

Thank you for your comment, Kevin Emmerich.

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To Whom It May Concern,

The plans for a Programmatic Environmental Impact Statement (PEIS) appear to be fast tracking the release of certain, environmentally sensitive public lands and opening them to solar energy development. The Bureau of Land Management (BLM) and Department of Energy (DOE) need to consider the consequences of freeing up so much public land for only one use. This whole process needs to move at a slower pace in order to identify issues and impacts that will arise if this land is developed. Please consider the following issues:

1. The potential for specific negative impacts to each of the 24 study areas should be clearly explained. The maps fail to identify any local issues for the regions involved. These would include:

- \* Degradation of water resources from concentrated solar power
- \* Impacts to visual resources
- \* Impacts to flora and fauna
- \* Impacts to Federal/State Threatened and Endangered Species
- \* Impacts to cultural sites
- \* Impacts to Native American values
- \* Impacts to private property values
- \* Limiting access to public lands

2. The BLM and DOE should be scheduling public scoping meetings for communities near each of the 24 areas that are being considered for this proposal.

3. An Environmental Impact Statement should be written for each one of the 24 tracts of land considered in this proposal.

Rare Mammals for Nevada Solar Areas:

Hoary bat (*Lasiurus cinereus*)- Pahrnagut Valley and Clark County. Potential for Delamar, Dry Lake, Dry Lake North. We have seen this species in Oasis Valley, Nye County, so may be potential on Amargosa Valley, Goldpoint, and Millers.

Townsend's big-eared bat (*Corynorhinus rafinesquii*)- potential on all sites.

Kit fox (*Vulpes macrotis*)- all sites.

Desert pocket mouse (*Chaetodipus penicillatus*)- Dry Lake, in Clark County.

Brush mouse (*Peromyscus boylii*) - Dry Lake.

For the Amargosa/Big Dune Areas and Lida site, the following rare plants should be at stake: *Arabis shockleyi* Shockley rockcress

*Astragalus beatleyae* Beatley milkvetch  
*Astragalus funereus* black woollypod  
*Astragalus serenoii* var. *sordescens* squalid milkvetch  
*Calochortus striatus* alkali mariposa lily  
*Castilleja martinii* var. *clokeyi* Clokey paintbrush  
*Camissonia megalantha* Cane Spring suncup  
*Centaurium namophilum* spring-loving centaury  
*Cordylanthus tecopensis* Tecopa birdsbeak  
*Cryptantha tumulosa* New York Mountains catseye  
*Cymopterus ripleyi* var. *ripleyi* Ripley biscuitroot  
*Cymopterus ripleyi* var. *saniculooides* sanicle biscuitroot  
*Entosthodon planoconvexus* planoconvex entosthodon  
*Eriogonum concinnum* Darin buckwheat  
*Eriogonum contiguum* Amargosa buckwheat  
*Gilia nyensis* Nye gilia  
*Gilia ripleyi* Ripley gilia  
*Hulsea vestita* ssp. *inyoensis* Inyo hulsea  
*Ivesia arizonica* var. *saxosa* rock purpusia  
*Lathyrus hitchcockianus* Bullfrog Hills sweetpea  
*Penstemon albomarginatus* white-margined beardtongue  
*Penstemon arenarius* Nevada dune beardtongue  
*Penstemon fruticiformis* ssp. *amargosae* Death Valley beardtongue  
*Penstemon pahutensis* Pahute Mesa beardtongue  
*Perityle intricata* delicate rockdaisy  
*Phacelia beatleyae* Beatley scorpion plant  
*Phacelia mustelina* weasel phacelia  
*Sclerocactus polyancistrus* hermit cactus

For the Riverside East area these rare species are at stake: BIOLOGICAL RESOURCES:

Special-status plant species observed in the project area:

- **FOXTAIL CACTUS:** A federal Category 2 candidate and a California Native Plant Society (“CNPS”) 1B species.  
\*Category 2 = information is currently being collected to see if the species should be listed as threatened or endangered.  
\*1B species = Plants rare, or endangered in California and elsewhere.
- **CALIFORNIA BARREL CACTUS:** A BLM Sensitive species observed within the dump’s footprint, near access roads, and along the rail line.
- **OROCOPIA SAGE:** A federal Category 2 candidate and a CNPS List 1B, observed along the rail line.

Special-status Wildlife species occurring in the vicinity of the project:

- **DESERT PUFFISH:** A federal and state listed endangered species. Observed approximately 1/4 mile south of the Eagle Mountain railroad trestle in a tributary of Salt Creek, and earlier surveys report the species is present throughout Salt Creek. Studies indicate that the best pupfish habitat in the area begins approximately 1 mile below the rail trestle and extends upstream to the headwaters of the tributary. Of particular interest is that this species could be wiped out with the planned construction/repair of the railroad. It is virtually impossible to relocate this species because each pool is minerally unique in composition - Personal conversation with National Park Service in Death Valley.
- **COMMON CHUCKWALLA:** A federal Category 2 species occurring at the project site and moderate occurrence along the rail line
- **FLAT-TAILED HORNED LIZARD:** This species has been proposed for federal listing as threatened and is a California Species of Special Concern. The species occurs in the vicinity of the rail line near Ferrum Junction.  
\* California Species of Special Concern = When encountered, should be reported to the Department, and for which impacts may be considered significant under CEQA.
- **DESERT TORTOISE:** This species is federal and state listed as threatened. Tortoise have been observed north of I-10 in the Eagle Mountain study area, the Chuckwalla Bench north of the Chocolate Mountains, and on the railroad. The Eagle Mountain railroad and parts of Eagle Mountain road cut through the Chuckwalla Unit of Critical Habitat for desert tortoise. The impacts to this species is not only from train and truck traffic. Ravens historically are attracted to dumps, and ravens prey on juvenile tortoise. It is expected that predation on the desert tortoise will increase. (Personal conversation with Park ecologist). A recent report by Dr.

Richard Knight of the University of Colorado describes the Park's Pinto Basin as the most pristine raven habitat in all of the Mojave desert. He regards Joshua Tree National Park as a unique habitat with unaltered raven densities. There are a number of mitigation measures to decrease the impacts to the desert tortoise, however the effectiveness of some of the mitigation strategies are unproven. For more information regarding mitigation and impacts to the desert tortoise see the comments made by Dr. Stebbins, Professor emeritus U.C. Berkeley.

- **NORTHERN HARRIER:** A California Species of Special Concern. This species is considered to occur seasonally along the rail line, and may seasonally forage in habitat at the project site and along access roads
- **SHARP-SHINNED HAWK:** A California Species of Special Concern. Likely to migrate in the vicinity of the project in the fall and spring, and may winter in any part of the project area. The species may also seasonally forage in habitat at the project site and along the rail line.
- **COOPER'S HAWK:** A California Species of Special Concern. Most parts of the project area are within the year-round ranges, although the central part of the rail line passes through an area of winter-range only.
- **GOLDEN EAGLE:** A California Species of Special Concern. None were identified during the surveys for the project, however the species is highly likely to occur in any portion of the project area. Note: Larry & I have observed these beauties several times in this area
- **PEREGRINE FALCON:** Is a federal and state listed endangered species with a low to moderate probability to occur at the project site, access roads, and rail line.
- **CALIFORNIA BLACK RAIL:** A federal Candidate 2 candidate and is state listed as threatened. Have been observed in the Salt Creek area north of the rail line, and do occur within one mile of the project area.
- **YUMA CLAPPER RAIL:** A federally listed endangered species and state listed threatened species, observed in the Salt Creek area north of the rail line.
- **WESTERN BURROWING OWL:** A federal Category 2 candidate species and a California Species of Special Concern, with a moderate likelihood of occurrence at the project site, access roads, and rail line.
- **BLACK-TAILED GNATCATCHER:** Considered a California Special Animal by CDFG, and observed near Kaiser & Eagle Mountain Roads and on the project site.  
\* California Special Animal = an animal fully protected by the state.
- **LECONTE'S THRASHER:** A federal Category 2 candidate and California Species of Special Concern, observed near Kaiser & Eagle Mountain Roads and could nest in habitat at the project and along the rail line.
- **LOGGERHEAD SHRIKE:** A California Species of Special Concern that is expected to occur throughout the project area.
- **YELLOW WARBLER:** A California Species of Special Concern observed in the townsite and the Chuckwalla Bench Area of Critical Environmental Concern ("ACEC").
- **YELLOW-BREASTED CHAT:** A California Species of Special Concern observed in the townsite and expected to occupy habitats throughout the project area.
- **CALIFORNIA LEAF-NOSED BAT:** A federal Category 2 candidate and a California Species of Special Concern who uses the Kaiser Mine as a winter roost. There have been no other winter roosts located during air searches over the Orocopia, Chuckwalla and Coxcomb Mountains.
- **TOWNSEND'S BIG-EARED BAT:** A federal Category 2 candidate and a California Species of Special Concern. Maternity roost of this species was observed in the mine adit during 1990 surveys, however subsequent surveys did not identify this species, possibly indicating that the roost has been abandoned. If the species is present, it is likely to forage in nearby areas, including near access roads & rail line and areas closer to the mine.
- **CALIFORNIA MASTIFF BAT:** A Category 2 candidate and a California Species of Special Concern. None were identified in the 1990 survey, but suitable habitat is present, and the species is listed as one that could occur at the project site (Brown, 1990). The entire project area is within the range of the species.
- **PALLID BAT:** A California Species of Special Concern was captured in a mist net over a mine pit pond during the 1990 surveys, and guano was found in two adits west of the project site. The species is likely to forage in areas near access roads and rail line, and it is known to forage over pond water, which forms from standing water after a rainfall in the bottom of the east pit.
- **AMERICAN BADGER:** A California Species of Special Concern identified at the project site and near Kaiser Road. The species is highly likely to occur along the rail line.

- YUMA MOUNTAIN LION: A Category 2 candidate and California Species of Special Concern. The EIR/EIS states it's probability of occurrence is unknown. However in 1995 and 1996 mountain lions have been observed at the Eagle Mountain townsite, and several farms in the Desert Center/Eagle Mountain area.

- NELSON'S BIGHORN SHEEP: A California Special Animal observed at the project site, and several locations along the Eagle Mountain railroad.

Biodiversity is the concept that all components of ecological systems, both living and nonliving, are interconnected in a hierarchical continuum, and that changes in the diversity at any level in that hierarchy can have effects at other levels (CEQ, 1993). The Council on Environmental Quality ("CEQ" 1993), has identified several primary threats to biodiversity, including:

- Physical alteration of ecosystems from resource exploitation and changing land use including habitat destruction, degradation and fragmentation;

- Pollution, which can have direct lethal or sublethal effects, or can degrade habitat through such factors of eutrophication, acidification, or thermal pollution;

- Overharvesting of populations, which results in disruption of interconnections within and/or between species, thus affecting ecosystem function;

- Introduction of exotic species, which can eliminate native species through predation, competition, or disease transmission, thus altering interconnections between species and changing ecosystem function; and

- Disruption of natural processes, which can occur when land management procedures change ecosystem dynamics through such practices as fire suppression or changes in water flow regimes.

For the Pisgah Area the following resources are at stake:

1. The report admits the site is located in a planning area for Mojave ground squirrel, but carries out no surveys to detect them. They did not see any during other work, so they must not be there?

2. Desert tortoise: they only surveyed one third of the site with a presence-absence survey over two years (one year a serious drought), finding a certain number during surveys, then adding other tortoises encountered during other activities, to get a count of live tortoises seen. Then they claim a population estimate of "70 to 127" tortoises. You cannot get an accurate or even plausible population estimate with this type of survey. They should carry out line-distance sampling methods, as they probably under-estimated the population, which may skew mitigation measures.

The habitat is considered to be capable of maintaining a viable, stable population, yet another large chunk of tortoise habitat will be destroyed and all tortoises translocated (to a yet-to-be-determined location). We want to know the details of how much land will be bought for mitigation and translocation, and where? We question putting funds into a "habitat conservation fund," mentioned in the report-- this could mean education, not actual land preservation. Not good enough.

3. There is a questionable bird listed on the bird surveys, California thrasher, which is endemic to California coastal chaparral and not in open creosote desert scrub. This must be a mis-identification, and makes me wonder what the quality of biologists was that were hired.

4. Mojave fringed-toed lizard: they found one lizard on a sandy habitat patch. The project site is next to an ACEC specifically made to protect this lizard, as well as a rare penstemon (also found on the project site). They will try to avoid construction on this habitat patch but admit it will be impacted by the fencing of the project site and disturbance of the surrounding area. Thus all connectivity of both sand flow and lizards will be cut-off, isolating this population as an island subject to increased potential for extirpation and no re-colonization. For mitigation of habitat disturbed, they only say that "compensatory mitigation for tortoise habitat will also benefit" the Mojave fringe-toed lizard. This is ridiculous, as tortoise and fringe-toed lizard habitat are usually quite different. Different habitat suitable for the lizard, i.e., sand areas, needs to be purchased (ideally).

5. In the executive summary they claim the site is disturbed. But in the Biological Resources Technical Report, they say, "the SES Assessment area" consists of "large areas of generally undisturbed habitat."

6. The executive summary says much vegetation will be left on the project site. But the Biological report says impacts will be "significant," with new paved roads, unpaved "access routes" to each Suncatcher, so roads will be everywhere. An unknown number of culverts, diversion ditches, and berms will be installed in flood crossing areas. Brush will be trimmed down to 3 feet around each group of Suncatchers in strips of 75 feet-wide vegetation bands between rows of Suncatchers, while alternate bands of 75-foot wide strips will be "bladed", which we assume means all vegetation will be removed. So alternating bands of cleared dirt will be 75 feet wide across the site. The report admits "these narrow (approximately 74 feet wide) strips of vegetation are expected to have minimal residual biological value associated with them." A perimeter fence will then be built.

7. They claim no waters of the U.S were found, yet they say they will have to construct an artificial channel to direct floods away from the Main Services Complex building site on the northeastern portion of the area.

8. Rare plants: Loss of the population of White-margined beardtongue penstemon will be considered "significant as a result of the proposed Project." They say they will collect seeds and cuttings of the rare plants for "propagation and relocation" as mitigation, but this has not worked for some plant species at the Ivanpah site. This needs to be tested prior to approving the site. They say compensatory tortoise habitat will benefit the rare plants-- an assumption.

9. Bighorn sheep- the project northeastern corner cuts across the Cady Mountain herd permanent use area. In addition, an access road that conservationists use to maintain guzzlers will be impacted apparently, and the report says that access will be maintained. But this is a problem that may come up more and more as other areas are developed with renewables.

10. Evaporation ponds will be built, with the potential for high salinity and toxic amounts of minerals such as selenium building up. No mention is made of possible deaths to such common desert birds as Mourning doves drinking. Covers should be required to protect birds.

11. The report admits that future cumulative impacts could be giant, and if all the numerous renewable projects pending on BLM land in the area are allowed to build, then 138,600 solar project acres and 51,900 wind project acres will be developed, having "significant" impact on tortoise, fringe-toed lizard, bighorn sheep, and rare plant species. No future mitigation proposal is discussed.

12. The Catellus land parcels within the project site will not be developed, but surrounding them with development isolated them into small islands of habitat with increased loss of connectivity and higher rates of local extinction. If these lands were purchased by Wildlands Conservancy and given to BLM to protect them, they are not being protected by this development.

13. Archaeology: more thorough surveys should be carried out, as this area may have important sites. Newberry Cave Pleistocene fossil megafaunal site is about 20 miles away.

Thank you for your consideration,

Sincerely,