

MBCA

morongo basin conservation association

May 22, 2012

To: California Energy Commission
Dockets Office, MS-4
Docket No. 09-RENEW EO-01
1516 North Street
Sacramento, CA 95814-5512

Sent to docket@energy.state.ca.us

DOCKET

09-RENEW EO-1

DATE MAY 22 2012

RECD. MAY 22 2012

From: Pat Flanagan, Board Member, Morongo Basin Conservation Association
P.O. Box 24, Joshua Tree, California 92252
(760) 362-4156 for patflanagan29@gmail.com

Thank you for extending the comment period and for providing the Dudek memorandum on Methodology for Developing the Scenarios. This letter refers to Scenarios 5 and 6 as they apply to the Morongo Basin and surrounding areas in the West Mojave.

The Morongo Basin Conservation Association (MBCA) is a 501(c) 4, community-based, California Nonprofit Corporation, incorporated in 1969 and dedicated to preserving the economic and environmental welfare of the Morongo Basin. MBCA was formed by residents in 1969 to stop the building of an electrical transmission corridor through the center of the Morongo Basin that would have changed our wild desert character forever. Members fought for 11 years---and won!

Dudek Maps

The maps provided with the Dudek May 8, 2012 memorandum are difficult to interpret because they lack sufficient identifying landmarks to confidently locate the Development Focus Areas (DFAs). It is assumed that you have maps which show the DFAs against the California Desert Connectivity Project (2012) and A Linkage Design for the Joshua tree – Twentynine Palms Connection (2008) and are able to check my interpretation. In the future it would save time and elicit more meaningful comments from stakeholders if you provided maps showing the complete Desert Linkage Network, the WSAs, ACECs, DWMA's and transmission corridors along with the (DFAs). Providing only cumulative acreage (Table 3 Dudek) is insufficient.

DRECP and the California Desert Connectivity Project (CDCP) and A Linkage Design for the Joshua tree – Twentynine Palms Connection (JT-29Palms)¹

SC Wildlands developed the CDCP using the same methodology as their previous projects. To develop the landscape permeability analysis, four focal species – American badger, Kit fox, Bighorn sheep, and Desert tortoise – were chosen based on their movement needs and habitat requirements. When these four focal species are listed below it is understood that they are the umbrellas for numerous other species, habitats, and ecosystem processes operating within the linkages. In addition, for the Desert Connectivity Project SC wildlands added land facet corridors *to more likely serve species under novel climate conditions.*

¹ <http://www.scwildlands.org/projects/Default.aspx>

These land facet corridors provide connectivity for land facets, which are the enduring features (topographic elements such as sunny lowland flats, or steep north-facing slopes) that will interact with future climate to support future biotic communities (CDCP p. 37).

Conservation of the land facets is critical to preserving the connective value of the corridors in an uncertain climate future-- and therein lies the rub. The degree of uncertainty in evaluating the impact of DFAs and the ability to mitigate their effects on the desert landscape is unknown. Lovich and Ennen conclude their analysis of peer-reviewed studies on the effects of utility scale solar energy development (USSED) and operations (USSEDO) on wildlife in the Mojave and Sonoran Deserts with a sobering thought.

The issue of wildlife impacts is much more complex than is widely appreciated, especially when the various scales of impact (e.g., local, regional, global) are considered. Our analysis shows that, on a local scale, so little is known about the effects of USSEDO on wildlife that extrapolation to larger scales with any degree of confidence is currently limited by an inadequate amount of scientific data...accurate assessment is largely theoretical...²

Comparison of Scenarios 5 and 6 with CDCP Linkage Network –

1. Scenario 5: Figure 13 (Dudek) DFAs are a major obstacle to the linkages connecting the San Bernardino Mountains, Joshua Tree National Park, and the Marine Base (MCAGCC). CDCP Figure 33. A Linkage Network for the California Desert
2. Scenario 6: Figure 15 (Dudek) DFAs are a major obstacle to all linkages connecting the San Bernardino Mountains and the Twentynine Palms Newberry Mountains Blocks, including six land facet corridors
3. Scenario 5: Figure 13. The most easterly DFA with blue (wind) and orange (solar) arrows is considered, incorrectly, to have low resource conflict. This oddly shaped piece is tucked into the north east corner of MCAGCC and obstructs the key portion of the Twentynine Palms Newberry Rodman Block that connects with the Mojave National Preserve. CDCP Figure 22 shows nine facets within this linkage. Land Facets should be mitigated whenever DFAs obstruct linkages. Lovich and Ennen's analysis, however, shows there isn't enough known about the destruction and fragmentation of wildlife habitat to mitigate.
4. Scenario 5 and 6: Map 16. All DFAs adjacent to JTNP boundaries should be eliminated because they are detrimental to ecosystem functioning within the Park (see eagle research below for example), and species longevity for the three focal species, Desert tortoise, Bighorn sheep, and Kit fox. They also obstruct linkages to the Palen McCoy Block, including five land facet corridors. CDCP Figures 4 and 26.

The Coxcomb and Eagle Mountains comprise the eastern edge of JTNP and are impacted by Scenarios 5 and 6. Research completed in 2011 reported a total of 22 golden eagle nests, with 9 territories in the Riverside County portion of the park. The Eagle Mountains have 5 territories and the Coxcomb Mountains have one territory. Four of the 9 territories were active for the 2011 season. The 2 Eagle Mountain territories had the only productive nests and they produced a total of at least 3 young³. Like other predators, golden eagles are regulated by the abundance of prey

² Lovich, Jeffrey E. and Joshua R. Ennen. 2011. Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States. Bioscience, Vol. 61, No. 12, pp 982-992.

³ Wildlife Research Institute, Inc. 2012. Golden Eagle Survey of Joshua Tree National Park, Final Report. Available from JTNP.

species. Because of the prolonged drought, jackrabbits, an important food source for golden eagles, have declined. Golden eagle adults have persevered but reproduction rates have dropped as low as 12% in the Mojave and Sonoran deserts.⁴

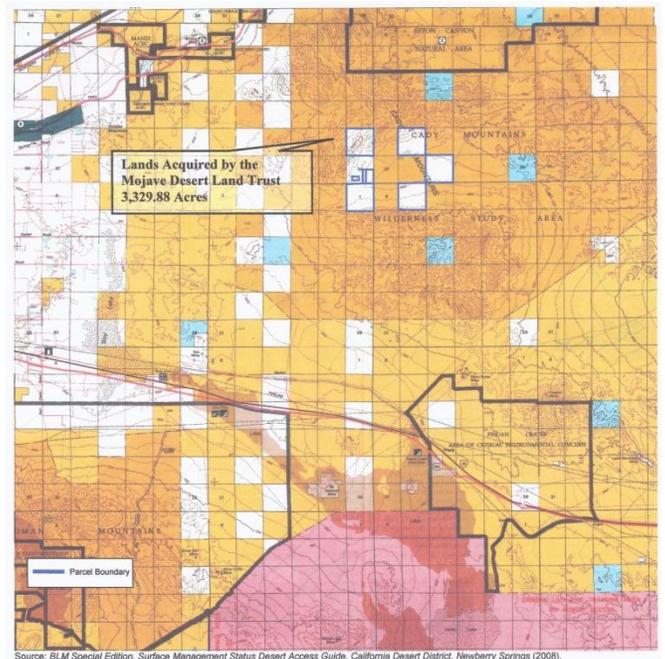
5. Scenario 6: Figure 15. The odd shaped DFA in Scenario 5 referred to above, has been expanded to include nearly the entire linkage south of I-40. MCAGCC is now virtually surrounded on its north and east boundaries, portions of its south boundary, and the west boundary. Although military bases are excluded from DFAs, encroachment on their boundaries can be detrimental to their mission and the federal directive to prevent military bases and National Parks from becoming biological islands.

This encroachment on the north, east, south and west boundaries of MCAGCC severely impacts the effectiveness of the JT-29Palms Linkage Design, impacts the mission of both MCAGCC and Joshua Tree National Park, and overrides community land use planning. Please refer to the maps in the comment letter submitted by Dr. Stephanie Weigel, Morongo Basin Regional Land Use Planner for the Sonoran Institute. The set of 4 maps, two for Scenario 5 and two for Scenario 6 show the DFAs in relation to the JT-29Palms Linkage Design and the Conservation Priority Setting Analysis in the Morongo Basin. We appreciate Dr. Weigel providing these maps and analysis to you and request that they be appended to this letter.

6. Scenarios 5 & 6: Figure 15. The deep red triangle south of the Mojave River and east of Barstow contains 3 ACECs for the fringed-toed lizard (*Uma inornada*), a special status species. The entire area (Scenario 6) is also a sand source for the unique linear dunes in the Cady Mountains. These dunes support fringe-toed lizards and other obligate sand species and should be conserved. A similar obstruction of sand sources was a factor leading to the endangered species listing of the Coachella Valley fringed-toed lizard.

This DFA, as well as those mentioned in #7 below obstruct the CDCP linkages connecting the Twentynine Palms Newberry Rodman Block and the China Lake South Range Block, which includes 9 land facet corridors (CDCP Fig. 15) This is detrimental for the Desert tortoise, Kit fox and American badger focal species. (CDCP Figure 4)

7. Scenarios 5 & 6: Figure 15. DFAs north of the Mojave River and I-15 contain the Superior Cronese ACEC. This area contains important Native American cultural sites. The Cronese Lakes grazing allotment was purchased as part of the Ft. Irwin Expansion mitigation and should be preserved for conservation as intended.
8. Scenario 6: Figure 15 In the Cady Mountains, east of the triangular and sand area DFAs mentioned above, is a tiny pink rectangle, easy



⁴ Ibid.

to overlook, but nonetheless important. It is located in the Hidden Valley area of the Cady Mountains WSA. The topography is level surrounded by mountain ridges so either solar or wind could be the target energy producer. There are no transmission lines crossing this WSA. It is unknown if this DFA surrounds or includes the 3,300 acres acquired by the Mojave Desert Land Trust (See map on page 3) with Advanced Mitigation Land Acquisition grant funding.

This beautiful, healthy, and intact ecosystem provides habitat for bighorn sheep, tortoise, and burrowing owl, three of the species most threatened by solar development projects. MDLT Website

The greater California Desert linkage network must be treated as a functioning whole rather than, as currently, unconnected pieces. Consider this; three focal species for the JT-29Palms connection are the Bighorn sheep, the American badger, and the Desert tortoise. Populations of these species range from the U.S./Mexican border north as far as China Lake and the Kingston Range (CDCP Figure 4 map). They live in and pass through the Morongo Basin (JT-29Palms connection) as part of their life history. Unfortunately, Figure 4 does not show the JT-29Palms connection because it was completed as a separate project. However, that ‘hole’ helps to visualize the result of fragmentation and lost linkages to the travel plans and genetic diversity of the four focal species as well as the multiple species, processes, and habitats they represent.

Research

The gentle slopes of alluvial plains are typical of the mountain edges draping the DRECP planning area boundary and the DFAs. The shallow washes and channels draining the plains are



Ocotillo Wind Project - Removal of vegetation and small washes during construction.

complex hydrologic networks that may be the most important geomorphic feature influencing local



Location of Ocotillo Wind Project - Peninsular Range in background

vegetation properties and processes. Current research in the Mojave National Preserve by Dr. Darren Sanadquist and his students indicates that summer storms over a one meter wide unvegetated channel will service the roots of plants up to seven meters away.⁵ If the channels are altered,

disturbing the water flow, there appears to be vegetation shifts through time with unknown consequences.⁶

This work has been ongoing in the Mojave Preserve for about ten years⁷ through the USGS Priority Ecosystems Science Project. Also ongoing, USGS Vulnerability and Recoverability of Desert Ecosystems (RVDE) program

⁵ Darren R Sandquist, If Runoff in a small wash is cut off in the desert, do the plants feel it? Presentation.2012 Desert Symposium, Zzyzx, California. Abstract attached to comment submittal.

⁶ Ibid.

⁷ Schwinning S. et. al, 2010. The Influence of stream channels on disturbance of *Larrea tridentata* and *Ambrosia dumosa* in the Mojave Desert, CA. USA: patterns, mechanisms and effects of stream redistribution. *Ecohydrology*. (www.interscience.wiley.com) DOI: 10.1002/2c0.116

provides tools for land management decisions in desert ecosystems, based on improved understanding of the complex relations among biological and physical attributes and processes and how they influence vulnerability and recoverability.

The DRECP Scientific Advisory team has been disbanded and replaced by a different team of scientists. It is important that scientists deeply familiar with the ongoing USGS work in the California Deserts be a part of this new team so that the results of many years of scientific investigation is understood and incorporated into the DRECP decision making process. Another important resource is the Sweeney Granite Mountain Research Center and its Director, Dr. James Andre. The Center has been operating for 34 years and produced over 100 research papers on the Mojave Desert. Mindful of Lovich and Ennen's conclusions, if ever there was a time for the precautionary principle, this is it.

Local Land Use Planning

The DRECP presents a unique challenge. As an organization, MBCA works continually with the city, town, county, federal and state agencies and other organizations to incorporate the linkage design into local General Plans, our basic governance document. This is an ongoing process. The State mandates this local land use planning and it also mandates utility scale energy development as the method to reach 'green' energy goals. Through its scenarios process, the DRECP is attempting to rezone private property within communities without due process. The scenarios, in their current form, resemble rogue sprawl developments running over hard won community plans and values. Is this legal?

The Precautionary Principle and Late Lessons from early warnings

MBCA believes our state and federal 'green energy' goals should be met by factoring in both the MWs saved through user conservation and MWs produced by rooftop solar and distributed generation in the built environment. This is not happening. Using the current DRECP and the BLM PEIS math we fear the consequences that David Gee calls 'Late Lessons from early warnings.' He describes *the gathering of information on the hazards of human economic activities and its use in taking action to better protect both the environment and the health of the species and ecosystems that are dependent on it, and then living with the consequences.*⁸

Attachments at the end:

Dudek Figure 13 Scenario 5

Dudek Figure 15 Scenario 6

CDCP Figure 33 A Linkage Network for the California Deserts

CDCP Figure 22 Mojave National Preserve-Twenty-nine Palms and Newberry Rodman Land Facets

CDCP Figure 4 Least Cost Corridors displaying Species Overlap

Newlander, April R. et. al., 2009. Physiological responses to Mojave Desert Shrubs to Simulated Summer Wash Flow: Preliminary Result. *Mojave National Preserve Science Newsletter* Number 2.
<http://www.nps.gov/moja/naturescience/upload/200911science.pdf>

⁸ Gee D. 2009. Late lessons from early warnings: towards realism and precaution with EMF. *Pathophysiology*. 16:217-231.

Memorandum

Subject: Methodology for Developing the April 25-25, 2012 DRECP Development Scenarios

Development Scenario 5

Development Scenario 5 Development Focus Areas (DFAs) are comprised of the same areas as are included in Scenario 4, and the addition of specific areas as described in **Figure 13** (West Mojave Region) and **Figure 14** (Imperial Valley and Palo Verde Valley regions).

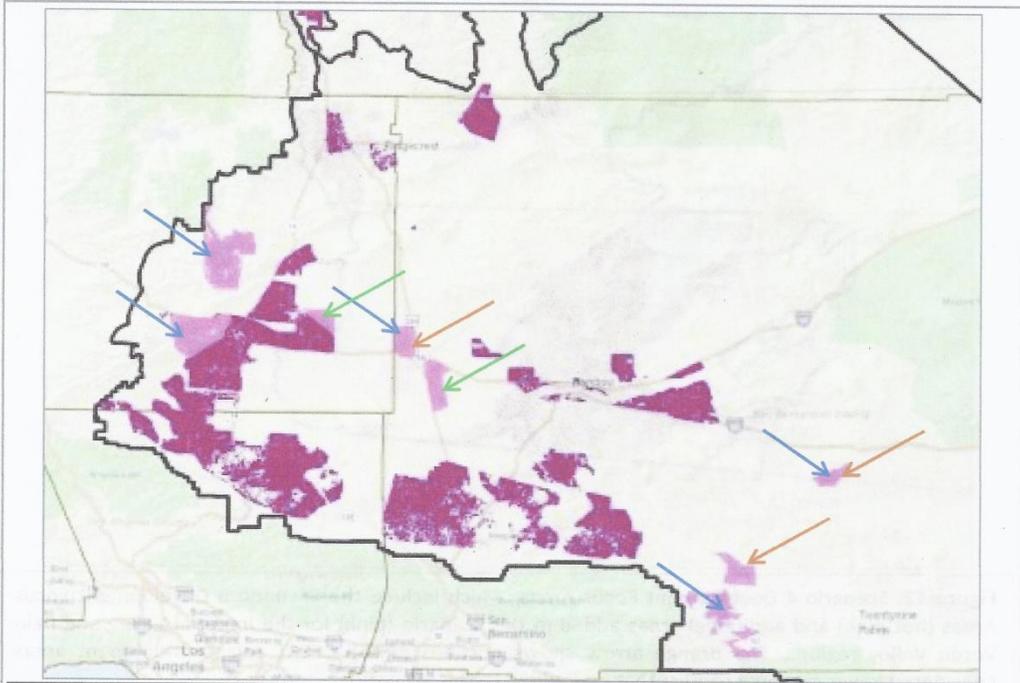


Figure 13. Scenario 5 Development Focus Areas, which include the Scenario 4 Development Focus Areas (hot pink) and additional areas added in this scenario (pink) for the West Mojave region. The orange arrows show portions of the CEERT solar development areas considered the next lowest resource conflict that were added to this scenario. The blue arrows show portions of the CALWEA Phase 1 wind development areas considered the next lowest resource conflict that were added to this scenario. The green arrows show areas of potential solar development considered to have lower potential resource conflict by BLM.

Memorandum

Subject: Methodology for Developing the April 25-25, 2012 DRECP Development Scenarios

Development Scenario 6

Development Scenario 6 Development Focus Areas (DFAs) are comprised of the same areas as are included in Scenario 5, and the addition of specific areas as described in **Figure 15** (West Mojave Region) and **Figure 16** (Imperial Valley and Palo Verde Valley regions).

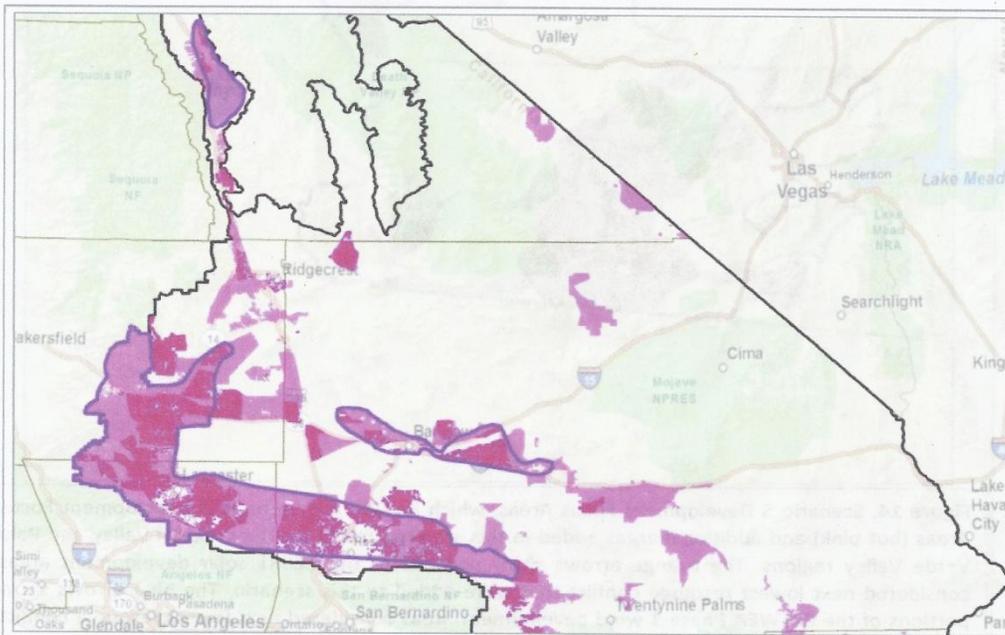


Figure 15. Scenario 6 Development Focus Areas, which include the Scenario 5 Development Focus Areas (hot pink) and additional areas added in this scenario (pink) for the West Mojave region. The full extent of the RESA boundary (purple line) was included as Development Focus Area in this scenario, excluding existing developed lands, military lands, tribal lands, Legally and Legislatively Protected Areas (LLPAs), and major river corridors. Additional Scenario 6 Development Focus Areas mapped outside the RESAs were based on industry and Agency input as described in Figure 17.

CALIFORNIA DESERT CONNECTIVITY PROJECT

Figure 33. A Linkage Network for the California Deserts



Mojave National Preserve-Twenty-nine Palms and Newberry Rodman Land Facets

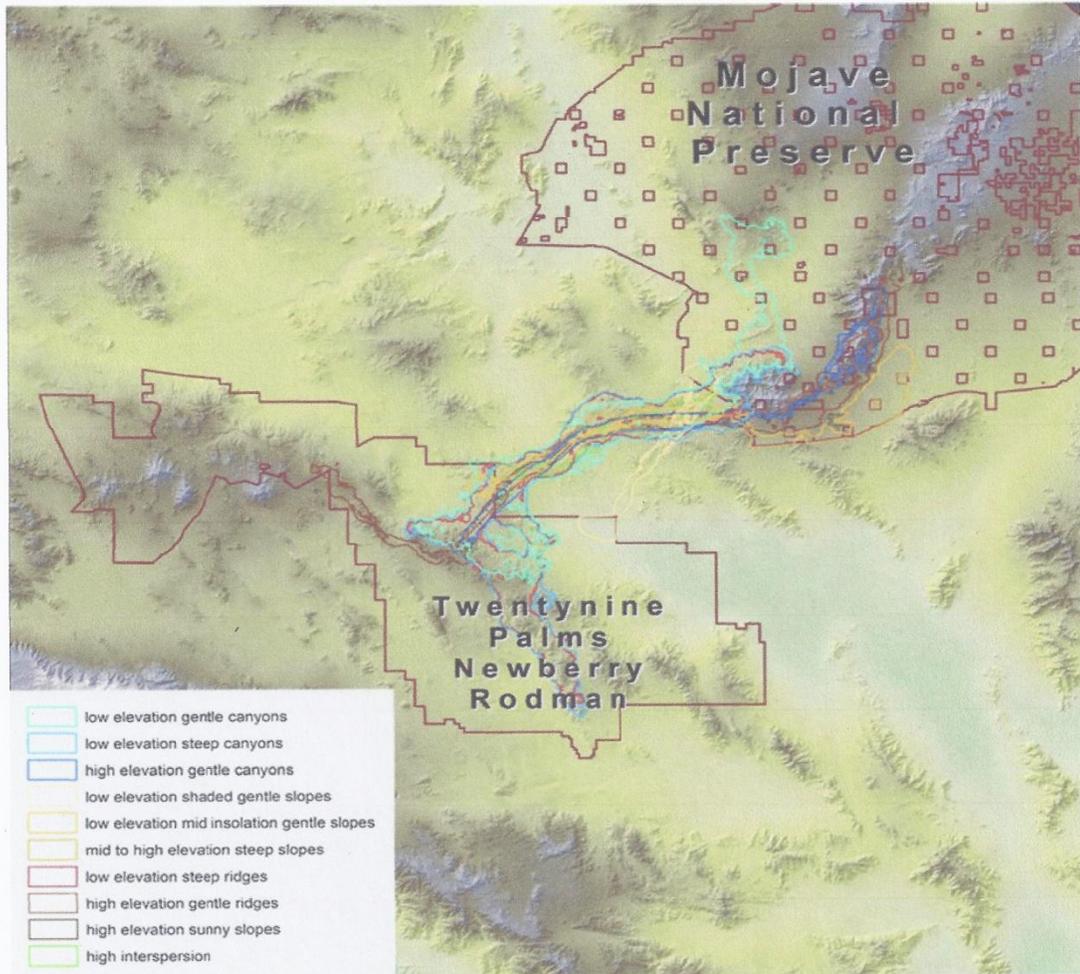


Figure 22. The thick strand of the linkage union includes 9 corridors (low elevation, gentle canyon bottoms; high elevation, gentle canyon bottoms; low elevation, steep canyon bottoms; mid to high elevation, steep slopes; low elevation, shaded, gentle slopes; low elevation, mid-insolation, gentle slopes; high elevation, sunny slopes; high elevation, gentle ridges; and low elevation, steep ridges). The thinner western branch is the corridor for low elevation, low-insolation, gentle slopes.

CALIFORNIA DESERT CONNECTIVITY PROJECT

Figure 4. Least-Cost Corridors Displaying Species Overlap

