MBCA

morongo basin conservation association

October 23, 2023

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Via email blm_ca_cdd_easley_solar@blm.gov

Reference Easley Solar Project in Riverside County

The Easley Solar project in Riverside County, hugging the community of Lake Tamarisk, will add up to 400 MW of dirty, dusty energy to the California Grid and an unknown number of individuals with failing health to the local hospitals.

The wind driven dust, PM10 and PM2.5, of the Project will be cumulative with the surrounding 20,500 acres of the 9 large-scale solar projects in the area that have been built out, are under construction, or proposed (Easley and Sapphire). It all depends on which way the wind blows.

The Easley Project and others are located on a Sand Transport Path (STP) as described by Zimbelman and others using remote sensing and field evidence.[1]

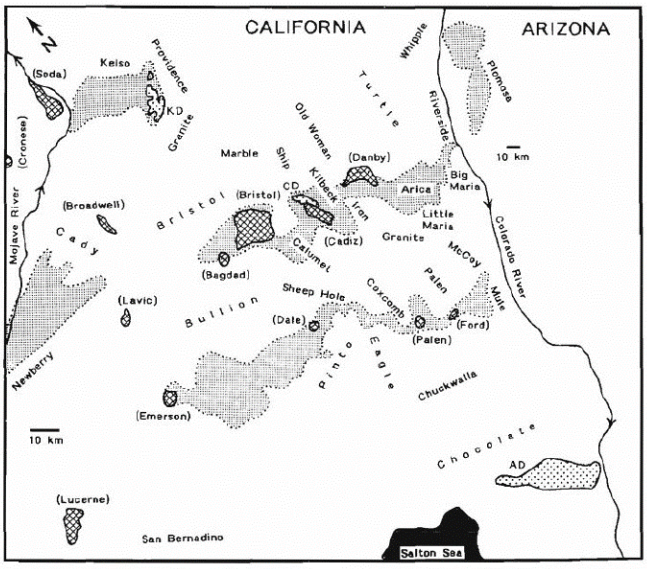


Figure 1. (b) Simplified sketch map of the area shown in Figure 1a. Selected playas (gridded pattern, names in parentheses), mountains (names listed at appropriate location), and rivers (arrows show direction of flow) are labeled for reference. Sand deposits are shown in dotted patterns; the open pattern represents active (relatively unvegetated) dunes (KD = Kelso Dunes, CD = Cadiz Dunes, AD = Algodones Dunes) and the dense pattern represents inactive (stabilized by vegetation) deposits. Note that foreshortening due to the oblique viewing geometry causes horizontal scale variations across the area.

Figure 1: Sand Transport Paths in the Mojave Desert.

[1]Sand Transport Paths in the Mojave Desert, Southwestern United States.
J.R. Zimbelman, S.H. Williams, V.P. Tchakerian. In Desert Aeolian Processes. Edited by J.R. Tchakerian. 1995.
https://repository.si.edu/bitstream/handle/10088/19226/nasm_Zimbelman_Williams_Tchakerian_1995.pdf?sequence=1&i

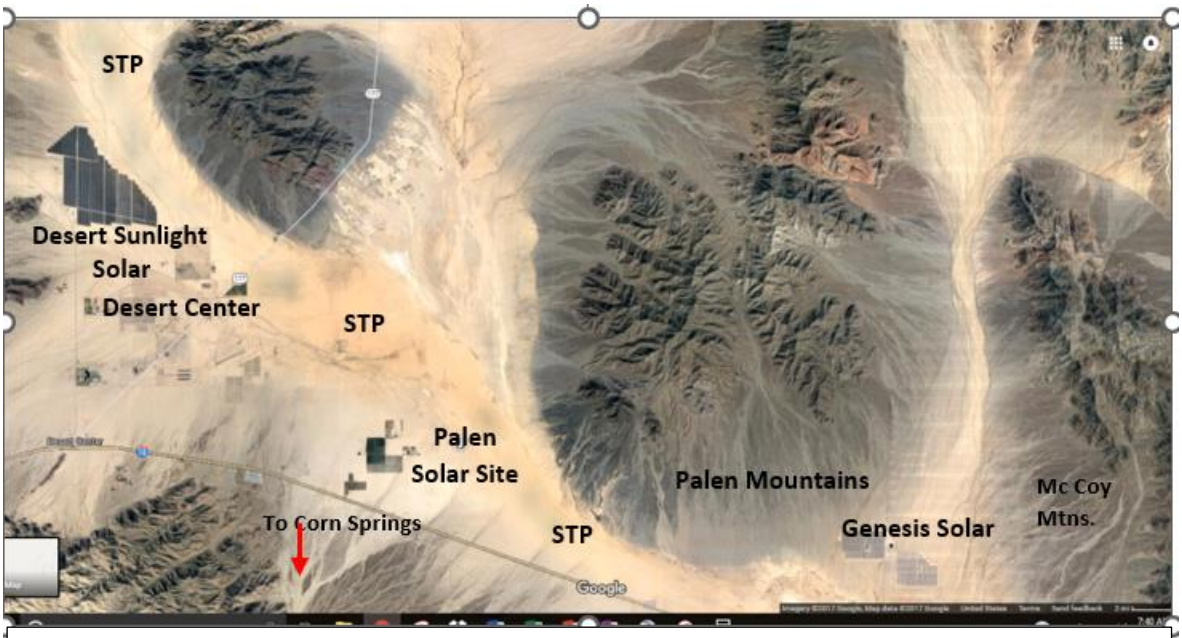


Figure 2: Sand Transport Path (STP) as it flows between the west side of the Coxcomb Mountains and Desert Center into and through the Chuckwalla Valley.

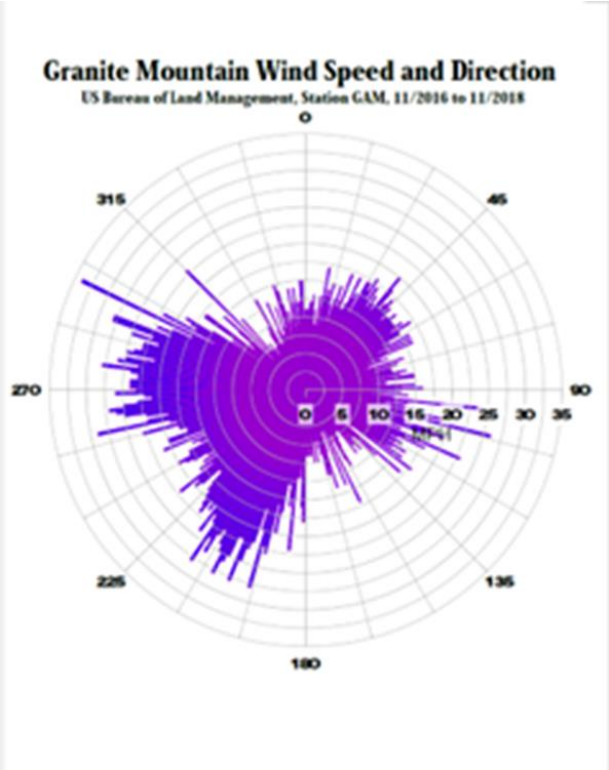
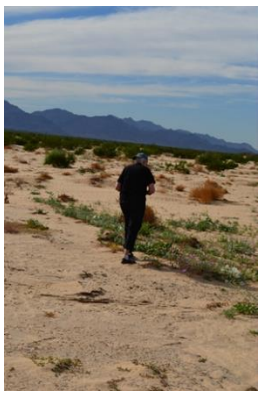


Figure 3: Granite Mountain Wind Speed and Direction.

The desert winds are predominately easterly but can come from any direction Also note desert winds can commonly blow from 15 to 20 mph and, not uncommonly, be in the 25 to 30 mph range.

A paper published in 2017 on the intensity of dust storms activity and Valley Fever infection in the southwestern United States found direct evidence of rapid intensification of dust storm activity over American deserts in the past decades (1988–2011) and an increase in the frequency of windblown dust storms of 240% from 1990s to 2000s. This dust trend is associated with large-scale variations of sea surface temperature in the Pacific Ocean, with the strongest correlation with the Pacific Decadal Oscillation. The investigation showed the relationship between dust and Valley fever, a fast-rising infectious disease caused by inhaling soil-dwelling fungus (Coccidioides immitis and C. posadasii) in the southwestern United States.[2]

[2] https://doi.org/10.1002/2017GL073524



A travelogue
November 27, 2017

Around noon on a beautiful clear day at the future site of the Palen Solar project.

About 12:30 we went to Corn Springs in the Chuckwalla Mountains south of the Palen site and exited there about 3 PM.

Exiting the Chuckwallas we see the Palen Mountains obscured by a moving front of dark dust: the STP in action. The dust cloud is coming from the west. The Palen Mountains are just visible to the east (right) of the dark dust cloud.

In a few minutes the dust cloud (haboob) had completely obscured the Palen Mountains. We exited on to the I-10 west for about 10 miles with visibility less than one mile. At Desert Center we turned north on Hwy 177 facing into the blowing dust (STP). If we had continued on the I-10 we would also have been in dust. The closest PM10 monitor to this area is in Indio, about 57 miles to the west.

The Easley Dust Control Plan states that the Project will take approximately 24 months to complete and include several million solar panels with a similar level of ground disturbance for the technology selected. The Project would operate for a minimum of 35 years up to 50 years. At the end of its useful life, the Project would be decommissioned, and the land returned to its **pre-project conditions**.

Based on experience surrounding multiple large scale solar projects in the Mojave and Colorado Desert there is no expectation that the soil crust on the project will stabilize with native plants before decommissioning or that it will be possible to return the land to **pre-project conditions**. To support this negative view I am attaching a copy of

AB1757
Nature Based Solutions Desert Sector for CA 30x30.
A report submitted to the California Natural Resources Agency, California Air Quality Management District, California Department of Food and Agriculture and the Expert Advisory Committee.

For information contact:

- Dr. Michael Allen, Ph.D., Distinguished Professor Emeritus. Department of Microbiology and Plant Pathology, University of California, Riverside
- Dr. Cameron Barrows, Ph.D. Conservation Ecologist, Emeritus. Center for Conservation Biology, University of California, Riverside
- Susy Boyd, MNR. Master of Natural Resources, Forests and Climate Change, Oregon State University.
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Biological soil crusts keep soils intact and prevent dust storms…unless soils are disturbed. The dried, glue-like threads of microbes in biocrusts form a resistant seal across the soil surface, keeping dust, particulate matter, and harmful fungal spores like valley fever from being blown up into the air wherever the soil has not been disturbed.
These living soil crusts take hundreds of years to develop into effective soil "sealants."

The **Purpose and Need for the Project** cluster around support for clean energy goals and the reduction of greenhouse gas pollution. Dr. Michael Allen's research demonstrates the capture and storage of carbon in the desert underground if it is left undisturbed. The majority of the land, including the microphyll woodland and creosote scrub, chosen for the Easley project and adjacent projects is pristine and rich with carbon underground.

The two take away messages for this report are:

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 storage process found in the desert ecosystem, there is one recommended strategy to maximize the desert sector's contribution to carbon emission reduction: it needs to be left undisturbed.

To prevent this Project and all future solar projects poisoning the residents of Lake Tamarisk, Desert Center, and communities along the I-10 to the Colorado River with dust particles, Valley Fever, and other contaminants, the entire surface must follow the Owens Lake best practice solution and be covered with 4" crushed gravel screened to a size greater than 3/8-inch in diameter.[3]

Environmental Justice
As defined by the Environmental Protection Agency, ***environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with the respect to the development, implementation, and enforcement of laws, regulations, and policies.***

The very fact that the lives of desert residents are considered expendable is a crime against community, state, and federal Environmental Justice laws, which are considered in both CEQA and NEPA.

What is fair about the development of the Easley Solar Project? Is it considered necessary because of the danger from climate change? How is that justified? Is it okay to destroy living humans and wildlife, and the plants sequestering carbon? Is it okay to release centuries old, stored carbon with every pile driven into the intact desert ground? We contend NO.

Thank you for you time considering these comments and for your careful reading of the AB1757 Nature Based Solutions Desert Sector report.

Sincerely,

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Director, MBCA

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[3] https://www.gbuapcd.org/OwensLake/DustControls/