MBCA
morongo basin conservation association
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MBCA is a 501(c)3 non-profit, community based, all volunteer organization

March 29, 2024

Keith Gardner, Community Development director
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Scoping comments for
E-Group PS Solar Project

Project Location: North of Two Mile Road and west Noel Knolls Road. Assessor's Parcel Nos. 0612-201-01 and 0612-201-05

Project Description:
"*The 184-acre solar array portion of the site is referred to herein as the "solar project." The solar project will have the ability to generate 50 megawatts (MW) of solar power*." (NOP) There is no mention of energy storage in the NOP or Initial Study documents.

Comment:
According to the Solar Industries Association[1]
"Depending on the specific technology, a utility-scale solar power plant may require between 5 and 10 acres per megawatt (MW) of generating capacity."

- Using these numbers, the proposed 184-acre solar array will produce, at the most, 36.8 MW of solar power. At the E-Group public meeting we were assured the Project would produce 50 MW of solar energy.

This proposed productivity must be verified.

In the E-Group presentation on March 20th to interested community members, Mr. Smith stated that if the City was not interested in permitting the solar project the developer would utilize AB 205, although that was not their first choice.

- AB 205 require the solar project to have a generating capacity of 50 MW or more (see above) and an energy storage system capable of storing 200 megawatthours or more of electricity.[2]

Does the E-Group solar project meet the AB 205 requirements?

[1] https://www.seia.org/initiatives/land-use-solar-development#:~:text=Depending%20on%20the%20specific%20technology,(MW)%20of%20generating%20capacity
.
[2] https://lpdd.org/resources/californias-sb-205-2022/

CEQA Elements

I Aesthetics

c) There is potential for the Project to substantially degrade the existing visual character or quality of public views of the site and its surroundings…

When analyzing the impacts and possible mitigation measures please do not consider the use of "native desert plants" that are greener or taller that the surrounding creosote, as was suggested by the developer during his meeting with community members on March 20, 2024.

d) Create a new source of light or glare.

"However, the project will result in expanses of reflective solar panels over the northern 184 acres of the site. "

When analyzing for glare please note this glare in Biological Resources d) since the glare has the potential to interfere with migrating birds mistaking the area as a body of water. The panels are at a fixed 21-degree angle, facing south but could confuse the shorebirds, ducks, herons, and egrets flying north.

Please review Cornell University eBird Hotspot for Barker Dam in Joshua Tree National Park[3] is due south of the E-Group project. This is a new danger for water birds and is cumulative with Cascade solar (150 acres) in Joshua Tree, and SEPV2 and SEPV8 on Lear Rd. (120 acres), and SEPV9 on Indian Trail (80 acres).

And see the pdf attached to the email *Why Do Birds Crash Into Solar Panels*.

III Air Quality This Project will

a) Conflict with or obstruct implementation of the applicable air quality plan.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations.

VII Geology and soils This Project will

b) Result in substantial soil erosion or the loss of topsoil.

Downwind receptors living in the Morongo Basin east of Joshua Tree solar projects have considerable experience with the dust from the Cascade Solar Project on 150 acres in Joshua Tree; and SEPV2 and SEPV8 built together on 120 acres on Lear Avenue and SWPV9 on 80 acres on Indian Trail in 29 Palms. All three projects and the proposed E-Group Project are on a Sand Transport Path in the Mojave Desert described in Zimbelman et.al *Sand Transport Paths in the Mojave Desert*[4]

[3] https://ebird.org/barchart?r=L209809&yr=all&m=

[4] Zimbelman et.al. Sand transport paths in the Mojave Desert https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=SAND+TRANSPORT+PATHS+IN+THE+MOJAVE+DESERT%2C+SOUTHWESTERN+UNITED+STATES&btnG=

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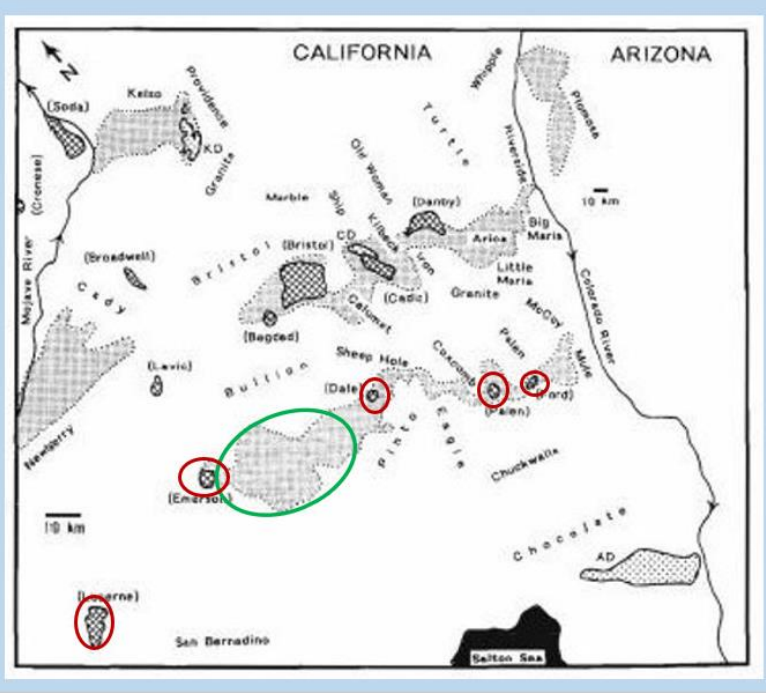

Figure 1:
Simplified sketch map of the Mojave Desert region. The sand deposits are shown in the dotted patterns. The sand source playas are shown in the gridded pattern. (Zimbelman Page 105)

Green circle and red circles added by this author for illustration.

Within the Green Circle
Dust sources include Cascade Solar, SEPV 2, SEPV8, and SEPV9 Solar facilities on a total of 350 acres.

Active Sand Sources – red circles
Emerson Dry Lake and Dale Dry Lake in the Morongo Basin.

Figure 2: The Green Circle area shown on Google Earth. The blue diamond upwind from the City of Twentynine Palms is the proposed 184-acre E-Group Solar Project.

Figure 3: Dust rising off the 150-acre Cascade Solar in Jushua Tree on 3/28/2016.
The facility went on line 4/2014.

Figure 4: Dust rising off Cascade Solar 5/2022. Photo curtesy Laraine Turk.

The Mojave Desert Air Quality Management District (MDAQMD) bases their analysis on readings from ambient air monitors. The map on the MDAQMD website, March 28, 2024, shows no monitors east of Lucerne Valley. They also have located Purple Air Monitors throughout their district. The Purple Air monitors default is PM2.5. There are 2 Purple Air monitors located east of the proposed E-Group. Project. One is in Desert Heights[5] and the other in Indian Cove. [6]
The Initial Study states "*The nearest monitoring station to the Project is located on Adobe Road, east of the Project site.*" (page 20)
Please clarify. If such a monitor exists, the measurements are not visible to the public so not useful.

VII. Geology and Soils This Project will
b) Result in substantial soil erosion or the loss of topsoil.

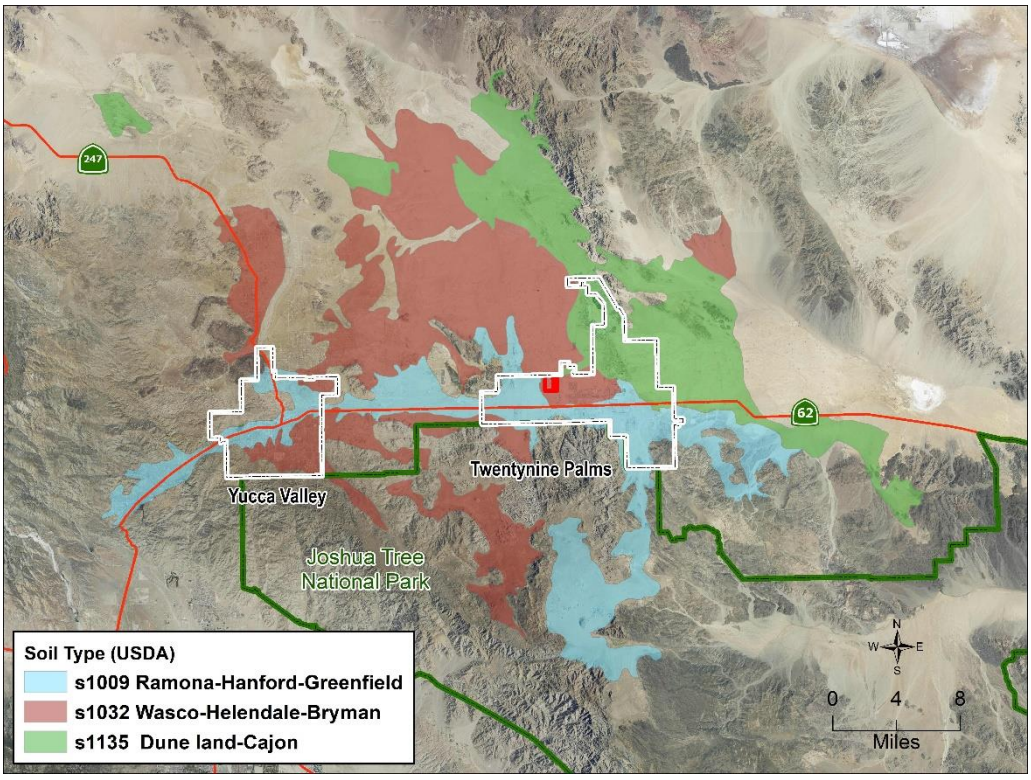

Figure 6: Soil types in the Morongo Basin.

The red dot locates the solar project.

The Soil Type is **1032 Wasco-Helendale-Helendale-Bryman**.

For the soil type descriptions NRCS recommended I consult the Soil Survey of San Bernardino County CA Mojave River Area, Soil Conservation Service, 1986.

[5] The Desert Heights monitor is at this author home and installed to track the dust from the listed solar fields.
[6] https://map.purpleair.com/1/ls/mPM25/a10/p604800/cC0#10/34.137/-116.1599

- "*Wasco sandy loam 0 to 2% slope: "Runoff is slow, and the hazard of water erosion is slight. The hazard of soil blowing is moderate…**Clearing, or any other disturbance that destroys the soil structure and vegetation, can result in increased soil blowing,** barren areas, and lower overall production*."
The 2 to 5% slope has a similar description. (Page 66)
- *Helendale Loamy sand for both 0 to 2% slope and 2 to 5% slope: "Runoff is medium, and **the hazard of soil blowing is high***." (Pages 41-42)
- *Bryman loamy fine sand for both 0 to 2% slope and 2 to 5% slope: "Runoff is slow, and the hazard of water erosion is slight. **The hazard of soil blowing is high***." (Page 22) (My underlines and bold for emphasis)

Local downwind residents have suffered from fugitive dust both inside and outside their homes when land was cleared for solar projects. See Figures 3 and 4. Lessons learned when reviewing proposed Projects include checking the Soil Type (Figure 6) to anticipate the long-term impacts from soil disturbance and fugitive dust blowing for the duration, operation, and following the Project's closure. The MDAQMD is operating from experience that does not include the desert sand transport paths. The Great Basin Air Pollution Control District has dust control plans based on research on the dry Owens Lake. Crushed gravel may be the reasonable, long-term solution.[7]

IV Biological Resources This Project will effect adversely
a, b, and d.

VIII Greenhouse Gas Emissions This Project will
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Please add to the sources used when analyzing the Biological Resources and Greenhouse Gas Emissions Elements the scholarly report California Desert's Role in 30X30 Carbon Sequestration and Biodiversity.[8] This report was presented to the California Natural Resources Agency [CNRA], California Air Resources Board [CARB], and California Department of Food and Agriculture [CDFA] on the importance of desert carbon sequestration as part of the State's AB 1757's commitment to reaching our state's broad climate change goals.

From the **Executive Summary**

" *…One of the most persistent mischaracterizations is that the California desert is a barren wasteland with low biodiversity and limited capacity for carbon storage. Scientific data refutes these inaccuracies, and this report will demonstrate that the California desert has extremely high biodiversity and is a significant carbon sink with tremendous opportunity to sequester carbon and help our state meet is atmospheric carbon reduction goals.*

[7] https://www.gbuapcd.org/OwensLake/DustControls/
[8] Pdf attached to email.

There are 2 key takeaway messages from this report:

1. **The desert's carbon storage process differs significantly from more widely understood sectors such as forests, grasslands, chaparral, and wetlands.**

2. **Because of the distinct carbon storge process found in the desert ecosystem, there is one recommended strategy to maximize the desert sector's contribution to carbon emission reduction: Intact desert lands need to be left undisturbed.**

Also attached as a source is the follow up letter to Nature Based Solutions at NRCA[9]

The MBCA appreciates this opportunity to comment on the E-Group PS Solar Project. These comments were prepared by a board member who lives downwind from the solar projects described above and speaks from experience.

Sincerely,

Pat Flanagan

Board member, MBCA
Resident of Desert Heights

[9] Pdf attached to email