert, are placing additional stress on tortoise populations and further highlight the importance of maintaining habitat linkages.

The Eagle Mountain area is an important movement corridor and potential point of genetic exchange for desert tortoise populations in the surrounding region. Several studies, including those cited in the Draft DRECP, identify two major least cost corridors connecting the Eagle Mountain region with the Chocolate Mountains to the south and the Palen-McCoy Mountains to the east. The Eagle Mountain area is part of both a Desert Wildlife Management Area and the Chuckwalla Desert Tortoise Critical Habitat Unit, and provides tortoise nesting, sheltering, foraging, and dispersal habitat. Moreover, historical and current tortoise occurrence has been well-documented in the Eagle Mountain region. The Draft DRECP identifies several recent occurrences in and around the southeastern portion of Joshua Tree National Park. The EIS for the Eagle Mountain Pumped Storage Project admits that tortoises are likely to be found on the site. In fact, surveys conducted in 2008, 2009, and 2010 documented individual live tortoises and tortoise sign in and around the proposed pumped storage site.

Bighorn sheep

In addition to serving as a critical habitat linkage for tortoise, the Eagle Mountain area also represents important movement and dispersal habitat for desert bighorn sheep (Ovis canadensis nelsoni). The Eagle Mountain lands are located in BLM’s Joshua Tree National Park Desert Bighorn Sheep Wildlife Habitat Management Area, within the range of the Southern

53 See Averill-Murray et al., at 3-4; PENROD, ET AL. at 35.
54 See Averill-Murray, et al. at 2, 5, 6, 8; PENROD, ET AL. at 35-36.
55 EAGLE MOUNTAIN PUMPED STORAGE EIS at 182.
57 DESERT TORTOISE at 30, Figure SP-R01: Desert Tortoise Occurrences in the Plan Area.
58 EAGLE MOUNTAIN PUMPED STORAGE EIS at 133.
59 EAGLE MOUNTAIN PUMPED STORAGE EIS at 175-77, 182. During the spring of 2008, 2009, and 2010, Eagle Crest conducted surveys for the desert tortoise along the project’s linear elements and at potential well sites. In 2008, surveyors encountered 3 tortoise burrows and 1 carcass in the project area that was surveyed. In 2009, surveyors encountered 34 burrows, 8 carcasses, 16 scat piles, and 2 live tortoises. The 2010 surveys along the State Water Board’s preferred alternative transmission line route recorded 6 burrows, 4 carcasses, 4 scat piles, 4 sets of tracks, and 1 live tortoise.
Mojave Metapopulation and adjacent to the Eagle Mountain and Coxcomb populations. Additional known populations in the area include the Little San Bernardino Mountain population to the north of Interstate 10 and west of the mine and the Chocolate, Orocopia, and Chuckwalla Mountain populations south of Interstate 10. In addition to the presence of this occupied habitat, studies have identified an important least cost linkage corridor running from the Coxcomb Mountains in Joshua Tree National Park to the Palen-McCoy Mountains to the east along the southeastern edge of the Eagle Mountain carve-out lands. Desert bighorn sheep in the Mojave and Colorado Deserts already exist in relative isolation in populations that occupy numerous small mountain ranges separated by large expanses of flat desert, making them particularly susceptible to habitat loss and further isolation. As highways, canals, urbanization, mining, and other development have fragmented dispersal habitat over the past century, maintaining connectivity between habitat patches is critical for re-colonization of previously occupied habitat and the persistence of this fragmented population system. Moreover, restoring population connectivity may be necessary to buffer the effects of climate change on bighorn sheep populations in the Mojave and Colorado Deserts. Indeed, “[t]his landscape exemplifies the need for tools to prioritize management actions in fragmented systems. Current and proposed utility-scale renewable energy development could further compromise connectivity if energy facilities such as wind farms or solar array are sited in or near bighorn sheep habitat or along dispersal corridors.”

Golden Eagles

As with desert tortoise and bighorn sheep, the potential for golden eagles (Aquila chrysaetos) in the Eagle Mountain area to be adversely impacted by future renewable

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60 EAGLE MOUNTAIN PUMPED STORAGE EIS at 141.
61 EAGLE MOUNTAIN PUMPED STORAGE EIS at 123. 141-43. When precipitation and runoff has collected in the pits of the former Eagle Mountain mine, sheep have been attracted directly to the mine site. In the past, water access for bighorn sheep in the mine area had also been provided at the southern Eagle Mountain water tank about 0.5 miles to the west of the mine site and at a natural spring about 0.6 mile north-northwest of the site. A two-year radio-telemetry study of the Eagle Mountain population demonstrated the presence of bighorn sheep around and between both the Eagle Mountain water tank and the natural spring. (The potential for water collection in the mine pits still exists but the status of the other water sources is unknown.) Additionally, surveys conducted in 1995 for the proposed Eagle Mountain landfill observed bighorn scat at the site. Id.
62 PENROD, ET AL., at 32-33.
65 See id.
66 Creech, et al. at 607; see also Clinton W. Epps et al., Optimizing Dispersal and Corridor Models Using Landscape Genetics, 44(4) J. APPLIED ECOLOGY, 714 (2007).
development is high. Though golden eagles historically occurred throughout the DRECP Plan Area, they remain concentrated in certain regions, including the eastern portions of Joshua Tree National Park.\textsuperscript{67} A 2011 breeding season survey documented 22 nests, comprising nine territories, in the mountain ranges of eastern Joshua Tree, including those around the Eagle Mountain mine site.\textsuperscript{68} Four of the territories were active in the 2011 breeding season and two of the four produced at least three young.\textsuperscript{69} However, the survey predicted these numbers underestimated golden eagle occupancy in the Cottonwood and Eagle Mountains because of survey limitations in the early spring.\textsuperscript{70}

Given the presence of golden eagles in the Eagle Mountain area and the sensitivity of eagles to development, the lack of protection offered to the Eagle Mountain region under the DRECP is particularly troubling. The proposed Eagle Mountain pumped storage project is one example of a renewable project planned for the region which could significantly impact golden eagles. The EIS for the pumped storage facility notes that “[l]oud staccato noises and vehicle noises” during construction “could disrupt nesting activities or cause nest abandonment” if nesting territories are not properly buffered.\textsuperscript{71} If the Eagle Mountain region is left unprotected under the DRECP and such development is allowed to proceed, the persistence of golden eagles and numerous other sensitive species in the region may be compromised.

Thus, the significant ecological values of the Eagle Mountain deserve protection under the DRECP. The public lands in the Eagle Mountain area should be designated as National Conservation Lands as well as be assessed under the DRECP process for their wilderness value. Nonetheless, the Draft DRECP appears to ignore the region’s value and the science identifying the critical nature of preserving corridor habitat in places like the Eagle Mountain region.

The Draft DRECP does identify plan-wide habitat connectivity BGOs of “[c]reat[ing] a Plan-wide reserve design consisting of a mosaic of natural communities with habitat linkages that is adaptive to changing conditions and includes temperature and precipitation gradients, elevation gradients, and a diversity of geological facets that provide for movement and gene flow and accommodate range shifts and expansions in response to climate change” and “[c]onserv[ing] Covered Species habitat, natural communities, and ecological processes of the Mojave and Sonoran deserts in each ecoregional subarea in the Plan Area in an interconnected DRECP reserve.”\textsuperscript{72} Moreover, the Draft DRECP BGOs specifically call for protecting the connectivity of the Eagle Mountain region: “Protect and maintain the permeability of landscape connections between neighboring mountain ranges to allow passage of resident wildlife by

\textsuperscript{67} DRAFT DESERT RENEWABLE ENERGY CONSERVATION PLAN AND ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT, APPENDIX Q: BASELINE BIOLOGY REPORT, GOLDEN EAGLE, 2 (Aug. 2014), available at http://www.drecp.org/whatisdrecp/species/Golden_Eagle.pdf (hereinafter "GOLDEN EAGLE"); see also id. at 17, Figure SP-B07: Golden Eagle Occurrences in the Plan Area (showing a concentration of historical and present occurrences near the Eagle Mountain region).


\textsuperscript{69} Id.

\textsuperscript{70} Id.

\textsuperscript{71} EAGLE MOUNTAIN PUMPED STORAGE EIS at 164.

\textsuperscript{72} DRECP BGOs at 11.
protecting key movement corridors or reducing barriers to movement within intermountain connections, including": Chuckwalla-Little Chuckwalla-Palen connections, Chuckwalla-Eagle-Coxcomb connections, and the Eagle-Granite-Palen-Little Maria connections.73 Despite these identified goals, the Draft DRECP hardly considers, let alone conserves, the Eagle Mountain region under the planning process. Thus, the failure to address these lands under the DRECP and the potential resource impacts and fragmentation associated with the projected development in this unprotected region directly conflict with the DRECP’s objectives. Future development in the important linkage habitat of the Eagle Mountain region should be avoided.

Relying on the habitat and corridor models discussed above, the Draft DRECP also developed BGOs for desert tortoise, bighorn sheep, and golden eagles that specifically address the extensive habitat and connectivity in and around the Eagle Mountains.74 For example, one objective for desert tortoise is to maintain and protect all suitable, intact desert tortoise habitat on public lands within Tortoise Conservation Areas including Joshua Tree National Park and the Chuckwalla Area of Critical Environmental Concern and Critical Habitat Unit, with the goal of "maintain[ing] well-distributed populations in Tortoise Conservation Areas through a reserve system that provides sufficient contiguous size and configuration to provide long-term population viability, connectivity, growth in recovery unit population size, and increases in recovery unit distribution."75 The tortoise-specific BGOs also call for "maintain[ing] desert tortoise populations and linkages in the Colorado Desert."76 BGOs for bighorn sheep in the region include: “Conserv[ing] high-priority intermountain habitat as functional dispersal and migration linkages connecting desert bighorn sheep mountain range herd units[,]” including the linkages within the metapopulation fragments in the Eagle Mountain region, and maintaining or enhancing desert bighorn sheep movement “to overcome anthropogenic barriers (e.g., fences) between high-priority mountain ranges.”77 Like the BGOs identified for tortoise and bighorn sheep, the BGOs for golden eagles focus on sustaining healthy populations, and call for "maintain[ing] a robust and resilient population of golden eagles in the Plan Area that is adaptive to changing conditions" by, among other things, “maintain[ing] or enhanc[ing] golden eagle prey base[,]” “conserv[ing] active nest sites[,]” and “maintain[ing] viable eagle populations that are subject to reduced threats within the Plan Area."78

The failure of the Draft DRECP to properly evaluate and conserve the lands in the Eagle Mountain region is inconsistent with these BGOs and other planning objectives presented in the Draft DRECP. Furthermore, with the Eagle Mountain region left unprotected under the DRECP, the area remains highly vulnerable to development from projects like the proposed Eagle Mountain Pumped Storage Project, which, as discussed above, poses numerous potential adverse impacts to protected and sensitive species. In addition to severing important connectivity corridors, further isolating existing populations and creating barriers to their migration and movement, the pumped storage facility would degrade habitat, increase human disturbance, and pose other increased risks of direct and indirect mortality to species like desert

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73 Id.
74 Id. at 21.
75 Id.
76 Id. at 22.
77 Id. at 38-39.
78 Id. at 28.
tortoise, bighorn sheep, and golden eagles. Moreover, the impacts of increased pressure from subsidized predators and scavengers like ravens and coyotes on species like tortoise, for example, are well documented, and the increased water on site, human activity, and infrastructure are likely to attract opportunistic predators to the site and increase local predator populations. These potential impacts from development and the conservation planning objectives of the DRECP cannot be reconciled with the REAT agencies’ decision not to protect the Eagle Mountain area.

In sum, the Mojave and Colorado Desert Ecoregions have been identified as some of the most ecologically significant and intact areas in California. The Eagle Mountain region is an important part of a broader system of landscape connections in these regions. Further development in the Eagle Mountain area would degrade the integrity of the surrounding region by fragmenting habitat, severing vital ecological linkages, and compromising the functions and values of nearby National Park units, wilderness areas, and other sensitive and protected habitats. The DRECP’s goals of developing a reserve system that maintains ecological integrity, ecosystem function, and biodiversity at the landscape-level support the Eagle Mountain lands’ designation as National Conservation Lands. Given the potential impacts to sensitive and protected species in the Eagle Mountain area and surrounding region from development proposed project for the Eagle Mountain site, it is difficult to reconcile the DRECP’s planning goals with the lack of protection offered to the Eagle Mountain region under the DRECP. As more land in the region is allocated for development to meet renewable energy needs, intact and connected areas must be prioritized for conservation to protect wide-ranging species and wilderness values consistent with Secretarial Order 3330 and NPS objectives.

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79 EAGLE MOUNTAIN PUMPED STORAGE EIS at 159, 182-83 (“[T]he proposed project would permanently occupy or disturb 144 acres of desert tortoise habitat, reducing habitat availability for this species. The State Water Board’s preferred alternative transmission line route and substation location would occupy or disturb 88 acres of desert tortoise habitat.”).


81 Todd C. Esque et al., Effects of Subsidized Predators, Resource Variability, and Human Population Density on Desert Tortoise Populations in the Mojave Desert, USA, 12 ENDANGERED SPECIES RESEARCH 167, 168 (2010), available at http://www.int-res.com/articles/esr2010/12/n012p167.pdf (“Growing human populations, for example, can create resource subsidies of food and water that together allow native predator densities to increase beyond normal population levels (Goodrich & Buskirk 1995), and predation is often identified as a problem in the management and recovery of at-risk species (Gompper & Vanak 2008), including desert tortoises.”).

82 K. PENROD ET AL. at 5.

83 See DRECP BGOs at 5.
B. Historical and cultural values

In addition to its significant ecological resources, the Eagle Mountain region supports a rich cultural history, including a particularly unique mining past. Miners seeking gold, silver, lead, copper, uranium, and manganese were attracted to Riverside County beginning in the mid-1800s and established numerous sporadic, small-scale mines throughout the county. In the Eagle Mountain region, prospectors began mining for gold as early as 1865.

In the late 1940s, famed industrialist Henry J. Kaiser opened a large-scale iron ore mining operation in the Eagle Mountain region. The Eagle Mountain iron ore mine was one of the world’s largest open-pit mines and reached its peak of production during World War II. Indeed, “[t]he Eagle Mountain Mine and the adjacent town site of Eagle Mountain played a significant role in the war effort during World War II and in the subsequent development of the local area.” The Eagle Mountain company town site grew as mining operations flourished and at one point supported a population of over 4000. During its peak, the town site had 400 homes along wide developed streets, an auditorium, park, shopping center, sports fields, multiple churches, and two gas stations.

The prosperous mine also spurred the construction of the historic Eagle Mountain Railroad between August 1947 and June 1948. The railroad ran 51 miles southwest from Eagle Mountain to the Southern Pacific Railroad siding at Ferrum along northeast shore of the Salton Sea. The railroad “was one of the longest privately built standard gauge railroads in the American southwest during the post-war era.” In the early 1980s as the Kaiser Corporation began phasing out operations at the Eagle Mountain mine, the town site population dwindled and disappeared.

The historic properties of the abandoned Eagle Mountain town site, railroad, and mine represent a rich and unique part of the history of southern California’s deserts. This special

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85 Id.
86 Id.
87 Id.
88 Id.
90 Id.
91 Id.
92 Id.
93 Id.
94 Id.
region deserves recognition and protection under the DRECP for its ecological and historical value.

IV. Conclusion

The wild and remarkably diverse desert landscapes of southern California deserve our thoughtful management and protection. Landscape-level renewable energy planning processes are an opportunity to ensure development is located in well-considered and appropriate locations, and they require agencies to think critically about how to best protect our natural and cultural heritage for future generations. The DRECP is the most important planning process California has undertaken and will serve as a model for conservation in the future. It represents an unparalleled opportunity for the planning agencies to think about connecting landscapes in a way that fosters species’ long-term resiliency.

The failure to conserve the Eagle Mountain lands under the DRECP is entirely inconsistent with the DRECP’s planning goals and objectives. Proposed renewable projects in this region could have serious adverse impacts on protected and sensitive species and should not be located in such important habitat. Ignoring the value of the Eagle Mountain lands also ignores current research and the existence of more appropriate locations for large-scale renewable energy development away from the boundaries of national treasures like Joshua Tree National Park. NPCA hopes the lead agencies will ensure that development planning under the DRECP proceeds thoughtfully and does not cause avoidable and unnecessary harm to valuable desert lands and habitats.