

Appendix E - Agency Emails

Rough Hat Nye, Rough Hat Clark, and Copper Rays Projects

Frisbie, Margaret X <Margaret_Frisbie@nps.gov>

Mon 12/6/2021 9:54 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Good a. ernoon,

Many thanks for hosng the agency meeng f or the proposed Rough Hat Nye, Rough Hat Clark, and Copper Rays projects in Pahrump Valley. The Naonal P ark Service, Naonal T rails Office is concerned with potenal impacts t o the Old Spanish Naonal His toric Trail (NHT), which travels approximately five miles south of the project area. If possible, we would appreciate receiving copies of any visual impact assessments when available. I would also like to request that the Old Spanish Trail Associaon (OS TA) be kept informed of project developments. Paul Ostapuk, President of OSTA, can be reached at: postapuk@gmail.com.

I have just looked at previous email correspondence, and we have the geospaal da ta for these three projects on file.

Thanks so much!

Meg

Meg Frisbie
(she/her/hers)
Cultural Resources Specialist
Naonal Trails
Naonal Park Service
1100 Old Santa Fe Trail
Santa Fe, NM 87505
505.470.0426 cell
margaret_frisbie@nps.gov



Wirthlin, Whitney J

From: Townes, Daniel W CTR OSD OUSD A-S (USA) <daniel.w.townes.ctr@mail.mil>
Sent: Thursday, December 23, 2021 6:16 AM
To: 'BLM_NV_SND_EnergyProjects@blm.gov'
Cc: Sample, Steven J CIV OSD OUSD A-S (USA)
Subject: [EXTERNAL] Response Letter for the Copper Rays Solar Project
Attachments: IR - Copper Rays Solar Project - Response Letter.pdf
Signed By: daniel.w.townes.ctr@mail.mil

Good morning Ms. Wirthlin,

Attached is the Informal Review Response Letter for the Copper Rays Solar Project.

Thank you for the opportunity to review your project.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Sustainment)
Desk: 571-372-8414 (*temporarily unavailable*)
NIPR: daniel.w.townes.ctr@mail.mil



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

SUSTAINMENT

December 22, 2021

Whitney Wirthlin
Project Manager
Bureau of Land Management, Southern Nevada District Office
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

Dear Ms. Wirthlin,

As requested, the Military Aviation and Installation Assurance Siting Clearinghouse coordinated within the Department of Defense (DoD) an informal review of the Copper Rays Solar Project. The results of our review indicated that the solar project, located in Nye County, Nevada, as proposed, will have minimal impact on military operations conducted in the area.

Thank you for working with us to preserve our military's operational, training, and testing capabilities. We have assigned the tracking code 2021-11-S-BLM-21 to this project. If you have any questions, please contact me at steven.j.sample4.civ@mail.mil or at (703) 571-0076.

Sincerely,

A handwritten signature in blue ink, reading "Steven J. Sample".

Steven J. Sample
Executive Director
Military Aviation and Installation
Assurance Siting Clearinghouse

[EXTERNAL] Copper Rays Solar Project

Araceli Pruett <Araceli.Pruett@clarkcountynv.gov>

Wed 12/22/2021 7:31 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Good Morning,

Please see the attached letter concerning the above-described project. If you have any questions, please let me know.

Thanks,

Araceli Prue, Senior Planner
Clark County Department of Environment & Sustainability
Division of Air Quality
4701 West Russell Road, Suite 200
Las Vegas, NV 89118-2231
(702) 455-3206 – desk
(702) 455-5942 – front desk
(702) 383-9994 – fax



DES
DEPARTMENT OF ENVIRONMENT
AND SUSTAINABILITY



4701 W. Russell Road 2nd Floor
Las Vegas, NV 89118-2231
Phone: (702) 455-5942 • Fax: (702) 383-9994
Marci Henson, Director

December 22, 2021

BLM Southern Nevada District Office
Attn: Copper Rays Solar Project
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

Email: BLM_NV_SND_EnergyProjects@blm.gov

Re: Copper Rays Solar Project, Nye County, NV

To Whom It May Concern:

The Department of Environment and Sustainability (DES) has reviewed the documentation associated with the proposed construction, operation, and eventual decommissioning of the Copper Rays Solar Project, a photovoltaic solar power project in Nye County, Nevada. The proposed project would include 700 MW solar and battery storage facilities on approximately 5,127 acres of BLM-administered land in the Pahrump Valley in Nye County, immediately adjacent to the Clark County line and approximately 40 miles west of Las Vegas. In addition, Copper Rays Solar, LCC has applied for a right-of-way grant to provide the necessary land and access for the construction and operation of the proposed solar facility and interconnection to the regional transmission system.

The Las Vegas Valley (Hydrographic Area 212) in Clark County is currently designated as a marginal nonattainment area for the 2015 ozone National Ambient Air Quality Standards (NAAQS) and an attainment area subject to a maintenance plan for the Carbon Monoxide and PM₁₀ NAAQS. Hydrographic Areas 164A, 164B, 165, 166, 167, 212, 213, 214, 216, 217, and 218 (excluding the Moapa River Indian Reservation and the Fort Mohave Indian Reservation) are attainment areas subject to a maintenance plan for the 1997 ozone NAAQS. Clark County is in attainment/unclassifiable for the PM_{2.5}, Sulfur Dioxide, Lead, Nitrogen Dioxide, and 2008 ozone NAAQS.

Although the project area is located in Nye County and outside of our jurisdiction, DES is concerned about the impacts of fine particulate matter (PM₁₀) in the form of windblown and vehicle-generated dust if appropriate dust control measures are not applied to the project. Because the project is located in a high-wind, desert area, wind erosion and PM₁₀ entrainment from disturbed areas and unpaved roads occur at a higher rate than normal, allowing impacts to the Las Vegas Valley in extreme cases. DES requests that any impacts to air quality as a result of surface-disturbing and other project activities be analyzed and mitigated through the implementation of appropriate water erosion and dust control measures and other project-specific measures and best management practices for any area where the deserts natural crust is broken.

Thank you for the opportunity to review and comment on this project. If you have further questions, please contact me at 702-455-3206.

Sincerely,

Araceli Pruet

Araceli Pruet, Senior Planner
Division of Air Quality

From: [Brad Hardenbrook](#)
To: [Wirthlin, Whitney J](#)
Cc: [Jasmine Kleiber](#)
Subject: [EXTERNAL] Government/Agency Input on Proposed Pahrump Valley Solar Energy Projects
Date: Thursday, December 16, 2021 7:45:43 PM
Attachments: [NDOW_Gila_Monster_Protocol_5Feb2020.pdf](#)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good evening,

The Nevada Department of Wildlife (NDOW) again thanks the BLM team and proponents in facilitating recent summary presentations of BLM's proposed project determination process and individual solar energy projects on December 2nd. While receipt of reports and documentation relevant to biological resources was anticipated before this email, better informing us of initial findings for the Rough Hat - Nye, Rough Hat – Clark, and Copper Rays solar generation proposals, we can understand the possibility for delays in the virtual working environment we all are experiencing. Having said this, we can appreciate BLM's project determination decisions resting on many factors additional to biological and relevant natural resources on which wildlife under NDOW's management interests rely. Hence, NDOW's present understanding specific to each proposed project led to, but is not limited to the following observations, questions, and concerns.

- Two species of heightened conservation interest and potentially in the area are the State protected Gila Monster and Western Burrowing Owl. The former can be difficult to detect (see attached encounter protocols), and both are BLM – Nevada sensitive species.
- Potential desert tortoise translocations into nearby habitats are under consideration. These areas are affected by long-term drought and present a mitigation viability question regarding intended outcomes and lessons learned from previous translocation efforts.
- While vegetation mowing and avoidance of drainage habitats is anticipated, it is unclear to what extent native vegetation will remain and retain native plant community function and sustainability providing for species like the desert tortoise and other resident fauna remaining on site.
- During recent public presentation of the Copper Rays Solar Project, thousands of individual Mojave yucca, Joshua tree, and a variety of cacti was disclosed within the proposed ROW area. This is not an insignificant count and represents similar outcomes at other development sites. The future of these plants was uncertain and is a concern as they are integral to local wildlife habitat form and function.
- The large reflection area by PV arrays of any individual or combined project area may increase confusion to species like the endangered Ridgeway's Rail known to inhabit nearby Ash Meadows or other night-time migrants. Would there be a monitoring program designed and implemented for timely recovery of birds from the field and has feasibility for care and transport to suitable release sites under consideration; are other contingencies being posed?

- Each solar project has merit in lessening reliance on fossil-fueled energy generation, however are the present climate change effects understood and accounted for in developing measures to offset or mitigate effects to sensitive biological resources and ecosystem services consequential to these projects?
- While water use is minimal for PV-based generation facilities compared to other energy generation facilities, to our understanding there is still need for washing PV panels and facility appurtenances. The context of amounts needed with present and future regional demand-supply and appropriations for the Pahrump Valley are germane. Should we be mistaken, have advances in PV panel design resulted in dust-repelling surfaces?
- Should any one or all solar projects move forward for development, other present land uses will be displaced by available acreage. Is the amount and resiliency of nearby open space able to accommodate additional visitation or uses, e.g. various recreation and access (including those valued as potential translocation areas for select flora and desert tortoises), and other wildlife populations connectivity?

As the BLM progresses in project determinations, we are gently reminding of our information request for gaining additional perspective on current site knowledge and the ability to discuss with our BLM and U.S. Fish and Wildlife partners opportunities to share in our collective expertise.

Please contact me for additional assistance.

Sincerely,

D. Bradford Hardenbrook
Supervisory Habitat Biologist
NEVADA DEPARTMENT OF WILDLIFE, SOUTHERN REGION
3373 Pepper Lane
Las Vegas, Nevada 89120
702.668.3960 Desk
bhrdnbrk@ndow.org

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NEVADA DEPARTMENT OF WILDLIFE SOUTHERN REGION

3373 Pepper Lane, Las Vegas, Nevada 89120
Phone: 702-668-3839 or 702-486-5127; Fax: 702-486-5133



5 February 2020

GILA MONSTER STATUS, IDENTIFICATION AND REPORTING PROTOCOL FOR OBSERVATIONS

Status

- The **Gila monster** (*Heloderma suspectum*) is secretive, difficult to detect, and seemingly rare relative to other species. These attributes led the **State of Nevada** decades ago to classify the species as **Protected** (Nevada Administrative Code 503.080). Their populations are also vulnerable to poaching, the cumulative effects of habitat loss, fragmentation and degradation, and climate changes (Wildlife Action Plan Team 2012).
- Therefore, a person shall not hunt or take any protected wildlife, or possess any part thereof, without first obtaining the appropriate license, permit or written authorization from the Nevada Department of Wildlife (Nevada Administrative Codes 503.090 and 503.093).
- The USDI Bureau of Land Management has recognized this lizard as a sensitive species since 1978 and is to manage public lands in a manner to avoid the necessity of higher federal protections (BLM Manual 6840 – Special Status Species).
- In Clark County’s Multiple Species Habitat Conservation Plan (MSHCP), the Gila monster is an *Evaluation Species*, meaning inadequate information exists to determine if mitigation from MSHCP implementation would demonstrably cover conservation actions necessary to ensure its persistence without additional protective intervention as provided under the federal Endangered Species Act.
- While the Gila monster is the only venomous lizard endemic to the United States, its behavioral disposition is somewhat docile and avoids confrontation. But it will readily defend itself if threatened. Most bites are considered *illegitimate*, not caused by Gila monster aggression, but resulting from human harassment or careless handling. Gila monsters are not dangerous unless molested or inappropriately handled and should never be harmed or killed.
- The Nevada Department of Wildlife (NDOW) has ongoing management studies for greatly improving our understanding specific to Nevada’s banded Gila monster populations; hence, **additional sightings and descriptions for this species distribution, habitat, and biological information is of utmost interest.**
- In assistance to gathering additional information about Nevada’s Gila monsters, **NDOW will be notified whenever a Gila monster is encountered or observed,** and under what circumstances (see Reporting Protocol below).

Identification

The banded Gila monster (*H. s. cinctum*) is the only wild subspecies occurring in Nevada, and is restricted to Clark, Lincoln, and Nye counties. Found mainly below 5,000 feet elevation, its geographic range approximates that of the desert tortoise (*Gopherus agassizii*) in Nevada. Gila monster habitat requirements center on complex rocky landscapes of upland desert scrub overlapping desert wash, spring, and riparian habitats, often characteristic of alluvial fans (bajadas) and adjacent rocky fields. Gila monster habitat overlaps that of both the desert tortoise and chuckwalla (*Sauromalus ater*).



Gila monsters are recognizable by a striking black and orange-pink coloration and bumpy, or beaded, skin. In keeping with its name, the banded Gila monster (shown left) retains a black chain-link, banded pattern into adulthood. Sometimes other non-venomous lizards are mistaken for the Gila monster. Of these, the western banded gecko (*Coleonyx variegatus*) and the chuckwalla are the most frequent. All three share similar habitats.

To untrained eyes, the color pattern and finely granular skin of the western banded gecko (right) may have the looks of a baby or juvenile Gila monster. But gecko heads are more pointed at the snout and the relatively large eyes have *vertical* pupils befitting their nighttime habits. Gila monsters may be both nocturnal and diurnal; the smallish eyes have *round* pupils. Snouts are bluntly rounded. Newly hatched Gila monsters vary in length at 5-7 inches with a vivid orange and black, banded pattern. Western banded geckos are generally smaller than 4 inches with cream to yellow background colors and brown to purple banded patterns.



Chuckwalla adults (left) and juveniles have a body shape somewhat suggestive of the Gila monster, but they lack the coarsely beaded skin and showy black and orange-pink body pattern. While juvenile chuckwallas can have orange and black banded tails, this colorful banding fades as chuckwallas mature. From nose to tail tip, adult chuckwallas may reach 17 inches long, rivaling that of the Gila monster. Chuckwallas are herbivorous. When alarmed, they are fast movers seeking cracks and crevices into which they can wedge themselves by inflating their bodies with air. Chuckwallas are diurnal and rock dwellers.

Reporting Protocol

Field workers (e.g. construction foremen, bio-monitors) must at least know how to: (1) identify a Gila monster by distinguishing it from other lizards like the chuckwalla and western banded gecko (see **Identification** above); (2) Report any Gila monster observation to the NDOW; (3) Be aware of the consequences of a Gila monster bite resulting from carelessness or unnecessary harassment; and, (4) Be advised of protective measures provided under state law and federal management policies.

- 1) Live Gila monsters found in harm's way in the construction site will be captured and then detained by the project biologist or equivalent personnel in a cool ($\leq 85^{\circ}\text{F}$), shaded environment (air-conditioned vehicle or trailer is okay) until a NDOW biologist can arrive for biological documentation prior to its release. Although a Gila monster is venomous and can inflict a serious bite, its relatively slow gait allows for it to be easily coaxed or carefully lifted into an open bucket or box using a long handled instrument like a snake hook, tongs, or shovel (*Note: it is not the intent to request unreasonable action to facilitate captures; additional coordination with NDOW will clarify logistical points*). For safe detainment, an unused or sterile 5-gallon plastic bucket with a secure, vented lid; an 18"x18"x4" plastic sweater box having a secure, vented lid; or, a tape-sealed cardboard box of similar dimension may be used. And, written information identifying the mapped capture location, Global Positioning System (GPS) coordinates in Universal Transverse Mercator (UTM) using North American Datum (NAD) 83 Zone 11 along with date, time, and circumstances (e.g. biological survey, construction monitoring) and habitat description (e.g. vegetation, slope, aspect, substrate) will also be provided to NDOW.
- 2) Injuries to Gila monsters may occur during excavation, blasting, road grading, or other construction activities. In the event a Gila monster is injured, it should be transferred to a veterinarian proficient in reptile medicine for evaluation of appropriate treatment. Therapy or euthanasia expenses will not be covered by NDOW. However, NDOW will be immediately notified of any injury to a Gila monster and which veterinarian is providing care for the animal. If an animal is killed or found dead, the carcass will be immediately frozen and transferred to NDOW with a complete written description of the discovery and circumstances, date, time, habitat, and mapped location (GPS coordinates in UTM using NAD 83 Z 11).
- 3) Should NDOW's assistance be delayed, biological or equivalent acting personnel on site should detain the Gila monster out of harms way until NDOW personnel can respond. **The Gila monster should be detained until NDOW biologists have responded.** Should NDOW not be immediately available to respond for photo-documentation, a digital camera (≥ 5 mega-pixels) will be used to take good quality images of the Gila monster *in situ* at the location of live encounter or dead salvage. The pictures will be provided to NDOW at the address above or the email address below along with specific location information including GPS coordinates in UTM using NAD 83 Z 11, date, time and habitat description. Pictures will show the following information: (1) Encounter location (landscape with Gila monster in clear view); (2) a clear overhead shot of the entire body with a ruler next to it for scale (Gila monster should fill camera's field of view and be in sharp focus); and, (3) a clear, overhead close-up of the head (head should fill camera's field of view and in sharp focus).

Please Remember: Gila monsters are considered sensitive species and sharing of observation information to sources outside of NDOW or other permitting agencies may result in adverse conservation or administrative consequences.

Contact NDOW Biologist Jason L. Jones at 702.668.3938 (office), 208-240-0194 (cell; leave message or text), 702.486.5127 (front desk) or by e-mail at jljones@ndow.org for additional information regarding these protocols.

Appendix F - Public Emails & Letters

From: [Cannon, Kirsten S](#)
To: [Ransel, Beth E](#); [Wirthlin, Whitney J](#)
Cc: [Dooman, Shonna](#); [Leslie, Stephen O](#); [Pay, Nicholas B](#)
Subject: Fw: [EXTERNAL] Solar farms.
Date: Thursday, October 21, 2021 4:17:30 PM

FYI on public comment that came in through NSO's website

Kirsten Cannon, APR
Public Affairs Specialist
Southern Nevada District
4701 North Torrey Pines
Las Vegas, Nevada 89130
Office: 702-515-5057
Cell: 702-595-2034

.....
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From: NVSO_Web_Mail, BLM_NV <BLM_NV_NVSO_Web_Mail@blm.gov>
Sent: Thursday, October 21, 2021 1:40 PM
To: Cannon, Kirsten S <k1cannon@blm.gov>
Subject: Fw: [EXTERNAL] Solar farms.

Hi Kirsten
I'm forwarding some comments from the public.

Thank You
-Devin

From: [REDACTED]
Sent: Friday, October 15, 2021 5:07 PM
To: NVSO_Web_Mail, BLM_NV <BLM_NV_NVSO_Web_Mail@blm.gov>
Subject: [EXTERNAL] Solar farms.

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Please, do not consider any more applications for solar farms in Nevada without input from Nevafa citizens.

[EXTERNAL] Copper Rays Solar Project

Mon 11/22/2021 8:08 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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To Whom It May Concern,

I am adamantly opposed to the Copper Rays Solar Project planned for the desert near Pahrump. Those of us who live in the Mojave Desert are tired of it being torn up & destroyed in the name of profit. There is a new solar project announced just about every week & thousands & thousands of acres of pristine desert are disappearing.

It seems like these solar companies see our beautiful desert a lifeless wasteland to be exploited & destroyed. Anyone who lives here, who hikes here, who rides the trails here knows that the desert is full of life & important ecosystems. This abundant life & resources are being wiped out by these never-ending, expansive projects. How many thousands of tortoises, lizards, birds, Joshua trees, mammals will you allow to be destroyed in a short-sighted push for solar energy. How many endangered species will you allow to be pushed to extinction? In addition to wildlife lost, taking out vegetation creates more dust & worse air quality. Will you stop allowing this when the whole desert is covered in solar panels?

We all understand that climate change means that we need to look to this technology for our future, but there are better ways to do it. What about roof tops? What about parking lots? What about putting them on the footprint of decommissioned power plants? I'm guessing the answer to that is it would cost the solar companies more money. Guess what? We don't care! These companies are heavily subsidized & should answer to the people who own these public lands. If they really care about the environment, they wouldn't be destroying our precious Mojave.

Please do not allow this project to continue! We are fed up!

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[EXTERNAL] copper rays solar project



Tue 11/23/2021 6:18 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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I put copper rays solar project in the subject line just like it said. Too close to our town. Lots of desert, so why put it so close and take away the land use. The one outside of Tonopah that is not being used is an eye sore and we don't need that here. Put it in your backyard and see how you like it.

[EXTERNAL] copper rays solar project



Tue 11/23/2021 6:09 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Too close to our town. Lots of desert, why put it so close and take away the land use? The one outside of Tonopah, that is not being used is an eye sore and we don't need that here. Put it in your backyard and see how you like it.

[EXTERNAL] There should be No Solar Farms in Pahrump area of Nye County!



Tue 12/7/2021 6:14 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Why do you insist on pushing your agenda on us when we said we don't want it here!?
We made our voices heard, and you continue to have meetings trying to convince us otherwise, when we've backed up all of our voices with evidence as to why this would be a bad idea in Pahrump. Why do you keep persisting to irritate us?

Go elsewhere with your solar farms.



[EXTERNAL] "Copper Rays Solar Project"



Wed 12/8/2021 8:36 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Cc: fgcarbone@co.nye.nv.us <fgcarbone@co.nye.nv.us>; bjjabbour@co.nye.nv.us <bjjabbour@co.nye.nv.us>; coxdonnac@msn.com <coxdonnac@msn.com>; lfbundo@co.nye.nv.us <lfbundo@co.nye.nv.us>; dlstrickland@co.nye.nv.us <dlstrickland@co.nye.nv.us>

 1 attachment (53 KB)

This project needs to be halted for Copper Rays Solar Project.pdf;

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

This is my official objection to the Cooper Rays Solar Project and any other Solar Projects in the county of NYE Nevada.

Thank you,



Deny the Copper Rays Solar Project right-of-way application

This project needs to be halted for copper-rays-solar-project-proposed-for-Pahrump-Valley- All projects that are solar in or near Pahrump Nevada need to be stopped at once. The Citizens of Pahrump Nevada are against solar farms in Pahrump. At our town meeting in Pahrump there was not one person who was in favor of this project or any others. This is our land and we do not want a solar farm in Pahrump running into and along our town.

As for the health for the people who live in the town, they will be affected by valley fever and more allergies from all the dust that comes with solar farms. My family has been affected by Valley Fever and this spore never leaves the body once you have it and it is deadly. It is also very hard to detect. The heat in the valley will also go up from the panels. Water is a huge concern since we are in the desert, and we just do not have enough water for this project to take place.

Another word for desert is wasteland is this the reason they think its ok to bring this project here. Well, it's not it's not ok and we do not want it here.

What about all the Joshua Trees, wildlife, turtles, birds, and other sensitive animals and plants living their best life on the land and around it? The animals are god's creatures, and they need to be protected from solar projects.

The people of Pahrump use this beautiful land for many enjoyable recreational activities and this project will end that pleasure for the profit of Solar Farms which will give nothing to the people of Pahrump except heart ache .

This project does not help anyone in this community and what it does is harm all of us living in the area. They talk about tax dollars for us. Well, what about the tax dollars from the people who live here that will need to move away if this project is allowed to take place? And please don't mention the value of the property at that time which will be devalued. Is this fair? I say no. This is not right for the people of Pahrump NV.

This project will bring great destruction to the people in the valley and can to go to a new location out of our backyard and away from Pahrump.

What the project will bring is Valley Fever, High Heat, Dust Storms, water levels dropping when we have a water problem as it is. Property value will decline in Pahrump and the view from the houses will be deplorable, not to even to mention the health of our children. The children in Pahrump are America's future. How dare you allow this project to even move forward.

I am not in favor of the project and please cancel at once.



[EXTERNAL] Nye County Solar

[REDACTED]

Fri 12/10/2021 3:25 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Cc: [REDACTED]

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We do not want ANY solar "farms" anywhere in NYE COUNTY.

We are for solar panels, and have a 6.4 KW solar power system on our home, however we are **against** "taking" our PUBLIC land, "granting" **thousands of acres** to businesses that want to make money by placement of heat transferring UGLY panels, ruining the beautiful desert, killing both scarce reptiles, animals, birds, and plants, blocking access for jeeps, bikes, walking, and or Horseback riding. For tax revenues the people will never ever be able to use due to the **obscene corruption throughout our financially Incompetent government.**

[REDACTED]

[EXTERNAL] Oppose Large Solar Projects Near Pahrump Residents
Wed 12/15/2021 7:13 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To BLM:

I oppose any and all large solar projects near Pahrump NV.

I am not against solar energy in general. I am against putting very large solar projects in or right next to town. There are thousands of square miles of wide open desert in Nevada far away from towns. The only reason to put projects near town is to make more money for the owners by being closer to existing infrastructure. It will hurt, not help, us residents. It will not help us financially, and it will cause lots of problems like dust, reduced property values, and spoiled desert views.

I pay federal taxes which fund your agency. I hope you will respect us residents and not just solar businesses when you make your plans. Please put large solar projects far out of town where they won't bother anyone, or put them on existing roofs.


Southern Pahrump Resident

[EXTERNAL] Solar


Wed 12/15/2021 9:21 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To: Whom It May Concern,

I live in the Pahrump So Valley, community of Mountain Falls.

I want to let you know that I am totally opposed to any attempt to allow solar panel and farms in the desert of this area. Vote NO please.

I am also appalled that you would even consider allowing foreign investors and out of state companies to build and take over our beautiful desert landscape and destroy wildlife and precious natural desert landscape. More to the point, Why? we don't seem to have any advantage to our area, our water table is low, and why should you allow it to be used? We need it!

Nevada has vast desert space, why are you allowing and *picking* on this community? And we all know California has plenty of its own desert space they can use.

Tell them NO, we don't want our deserts destroyed and become a sea of black glass in this valley.

I would like to know whom of the BLM and Solar Companies have allowed the solar farms to be built in their backyards? Speak up please....

PLEASE say no to solar farms here in our Valley, WE DON'T WANT and Don't want the destruction.

I know you have heard from many of us at BLM and the commissioners' hearings, including myself. The people of this area are very passionate about our community and the *intrusive invasion of our quiet, peace and enjoyment of this land*. Especially the land owners and families who will basically have the solar farms in their backyard that will be their view for the next 30 plus years, *Is that what you will have at your home*, think about it please? Please walk in our shoes. WE moved here because of the natural landscape, peace and many of us are from the California area and wanted to get away from the destruction of a once beautiful state.

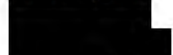
This is not why we bought our property. We want the open space. WE want to enjoy the desert landscape, wild life, roaming horses, turtles, the little creepy crawling of the lizards, horny toads, coyotes, mountain lions, etc. Remember they were all here first, why should they be destroyed. *Was not BLM suppose to protect the desert ????? Then do it please.*

One last note for now. Maybe you can have solar farms put by Area 51, I bet all of those little green ones would love their little hind ends warmed up a bit. just a thought.

Thank you for your time and sincere consideration to Pahrump Valley and the voice of the wonderful people who live here. And I am sure you know our population is mostly retired seniors, our wonderful VETS, generational land owners who all love this area, and want to continue to do so. HELP US PLEASE.

GOD BLESS America and the community of Pahrump Valley.

thank you.



Mountain Falls

[EXTERNAL] Solar and Wind Farms near Pahrump, NV
Thu 12/16/2021 9:37 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To Whom it May Concern,

I am a long time resident of Pahrump, NV. I'm not against solar in general. I just don't like the federal government giving solar businesses a "good deal" by giving them land close to town. This saves the business money because it's closer to existing electrical infrastructure, but it hurts us residents. It will lead to disruption and dust, reduced property values, and spoiled desert views. It will not help us financially either (unless you invest in the company). BLM has thousands of square miles of open desert far away from town where they can place these projects. Our little town does not need or want solar farms going into our county. Please reconsider any and all contracts for nearby solar and wind farms in our area. Thank you.



[EXTERNAL] Please listen

Thu 12/16/2021 12:17 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

It is unfortunate that I cannot be at any of the meetings, and wish to voice my opinion about any solar farm proposal for around the Pahrump, NV area in Nye County.

It seems as though the citizens of Pahrump have spoken and none of us want solar farms around our area. They do Not benefit Pahrump. They don't even benefit Nye County. I agree with everything everyone has stated in the last meeting from the video I watched. It will hurt our already depleting aquifer, it will increase heat, hurt turtles which should be protected and Not moved, and all other wildlife. I cannot believe that your ears would turn deaf on our community as you feel it's okay to just barge in and take over. That's greed. Any benefit to Pahrump is short lived, and the town stands to gain more through time from other taxpayers, and not a bribe as if our town is desperate for help financially.

Please open your ears to hear those who can get out and speak on behalf of all others. There's a lot more BLM land elsewhere. Why here? Why us? Please do not upset everyone as you've done. Enough is enough. We've spoken.



[EXTERNAL] Pahrump solar projects



Thu 12/16/2021 7:08 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am against any solar projects close to Pahrump. BLM lands for these projects should be MILES from any city or town.

Sent from [Mail](#) for Windows

RE: Automatic reply: [EXTERNAL] Pahrump solar projects

[REDACTED]

Thu 12/16/2021 7:56 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Rough Hat project in Pahrump is too close to local properes and businesses This solar proposal should be denied.

Sent from [Mail](#) for Windows

From: [BLM_NV_SND_EnergyProjects](#)

Sent: Thursday, December 16, 2021 2:09 PM

To: [REDACTED]

Subject: Automa c reply: [EXTERNAL] Pahrump solar projects

Thank you for your email. If you are providing public input or a question specific to a project, please provide the name of the project.

This email is monitored, if you are seeking additional information we will get back to you as quickly as possible. Thank you for your interest in public lands.

Energy & Infrastructure Team
Southern Nevada District
Bureau of Land Management

[EXTERNAL] No solar panels in Nye. We want our desert beautiful



Thu 12/16/2021 9:28 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

[Sent from AT&T Yahoo Mail on Android](#)

[EXTERNAL] solar farm

[REDACTED]

Thu 12/16/2021 4:24 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I have been a resident of Pahrump Nevada since 1999. I am against the projected solar farm to be placed in the area of Pahrump on BLM land. While it seems like a good idea to build a huge farm in this area it isn't.

It would require the destruction of thousands of acres of desert to place it here. With no benefit to the residents of Pahrump. If California is in such a need for this facility then let them build it in California. We are having a lot of air quality issues with blowing sand now in our area. without destroying more landscape. Between the destruction of the desert we are having shortages of our water supply. Where is the water going to come from to maintain the large facility?

I am asking that this project is not approved due to it not being in our best interest.

[REDACTED]



Private Well Owners Association

P.O. Box 2073

Pahrump, NV 89041

Website: www.privatewellowners.com

email: privatewellowners@outlook.com

Facebook: [Private Well Owners Association](#)

“Every Drop Counts”

December 16, 2021. Statement by [REDACTED] for the Private Well Owners Association.

Projects – There are a total of 6 projects by the applicant that will affect Basin 162. In a combination of Nye and Clark Counties.

- 1. Rough Hat – Nye County Solar – 500MW (Power Technology)**
- 2. Rough Hat 2- Clark County Solar Project 400MW.**
- 3. Copper Rays – Clark County – 5,518 acres(?) – 700MW.**
- 4. Copper Rays – Nye County – 5,518 acres(?) – 700MW.**
- 5. Yellow Pine – Clark County – 500 MW SOLAR PROJECT.** Located 10 miles southeast of Pahrump. Study by SWCA Environmental Consultants, June 2016 states “Water Supply to be Determined”.

Page 23 states 4.1 line 9, “panel washing”. Page 24 4.2 line 5 states that Panel washing “the demand for water to wash the panels is approx. 50,000 gallons per day” – 4 times per year. – 200,000 gallons per year approx. **(YPSP – YELLOW PINE SOLAR PROJECT).**

Water Use 4.3 – “will be approx. 600-acre feet over 18 months period”(see attached).

To clean the PV modules four times per year is estimated to be about 25-acre feet per year, depending on site events and conditions.

“Based on the anticipated uses, the estimated quantity of water needed for operation of the YPSP will be approximately 25 AFY.”

- 6. Sagittarius – Nye & Clark – 4,300 acres, 400 MW -building right next to the approved Yellow Pine Sola Project all the way to the California Border.**

ALL PROJECT DRAW WATER FROM PAHRUMPS BASIN 162 ONLY

Total megawatts all six project that would draw water from Basin 162.

Rough Hat – Nye County – 500 megawatts

Rough Hat 2 – Clark County – 400 megawatts

Copper Rays – Clark County – 700 megawatts

Copper Rays - Nye County – 700 megawatts

Yellow Stone – Clark County – 500 megawatts

Sagittarius – Nye & Clark County – 400 megawatts

TOTAL – 3,900 megawatts.

TOTAL WATER USE FOR ALL PROJECTS OVER EACH 18 MONTHS, per project according to the - Yellow Pine Solar Plan of Development by SWCA Environmental Consultants June 16, 2016 “Water Use Page 24 states **(see attached)** “The total water usage during construction will be approximately 600-acre feet over an 18-month period.”

Using figures estimated by the developer 600-acre feet (updated recently to **800-acre feet**) times 6 projects would be 4,800-acre feet of water from Basin 162 over the construction of these projects, plus 25-acre feet per year for the life of the project to clean the PV Modules times 6 (150-acre feet) totaling 4,950-acre feet (if started in the same year, a single project would draw 825-acre feet in first year.)

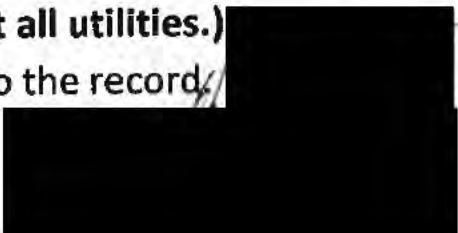
It is estimated in the Pahrump Basin 162 Groundwater Management Plan version February 2018 Figure 3 “Adjustment of over allocation of recharge and over dedication of water rights is at a 6,600-acre feet deficit.

Basin 162 cannot withstand an additional 4,800-acre feet withdrawal for the development of these 6 projects, and 150-acre feet annually for PV Module cleaning of these same 6 projects’ life.

Therefore, the Private Well Owners Association requests that all these projects be denied due to the devastating impact they all would have on our Groundwater Basin 162.

PAHRUMPS ONLY WATER DRINKING SUPPLY (which includes not only private wells, but all utilities.)

I request my statement be written into the record.



4.3 Water Use and Waste Management

4.3.1 Water Use

The Applicant is exploring options to buy commercial water or purchase or lease existing water rights and construct a new well.

Initial construction water usage will be in support of site preparation and grading activities. During earthwork for the grading of access roads, foundations, equipment pads, and YPSP components, the main use of water will be for compaction and dust control. Smaller quantities will be required for preparation of the concrete required for foundations and other minor uses. Subsequent to the earthwork activities, water usage will be in support of dust suppression and normal construction water requirements that are associated with construction of the building, substation, internal access roads, and solar arrays. **The total water usage during construction will be approximately 600 acre feet over an 18-month period.**

The PV technology proposed for the YPSP does not require water for the generation of electricity. During operations, **water use will be limited primarily to PV array washing** with the potential for periodic dust control and maintenance applications. Drinking (potable) water will be supplied for workers on-site, and is estimated to be approximately **300 gallons per month varying seasonally and by work activities.**

The amount of water required to clean the PV modules four times per year is estimated to be about 8 million gallons per year, approximately 25 acre feet per year (AFY). Depending on site events and conditions, the cleaning frequency may be less. The water used for module cleaning is not anticipated to require disposal due to the extremely high evaporation rate at the site.

Based on the anticipated uses, the estimated quantity of water needed for operation of the YPSP will be approximately 25 AFY. This assumes no generation of wastewater on-site that would require treatment.

[EXTERNAL] Please STOP big solar projects close to towns like Pahrump

[REDACTED]

Sun 12/19/2021 2:51 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To whom it may concern with The BLM:

Please cease considerations on allowing development of large scale solar projects on public lands near Pahrump, NV and ANYWHERE near towns and cities in Nevada.

There are massive immediate and unintended negative consequences in approving solar fields/farms, etc.

The thought of Rough Hat Nye, Copper Rays, and others progressing makes my stomach turn. It sickens almost every single resident I speak to about it.

Thank you,

[REDACTED]

[REDACTED]



[EXTERNAL] Solar projects in Nevada

Sun 12/19/2021 1:47 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Cc: rephorsford@mail8.housecommunications.gov <rephorsford@mail8.housecommunications.gov>; Senator Catherine Cortez Masto <Senator@cortezmasto.senate.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I know we need solar projects & ASAP — we should have been doing them for 50 years already so now we're desperate to meet our increasing energy needs & reduce our dependence on fossil fuels. But can't we be smart, thoughtful, careful, & not barge ahead without considering impacts on human/animal/plant lives, on communities, on our environment? Can't we involve the communities & the people who live there in plans?

When there is so much land in NV that is not in or near towns — why ruin the beauty & health of places where people are living — where people have built their homes & lives, invested in their community? Instead, couldn't these facilities be placed away from communities?

NIMBY - is there a reason to install a huge solar farm right in & next to our town? Any town?

For me, it isn't just a matter of not wanting the solar project to destroy the beauty & health of my neighborhood, but also why aren't environmental & ecological concerns taken into account & accommodations made for healthy soil, natural habitats of plants & animals, remedies/prevention for stirring up dust/worsening blowing dust (creating health hazard)?

Why do our state's lands need to be destroyed for another state's needs?

I'm sure the circumstances are much more complex than what appears at the surface of this situation.

But why aren't these concerns addressed before moving ahead?

I'm retired & decided to move to Nevada 2 years ago because of the beauty & peacefulness of the desert. I am learning about the desert ecology here — the 600 year old Joshua trees, habitats of tortoises, etc. Now I find that these things are about to be destroyed. It is disheartening & disappointing.

I want to be proud of my state. I want my state & its residents to thrive. I want us all to reduce our carbon footprint. I try to do my part by driving less, eating "slower" (more local/less meat), recycling, growing plants & some of our own food, trying to live consciously & kindly. But that is not enough — we all need to work together if we are to prolong life on this planet for future generations.

Destroying ecological habitats seems counter to that goal.

I realize that not enough is being done to reduce our dependency on fossil fuels. But running roughshod is not the way to get everyone on board, it is not doing the right thing or the best thing. Can't we do better?

[EXTERNAL] Pahrump solar project

[REDACTED]

Sun 12/19/2021 10:43 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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We are strongly opposed to a huge solar project in Pahrump NV. We already have rapidly decreasing water resources and a harmful dust pollution problem, not to mention excessive heat which a project like this will only add to. This proposed project will harm wildlife and our quality of life here. There is plenty of desert away from town for such things, please do NOT CHOOSE PAHRUMP!

[REDACTED]

[EXTERNAL] Comment for Rough Hat and Copper Rays solar projects

[REDACTED]
Mon 12/20/2021 9:22 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>; [REDACTED]

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To whom it may concern,

I am adamantly opposed to the proposed projects in the Pahrump Valley. They will specifically impact my livelihood as an off-road motorcycle school and tour company and I feel they will significantly impact the community as a whole in ways that are being overlooked. This "green" or "renewable" energy push is a shortsighted approach to a bigger problem. These measures of large scale solar facilities are just result of political promises and trying to make everyone feel good with a quick fix that will cause long lasting and irreversible damage to the land and the people who currently use and enjoy it. If solar was the answer and not just a get rich quick scheme for the developer it would be on all of the roofs in the adjacent community and being placed on private property before we go and close off and destroy open spaces in the desert. I was advised to remove routes in the areas of these projects during my permit applications 2012-2014. I was told that there were cultural and biological concerns that would make it impossible for me to obtain a commercial recreation permit. I'm not sure what has changed and why I was not informed that these areas were now open for use?

The Yellow Pine project sure slid in under the radar and I hope that these additional projects are considered before we put another Black Eye on the process for public concerns. I'm sure the current rush is to get these projects rolling before the public outrage for the Yellow Pine project happens when the panels start to go up. There are a number of trails that are blocked and we will never get those back nor were mitigation concerns made showing a lack of research or on the ground knowledge from the BLM specifically.

I have attached a set of track logs of trails in the area I'm familiar with. These were, when originally recorded, motorcycle single track but additional use may have changed some of them to wider UTV trails. I did most of this recording in the early 2000s and had to convert the logs into current programs to update the files. Most of these were submitted to the BLM in the past when previous recreation planners asked about trails in the area as well. Contact Mark Sanchez or Chris Leinehan for more information about this or to confirm this. There has never been a proper route inventory completed or a travel management plan in place for the area so I feel this information is being swept under the carpet and not being looked at.

OHV recreation and specifically looping and tour routes are being significantly reduced, segmented and cut off from the solar projects. This along with the impacts to the visual quality of the experience. Then we have the conflict of the dust and how quickly the solar companies like to blame OHV recreation for underperforming panels and increased costs to clean and maintain the panels. This in an area with horrible soils for this and an ever increasing concern about water supplies.

It is obvious that the companies coming in do not care about the communities they are near. They come in and lie to citizens and county commissioners, ramrod the project in and sell the project to get away from any liability for the mess they create.

Do not make the mistake of allowing destruction of open space in an area where people moved and live here in this valley specifically to avoid being near projects like this. If we "pave" the desert black with panels it will not solve any problems short or long term, but we will be stuck with a long term mess.

Please listen to us when we say "on our roof, not in our backyard."

Attached .gpx file and KML.



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[EXTERNAL] Copper Rays, LLC.'s application for a right of way grant, in light of information about another related project's permit problems.

Tue 12/21/2021 7:24 PM

To BLM NV SND EnergyProject <BLM NV SND EnergyProject @blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

I am writing in opposition to permitting for Copper Rays Solar Facility. I have been reading about solar energy investment and about the engineering online. I was a wildland firefighter, Type I and 2, for 11 seasons, for contractors and for federal agencies. Full disclosure, I drive a 1979 F150 - because it still runs. I am concerned about possible serious harm coming to the Mojave Desert, where I now live and work at its edge.

In the event that the already-valid cultural, legal and science-based objections (please see <https://conta.cc/3rUY2FK> - very detailed, clear) to Candela-, Copper Rays-, NextEra-type proposed projects actually are impossible to deny or dismiss --

And, if permitting these Arrays' timing-out (1990s? concept) business model of collection/transmission/storage/distribution infrastructure - simultaneously - becomes problematic (market or tech "Uncertainties?"), during speculative development -- Then:

*1. Can we now, ahead of time, agree that inevitable cascading evolution in engineering and business specifics of these facility designs is - not - the overriding reason to deny permitting? Can it be noted and logged, that the projects, all ladderred together, should be denied permitting - most importantly and inescapably - because, already legally established protected "refugia" wildlands here, targeted, could be permanently harmed? even "irretrievably" destroyed? Those functioning natural systems cannot be replaced.

Destroying them physically, or even risking destroying them, with a mixture of experimental business and engineering (extractive industry) for - almost 100% guaranteed - quickly diminishing returns to business - shouldn't be allowed to happen.

*2. If Copper Rays', Candela's, NextEra's "efficiencies" then, don't really exist in a practical sense, through time, on a level playing field, can we now quickly agree, that - questionably permitted - January 2022 destruction of wild desert, for example, at the NextEra project parcel, "Yellow Pine", (3

miles down the Tecopa Rd. turnoff from Hwy 160) - is unnecessary. But, if carried out - has potential to become a regionally publicized cautionary tale of egregiously bad mismanagement? (There are shorter words to use about this).

A federal "stop work" order could save "Yellow Pine" before the first ancient "water bank" Yucca is destroyed. It's not too late to re-run the app on all of these applications. I and many other fatigued voters, mistakenly voted for SB 358, hoping that we were getting help for buying solar panels and batteries, and keeping utility power stations and systems in the dense population centers. We did not vote to allow easy, cheap wreckage of wild desert. I do feel this way about other fragile places I've never personally been to, not just about the Mojave Desert. It is reasonable to worry about them. SB 358 writing requires not only state, but federal "Reconsideration", right now.

*3. So saying, is it considered safe? or even "sound" business"? to take down a very large, "last stand" biological refuge ecosystem in the Western Hemisphere - already knowing - that stated profit expectations over! 30-40 yrs - cannot, won't be met? I hope competition from innovation and the natural hunting instinct for safer tax-shelter investing, will shut down the silliness myths of desert as "free" "wasteland", and the large array "game" as "sound business". At this point, large array designs are stunningly, and alarmingly - not - Green. We now think FLPMA's own powers should be "Reconsidered", and redirected towards actual Green. Also, Nevada, rewrite and offer a new SB 358 that is actually Green.

These are my opinions, as a beginning online reader of PV Magazine, and the book, "Tailspin", by Steven Brill. I wish for solar to work. On house roofs. Easily re-uppable, fitted, small modular tech infrastructure, recycling chemistry for separating out pure, 99.9% recovered rare earths... Any small move forwards, including turning off unneeded lights, to spare what cannot be replaced. Eventually, the Ford will stop running. Try to avoid trying to "take" ecosystems that can't be replaced.

Thank you for use of this comment space.



[EXTERNAL] Please reject the application for the Copper Rays Solar Project

Mon 1/3/2022 11:28 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear People:

Please reject the application for the Copper Rays Solar Project

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.



[EXTERNAL] Please reject the application for the Copper Rays Solar Project

Mon 1/3/2022 9:56 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

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The project applicaon recie ved a High Priority status becuse BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new informaon. The higher than predicted populaon of desert tortoises on the Yellow Pine Solar site to the south could be the informaon used to cancel the review of this applicaon

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the applicaon for the Copper Rays Solar Project "

[EXTERNAL] Comments on the Copper Rays Solar Application**K. Emmerich <atomicquailranch@gmail.com>**

Mon 1/3/2022 5:24 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>; Pay, Nicholas B <npay@blm.gov>; Ransel, Beth E <bransel@blm.gov>; Wirthlin, Whitney J <wwirthli@blm.gov>

 1 attachment (1 MB)

Copper Rays comment-final.pdf;

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

Please accept these comments on the Copper Rays Solar Project application from Basin and Range Watch, Western Watersheds Project and Mojave Green.

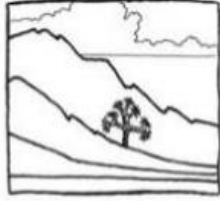
Thanks,

Kevin Emmerich
Basin and Range Watch
775-764-1080

I never got any kind of response when I sent in comments for the Rough Hat Clark Variance application. I am assuming you received those? Putting these deadlines right next to the holidays always causes unneeded confusion.

Thanks,

Kevin



Basin and Range Watch



Western
Watersheds
Project



January 1st, 2022

To: BLM_NV_SND_EnergyProjects@blm.gov, npay@blm.gov

To: Nicholas Pay
Pahrump Field Office
Bureau of Land Management

Re: Comments on the Copper Rays Solar Project Application

Please accept these comments about our concerns over moving the problematic Copper Rays Solar Project forward, by Basin and Range Watch, Western Watersheds Project, and Mojave Green.

Basin and Range Watch is a 501(c)(3) non-profit working to conserve the deserts of Nevada and California and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert. Federal and many state agencies are seeking to open up millions of acres of unspoiled habitat and public land in our region to energy development. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems, open spaces, and quality of life for local communities. We support energy efficiency, better rooftop solar policy, and distributed generation/storage alternatives, as well as local, state and national planning for wise energy and land use following the principles of conservation biology.

The mission of Western Watersheds Project (WWP) is to protect and restore western watersheds and wildlife through education, public policy initiatives, and legal advocacy.

Mojave Green combines art and activism to draw attention to issues of environmental injustice, and highlights viable solutions.

We have visited the site of the proposed Copper Rays Solar Project.

Variance Process

The Copper Rays Solar Project is an application received before the establishment of Variance Lands and is not subject to the Variance Process, but since it has not made the NEPA process yet, the Bureau of Land Management (BLM) can still reject this application over high conflicts.

The BLM's Solar Energy Program allows utility-scale solar energy development in variance areas outside of Solar Designated Lease Areas. The BLM will consider ROW applications for utility-scale solar energy development in variance areas on a case-by-case basis based on environmental considerations; coordination with appropriate Federal, State, and local agencies and tribes; and public outreach. The Copper Rays application is not located in a Designated Lease Area and the application predates the Variance process.

The BLM should still consider the following factors, as appropriate, when evaluating ROW applications outside of variance areas:¹

- At this point, there are 4 unutilized solar energy zones in Nevada with about 57,000 acres to review as alternatives. These can be alternatives to Copper Rays Solar.
- The area is designated as a Visual Resource Management Class III, the same as the recently approved Gemini Solar Project. The objective of VRM Class III is to *“partially retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer.”* The BLM had to amend their Las Vegas Resource Management Plan to approve the Gemini Solar Project because it was not in compliance with VRM Class III management objectives and the visual impacts could not be mitigated. Through the plan amendment, the entire view-scale in the Gemini Solar region was downgraded to VRM Class IV where activities are permitted to dominate the view.
- The Copper Rays Solar Project application is located in a region that the US Fish and Wildlife Service identified as a Least Cost Corridor with a 90 percent contiguous high value habitat and good connectivity potential. This especially applies to desert tortoise.
- The project will be over 8 square miles or 5,100 acres. The site contains desert pavements that are 100,000 years old, hundreds of rare Parish club cholla, over 49,000 Mojave yuccas (most which will be destroyed), potential Gila monster, and old growth Joshua trees, mesquite habitat and a significant view-shed near the Old Spanish National Historic Trail. Damage to these resources cannot be mitigated.
- The majority of the 5,100-acre site is roadless. Many new roads will need to be built for construction and maintenance.

¹ [Factors To Be Considered \[BLM Solar Energy Program Variance Process\] \(anl.gov\)](#)

- New gen-tie lines would need to be built south to the Trout Canyon Substation and have individual impacts.
- The BLM cancelled their revision of the Southern Nevada Resource Management Plan in 2018. The area has not been officially identified as a Designated Lease Area or “suitable for solar energy” in the existing Las Vegas Resource Management Plan.
- Any roads though the site will be closed, and all public access will be cut off by barbed wire fencing on the 5,100 acres.
- Water use from construction will likely draw down the aquifer. The project would need about 1,500 acre-feet. Drawdown could impact adjacent mesquite areas and draw down local wells in Pahrump.
- **Significant cumulative impacts** are not avoidable if the BLM maintains plans to permit 18,000 acres of solar projects in the area. At this point BLM has approved the 3,000-acre Yellow Pine Solar Project and is considering Rough Hat Clark at 2,400 acres, Rough Hat Nye at 3,500 acres, Copper Rays at 5,100 acres and Sagittarius at 4,300 acres. BLM has also approved the Trout Canyon substation with the intention of developing the area and sacrificing the resources in the area. This is a *de facto* Solar Energy Zone that was never analyzed during environmental reviews, not was the public consulted.
- The Old Spanish National Historic Trail² is located about 2 miles from the project site. The undeveloped nature of the area will compromise and destroy the historic setting of the trail. The trail is managed under the jurisdiction of the National Park Service.
- Significant cultural resources, Indigenous trail networks, archaeological resources, and other important cultural resources may be found here and need proper analysis and avoidance.

The “Prioritization” Process

In late August 2020, the Bureau of Land Management (BLM) Southern Nevada District Office placed three large-scale solar energy applications on a High Priority Status. The projects are Copper Rays Solar NVN-099407, Rough Hat Clark Solar NVN-099406 and Rough Hat Nye Solar NVN-099407.

The applications have been prioritized under the screening criteria from CFR 2804.35. Under these criteria, the BLM may re-categorize these applications based on new information received through surveys, public meetings or other data collection or any changes to the application.

The High Priority Status was based on what BLM determined were “Low Conflicts”, but the BLM missed several details that would place this application into a “Low Priority Status” including local considerations.

Significant New Information:

Desert Tortoise

² [Old Spanish National Historic Trail \(U.S. National Park Service\) \(nps.gov\)](https://www.nps.gov/oldspanishnationalhistorictrail/)

As the BLM is aware, the desert tortoise numbers have a good chance of being much higher than predicted. The High Priority Status is based partly on low predicted desert tortoise numbers.

One of the justifications for designating the three projects as High Priority are desert tortoise surveys and projected numbers of tortoises. The BLM predicts that all three of these sites have a low density of desert tortoises at 3.04 per square mile. When the High Priority was selected by BLM, the three project sites had not been surveyed for desert tortoise since 1990 – 31 years ago. It is also based on the surveys that were conducted for the adjacent Yellow Pine Solar Project. As BLM is aware, the tortoise numbers were undercounted and nearly 3 times the predicted number of desert tortoises were located and moved off the Yellow Pine Solar site during the Spring 2021 desert tortoise clearance. It is also quite possible that the biologists did not locate all the adult tortoises because the clearance was conducted on a record-breaking drought year.

The numbers of desert tortoises found on the Yellow Pine site exceeded the predicted total by both the Bureau of Land Management and the U.S. Fish and Wildlife Service. The Final Environmental Impact Statement for the Yellow Pine Solar Project predicted that based on population estimates, approximately 53 adult desert tortoises, 276 subadults or juveniles, and 69 hatchlings are anticipated to be displaced by project-related construction activities via translocation.³

The Biological Opinion predicted that the Phase I Tortoise Clearance Area would enclose an area of 3,233.5 acres from which an estimated 39 adults (95% CI = 27 to 59) would need to be translocated from the Yellow Pine Solar Project, and 1 adult (95% CI = 0 to 2) would be translocated by GLW. In addition to adult tortoises, it was estimated that many more juvenile tortoises would also require translocation.

Starting in April of 2021, Boulevard Associates LLC hired tortoise biologists to clear the Yellow Pine site of every tortoise they could find. In spite of record-breaking dry conditions, biologists found and moved 139 desert tortoises from the site. In a personal communication with the BLM, the final numbers were reported as:

Adults = 85 (33 Females, 52 Males)
Juveniles 110-179mm = 30
Juveniles 110mm = 24

This is over double the predicted number of adults that were found. In fact, biologists for Candela Renewables, applicants for the two adjacent Rough Hat projects, recently stated in a public meeting that the desert tortoise density for the Yellow Pine Solar Project site is now

³ [Yellow Pine Solar Project Final Environmental Impact Statement, Volume I: Chapters 1-4 \(blm.gov\)](#)

believed to be 11 per square mile. This is very high compared to current density on critical habitat units.

We also found out through personal communication with federal agencies that 26 to 30 of the relocated adults translocated from the Yellow Pine Solar Project site were killed by predators – mostly badgers. That is about a 30 percent mortality for the adults found. On Page 88, the Biological Opinion states *“we anticipate that survival rates of adult desert tortoises moved from the project sites will not significantly differ from that of animals that have not been moved. We expect that desert tortoises would be at greatest risk during the time they are spending more time aboveground than resident animals. We cannot precisely predict the level of risk that will occur after moving desert tortoises **because regional factors that we cannot control or predict (e.g., drought, predation related to a decreased prey base during drought, etc.) would likely exert the strongest influence on the mortality rates”**.*

This record-breaking drought year may have been the cause of the high mortality and there is no evidence that the resident tortoises experienced the same mortality as the relocated ones killed by predators.

The total incidental Take resulting from death or injury to sub-adult and adult tortoises is 5 outside the fenced perimeter, not to exceed 1 per calendar year or 5 during the life of the project inside and outside of fenced areas. and nearly 30 were killed after translocation. ⁴

During a personal communication with the BLM we were told that they are asking the U.S. Fish and Wildlife Service to reinitiate consultation.

This is significant new information based on underestimated numbers and possible unique weather conditions during an extreme drought.

BLM’s memorandum (IM-NV-SNDO-2020-001) notes that “a low priority application may not be feasible to process,” and 43 CFR § 2804.35 (“How will the BLM prioritize my solar or wind energy application?”) states “Low-priority applications may not be feasible to authorize” if the application meets certain criteria. In both the Information Memorandum and Code of Federal Regulations, the SB Solar project triggers “Low-Priority Criteria” #1 (“Lands near or adjacent to lands designated by Congress, the President, or the Secretary for the protection of sensitive viewsheds, resources, and values (e.g., units of the National Park System, Fish and Wildlife Service Refuge System, some National Forest System units, and the BLM National Landscape Conservation System), which may be adversely affected by development”) and #4 (“Lands currently designated as Visual Resource Management Class I or Class II”).

Tortoise Numbers on Copper Rays, Rough Hat Nye and Rough Hat Clark are Likely Underestimated

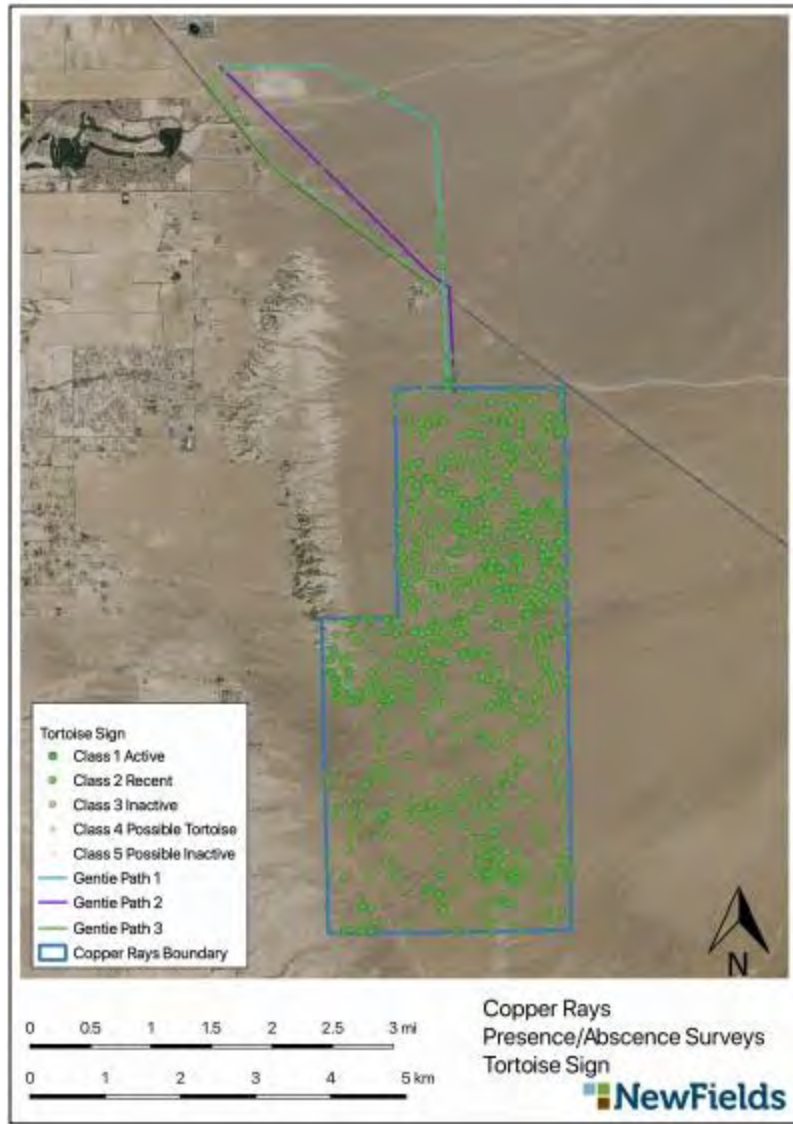
⁴ Page 105 [O8ENVS00-2020-F-0071 Yellow Pine Solar Project \(508 compliant\).pdf \(blm.gov\)](#)

The three solar project proposals that BLM placed on a High Priority designation would impact an additional 11,000 acres of similar habitat. The northern part of Copper Rays occurs on a saltbush, mesquite community near the town of Pahrump and have minimal disturbance for the first mile to the south from off highway vehicle recreation. But most of the 11,000 acres is not majorly disturbed and parts of these project sites are above 3,000 feet and may have a higher desert tortoise density than the Yellow Pine Solar Project. The sites even have some Joshua trees growing in the high elevations.

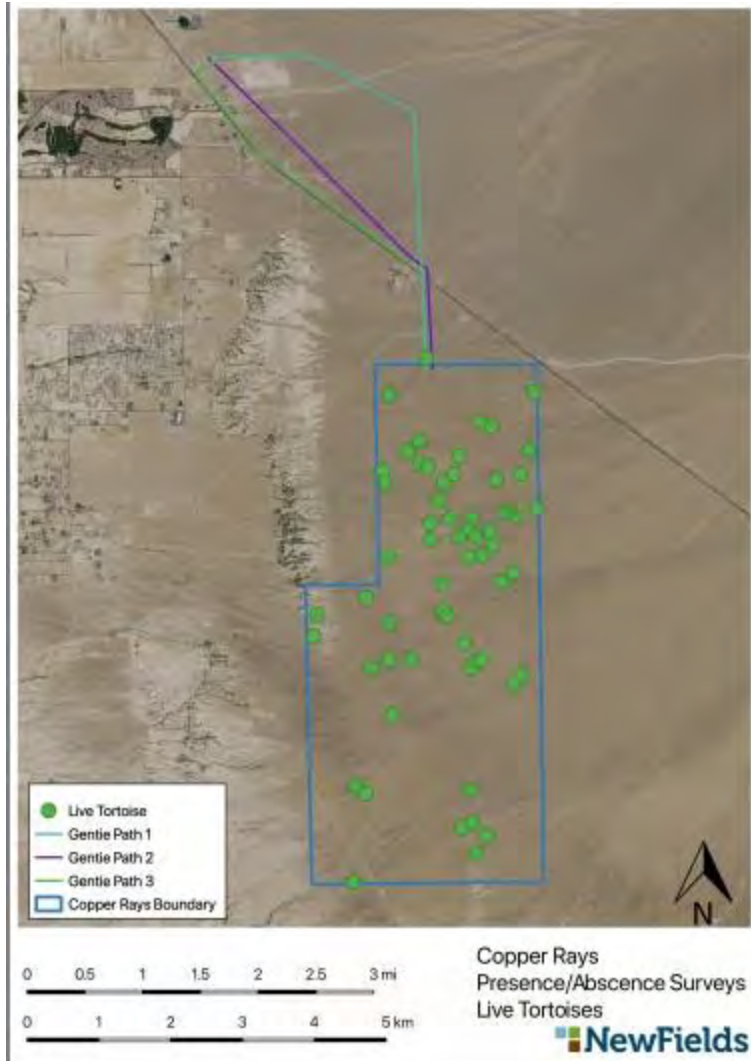
In April, 2021, Leeward Renewable Energy, LLC contracted the Newfields biological consulting company to conduct a presence/absence survey for desert tortoises on the proposed 5,100-acre Copper Rays Solar Project located directly north of Yellow Pine Solar. While the drought probably hampered survey results, they still did locate many live tortoises on the site. During the April 1st through April 8th, 2021, 55 adult live tortoises were observed, and 5 juveniles were observed. Total amount of desert tortoise burrows observed was 1,206. The estimated number of tortoises throughout the action area was calculated to be 137, with a 95% confidence interval of 55 to 344 adult tortoises.

Combined with the Rough Hat Nye and Rough Hat Clark site surveys, a total of 127 live adult tortoises were observed within the action area; therefore, the estimated number of tortoises throughout all of the action area was calculated to be 180. Due to low winter precipitation, the estimated number of tortoises was calculated using a 64% chance of tortoises being detected above ground rather than 80% used on a year with normal precipitation.

In our experience, these numbers commonly are underestimated for large solar projects. Because the surveys were rushed through during a record-breaking drought, these survey results are questionable. The BLM should require Leeward Renewables to resurvey the entire site.



^ Desert tortoise sign found on the project site during surveys in April, 2021.



^Live tortoises found on the project site. Surveys took place in record breaking drought conditions.

Undisturbed habitat

The 5,100 acres is not majorly disturbed Desert Tortoise habitat, and is high quality habitat.

Desert Tortoise Connectivity Areas

The U.S. Fish and Wildlife Service (USFWS) has identified certain other areas that may be important for desert tortoise connectivity (i.e., priority desert connectivity habitat). Recovering desert tortoises throughout their range requires that conservation areas be connected by habitat linkages in which tortoises reside and reproduce. Such areas will need to be free of large-scale impediments from human activities. The BLM has excluded from the Solar Energy Program approximately 515,000 acres (2,084 km²) of land that coincides with priority desert tortoise connectivity habitat.⁵

⁵ [Variance Process Protocol for Desert Tortoise \[BLM Solar Energy Program\] \(anl.gov\)](#)

The area has a big population of tortoises, but the BLM has stated that it is not in a high connectivity zone due to a few factors including Highway 160, Tecopa Road, Saltbush habitat to the west, Pahrump, and the Yellow Pine Solar Project. In close examination, the two largest barriers would be Highway 160 and the Yellow Pine Solar Project. The projects would be located south of Pahrump in an area if the city that is sparsely populated. The Highway 160 barrier could be mitigated for connectivity with culverts, a proven working mitigation. Nextera should have been required to do this as mitigation for the Yellow Pine Solar Project. The Yellow Pine Solar Project has a requirement to mow vegetation but will not allow desert tortoises to pass through the project site. The numbers of tortoises found in this region are plentiful, probably in the thousands. It is a waste to write off the population as insignificant due to these connectivity barriers that can be mitigated. It should also be noted that saltbush communities can support healthy desert tortoise populations. According to the Fish and Wildlife Service, Desert tortoises are most commonly found within the desert scrub vegetation type, primarily in creosote bush scrub. In addition, they occur in succulent scrub, cheesebush scrub, blackbrush scrub, hopsage scrub, shadscale scrub, microphyll woodland, Mojave saltbush-allscale scrub and scrub-steppe vegetation types of the desert and semidesert grassland complex (Service 1994).⁶



^Detail of U.S. Fish and Wildlife Service map showing high connectivity in the proposed solar areas. It is identified as a Least Cost Corridor with a 90 percent contiguous high value habitat.

⁶ [Status of the Species-DT February 9 2012.pdf \(fws.gov\)](#)



^Above 3 photos: Three of the 30 tortoises that were killed by badgers on the Yellow Pine Solar site. Obtained through the BLM via a Freedom of Information Act Request.

Disease in desert tortoises

Two of the Yellow Pine Solar project desert tortoises tested positive for Upper Respiratory Tract Disease. One on the project site and one on the recipient site. The unfavorable conditions during the translocation may have caused tortoises to develop symptoms. *“Although drought is a natural part of the desert tortoise's environment ([Henen et al., 1998](#)), it can contribute to morbidity and mortality if combined with disease or habitat loss ([Peterson, 1996](#)). Clinical signs*

of URTD and heteropenia were noted at the time of emergence of desert tortoises from hibernation in years that followed periods of intense drought ([Christopher et al., 2003](#)), suggesting that tortoises entering hibernation in a drought year may be physiologically compromised.”⁷

*Human impacts on tortoises and their habitats, whether through disruption of normal behavior patterns, degradation of habitats through agriculture, silviculture, mining, land development or pollution, may cause sufficient physiological stress to trigger outbreaks of mycoplasmal disease. Wild tortoises in remote areas of the central Mojave Desert, distant from human beings and paved roads, were significantly less likely to be seropositive for *M. agassizii* than those in close proximity to human developments ([Berry et al., 2006](#)).⁸*

The full development of all of these projects could contribute to disease outbreak for tortoises on the project site and recipient site.

Changing Priority Status

We are requesting that the Bureau of Land Management change the designation of this project application to Low Priority based on the new information regarding under-predicted desert tortoise numbers.

The Code of Federal Regulations 2804.35 - How will the BLM prioritize my solar or wind energy application?

The BLM will prioritize a solar application by placing it into one of three categories – Low Priority, Medium Priority or High Priority and may re-categorize the application based on new information received through surveys, public meetings, or other data collection, or after any changes to the application. The BLM will generally prioritize the processing of leases awarded under subpart 2809 before applications submitted under subpart 2804. For applications submitted under subpart 2804, the BLM will categorize an application as High Priority based on the following screening criteria: (a) High-priority applications are given processing priority over medium- and low-priority applications and may include lands that meet the following criteria:

- (1) Lands specifically identified as appropriate for solar or wind energy development, other than designated leasing areas;
- (2) Previously disturbed sites or areas adjacent to previously disturbed or developed sites;
- (3) Lands currently designated as Visual Resource Management Class IV; or
- (4) Lands identified as suitable for disposal in BLM land use plans.

⁷ [Mycoplasmosis and upper respiratory tract disease of tortoises: A review and update - ScienceDirect](#)

⁸ [Mycoplasmosis and upper respiratory tract disease of tortoises: A review and update - ScienceDirect](#)

- 1. These lands were never specifically identified for solar and wind development**
- 2. The disturbance on this site is less than 5 percent.**
- 3. The lands are VRM Class III, not IV.**
- 4. These are not disposal lands**

Other Impacts and Local Considerations:

According to the Plan of Development submitted to BLM by Leeward Renewables, the project would use traditional “disk and roll” clearing methods. “Conventional grading” ends up clearing 100 percent of the landscape. Leeward is formerly known as the company First Solar and they are notorious for 100 percent clearing and creating fugitive dust disasters. The below photo shows how they cleared away desert habitat for the Stateline Solar Project in 2014:



Water

The project Plan of Development does not say how much water would be needed for construction and operation. Copper Rays would be just over double the size of the Rough Hat Clark County Solar Project. We assume the project would need double the water at 1,500 acre-feet for construction and 32 acer feet per year for operation. Basin 162, the Pahrump Valley is over-drafted by 12,000 acre-feet. Use of water for this project and others could eventually cause residents to have to sink their wells and more groundwater decline would kill local mesquite in the area. Will the BLM require the applicant to pay for any wells that need to be sunk over water over-draft?

An Analysis of Storm Water should be made:

The applicant should develop a detailed erosion and sedimentation control plan, and a flood risk control plan now for public review. Proposed project sites are often located on an alluvial fan that acts as an "active stormwater conveyance" between mountains and valleys.

Widespread bajada flooding events and sheetwash deposition occurs. The consequences of allowing flooding through the project would be too great. How does the project propose to maintain the solar fields if floodwaters jump the banks of the washes. In addition, alluvial fans often have shifting flow channels and pathways, so there is no guarantee that washes will not shift over 30 years.

Property Values:

Nobody wants to live next to or near a visually unattractive solar project. At a meeting in Nye County for the proposed adjacent Rough Hat Nye Solar Project, the developer -Candela Renewables said that adjacent solar projects would cause property values to decline by 5 to ten percent. This may be an underestimate. Adding the oversized Copper Rays Project would only damage property values more.

Fugitive Dust:

Nevada large-scale solar projects have recently had a poor record in violating air quality controls, as we have recorded in photographs such as at the 800-acre Sunshine Valley Solar Project in Amargosa Valley. This mowed-vegetation project repeatedly had fine particulate whirlwinds, and dust clouds emerging from disturbed desert surfaces in construction zones. Despite water trucks attempting to water-down loose dirt, the solar project was too large to control all dust. Construction continued on windy days, yet even on mild breezy days we saw wind-blown dust and clouds of fine particulates from disturbed ground in the construction site. Construction, especially on windy days, would create huge dust black-outs and greatly impact visibility. Removal of stabilized soils and biological soil crust creates a destructive cycle of airborne particulates and erosion. As more stabilized soils are removed, blowing particulates from recently eroded areas act as abrasive catalysts that erode the remaining crusts, thus resulting in more airborne particulates. We are concerned that industrial construction in the region will compromise the air quality to the point where not only visual resources, but public health will be impacted. Epidemiologists investigated an outbreak of valley fever that had sickened 28 workers at two large solar power construction sites in San Luis Obispo County⁹

⁹ <https://www.latimes.com/archives/la-xpm-2013-may-01-lame-ln-valley-fever-solar-sites-20130501-story.html>



^Photo of the fugitive dust caused by the Sunshine Valley Solar Project, Amargosa Valley, Nevada in summer of 2019.

Reasonable Alternatives to this Project: Distributed Energy

In 2020, the nation of Vietnam installed 9 GW of solar energy on rooftops¹⁰. They simply don't have volumes of land to sacrifice for large-scale solar projects, so they utilized their built environment, proving that significant amounts of solar energy can be generated from rooftops and other built structures.

Researchers from Vibrant Clean Energy found the cheapest way to reduce emissions actually involves building 247 gigawatts of rooftop and local solar power (equal to about one-fifth of the country's entire generating capacity today). In this scenario, consumers would save \$473 billion, relative to what electricity would otherwise cost.¹¹

In September, 2016, Dr. Rebecca Hernandez of University of California, Davis published a study, Solar Energy Potential on the Largest Rooftops in the United States. This study was conducted on the rooftops of 5,418 elementary schools in Korea to determine the feasibility of achieving net-zero energy solar buildings through rooftop PV systems (Hernandez et al. 2013)

Mojave yuccas and Joshua trees

According to the BLM, the project would destroy 49,000 Mojave yuccas. There are also Joshua trees on the site, but BLM could not even say how many at the public meeting.

¹⁰ [Scaling up Rooftop Solar in Vietnam – More than 9GW installed in 2020 – pv magazine International \(pv-magazine.com\)](https://www.pv-magazine.com/2020/06/Scaling-up-Rooftop-Solar-in-Vietnam-More-than-9GW-installed-in-2020/)

¹¹ https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_ES_Final.pdf

Mojave yuccas can live to be about 200 to 500 years old and provide food and habitat for multiple species.

Joshua trees are considered threatened by drought and climate change by many scientists. The species is being considered for Endangered listing by the Fish and Wildlife Service.¹²

The BLM did not know how many Joshua trees are on the site at the recent public meeting, but admitted they are on the site.

Avian impacts

Placing up to 30 square miles of solar panels in this area from 5 projects will have avian impacts. The avian impacts are documented in several solar projects. It is thought that the projects mimic water and cause birds to hit the solar panels. Data from 7 solar projects in California has revealed 3,545 bird kills from 183 species from 2012 to 2016. This can be referenced from the 2016 Multi-Agency Avian Solar Working Group conference from 2016.¹³

The area is close to the Stump Spring wetland and only about 30 miles from the Tecopa/Shoshone Amargosa River area. It is quite possible this project could cause avian mortality.

Other Wildlife and Plants

The project will impact:

Burrowing owls

American badgers

Kit foxes

Pahrump buckwheat -- Pahrump Valley buckwheat (*Eriogonum bifurcatum*), a BLM Sensitive Species. Alkaline sand flats and slopes, within saltbush communities at elevations of 1,969–2,700 feet amsl. Associated with Corncreek-Badland-Pahrump soils due to its salinity and association with relict lakebeds and lake terraces. May occur. Evaluation of this soil type during reconnaissance surveys indicated the habitat for Pahrump Valley buckwheat is limited. The project area lacks the loose sandy soils where Pahrump Valley buckwheat is typically identified. During vegetation surveys, no individuals of Pahrump Valley buckwheat were observed, yet we request that the project be completely moved off this soil type to avoid potential for destroying populations of this species that did not flower during 2018 and 2019. Pahrump Valley buckwheat is a BLM Sensitive species, meaning population or distribution of the wildlife is in a significant decline, the population is threatened as a result of disease or predation or ecological or human causes, and/or the primary habitat of the wildlife is deteriorating.

¹² [Judge moves iconic Joshua tree closer to endangered species protections | Courthouse News Service](#)

¹³ http://blmsolar.anl.gov/program/avian-solar/docs/Avian_Solar_CWG_May_2016_Workshop_Slides.pdf

Other rare plants possibly impacted:

Aven Nelson Phacelia (*Phacelia anelsonii*)

Rosy Twotone Beardtongue (*Penstemon bicolor ssp. roseus*)

Yellow Twotone Beardtongue (*Penstemon bicolor ssp. bicolor*) (deserving of ESA protection)

White-Margined Beardtongue (*Penstemon albomarginatus*) (deserving of ESA protection)

Death Valley Ephedra (*Ephedra funerea*)

New York Mountains Catseye (*Cryptantha tumulosa*)

Spring Mountains Milk-Vetch (*Astragalus remotus*)

Nye Milk-Vetch (*Astragalus nyensis*)

Mojave Milk-Vetch (*Astragalus mohavensis var. mohavensis*)

White Bear Poppy (*Arctomecon merriamii*)

Cacti, Yucca and Joshua trees are considered Forest Products under 43 CFR 5420.0-6. Even with a site plan that avoids washes, the majority of these plants would be destroyed.

Possible mule deer and bighorn sheep.

And a host of other species. Construction will kill millions of living organisms.

Sensitive Birds Will Be Impacted Bendire's thrasher (*Toxostoma bendirei*) may occur. Joshua trees are present in areas near the project, and Mojave yuccas are abundant. Therefore, the project may impact suitable breeding or foraging habitat for this species. Targeted surveys should be undertaken for this species. Le Conte's thrasher (*Toxostoma lecontei*) was observed during site visits.

The project may impact suitable breeding or foraging habitat for this species Phainopepla (*Phainopepla nitens*) was recorded by Nevada Division of Wildlife (NDOW) within 8 miles of the project area. There stands of mesquite and/or acacia located within the project area; therefore, the project will impact suitable breeding or foraging habitat for this species. Scott's oriole (*Icterus parisorum*) was recorded by NDOW within 8 miles of the project area. The project may impact suitable breeding or foraging habitat for this species.

Western Honey Mesquite:

There are Western Honey Mesquite (*Prosopis glandulosa*) located on the northeast side of the project site. These trees have been impacted by water drawdown but still are a unique

ecological part of this desert that should be avoided. They provide habitat to several BLM Sensitive and Special Status Species¹⁴

Mesquite trees furnish shade and wildlife habitat where other trees will not grow. They will often be found in alkaline soils near water holes.

Although a single flower of the blossom is only a few millimeters long, they are clustered into a yellow creamy blossom attracting many different types of pollinators.

At the Copper Rays Solar virtual meeting, the BLM stated they did not know if they would require the project to avoid the mesquite habitat.



^Mesquite habitat, Copper Rays Solar Project site.

Some mesquite are impacted by lowering water tables. Permitting industrial projects in this location will use up water.

Large Mammal Habitat Will Be Fragmented

A Mountain lion was recorded within the analysis area from NDOW records. We have seen mule deer in Mojave yucca and creosote scrub on alluvial fans within a few miles of the project site in Pahrump Valley.

Bats May Be Impacted A diversity of bats may feed in the project area, migrate through, and roost in yuccas: Allen's big-eared bat (*Idionycteris phyletism*), Big brown bat (*Eptesicus fuscus*), Big free-tailed bat (*Nyctinomops macrotis*), Brazilian free-tailed bat (*Tadarida 30 brasiliensis*),

¹⁴ [2017 Final BLM NV Sensitive and Special Species Status List .pdf](#)

Brazilian free-tailed bat (*Tadarida brasiliensis*), Canyon bat (formerly western pipistrelle) (*Parastrellus hesperus*), Fringed myotis (*Myotis thysanodes*), Hoary bat (*Lasiurus cinereus*), Long-eared myotis (*Myotis evotis*), Long-legged myotis (*Myotis volans*), Pallid bat (*Antrozous pallidus*), Silver-haired bat (*Lasionycteris noctivagans*), Spotted bat (*Euderma maculatum*), Townsend's big-eared bat (*Corynorhinus townsendii*), Western red bat (*Lasiurus blossevillii*), Western small-footed myotis (*Myotis ciliolabrum*), and Yuma myotis (*Myotis yumanensis*). Night-lighting installed for safety purposes may create light pollution in bat foraging areas, which may disorient foraging bats. Long terms impacts of operational night lighting is not addressed.

Soils and Biological Soil Crusts Will Be Significantly Impacted

Biotic soils and desert pavement commonly occur as a mosaic on the project site. Desert pavements are a matrix of rock fragments that form smooth, pavement-like surfaces. Biotic soils are living surface features comprised of soil particles enmeshed in a complex web of cyanobacteria, mosses, lichens, bacteria, algae, and fungi that send roots and filaments deep into the soil, helping to sequester Carbon. Both desert pavements and biotic soils provide a protective soil covering that reduces wind and water erosion potential and further impact soil moisture dynamics. Disruption of fragile biotic soils or removal of desert pavements generally increase wind and water erosion potential.

Visual Resources Will Be Significantly Impacted

The Project would be built in a high conflict Visual Resource area. Although the lands directly impacted would be in the VRM III Class Objective, the massive size of the project would impact other conservation and specially designated areas in the region. The objective of VRM Class III is to *“partially retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer.”* The Rough Hat Clark Solar Project would be visible in Nevada from the Old Spanish National Historic Trail, Potosi Mountain, Lovel Summit, Mt. Charleston, the Griffith Peak Trail and the Bonanza Peak Trial in Nevada. In California, the project would be visible from the Nopah Range Wilderness Area, Pahrump Valley Wilderness Area, Clark Mountain in the Mojave National Preserve and the Kingston Wilderness. Because of this, these resources should be reviewed for Visual Impacts under VRM II standards also.

VRM Class II Objective: *To retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.* The project would also be visible from major roads including Highway 160 going north from Las Vegas. The project would dominate that

view. The project would impact the view and experience for people driving on the Tecopa Road and Old Spanish Trail Highway.

Proximity to Units of the NPS

The construction and operation of utility-scale solar energy projects and related transmission infrastructure near units of the National Park System and other special areas administered by the NPS, including National Historic Trails, may significantly affect park programs, resources, and values. For example, ecological resources (such as habitat and migration of species) and physical resources (such as wind, water, air, and scenic views) cross park boundaries, and park boundaries often do not contain all of the natural resources, cultural sites, and scenic vistas that affect the quality of the park visitor's experience within these special places.

The Copper Rays Solar Project will be built within 2 miles of the Old Spanish National Historic Trail managed by the National Park Service. The industrial desert scraping, the solar panels, battery storage banks and transmission lines will all degrade the experience for anybody seeking the historic character of the region.

Conclusion

Please reject the application for the Copper Rays Solar Project. The project has too many high conflicts and would provide little benefits to the adjacent community of Pahrump. The BLM can easily reject this project as it is not in the public interest. The project's negative impacts to the local community and environment would outweigh any benefits it would bring to the area. All power would be exported to California and only about 5 to ten full time jobs would be created. It would take away all public access, lower property values and push species like the desert tortoise closer to extinction.

Thank you,

Kevin Emmerich
Co-Founder
Basin and Range Watch
P.O. Box 70
Beatty, NV 89003

Laura Cunningham
Western Watersheds Project
Cima, CA 92323

Shannon Salter
Mojave Green
9325 W Desert Inn,
Las Vegas, NV 89117

References:

Hernandez, R., M. Hoffacker, and C. Field. 2013. Land-Use Efficiency of Big Solar. *Environmental Science & Technology*, December 2013.

Elliott R.Jacobson, Mary B.Brown, Lori D.Wendland, Daniel R.Brown, Paul A.Klein, Mary M.Christopher, Kristin H.Berry, Mycoplasmosis and upper respiratory tract disease of tortoises: A review and update, *The Veterinary Journal*, Volume 201, Issue 3, September 2014, Pages 257-264

U.S. Fish and Wildlife Service (Service). 1994. Desert tortoise (Mojave population) recovery plan. U.S. Fish and Wildlife Service, Portland, Oregon.

[EXTERNAL] Please reject the application for the Copper Rays Solar Project

[REDACTED]
Tue 1/4/2022 8:11 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Cc: emailbasinandrange@gmail.com <emailbasinandrange@gmail.com>; [REDACTED]; [REDACTED]
[REDACTED]

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To those that can make a difference at our BLM,

I have been urged to write to oppose this and other energy projects planned for our priceless deserts by Basin And [Range.org](https://www.range.org/). I include their sample letter below, but first I want to say that I live in the Los Angeles area, we need clean energy and much of it should come from solar. But not from hundreds of miles away. I live on the same latitude as these deserts and am blessed with the same daily amount of energy from the sun. We can produce this energy right here. We have millions of acres of ugly rooftops to put these panels on. We would loose nothing in distribution because we can use it right here in our own homes and businesses. No transmission loss over great distances. We can pump it back into the grid we already have with modest improvements. No huge grid costs to bear. We should think about all that we will loose for generations as our desert habitats are plundered. The present energy industry wants these projects because it gives them the Power to stay in power. We need to help those interests to see that a better future can be had for everyone with local energy production made where it is needed, not where it lays waste to such a pristine and precious environment as our deserts. Making that energy here means more available energy, more jobs and mutual benefit where it is needed, here where people like me live.

Please log my comments in the proposal evaluation.

Thank you,
[REDACTED]

Please reject the application for the Copper Rays Solar Project.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 a record breaking drought year not optimal conditions for tortoise

surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project."

[EXTERNAL] Public comments on Copper Rays Solar Project

Tue 1/4/2022 3:56 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject the application for the Copper Rays Solar Project. This application would compound cumulative, negative impacts on a desert tortoise linkage habitat; a linkage already under threat by other solar applications approved by BLM in the region.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also

in California

The project applicaon recie ved a High Priority status becuse BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new informaon. The higher than predict ed populaon of desert tortoises on the Yellow Pine Solar site to the south could be the informaon used t o cancel the review of this applicaon.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the applicaon f or the Copper Rays Solar Project.

[EXTERNAL] Copper Rays Solar Project

[REDACTED]

Tue 1/4/2022 5:19 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please oppose the copper rays solar project. Degradation of natural land for solar is not the way forward to a sustainable future.

Thank you,

[REDACTED]

[EXTERNAL] BLM Southern Nevada District Office Attn: Copper Rays Solar Project

Tue 1/4/2022 2:07 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Sir/Madam -

Please accept these comments and reject the application for the *Copper Rays Solar Project* by Leeward Renewables

Approving this project would result in the wholesale destruction of a biologically diverse and very sensitive habitat for many species. It would result in the removal of ~50,000 Mojave yuccas as well as Joshua trees and other cactus species, which are not known to return after being bulldozed. Mojave yuccas (*Yucca schidigera*) can live to be 200 to 500 years old and provide habitat, shelter and food for multiple species.

Besides the carbon sequestration activity being done by plants, the entire project site contains biological soil crusts and desert pavement that are ~100,000 years old. This extremely sensitive soil crust grows at a painfully slow rate of about one millimeter per year. So, any soil crust that is disturbed can take a very long time to recover. Depending on the amount of moisture a desert receives, it can take up to 250 years for soil crust to grow back. Removal of the desert surface will release carbon into the air and result in uncontrollable fugitive dust. This will heavily impact public health in nearby Pahrump, Nevada.

In an ecosystem that is already very dry and extremely dependent on scarce water, it is unconscionable that the project will take any water at all. With the possibility of using over 1,300 acre feet of water for construction and additional acre feet each year for operation, the project will remove even more from the already over-drafted (by ~12,000 acre feet) Pahrump Valley Basin groundwater that so many species and plants rely upon.

This project site will impact and destroy hundreds of rare plant and animal species exacerbating an already tragic biodiversity crisis. It has been shown that solar projects mimic lakes and often kill a number of bird species as the birds try to land on what they think is water but is not. This project would be in the vicinity of Stump Spring and the Amargosa River which attract several resident and migratory birds. In addition to the birds, other species threatened are the Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and numerous other species.

Most importantly, however, the project site is located in critical desert tortoise habitat. While Leeward Renewables did their desert tortoise survey in April of 2021, it was unfortunately a record-breaking drought year and not optimal conditions for getting an accurate assessment and count of desert tortoises. As a comparison, when desert tortoises were moved off the Yellow Pine Site in May 2021 - just south of the Copper Rays site - nearly 3 times as many tortoises than predicted were found and relocated. Of those found 30 of the 139 moved were killed by hungry badgers in drought conditions. For a number of reasons, allowing this project to move forward is an automatic death sentence for many of

the removed tortoises. Because it is extremely likely that the count done by Leeward Renewables at this site in April of 2021 is a woeful underesma on, I ask tha t you require that Leeward Renewables conduct a new tortoise count.

Finally, it is my understanding that the project applicaon r eceived a High Priority status from BLM because of what it claimed were "low" conflicts. Just because the conflicts are not human related does not mean they can be designated as low priorities and t ossed aside. With less than 2% of Wilderness remaining in the US and taking into consideraon the man y plant and animal species that will be detrimentally harmed or killed by this project, the BLM can and must change the priority status from one of low to high and cancel the review of this project

Thank you for your consideraon and me.

Regards,



[EXTERNAL] Please reject the application for the Copper Rays Solar Project.

Tue 1/4/2022 10:58 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject this Copper Rays Solar Project The People do not want it or support Solar Farms on BLM land. This is the people's land, and this project will destroy wildlife and plants. It would not be good for NYE county or the people who live in Pahrump NV. This project would bring on many hard ships and Illness to our valley. This project is much to close to homes and business. Many of the reasons are also stated in my email Please do not more forward with Copper Rays Solar Project Cancel at once!

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cac and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area

The project site is in an important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not opmal c ondions f or tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May 2021 just to the south of the Copper Rays site, nearly 3 mes more t ortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought condions . Please do not allo w a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugive dus t. This will impact public health in nearby Pahrump, Nevada

The project site contains hundreds of rare Parish Club Cholla, sca ered Joshua trees, kit fox, desert iguana, burrowing owl, coyote, and several other species. Millions of living organisms would be killed in the construcon of the project

The project will probably require over 1,300-acre feet of water for construcon and addional acre f eet each year for operaon. The P ahrump Valley Basin is over-drafted by 12,000-acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species The project would be in the vicinity of Stump Spring and the Amargosa River which aract se veral birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project."



[EXTERNAL] Copper Rays Solar Project, a bad idea

Tue 1/4/2022 1:14 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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I am opposed to the Copper Rays Solar Project for the reasons outlined below. While I recognize there is an urgent need for increasing the supply of energy derived from sources other than fossil fuels, new projects should be situated on already disturbed lands such as mine sites, parking lots, over and beside highways, etc. rather than in ecologically important natural environments. Additionally, all new construction as well as large existing buildings should have roof top solar.

Humans should not further destroy other species and environments in addressing a human-caused climate crisis.

The Copper Rays Solar project would have the following negative impacts:

- The removal or destruction of over 49,000 Mojave yuccas, many of which are hundreds of years old and important habitat for several desert species

- The translocation of over 130 endangered desert tortoises, a number that is very likely an undercount and translocation often means death as demonstrated in the Yellow Pine project.

- Soil disturbance that will result in unhealthy dust and the release of carbon

- The death or disturbance of native species such as kit fox, desert iguana, burrowing owl and many others

- The drawdown of water in an area that is already over-extended in its use

Apparently, the Copper Rays Solar project is perceived to have few conflicts...however, as outlined above, this is not the case. And indeed, in light of the higher than predicted population of desert tortoises on the Yellow Pine Solar site and their high mortality rate after relocation the BLM should change the Copper Rays project's High Priority status, cancel the review of its application and require a new in depth tortoise survey.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar

Project.



[EXTERNAL] Copper Rays Solar project

[REDACTED]

Tue 1/4/2022 12:56 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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BLM_NV_SND_EnergyProjects@blm.gov

An: Copper Rays Solar Project, 4701 N. Torrey Pines Drive, Las Vegas, NV 89130

Dear BLM,

I urge you to DENY the copper rays Solar Projects and choose the No Action alternative. The last thing the Mojave desert needs is more senseless bulldozing for industrial solar when there is a clear alternative of single solar on rooftop tops.

I am greatly concerned that large numbers of bird mortalities have been detected on utility-scale solar projects, and many scientists believe that they are creating a polarized glare or lake effect that causes birds and insects to be deceived and collide with solar panels or simply dehydrate after landing. The avian impacts are not fully understood, but everyone seems to agree that this problem was underestimated during the initial boom to fast-track big solar on both public and private lands in the Southwestern US.

Data gathered from seven solar projects in the southern California desert and arid grassland habitats from 2012 through April 2016 show that 183 bird species have been killed at solar projects, a number that rises with new information. 3,545 individual birds were reported dead at solar projects.

The Copper Rays Solar Project would be built within 4 miles of Stump Spring and 30 miles from the Amargosa River and has the potential to attract birds.

Please provide full and detailed analysis of all the indirect cumulative and additive effects of large scale industrial solar on migrating birds during both spring and fall migration.

WHERE are all built, proposed and or foreseeable solar projects? Will there be a reflective Wall of Bird Death strung across the Mojave?

Please provide full and detailed studies on avian migration patterns and conduct a hard look and valid assessment of risk and the number of mortalities foreseeable including under severe weather events.

What monitoring is taking place across all solar projects for avian death? Please provide all data for all time periods.

I have many other concerns about the large-scale damage and destruction of Desert Tortoise and beautiful native Mojave desert vegetation. How many years or centuries will it take to recover the vegetation community and full ecological structure currently on the site? Will it ever really be recoverable to a full complement of native vegetation?



[EXTERNAL] STOP the Copper Rays Solar Project
Tue 1/4/2022 11:39 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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This technology may seem relatively new and worth investing in on a large scale, but once big utilities move on to other energy sources (and that will happen faster than you think), you will be left with a decimated desert environment and little economic benefit. The desert cannot support such violations of nature and you are destroying the land and communities you are presumed to protect. You are not just killing tortoises and joshua trees, YOU ARE SCREWING YOURSELVES!
STOP COPPER RAYS NOW!

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in the American desert Southwest, BLM should reject the application for the Copper Rays Solar Project.



[EXTERNAL] Copper Rays Solar Project

Tue 1/4/2022 3:55 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Utility-scale solar projects destroy large areas of public land and the environment on those lands. The land ceases to be publicly accessible. The amount of land used for these projects is disproportionate to their benefit as they only generate electricity 50% of the time (not at night). Also, more environmentally friendly alternatives exist: small-scale solar on urban/suburban land, roof-top solar, and small modular reactors (SMRs). These should be considered ahead of utility-scale solar on public land.

Specific issues with the Copper Rays Solar Project are:

- Approval of the project would result in the removal of over 49,000 Mojave yuccas, as well as cacti and Joshua trees, which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.
- The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 a record breaking drought year not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.
- The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.
- The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.
- The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over drafted by 12,000 acre feet.
- The project will destroy habitat for mesquite and associated species, a unique groundwater dependent habitat.
- Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.
- The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

- The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.
- The project application received a High Priority status because BLM claimed it has low conflicts. However, the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

Best regards,



[EXTERNAL] Attn: Copper Rays Solar Project
Wed 1/5/2022 3:16 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject the applicaon f or the Copper Rays Solar Project

The planet is currently in the midst of The Sixth Mass Exncon. Climat e Change is only a symptom of this situaon. Changing the way we power our lifestyle is solving for the wrong variable. We can not destroy the planet to save it. These solar panels should not be made in the first place because of the destrucon that c auses. That being said, on top of peoples homes rather than tortoise homes would be be er.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cac and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not opmal c onditions f or tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 mes more t ortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought condions . Please do not allo w a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugive dus t. This will impact public health in nearby Pahrump, Nevada

The project site contains hundreds of rare Parish Club Cholla, sca ered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species Millions of living organisms would be killed in the construcon of the project.

The project will probably require over 1,300 acre feet of water for construcon and adional acre f eet each year for operaon. The P ahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destriy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

[EXTERNAL] Copper Rays Solar Project

Ed Larue <ed.larue@verizon.net>

Wed 1/5/2022 7:33 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

 1 attachment (402 KB)

Copper Rays Solar Project.1-5-2022.pdf;

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear BLM,

Please find attached formal scoping comments from the Desert Tortoise Council for the Copper Rays Solar Project

Thanks, and good luck with your planning.

Ed LaRue
Desert Tortoise Council
Ecosystem Advisory Committee



DESERT TORTOISE COUNCIL

4654 East Avenue S #257B

Palmdale, California 93552

www.deserttortoise.org

eac@deserttortoise.org

Via email only

5 January 2022

BLM Southern Nevada District Office
4701 N. Torrey Pines Drive
Las Vegas, NV 89130
BLM_NV_SND_EnergyProjects@blm.gov

RE: Copper Rays Solar Project

Dear Bureau of Land Management,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments include recommendations that will enhance protection of this species and its habitat during activities authorized by the Bureau of Land Management (BLM), which we recommend be added to project terms and conditions in the authorizing document (e.g., right of way grant, etc.) as appropriate. Please accept, carefully review, and include in the relevant project file the Council's following comments and attachments for the proposed project.

Project Description

The following project description is taken from the BLM’s website for the project: “Copper Rays Solar, LLC (Applicant) has applied to the BLM Pahrump Field Office for a right-of-way grant to provide the necessary land and access for the construction and operation of a proposed solar facility and interconnection to the regional transmission system. The Applicant is proposing the construction, operation, and eventual decommissioning of the Copper Rays Solar Project, a photovoltaic solar power project including a battery storage facility on BLM-managed public land in Nye County. The Copper Rays Solar Project [if developed, would] includes up to a 700 MW alternating current (AC) solar photovoltaic power generating facility with energy storage on approximately 5,127 acres of BLM-managed public land. The Copper Rays Solar Project would include photovoltaic modules that convert sunlight into direct current (DC) electricity that would be collected and converted to AC electricity through a system of inverters. Electricity would be collected at the onsite substation and conveyed to the existing Gamebird Substation located north of the project site via a generation gen-tie transmission line.”

Scoping Comments

The purpose of scoping is to allow the public to participate in an “early and open process for determining the scope of issues to be addressed, and for identifying the significant issues related to a proposed action” (40 Code of Federal Regulations (CFR) 1501.7). We would like to acknowledge with appreciation that the BLM contacted the Council directly with the opportunity to provide these scoping comments.

We note with some concern that the BLM’s notice¹ mentions only that the proponent has applied for a right-of-way (ROW) grant, without committing to developing a formal Draft Environmental Impact Statement (DEIS) to assess the potential development. Given the plight of the Mojave desert tortoise described herein, the likelihood that tortoises occur on the subject property, and the potential to irreversibly develop 5,127 acres of habitat, despite the promise of eventual decommissioning, the Council contends that a DEIS is the appropriate level of environmental documentation for this project. As such, throughout this comment letter, the Council refers to the impending and necessary environmental document as a “DEIS.”

We do not believe that the BLM’s analysis of project impacts can exclusively rely on previous environmental documents for programmatic solar development, specifically BLM and DOE (2012), because current conditions affecting tortoises and their recovery has substantially changed over the last ten years. Changed circumstances since 2012 warrant updated analyses that assesses tortoise population trend data and other information on survival and recovery that were not available in 2012 when the Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (Solar PEIS; BLM and DOE 2012) was developed.

The DEIS should discuss how this proposed project fits within the management structure of the current land management plan for the area [e.g., Las Vegas Resource Management Plan (BLM 1998)]. It should provide maps of critical habitat for the Mojave desert tortoise (USFWS 1994a), Areas of Critical Environmental Concern (ACECs), and other areas identified for special management by BLM [e.g., National Conservation Lands (NCLs)]; U.S. Fish and Wildlife Service (USFWS) (e.g., linkage habitats between desert tortoise populations); Nevada Department of Wildlife (NDOW); other federal, state, and local agencies; and tribal lands.

¹ <https://www.blm.gov/press-release/bureau-land-management-hold-virtual-public-information-forums-copper-rays-solar>

Proposed Action and Alternatives Considered

We fully expect that BLM will comply with all applicable statutes, regulations, Executive and Departmental Orders, BLM manuals and other requirements as they pertain to this project. BLM should demonstrate in the DEIS that the proposed project meets all these requirements with respect to the tortoise, that:

- The proposed project will be in conformance with decisions in current land use plan(s) and the Federal Land Policy and Management Act (FLPMA) with respect to sustained yield;
- the proposed project will be consistent with priority conservation, restoration, and/or adaptation objectives in the best available landscape-scale information (e.g., for tortoise population connectivity, etc.);
- the applicant has coordinated with governments and agencies, including consideration of consistency with officially adopted plans and policies (e.g., recovery plans);
- the proposed project is in an area with low or comparatively low resource conflicts and where conflicts can be resolved;
- the proposed project will be located in, or adjacent to, previously contaminated or disturbed lands;
- the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors including the desert tortoise;
- the proposed project will minimize impacts on lands with wilderness characteristics and the values associated with these lands;
- the proposed project will not adversely affect lands donated or acquired for conservation purposes, or mitigation lands identified in previously approved projects such as translocation areas for desert tortoise;
- significant cumulative impacts on resources of concern should not occur as a result of the proposed project (i.e., exceedance of an established threshold such population viability for the tortoise and connectivity of tortoise populations among recovery units); and,
- BLM's analysis would use current data on the tortoise for the project area, population, Eastern Mojave Recovery Unit, and range wide, as population numbers and densities have substantially declined in most recovery units and the data/knowledge currently available on what is needed for habitat linkages for the tortoise is greater than in 2012.

We have serious concerns about BLM's commitment to manage effectively for the sustained yield of the tortoise. These concerns include past actions regarding:

- Mitigation to improve conditions within the connectivity areas, and if these options do not exist, mitigation may be applied toward the nearest tortoise conservation area (e.g., an ACEC for which tortoise had been identified in the Relevant and Important Criteria or critical habitat); and
- a plan included in the DEIS that would effectively monitor desert tortoise impacts, including verification that desert tortoise connectivity corridors are functional. The required Federal Endangered Species Act (FESA) consultation should further define this monitoring plan.

Regarding the first concern, we believe that a multiagency approach is best to ensure BLM is meeting its obligations, soliciting review and input from pertinent federal and state resource agencies, Tribal governments/agencies, and non-governmental organizations (NGOs). Mitigation of impacts should include, in priority order, avoidance, minimization and compensation for unavoidable impacts. Mitigation should at a minimum offset all direct, indirect, and cumulative impacts, especially given the status and trend of the tortoise (please see *Affected Environment - Status of the Populations of the Mojave Desert Tortoise* below). BLM should ensure it is effectively implementing its section 7(a)(1) conservation mandate under the FESA.

Mitigation should be applied only in areas where the lands are effectively managed for the benefit of the tortoise for both the short-term and long-term. As currently managed, BLM ACECs in Nevada and the California Desert Conservation Area are not meeting this criterion. Consequently, mitigation should be implemented on lands with a durable conservation designation, or on privately owned lands with a conservation easement or other legal instrument that ensures conservation in perpetuity. Please see *Mitigation Plans* below for additional concerns and requested requirements.

Regarding the second concern, a monitoring plan should (1) be scientifically and statistically credible; (2) be implementable; and (3) require BLM/project proponent to implement adaptive management to correct land management practices if the mitigation is not accomplishing its intended purposes. Compliance with Chapter 11 of the BLM National Environmental Policy Act (NEPA) Handbook H-1790-1 BLM (2008a) is needed to ensure this occurs.

We note that a federal appellate court has previously ruled that in an EIS a federal agency must evaluate a reasonable range of alternatives to the project including other project and mitigation sites, and must give adequate consideration to the public's needs and objectives in balancing ecological protection with the purpose of the proposed project, along with adequately addressing the proposed project's impacts on the desert's sensitive ecological system [*National Parks & Conservation Association v. Bureau of Land Management*, Ninth Cir. Dkt Nos. 05-56814 et seq. (11/10/09)]. Therefore, the Council requests that the BLM describe the purpose and need for this project and develop and analyze other viable alternatives, such as rooftop solar, which we believe constitute "other reasonable courses of actions" (40 CFR 1508.25).

The Council supports alternatives to reduce the need for additional solar energy projects in relatively undisturbed habitats in the Mojave Desert. For example, the City of Los Angeles has implemented a rooftop solar Feed-in Tariff (FiT) program, the largest of its kind in America. The FiT program enables the owners of large buildings to install solar panels on their roofs, and sell the power they generate back to utilities for distribution into the power grid.

We request that BLM include an urban solar alternative. Under this alternative, owners of large buildings or parking areas would grant the project proponent permission to install solar panels on their roofs and cover parking areas, and sell the power they generate back to utilities for distribution into the power grid.

This approach puts the generation of electricity where the demand is greatest, in populated areas. It may also reduce transmission costs, greenhouse gas emissions from constructing energy projects far from the sources of power demand and materials for construction, the number of affected resources in the desert that must be analyzed under the NEPA, and mitigation costs for direct, indirect, and cumulative impacts; monitoring and adaptive management costs; and habitat restoration costs following decommissioning. The DEIS should include an analysis of where the energy generated by this project would be sent and the needs for energy in those targeted areas that may be satisfied by urban solar. We request that at least one viable alternative be analyzed in the DEIS where electricity generation via solar energy is located much closer to the areas where the energy will be used, including generation in urban/suburban areas.

In addition, BLM should include another viable alternative of locating solar projects on bladed or highly degraded tracts of land (e.g., abandoned agricultural fields). Such an alternative would not result in the destruction of desert habitats and mitigation for the lost functions and values of these habitats. These losses and mitigation are costly from an economic, environmental, and social perspective.

The latter two alternatives are important to consider to minimize or avoid the loss of vegetation that sequesters carbon. Studies around the world have shown that desert ecosystems can act as important carbon sinks. For example, the California deserts account for nearly 10 percent of the state's carbon sequestration; below ground in soil and root systems, and above ground in biomass. Protecting this biome can contribute to securing carbon stores in the state (MDLT 2021). This situation is likely true for Nevada. Given the current climate change conditions, there is an increasing need for carbon sequestration. Because vascular plants are a primary user of carbon and the proposed Project would result in the loss/degradation of thousands of acres of plants and their ability to sequester carbon for decades or longer unless successful measures are implemented to restore the same biomass of native vegetation as it is being destroyed, it is imperative that proposed project not result in the loss of vegetation.

The DEIS should consider the monitoring results of recently developed solar projects where soils have been bladed versus those facilities where the vegetation has been mowed or crushed and allowed to revegetate the area. In the latter case, it may be appropriate to allow tortoises to enter the facilities and re-establish residency (i.e., repatriate) under the solar panels as vegetation recolonizes the area. This could be an *option* for the currently described project alternative. It should be designed/implemented as a scientific experiment to add to the limited data on this approach to determine the extent of effects on Mojave desert tortoise populations and movements/connectivity between populations, which is an important issue for this species, particularly over the long-term (see *Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units* below). Long-term monitoring for the life of the project would need to be included to accurately evaluate the effectiveness of this strategy.

Given the location of the proposed project, with other approved and proposed utility-scale solar energy projects in the Pahrump Valley, BLM should develop an alternative route for the gen-tie lines for this and other solar projects in the area. Because these solar projects are located south of Highway 160, this route should be the closest intersection point of the solar project on its north or northeast side with Highway 160, and following this highway to the terminus, thus avoiding the north side of Highway 160. For this project, the route for the gen-tie line should originate at the northeast corner of the proposed project footprint, not the northwest corner as depicted on the maps provided. This design would keep solar development and gen-tie lines south of Highway 160 as much as possible.

Connected Actions

Pursuant to Section 1508.25 of the Council on Environmental Quality’s (CEQ) regulations (40 CFR 1508.25), any DEIS must cover the entire scope of a proposed action, considering all connected, cumulative, and similar actions in one document. Pursuant to Section 1506.1(a) of these regulations, an agency action cannot “[l]imit the choice of reasonable alternatives” before reaching a final decision in a published [Record of Decision] (ROD). These regulations ensure agencies will prepare a complete environmental analysis that provides a “hard look” at the environmental consequences of all proposed actions instead of segmenting environmental reviews (Novack 2015). Please explain whether any current proposed actions within the region are connected and if not, why.

Affected Environment

Status of the Population of the Mojave Desert Tortoise: The Council provides the following information for the proponent so that these or similar data may be included in the DEIS. The Council believes that BLM’s failure to implement recovery actions for the Mojave desert tortoise as given in the recovery plan (both USFWS 1994b and 2011) has contributed to tortoise declines between 2004 to 2014 (Table 1; USFWS 2015). There are 17 populations of Mojave desert tortoise described below that occur in Critical Habitat Units (CHUs) and Tortoise Conservation Areas (TCAs); 14 are on lands managed by the BLM; 8 of these are in the California Desert Conservation Area (CDCA).

Table 1. Summary of 10-year trend data for 5 Recovery Units and 17 CHUs/TCAs for Mojave desert tortoise. The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km² and standard errors = SE), and the percent change in population density between 2004 and 2014. Populations below the viable level of 3.9 breeding individuals/km² (10 breeding individuals per mi²) (assumes a 1:1 sex ratio) and showing a decline from 2004 to 2014 are in red.

Recovery Unit: Designated Critical Habitat Unit/Tortoise Conservation Area	Surveyed area (km ²)	% of total habitat area in Recovery Unit & CHU/TCA	2014 density/km ² (SE)	% 10-year change (2004–2014)
Western Mojave, CA	6,294	24.51	2.8 (1.0)	-50.7 decline
Fremont-Kramer	2,347	9.14	2.6 (1.0)	-50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	-56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	-61.5 decline
Colorado Desert, CA	11,663	45.42	4.0 (1.4)	-36.25 decline
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	-29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	-37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	-64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	-52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	-60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	4,160	16.2	4.5 (1.9)	+325.62 increase
Beaver Dam Slope, NV, UT, AZ	750	2.92	6.2 (2.4)	+370.33 increase
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase

Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	3,446	13.42	1.9 (0.7)	-67.26 decline
El Dorado Valley, NV	999	3.89	1.5 (0.6)	-61.14 decline
Ivanpah Valley, CA	2,447	9.53	2.3 (0.9)	-56.05 decline
Upper Virgin River	115	0.45	15.3 (6.0)	-26.57 decline
Red Cliffs Desert	115	0.45	15.3 (6.0)	-26.57 decline
Range-wide Area of CHUs - TCAs/Range-wide Change in Population Status	25,678	100.00		-32.18 decline

Table 2. Estimated change in abundance of adult Mojave desert tortoises in each recovery unit between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.

Recovery Unit	Modeled Habitat (km ²)	2004 Abundance	2014 Abundance	Change in Abundance	Percent Change in Abundance
Western Mojave	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
Total	68,501	336,393	212,343	-124,050	-37%

Important points from these tables include the following:

Change in Status for the Mojave Desert Tortoise Range-wide

- Ten of 17 populations of the Mojave desert tortoise declined from 2004 to 2014.
- Eleven of 17 populations of the Mojave desert tortoise are no longer viable. These 11 populations represent 89.7 percent of the range-wide habitat in CHUs/TCAs.

Change in Status for the Eastern Mojave Recovery Unit – Nevada and California

- This recovery unit had a 67 percent decline in tortoise density from 2004 to 2014, the largest decline of the five recovery units for the tortoise.
- Tortoises in this recovery unit have densities that are below viability.

Change in Status for the El Dorado Valley and Ivanpah Valley Tortoise Populations in the Eastern Mojave Recovery Unit.

- Both populations in this recovery unit experienced declines in densities of 61 percent and 56 percent, respectively from 2004 to 2014. In addition, there was a 67 percent decline in tortoise abundance.
- Both populations have densities less than needed for population viability.

Change in Status for the Mojave Desert Tortoise in California

- Eight of 10 populations of the Mojave desert tortoise in California declined from 29 to 64 percent from 2004 to 2014 with implementation of tortoise conservation measures in the Northern and Eastern Colorado Desert (NECO), Northern and Eastern Mojave Desert (NEMO), and Western Mojave Desert (WEMO) Plans.

- Eight of 10 populations of the Mojave desert tortoise in California are no longer viable. These eight populations represent 87.45 percent of the habitat in California that is in CHU/TCAs.
- The two viable populations of the Mojave desert tortoise in California are declining. If their rates of decline from 2004 to 2014 continue, these two populations will no longer be viable in about 2020 and 2031.

Change in Status for the Mojave Desert Tortoise on BLM Land in California

- Eight of eight populations of Mojave desert tortoise on lands managed by the BLM in California declined from 2004 to 2014.
- Seven of eight populations of Mojave desert tortoise on lands managed by the BLM in California are no longer viable.

Change in Status for Mojave Desert Tortoise Populations in California that Are Moving toward Meeting Recovery Criteria

- The only population of Mojave desert tortoise in California that is not declining is on land managed by the National Park Service, which has increased 178 percent in 10 years.

The Endangered Mojave Desert Tortoise: The Council believes that the Mojave desert tortoise meets the definition of an endangered species. In the FESA, Congress defined an “endangered species” as “any species which is in danger of extinction throughout all or a significant portion of its range...” Because most of the populations of the Mojave desert tortoise were non-viable in 2014, most are declining, and the threats to the Mojave desert tortoise are numerous and have not been substantially reduced throughout the species’ range, the Council believes the Mojave desert tortoise should be designated as an endangered species by the USFWS and California Department of Fish and Wildlife (CDFW).

Mojave desert tortoise is now on the list of the world’s most endangered tortoises and freshwater turtles. It is in the top 50 species. The International Union for Conservation of Nature’s (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers Mojave desert tortoise to be Critically Endangered (Berry *et al.* 2021), which is a “species that possess an extremely high risk of extinction as a result of rapid population declines of 80 to more than 90 percent over the previous 10 years (or three generations), a current population size of fewer than 50 individuals, or other factors.” It is one of three turtle and tortoise species in the United States to be critically endangered.

The summary of data above indicates that BLM’s current management actions for the Mojave desert tortoise are inadequate to help recover the desert tortoise. BLM has been ineffective in halting population declines, which has resulted in non-viable populations. The Council believes that these management actions are inadequate in preventing the extirpation of the Mojave desert tortoise in California and Nevada.

Standardized Surveys – Desert Tortoise and Other Species

For the DEIS to fully analyze the effects and identify potentially significant impacts, the following surveys must be performed to determine the extent of rare plant and animal populations occurring within areas to be directly and indirectly impacted.

Prior to conducting surveys, a knowledgeable biologist should perform a records search of the Nevada Natural Heritage Program (NNHP) (http://heritage.nv.gov/get_data) for rare plant and animal species reported from the region. The results of the NNHP review would be reported in the DEIS with an indication of suitable and occupied habitats for all rare species reported from the region based on performing species specific surveys described below.

The project proponent should fund focused surveys for all rare plant and animal species reported from the vicinity of the proposed project. Results of the surveys will determine appropriate permits from NDOW, BLM, and USFWS and associated avoidance, minimization, and mitigation measures. Focused plant and animal surveys should be conducted by knowledgeable biologists for respective taxa (e.g., rare plant surveys should be performed by botanists), and to assess the likelihood of occurrence for each rare species or resource (e.g., plant community) that has been reported from the immediate region. Focused plant surveys should occur only if there has been sufficient winter rainfall to promote germination of annual plants in the spring. Alternatively, the environmental documents may assess the likelihood of occurrence with a commitment by the proponents to perform subsequent focused plant surveys prior to ground disturbance, assuming conditions are favorable for germination.

Special Status Plants: There are likely to be special status plant species found in/near the project area. This information should be assessed by accessing the NNHP literature review prior to conducting field surveys. Species or their habitats known to occur in/near the project area should be sought during field surveys and their presence/absence discussed in the DEIS. Surveys should be completed at the appropriate time of year by qualified botanists using the latest acceptable methodologies. In addition, Nevada Administrative Code (NAC) 527 provides a list of species and subspecies of native plants to be critically endangered and threatened with extinction. These fully protected species may not be removed or destroyed except pursuant to a permit issued by the State Forester (NAC 527.090). The methods used to survey for special status plant species, the results, and the mitigation/monitoring/adaptive management that will be implemented to avoid or otherwise mitigate adverse effects to these species and their habitats should be included in the DEIS.

Migratory Birds/Eagles: BLM should ensure that all actions it authorizes are implemented in compliance with the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and associated regulations, executive orders, and policies (e.g., Driscoll 2010, Pagel et al. 2010) to avoid mortality or injury to migratory birds and harassment of eagles.

Burrowing owl: Since Nevada does not have a specified protocol, surveys for western burrowing owl (*Athene cunicularia*) should be performed implementing available methods (CDFG 2012). In addition to the project footprint, the protocol requires that peripheral transects be surveyed at 30-, 60-, 90-, 120-, and 150-meter intervals in all suitable habitats adjacent to the subject property to determine the potential indirect impacts of the project on this species. If burrowing owl sign is found, CDFG (2012) describes appropriate minimization and mitigation measures that would be required. Also note that BLM should demonstrate in the DEIS how it will comply with “E.O. 13186 – Responsibilities of Federal Agencies To Protect Migratory Birds,” since the burrowing owl is on the USFWS list of migratory birds. If burrowing owl sign is found, BLM and the project proponent should develop a science-based mitigation/monitoring/adaptive management plan with the USFWS and NDOW and ensure that this plan is implemented.

Mojave Desert Tortoise Surveys: Formal protocol surveys for Mojave desert tortoise (USFWS 2019) must be conducted at the proper times of year. Because USFWS (2009) requires only experienced biologists to perform protocol surveys, USFWS biologists should review surveyors' credentials prior to initiating the surveys. Per this protocol, if the impact area is larger than 500 acres, the surveys must be performed in the time periods of April-May or September-October so that a statistical estimate of tortoise densities can be determined for the "action area" (please see below). If any tortoise sign is found, the project proponent should coordinate with USFWS to determine whether "take" under FESA is likely to occur from implementation of the proposed project. If tortoises are present, the project proponent must obtain a biological opinion from the USFWS under Section 7(a)(2) for activities on federal lands/actions prior to conducting any ground disturbance.

We request that protocol-level surveys be performed at the area of the proposed project *and the alternatives that are being considered* in the DEIS. The results of these surveys should be published in the DEIS and should include density estimates for each alternative assessed.

To determine the full extent of impacts to tortoises and to facilitate compliance with the FESA, authorized biologist(s) must consult with the USFWS to determine the action area for this project. The USFWS defines "action area" the Code of Federal Regulations and their Desert Tortoise Field Manual (USFWS 2009) as "all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action (50 CFR §402.02)."

The Council's persisting concern is that proponents of solar projects continue to identify a single site for development without any attempt to identify alternative sites. As such, when focused studies reveal significant accumulations of tortoises on the proponent's selected site, because there is only one site identified for the project, there is no opportunity to select an alternative site where impacts would be minimized.

Too often, a single impact footprint is identified, all surveys are restricted to that site, and no alternative sites are assessed, as required by NEPA. We are concerned that this project may have already pre-determined the project footprint. As such, there may be other areas of lower tortoise densities where impacts could be minimized. However, those areas would not be considered if the project footprint is predetermined before survey data are available. As such, we request that more than one site, preferably three, be identified and analyzed in the DEIS and that the alternative with the fewest impacts to tortoises be adopted for development.

If that is not feasible, we ask that the "action area" of the proposed project be several times larger than the project footprint so that those portions of the site with fewer tortoises could be selected. Proponents of the Gemini Solar Site in southern Nevada, for example, ignored these recommendations, and displaced more than 100 tortoises, when based on their presence-absence tortoise surveys, a shift of the site to the east would have avoided many of those animals.

It is current management to require desert tortoise protocol surveys (USFWS 2019) on a given site, but all too often translocation sites are ignored. We feel strongly that protocol surveys should occur on multiple or enlarged sites as given above *and* on all proposed translocation sites, assuming tortoises will be translocated.

Mojave Desert Tortoise Impacts Analysis:

Analysis of Direct and Indirect Impacts: The alternatives analysis should include an economic analysis that provides the total cost of constructing the proposed project versus other alternatives, so the public can see how much the total cost of each alternative is. This would include an analysis of the costs of replacing all public resources that would be lost from granting the proposed project including direct, indirect, and cumulative impacts. Please note, this analysis would include habitat replacement or restoration costs including the time needed to achieve full replacement, not just acquisition, management, monitoring, and adaptive management costs.

The DEIS should include a thorough analysis of the status and trend of the tortoise in the action area, tortoise conservation area(s), recovery unit(s), and range wide. Tied to this analysis should be a discussion of all likely sources of mortality for the tortoise and degradation and loss of habitat from implementation of solar development including construction, operation and maintenance, decommissioning, and restoration of the public lands. The DEIS should use the data from focused plant and wildlife surveys in their analysis of the direct, indirect, and cumulative impacts of the proposed project on the Mojave desert tortoise and its habitat, other listed species, and species of concern/special status species.

We expect that the DEIS will document how many acres would be impacted directly by solar arrays, access roads to the site, administration/maintenance buildings, parking areas, transmission towers, switchyards, laydown areas, internal access roads, access roads along gen-tie lines, a perimeter road, perimeter fencing, substations, battery storage (e.g., the project footprint). We also request that separate calculations document how many acres of desert tortoise habitats would be temporarily and permanently impacted both directly and indirectly (e.g., “road effect zone,” etc.) by the proposed Project. As given below, these acreages should be based on field surveys for tortoises not just available models.

Road Effect Zone: We request that the DEIS include information on the locations, sizes, and arrangements of roads to the proposed project and within it, who will have access to them, whether the access roads will be secured to prevent human access or vandalism, and if so, what methods would be used. The presence/use of roads even with low vehicle use has numerous adverse effects on the desert tortoise and its habitats that have been reported in the scientific literature. These include the deterioration/loss of wildlife habitat, hydrology, geomorphology, and air quality; increased competition and predation (including by humans); and the loss of naturalness or pristine qualities.

Vehicle use on new roads and increased vehicle use on existing roads equates to increased direct mortality and an increased road effect zone for desert tortoises. Road construction, use, and maintenance adversely affect wildlife through numerous mechanisms that can include mortality from vehicle collisions, and loss, fragmentation, and alteration of habitat (Nafus et al. 2013; von Seckendorff Hoff and Marlow 2002).

In von Seckendorff Hoff and Marlow (2002), they reported reductions in Mojave desert tortoise numbers and sign from infrequent use of roadways to major highways with heavy use. There was a linear relationship between traffic level and tortoise reduction. For two graded, unpaved roads, the reduction in tortoises and sign was evident 1.1 to 1.4 km (3,620 to 4,608 feet) from the road. Nafus et al. (2013) reported that roads may decrease tortoise populations via several possible mechanisms, including cumulative mortality from vehicle collisions and reduced population growth rates from the loss of larger reproductive animals. Other documented impacts from road construction, use, and maintenance include increases in roadkill of wildlife species as well as tortoises, creating or increasing food subsidies for common ravens, and contributing to increases in raven numbers and predation pressure on the desert tortoise.

Please include in the DEIS analyses, the five major categories of primary road effects to the tortoise and special status species: (1) wildlife mortality from collisions with vehicles; (2) hindrance/barrier to animal movements thereby reducing access to resources and mates; (3) degradation of habitat quality; (4) habitat loss caused by disturbance effects in the wider environment and from the physical occupation of land by the road; and (5) subdividing animal populations into smaller and more vulnerable fractions (Jaeger et al. 2005a, 2005b, Roedenbeck et al. 2007). These analyses should be at the population, recovery unit, and rangewide levels.

In summary, road establishment/increased use is often followed by various indirect impacts such as increased human access causing disturbance of species' behavior, increased predation, spread of invasive species that alters/degrades habitat, and vandalism and/or collection. The analysis of the impacts from road establishment and use should include cumulative effects to the tortoise with respect to nearby critical habitat and other Tortoise Conservation Areas (TCAs), areas identified as important linkage habitat for connectivity between nearby critical habitat units/TCAs as these linkage areas serve as corridors for maintaining genetic and demographic connectivity between populations, recovery units, and rangewide (see *Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units* below). These and other indirect impacts to the Mojave desert tortoise should be analyzed in the DEIS from project construction, operations and maintenance, decommissioning, and habitat restoration.

Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units: The DEIS should analyze how this proposed project will impact the movement of tortoises relative to linkage habitats/corridors. The DEIS should include an analysis of the minimum linkage design necessary for conservation and recovery of the desert tortoise (e.g., USFWS 2011, Averill-Murray et al. 2013, Hromada et al. 2020), and how the project, along with other existing projects, would impact the linkages between tortoise populations and all recovery units that are needed for survival and recovery. We strongly request that the environmental consequences section of the DEIS include a thorough analysis of this indirect effect (40 Code of Federal Regulations 1502.16) and appropriate mitigation to maintain the function of population connectivity for the Mojave desert tortoise and other wildlife species be identified. Similarly, please document how this project may impact proximate conservation areas, such as BLM-designated ACECs.

Mitigation Plans

The DEIS should include effective mitigation for all direct, indirect, and cumulative effects to the tortoise and its habitats. The mitigation should use the best available science with a commitment to implement the mitigation commensurate to impacts to the tortoise and its habitats. Mitigation should include a fully-developed desert tortoise translocation plan, including protection of tortoise translocation area(s) from future development and human disturbance in perpetuity; raven management plan; non-native plant species management plan; fire prevention plan; compensation plan for the degradation and loss of tortoise habitat that includes protection of the acquired, improved, and restored habitat in perpetuity for the tortoise from future development and human use; and habitat restoration plan when the lease is terminated and the proposed project is decommissioned.

All plans should be provided in the DEIS so the public and the decisionmaker can determine their adequacy (i.e., whether they are scientifically rigorous and would be effective in mitigating for the displacement and loss of tortoises and degradation and loss of tortoise habitat from project implementation). Too often, such plans are alluded to in the draft environmental document and promised later, which does not allow the reviewers to assess their adequacy, which is unacceptable. If not available as appendices in draft documents, all indicated plans must be published in the final environmental documents. Their inclusion is necessary to determine their adequacy for mitigating direct, indirect, and cumulative impacts, and monitoring for effectiveness and adaptive management regarding the desert tortoise. If these plans are not provided, it is not possible for BLM, other decisionmakers, and the interested public to determine the environmental consequences of the project to the tortoise.

These mitigation plans should include an implementation schedule that is tied to key actions of the construction, operation, maintenance, decommissioning, and restoration phases of the project so that mitigation occurs concurrently with or in advance of the impacts. The plans should specify success criteria, include an effectiveness monitoring plan to collect data to determine whether success criteria have been met, and identify/implement actions that would be required if the mitigation measures do not meet the success criteria.

BLM Manual 6840: Special Status Species Management includes the following BLM directives (BLM 2008b) that are applicable to the Mojave desert tortoise:

6840.01 Purpose. The purpose of this manual is to provide policy and guidance for the conservation of BLM special status species and the ecosystems upon which they depend on BLM-administered lands. BLM special status species are: (1) species listed or proposed for listing under the FESA, and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the FESA, which are designated as BLM sensitive by the State Director(s).

6840.02 Objectives. The objectives of the BLM special status species policy are A. To conserve and/or recover FESA-listed species and the ecosystems on which they depend so that FESA protections are no longer needed for these species. B. To initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the FESA.

With respect to the Mojave desert tortoise, we request that the Proposed action or other alternatives contribute to meeting objectives in BLM Manual 6840 – Special Status Species Management (BLM 2008b).

Translocation Plan - Translocated Tortoises & Translocation Sites: How many tortoises will be displaced by the proposed project? How long will translocated tortoises be monitored? Will the monitoring report show how many of those tortoises lived and died after translocation and over time? Are there any degraded habitats or barren areas that may impair success of the translocation? Are there incompatible human uses in the new translocation area that need to be eliminated or managed to protect newly-translocated tortoises? Were those translocation areas sufficiently isolated that displaced tortoises were protected by existing or enhanced land management? How

will the proponent minimize predation of translocated tortoises and avoid adverse climatic conditions, such as low winter rainfall conditions that may exacerbate translocation success? Were tortoises translocated to a site where they would be protected from threats (e.g., off-highway vehicles, future development, etc.)? These questions should be answered in the Environmental Consequences section of the DEIS.

The project proponent should implement the USFWS' Translocation Guidance (USFWS 2020) and coordinate translocation with BLM and NDOW. In addition, the proponent's project-specific translocation plan should be based on current data and developed using lessons learned from earlier translocation efforts (e.g., increased predation, drought). (see *Desert Tortoise Translocation Bibliography Of Peer-Reviewed Publications*² in the footnote).

The Translocation Plan should include implementation of a science-based monitoring plan approved by the Desert Tortoise Recovery Office that will accurately assess these and other issues to minimize losses of translocated tortoises and impacts to their habitat. For example, the health of tortoises may be jeopardized if they are translocated during drought conditions, which is known to undermine translocation successes (Esque et al. 2010). If drought conditions are present at the time of project development, we request that the proponent confer with the USFWS immediately prior to translocating tortoises and seek input on ways to avoid loss of tortoises due to stressors associated with drought. One viable alternative if such adverse conditions exist is to postpone site development until which time conditions are favorable to enhance translocation success.

Moving tortoises from harm's way, the focus of the Translocation Guidance, does not guarantee their survival and persistence at the translocation site, especially if it will be subject to increased human use or development. In addition to the Translocation Guidance and because translocation sites are mitigation for the displacement of tortoises and loss of habitat, these sites should be managed for the benefit of the tortoise in perpetuity. Consequently, a conservation easement or other durable legal designation should be placed on the translocation sites. The project proponent should fully fund management of the site to enhance it for the benefit of the tortoise in perpetuity.

Tortoise Predators and a Predator Management Plan: Common ravens are known predators of the Mojave desert tortoise and their numbers have increased substantially because of human subsidies of food, water, and sites for nesting, roosting, and perching to hunt (Boarman 2003). Coyotes and badgers are also predators of tortoises. Because ravens can fly at least 30 miles in search of food and water daily (Boarman et al. 2006) and coyotes can travel an average of 7.5 miles or more daily (Servin et al. 2003), this analysis should extend out at least 30 miles from the proposed project site.

The DEIS should analyze if this new use would result in an increase in common ravens and other predators of the desert tortoise in the action area. During construction, operations and maintenance, decommissioning, and restoration phases of the proposed project, the BLM should require science-based management of common raven, coyote, and badger predation on tortoises in the action area. This would include the translocation sites.

² https://www.fws.gov/nevada/desert_tortoise/documents/reports/2017/peer-reviewed_translocation_bibliography.pdf

For local impacts, the Predator Management Plan should include reducing/eliminating human subsidies of food and water, and for the common raven, sites for nesting, roosting, and perching to address local impacts (footprint of the proposed project). This includes buildings, fences, and other vertical structures associated with the project site. In addition, the Predator Management Plan should include provisions that eliminate the pooling of water on the ground or on roofs.

The Predator Management Plan should include science-based monitoring and adaptive management throughout all phases of the project to collect data on the effectiveness of the Plan's implementation and implement changes to reduce/eliminate predation on the tortoise if existing measures are not effective.

For regional and cumulative impacts, the BLM should require the project proponent to participate in efforts to address regional and cumulative impacts. For example, in California, the project proponent should be required to contribute to the National Fish and Wildlife Foundation's Raven Management Fund to help mitigation for regional and cumulative impacts. Unfortunately, this Fund that was established in 2010 has not revised its per acre payment fees to reflect increased labor and supply costs during the past decade to provide for effective implementation. The National Fish and Wildlife Foundation should revise the per acre fee.

We request that for any of the transmission options, the project use infrastructure (particularly towers) that prevent raven nesting and perching for hunting. For example, for gen-ties/transmission lines the tubular design pole with a steep-pointed apex and insulators on down-sloping cross arms is preferable to lattice towers, which should not be used. New fencing should not provide resources for ravens, like new perching and nesting sites.

Fire Prevention/Management Plans: The proposed project could include numerous infrastructure components that have been known to cause fires. Lithium-ion batteries at the project site have the potential to explode and cause fires and are not compatible with using water for fighting fires. Photovoltaic panel malfunctions have caused vegetation to burn onsite. We request that the DEIS include a Fire Prevention Plan in addition to a Fire Management Plan specifically targeting methods to deal with explosions/fires produced by these batteries/panels as well as other sources of fuel and explosives on the project site.

Climate Change and Non-native Plants

Climate Change: We request that the DEIS address the effects of the proposed action on climate change warming and the effects that climate change may have on the proposed action. For the latter, we recommend including: an analysis of habitats within the project area that may provide refugia for tortoise populations; an analysis of how the proposed action would contribute to the spread and proliferation of nonnative invasive plant species; how this spread/proliferation would affect the desert tortoise and its habitats (including the frequency and size of human-caused fires); and how the proposed action may affect the likelihood of human-caused fires. We strongly urge the BLM require the project proponent to develop and implement a management and monitoring plan using this analysis and other relevant data that would reduce the transport to and spread of nonnative seeds and other plant propagules within the project area and eliminate/reduce the likelihood of human-caused fires. The plan should integrate vegetation management with fire prevention and fire response.

Impacts from Proliferation of Nonnative Plant Species and Management Plan: The DEIS should include an analysis of how the proposed project would contribute to the spread and proliferation of non-native invasive plant species; how this spread/proliferation would affect the desert tortoise and its habitats (including the frequency and size of human-caused fires); and how the proposed project may affect the frequency, intensity, and size of human-caused and naturally occurring fires. For reasons given in the previous paragraph, we strongly urge the BLM require the project proponent to develop and implement a management and monitoring plan for nonnative plant species. The plan should integrate management/enhancement of native vegetation with fire prevention and fire response to wildfires.

Hydrology and Water Quality

Regarding water quality of surface and ground water, the DEIS should include an analysis of the impacts of water acquisition, use, and discharge for panel washing, potable uses, and any other uses associated with this proposed project, and cumulative impacts from water use and discharge on native perennial shrubs and annual vegetation used for forage by the Mojave desert tortoise, including downstream and downstream impacts. The DEIS should analyze how much water is proposed to be used during construction and operation; how any grading, placement, and/or use of any project facilities will impact downstream/downslope flows that are reduced, altered, eliminated, or enhanced. This analysis should include impacts to native and non-native vegetation and habitats for wildlife species including the Mojave desert tortoise, for which washes are of particular importance for feeding, shelter, and movements.

Therefore, we request that the DEIS include an analysis of how water use during construction, operations and maintenance, decommissioning, and habitat restoration will impact the levels of ground water in the region. These levels may then impact surface and near-surface flows at springs, seeps, wetlands, pools, and groundwater-dependent vegetation in the basin. The analyses of water quality and quantity of surface and ground water should include appropriate measures to ensure that these impacts are fully mitigated, preferably beginning with avoidance and continuing through CEQ's other forms of mitigation (40 CFR 1508.20).

Federal Land Policy and Management and Federal Endangered Species Act

Federal Land Policy and Management Act (FLPMA): In 1976, Congress passed the FLPMA “to provide for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple uses and sustained yield, and the maintenance of environmental quality.” Congress further declared “the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed; the use of all California desert resources [including rare and endangered species of wildlife, plants, and fishes] can and should be provided for in a multiple use and sustained yield management plan to conserve these resources for future generations...”

Congress wrote a lengthy definition of “multiple use” for the management of public lands and their various resource values. The definition included “... the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.”

Congress defined “sustained yield” as the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use. The Mojave desert tortoise and its habitats are renewable resources.

The definition of “environmental quality” is a set of properties and characteristics of the environment, either generalized or local, as they impinge on human beings and other organisms. It is a measure of the condition of an environment relative to the requirements of one or more species and or to any human need or purpose. Thus, BLM must consider the quality or condition of the environment of the Mojave desert tortoise with respect to the species’ requirements for persistence and must maintain this habitat quality.

The Council believes that BLM’s management of the Mojave desert tortoise and its habitats in Nevada is not in compliance with FLPMA. The large number of non-viable populations and downward trend in population densities for the Mojave desert tortoise confirm non-compliance with the “immediate and future protection of public lands,” “conserving resources for future generations,” and definitions of multiple use, sustained yield, and environmental quality.

Section 7(a)(1) of the Endangered Species Act: Section 7(a)(1) of the Endangered Species Act states that all federal agencies “...shall... utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to Section 4 of this Act.” In Section 3 of the FESA, “conserve,” “conserving,” and “conservation” mean “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition...”

The Council believes that the data given herein demonstrate that BLM’s management of the Mojave desert tortoise and its habitat has not been effective in meeting BLM’s Section 7(a)(1) mandate of carrying out programs for its conservation. To meet its Section 7(a)(1) responsibilities, the BLM needs to adopt and implement the management actions of the one population of the Mojave desert tortoise in California that is increasing, which is managed by the National Park Service. The NPS’ land management practices are closer to managing areas of land as reserves, which is what the 1994 recovery plan (USFWS 1994b) described as part of the recovery strategy for the Mojave desert tortoise.

While BLM designated Desert Wildlife Management Areas (DWMAs) as one part of the recovery strategy, it did not implement the other parts of the recovery strategy. According to the Recovery Plan, DWMAs were to be managed as reserves; that is, they were areas of land to keep, save, preserve, or protect tortoises and their habitats. BLM not only did not identify and implement needed recovery actions within each DWMA to manage the DWMAs as protected areas for the Mojave desert tortoise, in California, DMWAs were eliminated with the BLM’s Record of Decision for the Desert Renewable Energy Conservation Plan (DRECP) (BLM 2015).

When analyzing and implementing aspects of the project, we request that BLM demonstrate how it is contributing effectively to the conservation and recovery of the Mojave desert tortoise, in southern Nevada. We request that BLM show how mitigation for the project will do more than offset all direct, indirect, and cumulative impacts so that the status of the Mojave desert tortoise as described herein will improve. By providing this information, BLM would demonstrate its compliance with section 7(a)(1) of the FESA for the Mojave desert tortoise.

One of the requirements in a biological opinion is that reinitiation is required if new information reveals the effects of the proposed action on listed species or critical habitat is in a manner or to an extent that was not considered in the biological opinion. We believe that BLM should request reinitiation under section 7 of the FESA of the Solar PEIS (BLM and DOE 2012) because of recent information on the declining status and trend of adult and juvenile Mojave desert tortoises. This information was not available at the time the biological opinion was prepared.

Cumulative Effects

With regards to cumulative effects, the DEIS should list and analyze all project impacts within the region including future state, federal, and private actions affecting listed species on state, federal, and private lands. We also expect that the environmental documents will provide a detailed analysis of the “heat sink” effects of solar development on adjacent desert areas and particularly Mojave desert tortoise in addition to climate change.

In the cumulative effects analysis of the DEIS, please ensure that the CEQs “Considering Cumulative Effects under the National Environmental Policy Act” (1997) is followed, including the eight principles, when analyzing cumulative effects of the proposed action to the tortoise and its habitats. CEQ states, “Determining the cumulative environmental consequences of an action requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern. The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects.” The analysis “must describe the response of the resource to this environmental change.” Cumulative impact analysis should “address the sustainability of resources, ecosystems, and human communities.” For example, the DEIS should include data on the estimated number of acres of tortoise habitats degraded/lost and the numbers of tortoises that may be lost to growth-inducing impacts in the region.

CEQs guidance on how to analyze cumulative environmental consequences, which contains eight principles listed below:

1. Cumulative effects are caused by the aggregate of past, present, and reasonable future actions.

The effects of a proposed action on a given resource, ecosystem, and human community, include the present and future effects added to the effects that have taken place in the past. Such cumulative effects must also be added to the effects (past, present, and future) caused by all other actions that affect the same resource.

2. Cumulative effects are the total effect, including both direct and indirect effects, on a given resource, ecosystem, and human community of all actions taken, no matter who (federal, non-federal, or private) has taken the actions.

Individual effects from disparate activities may add up or interact to cause additional effects not apparent when looking at the individual effect at one time. The additional effects contributed by actions unrelated to the proposed action must be included in the analysis of cumulative effects.

3. Cumulative effects need to be analyzed in terms of the specific resource, ecosystem, and human community being affected.

Environmental effects are often evaluated from the perspective of the proposed action. Analyzing cumulative effects requires focusing on the resources, ecosystem, and human community that may be affected and developing an adequate understanding of how the resources are susceptible to effects.

4. It is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.

For cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to the affected parties.

5. Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries.

Resources are typically demarcated according to agency responsibilities, county lines, grazing allotments, or other administrative boundaries. Because natural and sociocultural resources are not usually so aligned, each political entity actually manages only a piece of the affected resource or ecosystem. Cumulative effects analysis on natural systems must use natural ecological boundaries and analysis of human communities must use actual sociocultural boundaries to ensure including all effects.

6. Cumulative effects may result from the accumulation of similar effects or the synergistic interaction of different effects.

Repeated actions may cause effects to build up through simple addition (more and more of the same type of effect), and the same or different actions may produce effects that interact to produce cumulative effects greater than the sum of the effects.

7. Cumulative effects may last for many years beyond the life of the action that caused the effects.

Some actions cause damage lasting far longer than the life of the action itself (e.g., acid mine damage, radioactive waste contamination, species extinctions). Cumulative effects analysis need to apply the best science and forecasting techniques to assess potential catastrophic consequences in the future.

8. Each affected resource, ecosystem, and human community must be analyzed in terms of its capacity to accommodate additional effects, based on its own time and space parameters.

Analysts tend to think in terms of how the resource, ecosystem, and human community will be modified given the action's development needs. The most effective cumulative effects analysis focuses on what is needed to ensure long-term productivity or sustainability of the resource.

We request that the DEIS (1) include these eight principles in its analysis of cumulative impacts to the Mojave desert tortoise; (2) address the sustainability of the tortoise given the information on the *Status of the Mojave Desert* given herein; and (3) include mitigation along with monitoring and adaptive management plans that protect desert tortoises and their habitats during both construction and operation of approved facilities.

For example, this proposed project is one of several that have been proposed/approved in the Pahrump Valley. Consequently, the DEIS should include an analysis of how these numerous projects and gent-tie lines with subsequent off-highway vehicle use will impact the survival of the tortoise, its habitat, and connectivity with other tortoise populations, and recovery units.

We appreciate this opportunity to provide scoping comments on this project and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Desert Tortoise Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect species of desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this project.

Respectfully,



Edward L. LaRue, Jr., M.S.
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

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[EXTERNAL] Copper Rays Solar project comment

[REDACTED]

Thu 1/6/2022 11:43 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject the application for the Copper Rays Solar Project. There are better ways to address our energy needs that don't require permanent destruction of critical habitat. The impacts of this project are not worth the collateral damage, and we realistically need to look to the human environment as a place for solar projects rather than land that still retains its value as a living ecosystem, hosting species that have nowhere else to go.

[REDACTED]

Sacramento, CA

[EXTERNAL] NO TO THE COPPER RAYS SOLAR PROJECT!!
Thu 1/6/2022 11:15 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject the application for the Copper Rays Solar Project.


There is only so much land and wildlife our planet has to offer, why do we continue selfishly conquering it without any regards to the wildlife that already inhabits it?

This project will be damaging to thousands of plants and animals not to mention the environment, the land, and ultimately us.

Mass removal of natural ecosystems is NOT the answer to transitioning away from fossil fuels.

Please consider reading the text below to read more about how damaging this project will be.

Thank you,


Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project."

[EXTERNAL] Please reject the application for the Copper Rays Solar Project.

[REDACTED]
Thu 1/6/2022 9:55 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please listen to the people and not corporations.

Large scale solar operations in wilderness areas are not the answer to climate change. Why waste the resources and energy while destroying pristine wilderness habitat for federal and state protected species as well as rare plants and species of conservation concern when there is plenty of available space for solar panels in the already disturbed city of Las Vegas. Every warehouse, parking lot, parking structure, hotel, and home should have solar in Nevada before we sacrifice ancient desert ecosystems with irreparable natural and cultural resources.

I am a wildlife biologist with years of experience in the desert. Though at a glance the desert may look deserted, but it is full of life. I have witnessed developments in the desert and have seen the before and after effects. Blading the desert and permanently scarring the landscape is equivalent to burning down a rainforest, or bottom trawling a coral reef. It is a true tragedy I and urge your to oppose the Copper Rays solar project and all other wild-lands commercial scale solar projects.

Please put solar on rooftops. Conserve what little wildlife exists.

[REDACTED]

[EXTERNAL] Re: "Yellow Pine Solar Project"; it should not go forwards, and for the same reasons, please prevent all "large array" infrastructure development in Mojave Desert country.

Thu 1/6/2022 5:00 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am not an expert in Finance/Business/mitigating severe change in climate, and I'm not an expert on solar energy. I was a wildland firefighter for 11 seasons, 5 in the SW US. I have seen some of the longterm research Basin and Range Watch has begun posting. After that, I am with the people who ask that all parties, please, leave protected "refugia" (last stands), of wild desert (above- and below-ground) - natural. Keep wilderness "undeveloped", and "unimproved", for as far and as long, as possible.

In the US, since Theodore Roosevelt's time, more people have understood and voluntarily accepted, that public wildlands are - "worth" more than only - unguarded (but reserved) capital, in storage, scheduled for use by extractive industry.

That was not, and is not, the way FLPMA's writers would like for it to be viewed by us. They want us to know and agree, that all natural resources have always been "meant for" profitable, human-designed opportunistic "development". Even foreign corporate investment in destructive utility scale "large array" solar infrastructure, in US state and county - ballot measures - like NV SB 358, is now legal and welcomed by FLPMA (through the US Federal Elections Commission, November 2021).

Since Theodore Roosevelt informed us about conservation and raised us up (with his awareness, foresight and his great resolve), the rest of us now try to - guard - wild desert, water, open spaces, clean ground, wild animals and plantlife - in place. Our own choice. Much more difficult work than merely taking it, as "given" (since 1976 FLPMA's writers' self-interested insertion of a "right" to permanently consume, destroy for profit, - whatever can't defend itself or run away - at any given time. It has what it calls: "Fair Multiple Use" of whatever is out there. Serially? singly? in groups, constantly in shifts? Simultaneously? Most importantly, use without regulation by outsiders, or expense to the corporations?

...Which always goes back, to just profiting by "taking", however it can be done, without regard for already balanced natural systems.

What is the Mojave Desert's "highest, best 'use'"? - That actually can't matter: By law, one kind of user does not (since at least 1973 ESA) have the right ("multiply" or any other way), to "use" the remaining

Mojave Desert in ways that - ensure - other users, inhabitants - won't - be able to use it again. This ancient desert's complex natural conditions, systems and cycles, if broken, will not "re-generate" in the familiar human timescale; loss of "refuge" natural habitat cannot be compensated, repaired or replaced. If the ESA means nothing to us and we give away the Mojave Desert wildlands, the tortoise-dependent ecosystem, the WATER - in my opinion, we all, and the entire "Green" story are pretense. And FLPMA's writers are still out there, and now, have no need of their cloaking devices: A hollowing experience ahead.

These are my own reasons DOI should spare small "Yellow Pine", and the other proposed "large array" facilities' parcels. Those projects, in line as planned, appear now inefficient and incredibly wasteful in comparison to the logic, tech, fire and earthquake safety, and industry evolution agility - upcoming in photovoltaics and "microgrids". Whoever can help, like Mr. Hoffmann with his very solid and explicit Pahrump Valley Times' Letter to the Editor, or protests by southend recreationists, or the decades of dedicated scientific research by the Desert Tortoise Council's Authorized Biologists, or maybe orders from federal water managers - all would help "stop work" on this train of a timing-out business model, and its bypassed business profit "efficiencies". I think all - have - helped in trying to avert an unnecessary, very big, unrecoverable mistaken investment.

Thank you for a successful turnaround for the Mojave Desert, and a corrected course for Nevada and SW US solar energy development - which we all want. Panels on all our roofs, storage fitted to all different users' needs, where they are located. No large arrays in protected "refugia" wildlands.

Thank you for your time.



[EXTERNAL] Copper Rays Solar Project

[REDACTED]

Thu 1/6/2022 9:39 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi there,

Sincerely, as a professional archaeologist please do not consider this project. There are much better options for solar apart the destruction from native species habitat and cultural resources.

Best,

[REDACTED]

[EXTERNAL] Please reject the application for the Copper Rays Solar Project


Thu 1/6/2022 11:00 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please take the time to really think about what this would do to our wildlife and biodiversity. This may seem like a small change to you, but changes like these can wipe out a species. Please consider rejecting this project. Please think of the animals that would be losing their homes.

Please reject the application for the Copper Rays Solar Project!

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

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The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project."

[EXTERNAL] Please reject the application for the Copper Rays Solar Project.

Thu 1/6/2022 10:39 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

[EXTERNAL] Please reject the application for the Copper Rays Solar Project
Thu 1/6/2022 9:52 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I'm writing to you as a concerned citizen and scientist to urge you to reject the application for the Copper Rays Solar Project.

If this project is to go through, it would result in the loss of innumerable plant, insect, and animal life. This includes tens of thousands of trees, including Mojave yuccas and Joshua trees, the latter if which will not grow back once bulldozed.

Furthermore, the project site contains old biological soil crusts and desert pavement, the removal of which will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project application recieved a High Priority status becuse BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

Sincerely,



[EXTERNAL] Don't destroy Biodiversity!

Thu 1/6/2022 9:47 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject the application for the Copper Rays Solar Project.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project applicaon recieved a High Priority status becuse BLM claimed it has low conflicts But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM needs to reject the application for the Copper Rays Solar Project!

Respectfully,

[EXTERNAL] Copper Rays Solar Project

Thu 1/6/2022 8:41 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good day,

Please accept my comments concerning the Copper Rays Solar Project below.

I am strongly opposed to the Copper Rays Solar Project in Pahrump Valley, Nevada. Precious undisturbed desert ecosystems should not be used for industrial-scale solar projects, when abundant space for solar power generation is available on rooftops, parking lots, and brownfield lands. This proposed use of our public lands is not consistent with the BLM's own "multiple uses" policy, as covering land with solar panels will preclude it from all other uses.

The extent of the proposed habitat destruction is vast over eight square miles for this project alone! The numbers of plants and animals that would be killed is absolutely unconscionable. Please refer to the letter from Basin and Range Watch for more details on the plants and animals that would be sacrificed. The effects on the landscape will not be reversible within the foreseeable future. In my experience working at the Nevada National Security Site for over 30 years, I have seen several failed attempts at restoration of native Mojave and Great Basin Desert vegetation. Disturbed soils are an invitation to colonization by invasive species. If old soils are disturbed, they cannot feasibly be restored. Such soils may take hundreds of thousands of years to form. They often contain biotic crusts that act as carbon sinks.

I also question the feasibility of dust abatement during construction and in perpetuity. When soils are disturbed, they can become sources of dust, as I'm sure you're aware. Dust clouds may be a danger to traffic on Highway 160. Dust from disturbed soil often contains pathogens like Valley Fever fungus and is generally harmful to human health.

Public lands are the heart and soul of Nevada. I'm sure most Nevadans would agree that the essence of our desert experience lies in our wide-open spaces and undisturbed views. If the Copper Rays Solar Project is approved, our land would be forever destroyed for a project that has a 35-year design life. We depend on the Bureau of Land Management to protect our wild heritage.

[EXTERNAL] My comments on the Copper Rays Solar Project
Thu 1/6/2022 4:29 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

January 6, 2021

Dear BLM officials:

Please accept my following comments on the application for the Copper Rays Solar Project. This proposed project would cause many significant adverse direct, indirect, and cumulative impacts, including on already rapidly declining threatened Mojave desert tortoises. BLM should strive to help solve both the climate and extinction crises, instead of pitting one against the other.

I oppose this proposed project and urge BLM to deny this application. I support the development of solar and other alternative energy sources, but such development should be "smart from the start" and not needlessly destroy important natural areas when better locations and methods are available.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions . Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract many birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project. There are viable less-damaging alternatives that BLM should pursue.

Thank you very much for your consideration.

Sincerely,

A large black rectangular redaction box covering the signature area of the letter.

[EXTERNAL] Copper Rays Solar Project

[REDACTED]

Thu 1/6/2022 10:30 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Please reject the applicaon f or the Copper Rays Solar Project

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To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

[EXTERNAL] Please reject the application for the Copper Rays Solar Project[REDACTED]
Fri 1/7/2022 9:57 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

As a wildlife biologist, I ask that you please reject the application for the Copper Rays Solar Project.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cactus and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

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Thank you,



[EXTERNAL] Please reject the application for the Copper Rays Solar Project.

[REDACTED]
Fri 1/7/2022 12:26 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

Thank you.



[EXTERNAL] Please reject the Copper Rays Solar Project[REDACTED]
Fri 1/7/2022 10:22 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To whom it may concern,

Hello! I am emailing to request that you reject the application for the Copper Rays Solar Project on the basis of the degradation to natural and cultural resources of the Mojave Desert region.

I am a proponent of renewable energy and myself worked in consulting for renewable energy projects (environmental and cultural resource management), specifically with wind and solar projects, and I know careful considerations go into siting these developments. However, the impacts of the continued development of solar projects in the Mojave Desert are well documented and well known by scientists, managers, and citizens, and I cannot support it.

The project threatens not only protected species of plant and animal, but also water, soils, and cultural heritage of the area. The visual impacts of solar sites are becoming more characteristic of these desert basins than the beautiful natural landscapes of the American west. The impacts to the protected Mojave desert tortoise are particularly severe. This species has suffered habitat loss, habitat fragmentation, and the loss of important movement corridors between populations that have severe impacts that are not easily detected until too long has passed.

Please, consider rejecting the application of the Copper Rays Solar Project.

Thank you for your time and consideration,

[REDACTED]

[REDACTED]

[EXTERNAL] Comment for Copper Rays Solar Project[REDACTED]
Fri 1/7/2022 10:15 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please reject the application for the Copper Rays Solar Project.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cactus and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada

The site also contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation, and will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat. The Pahrump Valley Basin is already over-drafted by 12,000 acre feet.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

It will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can and MUST change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project. We do not get out of this climate crisis by destroying even more natural land and causing ecosystems to collapse. Put solar on rooftops, on all of your government buildings, but keep it out of the desert and off of OUR public lands.

[EXTERNAL] Copper Rays Solar Project



Fri 1/7/2022 10:46 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Cc: lflundo@co.nye.nv.us <lflundo@co.nye.nv.us>; bjjabbour@co.nye.nv.us <bjjabbour@co.nye.nv.us>; jkoenig@co.nye.nv.us <jkoenig@co.nye.nv.us>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

This project as well as the Rough Hat Solar Project lies within the path of the long overdue Pahrump Bypass, which, coordinated with a scheme for storm water collection and flanked by trails for off-highway vehicle and non motorized recreation, may finally be funded for detailed planning including precise setting of the alignment. That cannot be known at this time, however, so it is impossible to merely reserve an easement for the roadway, channel, and trails. The entire Copper Rays project should preferably be rejected for ecological considerations; Barring that it needs to be placed on hold indefinitely until the Bypass route around the southeast side of Pahrump can be finalized.

Attached is a JPEG graphic illustrating a hypothetical route for the Bypass overlaid on the map from the BLM's website. This same image is at the bottom of a series of 18 illustrations of the Bypass on the website for my non-profit "Institute for Effective Transportation" (IET):

<https://iet.solutions/en/highways/160-372-bypass/>

A slight alteration in the color scheme displays the Bypass as twin green lines with a yellow line up the middle wherea on the 17 preceding image it i di played a twin yellow line

Right-of-Way is the biggest challenge confronting transportation projects, because they require continuity of egress for users while avoiding equally essential utilities and sensitive ecology to serve cattered communitie without di rupting them Protection of right of way i of paramount importance and so any capital investment that would preclude later provision of a circumferential corridor around Pahrump must be rejected.

Sincerely,



landline / fax:

cellular / text:

email:

wjs/attachments (2)

cc: Nye County Regional Transportation Commission

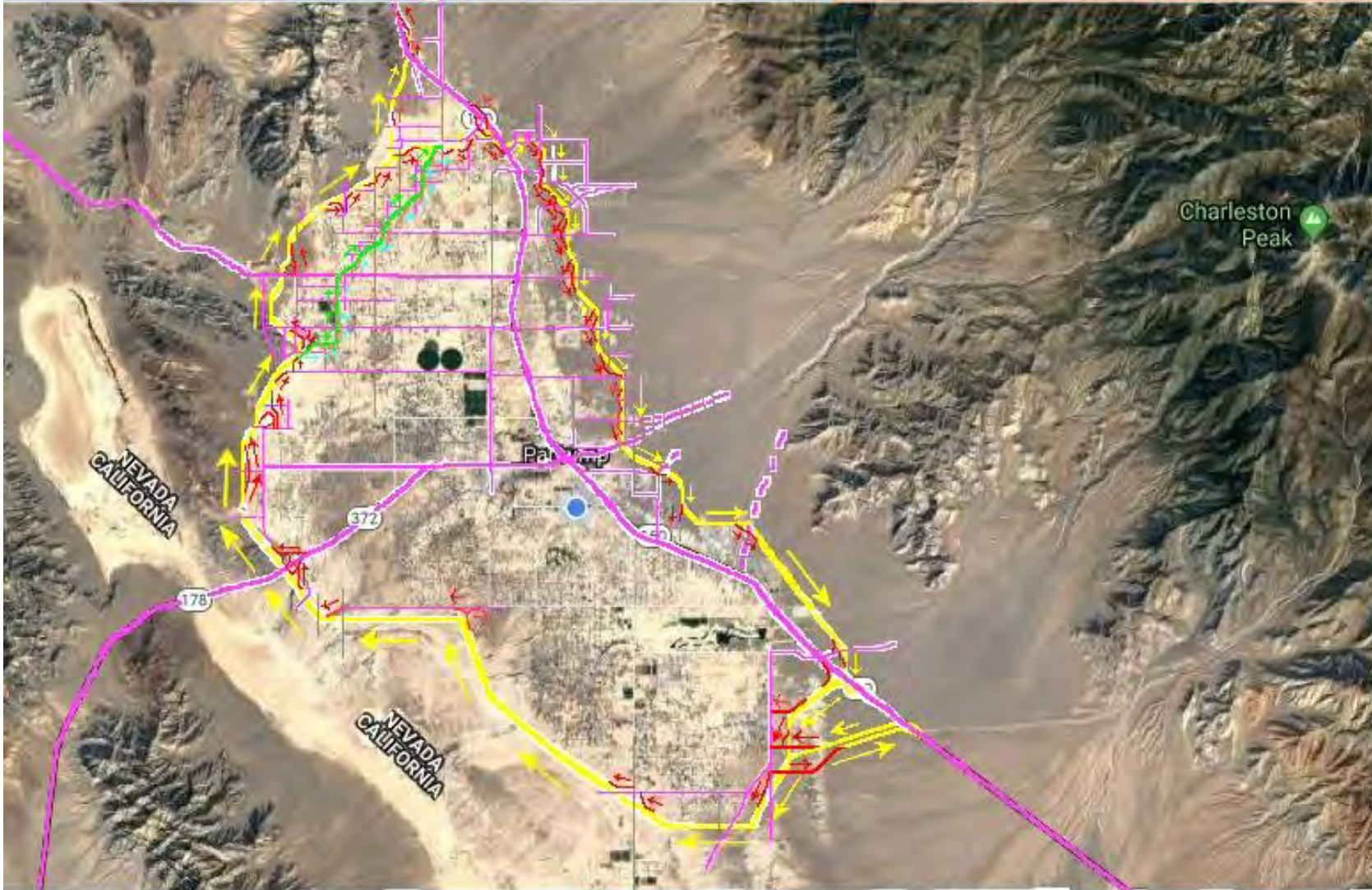
Leo Blundo, Chair

Bruce Jabbour, Vice-Chair

John Koenig, Member At-Large

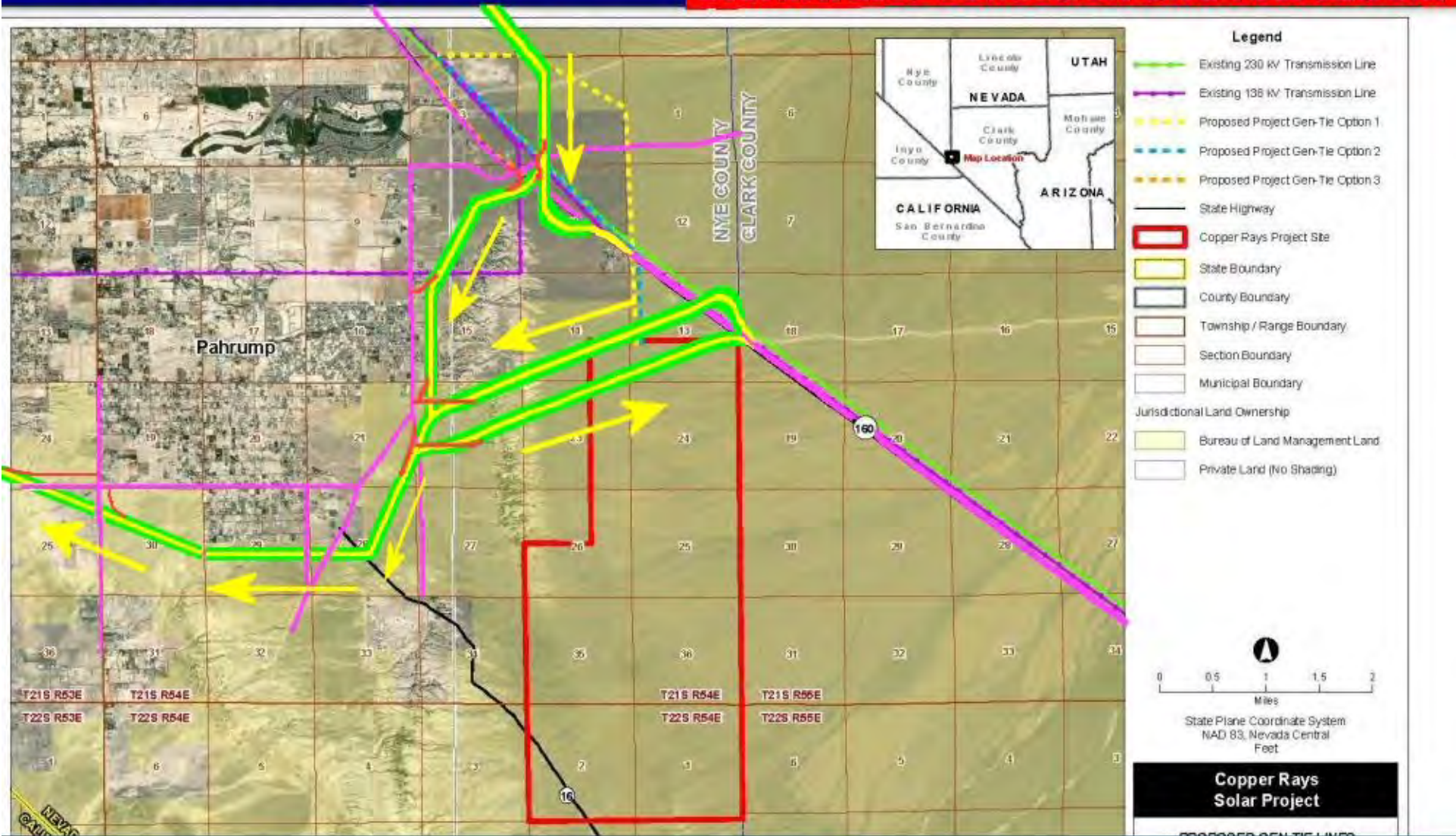
**Pahrump, Nevada 160-372 Bypass:
OVERVIEW - regional illustration
to accompany suggestion to:
BOCC + RTC: May, 2021**

*Reverse Bifurcated
alignment with Parkway option
optimizes traffic flow into
existing commercial areas
vital for community survival.*



**Pahrump, Nevada 160-372 Bypass:
 FAR - SOUTHEAST Illustration to accompany
 comments to EIS due 01/07/2022:
 Copper Rays solar project - Nye**

**CONFLICTING alignment
 with solar project precludes
 infrastructure vital for traffic safety,
 stormwater collection and recreation.**



Key:

- Two-lane roadway (Green and yellow double line)
- Cross Arterials (Purple cross symbol)
- Exit-Entrance ramps (Red diagonal line)
- Direction of Traffic (Yellow arrow)

[EXTERNAL] Copper Rays Solar Project Comment


Fri 1/7/2022 8:54 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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To whom it may concern,

I am writing to ask that you please reject the application for the Copper Rays Solar Project.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not optimal conditions for tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 times more tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought conditions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugitive dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construction of the project.

The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vicinity of Stump Spring and the Amargosa River which attract several birds.

The project would be located near the Old Spanish National Historic Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

[EXTERNAL] Copper Rays Solar Project: Please note that I oppose this project.

[REDACTED]
Fri 1/7/2022 4:07 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Please note that I oppose this project.

Even if the project is overseen and adequately monitored, it will most likely result in severe damage to the environment and animals in that area: it will likely kill, injure and displace desert tortoises.

I also am concerned about destruction of desert habitat (for example, Joshua Trees).

Please reject the application for the Copper Rays Solar Project.

Sincerely,

[REDACTED]
Hoboken, NJ

[EXTERNAL] Cooper Rays Solar Project[REDACTED]
Fri 1/7/2022 8:28 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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"Please reject the applicaon f or the Copper Rays Solar Project.

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cac and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not opmal c ondions f or tortoise surveys When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 mes more t ortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought condions . Please do not allo w a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugive dus t This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, sca ered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construcon of the project.

The project will probably require over 1,300 acre feet of water for construcon and adional acre f eet each year for operaon. The P ahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destriy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vacinity of Stump Spring and the Amargosa River which aract se veral birds.

The project would be located near the Old Spanish Naonal His toric Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region.

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project."

Best regards,



Sent from my Sprint Samsung Galaxy S8.

[EXTERNAL] Copper Rays Solar Project application[REDACTED]
Fri 1/7/2022 4:33 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Please reject the applicaon f or the Copper Rays Solar Project

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cac and Joshua trees which are not known to return a. er being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

The project site is located in important desert tortoise habitat. Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not opmal c ondions f or tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 mes mor e tortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought condions. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugiv e dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scaered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construcon of the pr oject

The project will probably require over 1,300 acre feet of water for construcon and adional acr e feet each year for operaon. The Pahrump Valley Basin is over drafted by 12,000 acre feet

The project will destriy habitat for mesquite and associated species, a very unique groundwater dependent habitat

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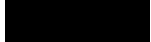
The project would be located near the Old Spanish Naonal His toric Trail. Developing 5 large solar industrial projects in the area will destroy the historic character of the region

The project will cut off access to over 8 square miles of public land and be visible from recreation trails, Highway 160, Mt Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

Thanks you,



[EXTERNAL] Concerns Over the Copper Rays Solar Project[REDACTED]
Fri 1/7/2022 10:28 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

I'm writing to voice my concerns over the proposed Copper Rays Solar Project and request that the application be rejected.

Approving this project would result in the removal of nearly 50,000 Mojave yuccas, along with cactus and Joshua trees that will not persist after being bulldozed. Many of these plants are hundreds of years old and provide significant habitat and food to the region's native wildlife.

One such native species of concern that depends on this habitat is the California desert tortoise. A desert tortoise survey was performed by Leeward Renewables in April 2021, a record breaking drought year. Drought conditions are not optimal conditions for tortoise surveys, and will yield lower population estimates than what the area can normally support during non-drought years. In May 2021, when desert tortoises were moved off the Copper Rays site just south to the Yellow Pine Site nearly three times more tortoises than predicted were found. Unfortunately, 30 of the 139 moved were killed by badgers, which are not typical predators of desert tortoises, but drought conditions will exacerbate hunger and drive them to eat species they normally would not prey upon. Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site, by requiring Leeward Renewables to conduct new tortoise surveys.

Other species found at the project site include, but are not limited to, Parish Club Cholla, Joshua trees, kit foxes, desert iguanas, burrowing owls, coyotes, and more. Millions of living organisms would be killed in the construction of the project. The project will probably require over 1,300 acre feet of water for construction and additional acre feet each year for operation. The Pahrump Valley Basin is already over-drafted by 12,000 acre feet. This will destroy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes when viewed from above and will often kill a significant number of bird species that are seeking water. The project would be in the vicinity of Stump Spring and the Amargosa River, so birds mistaking the panels for water is to be expected.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of established vegetation on these desert soils will result in uncontrollable fugitive dust, which will undoubtedly impact public health in nearby Pahrump, Nevada, and cause persistent health issues.

The project would also bring about negative consequences for cultural history and cultural benefits, as it would be located near the Old Spanish National Historic Trail. Developing five large solar industrial projects in the area will destroy the historic character of the region. The project would cut off access to over eight square miles of public land and be visible from recreation trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness, and the South Nopah Range Wilderness.

There are better alternatives for solar panel placement than desert territory. For example, construction in Las Vegas is booming, and solar panels can easily be installed on rooftops and above parking structures. The US Department of Energy states, "The number of U.S. households with rooftop solar is rapidly growing. The amount of grid connected solar is expected to double in just two years. With this large number of PV homes in the U.S. and a continuing robust market for additional PV installations, an ever-increasing number of PV homes will likely be sold or refinanced."

This project application received a High Priority status because BLM claimed it has low conflicts. However, BLM can change that status and cancel the review of this project based on new information. The higher-than-predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information sufficient to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project. Thank you for your time and consideration.

[EXTERNAL] Copper Rays Solar Project

[REDACTED]
Fri 1/7/2022 11:42 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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I am concerned about the loss of recreational space. Much of the land is protected for wilderness. The Copper Rays Solar Project will be consuming land where dirt bikes, UTVs, etc were permitted. What measures will be taken to ensure that the community still has access to dirt bike / UTV trails?

Thank you

[EXTERNAL] Copper Rays Solar Project[REDACTED]
Fri 1/7/2022 7:05 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Please reject the applicaon f or the Copper Rays Solar Project

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The project site is located in important desert tortoise habitat Leeward Renewables did their desert tortoise survey in April of 2021 - a record breaking drought year - not opmal c ondions f or tortoise surveys. When desert tortoises were moved off the Yellow Pine Site in May, 2021 just to the south of the Copper Rays site, nearly 3 mes more t ortoises than predicted were found and 30 of the 139 moved were killed by hungry badgers in drought condions Please do not allow a repeat of the recent desert tortoise disaster that took place on the Yellow Pine Solar site. Please require Leeward Renewables to conduct new tortoise surveys.

The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in uncontrollable fugive dus t. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, sca ered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construcon of the project

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The project application received a High Priority status because BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new information. The higher than predicted population of desert tortoises on the Yellow Pine Solar site to the south could be the information used to cancel the review of this application.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.



[EXTERNAL] Copper Rays Solar Project[REDACTED]
Fri 1/7/2022 1:23 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To whom it may concern,

I am adamantly opposed to the proposed projects in the Pahrump Valley. They will specifically impact my livelihood as an off-road motorcycle school and tour company and I feel they will significantly impact the community as a whole in ways that are being overlooked. This "green" or "renewable" energy push is a shortsighted approach to a bigger problem. These measures of large scale solar facilities are just result of political promises and trying to make everyone feel good with a quick fix that will cause long lasting and irreversible damage to the land and the people who currently use and enjoy it. If solar was the answer and not just a get rich quick scheme for the developer it would be on all of the roofs in the adjacent community and being placed on private property before we go and close off and destroy open spaces in the desert. I was advised to remove routes in the areas of these projects during my permit applications 2012-2014. I was told that there were cultural and biological concerns that would make it impossible for me to obtain a commercial recreation permit. I'm not sure what has changed and why I was not informed that these areas were now open for use?

The Yellow Pine project sure slid in under the radar and I hope that these additional projects are considered before we put another Black Eye on the process for public concerns. I'm sure the current rush is to get these projects rolling before the public outrage for the Yellow Pine project happens when the panels start to go up. There are a number of trails that are blocked and we will never get those back nor were mitigation concerns made showing a lack of research or on the ground knowledge from the BLM specifically.

I have attached a set of track logs of trails in the area I'm familiar with. These were, when originally recorded, motorcycle single track but additional use may have changed some of them to wider UTV trails. I did most of this recording in the early 2000s and had to convert the logs into current programs to update the files. Most of these were submitted to the BLM in the past when previous recreation planners asked about trails in the area as well. Contact Mark Sanchez or Chris Leinehan for more information about this or to confirm this. There has never been a proper route inventory completed or a travel management plan in place for the area so I feel this information is being swept under the carpet and not being looked at.

OHV recreation and specifically looping and tour routes are being significantly reduced, segmented and cut off from the solar projects. This along with the impacts to the visual quality of the experience. Then we have the conflict of the dust and how quickly the solar companies like to blame OHV recreation for underperforming panels and increased costs to clean and maintain the panels. This in an area with horrible soils for this and an ever increasing concern about water supplies.

It is obvious that the companies coming in do not care about the communities they are near. They come in and lie to citizens and county commissioners, ramrod the project in and sell the project to get away from any liability for the mess they create.

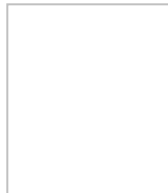
Do not make the mistake of allowing destruction of open space in an area where people moved and live here in this valley specifically to avoid being near projects like this. If we "pave" the desert black with panels it will not solve any problems short or long term, but we will be stuck with a long term mess.

Please listen to us when we say "on our roof, not in our backyard."

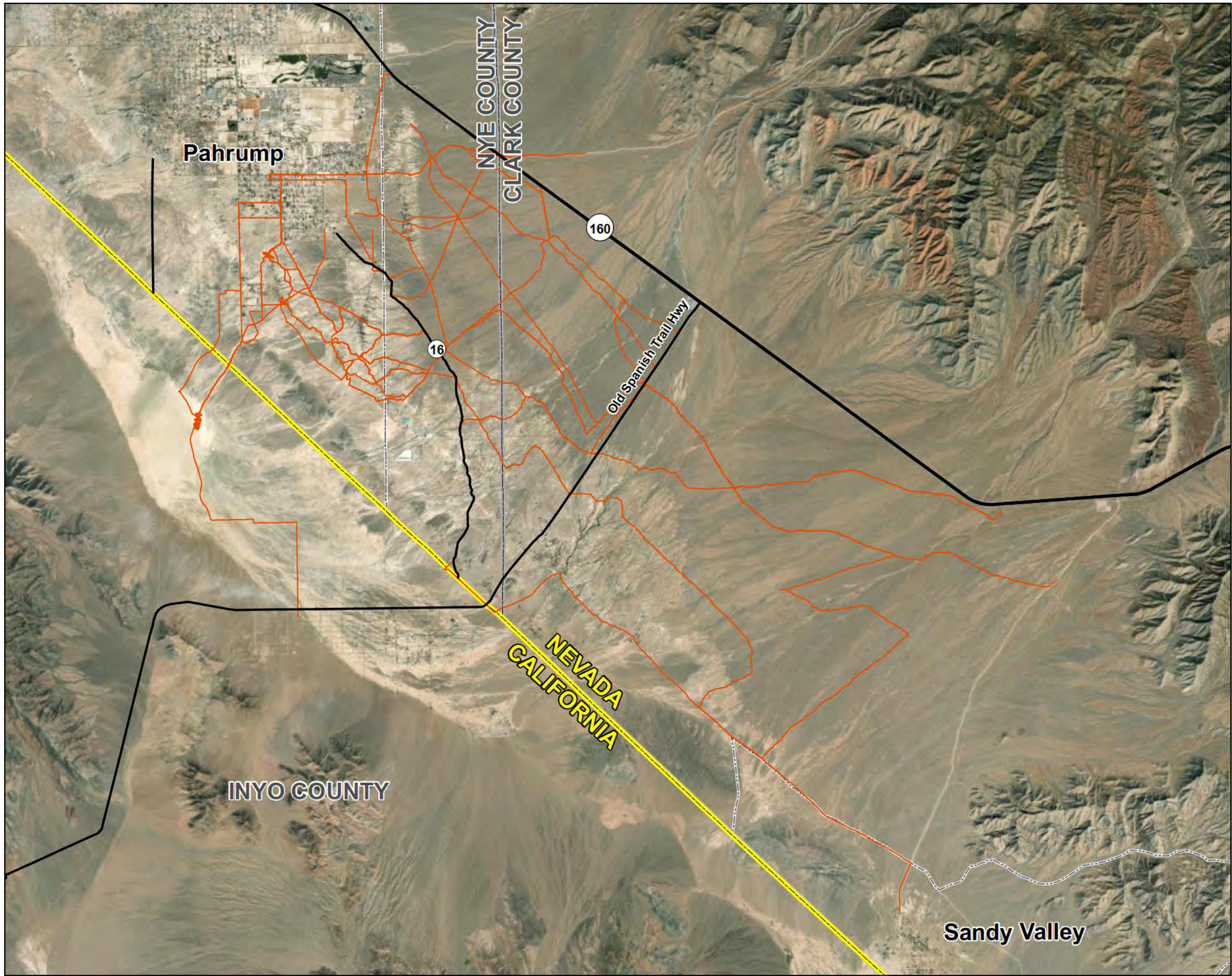
Attached .gpx file and KML.








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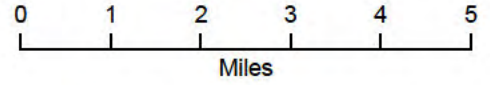
CONFIDENTIALITY NOTICE: This communication is for the sole use of the intended recipient(s), and may contain privileged, confidential and/or protected information. Unauthorized interception, review, use or disclosure is prohibited and may violate applicable laws including the Electronic Communications Privacy Act. If you are not the intended recipient, you are prohibited from using, delivering, distributing, printing, copying, or disclosing the message or content to others. If you have received this communication in error, please notify the sender immediately by reply email/phone and destroy all copies of the message and any attachments. - Thank you



Legend

-  Major Road
-  2014 school tracks Sof 160
-  State Boundary
-  County Boundary
-  Municipal Boundary

Map was created based on GPS information received from J. Lewis via email during the public input period.



State Plane Coordinate System
NAD 83, Nevada Central
Feet



Map Extent: Nye & Clark Counties, Nevada
 Date: 01-11-22 Author: sjw
 ...\\MXDslRecreation\2014 school tracks Sof 160.kml

[EXTERNAL] COPPER RAYS SOLAR PROJECT[REDACTED]
Fri 1/7/2022 11:33 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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REJECT THE APPLICATION FOR THE COPPER RAYS
SOLAR PROJECT

-GENERATIONS LONG RESIDENT OF THE WEST
COAST, 25 AND AGAINST LIFE-ENDING ENERGY
PROJECTS

PRESERVE LIFE, LAND, THE ECOSYSTEM, AND
BELOVED ANCESTRAL DESERT OF THE SHOSHONE
AND PAIUTE PEOPLES

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The project site contains old biological soil crusts and desert pavement that is about 100,000 years old. Removal of the desert surface will result in

uncontrollable fugive dust. This will impact public health in nearby Pahrump, Nevada.

The project site contains hundreds of rare Parish Club Cholla, scattered Joshua trees, kit fox, desert iguana, burrowing owl, coyote and several other species. Millions of living organisms would be killed in the construcon of the project.

The project will probably require over 1,300 acre feet of water for construcon and adional acre feet each year for operaon. The Pahrump Valley Basin is over-drafted by 12,000 acre feet.

The project will destriy habitat for mesquite and associated species, a very unique groundwater dependent habitat.

Solar projects can mimic lakes and will often kill a number of bird species. The project would be in the vacinity of Stump Spring and the Amargosa River which aract several birds.

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The project will cut off access to over 8 square miles of public land and be visible from recreaon trails, Highway 160, Mt. Charleston, the Kingston Range Wilderness in California and the South Nopah Range Wilderness also in California.

The project applicaon recie ved a High Priority status becuse BLM claimed it has low conflicts. But the BLM can change that status and cancel the review of this project based on new informaon. The higher than predicted populaon of desert tortoises on the Yellow Pine Solar site to the south could be the informaon used t o cancel the review of this applicaon.

To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the applicaon f or the Copper Rays Solar Project

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[EXTERNAL] REJECT Copper Rays Solar Project


Fri 1/7/2022 6:26 AM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear BLM,

As someone born and raised in the Las Vegas area, I think the copper rays solar project is a terrible idea. There are plenty of buildings with plenty of rooftops for solar.

The destruction of rich ecosystem is NOT the answer to the climate crisis. The desert tortoise and the rest of the biodiversity is at a huge risk. See explanation below:

Approval of the project would result in the removal of over 49,000 Mojave yuccas as well as cacti and Joshua trees which are not known to return after being bulldozed. Many of the plants are hundreds of years old and provide habitat and food to the wildlife of the area.

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To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project.

Thank you.



[EXTERNAL] Mojave solar project

[REDACTED]

Fri 1/7/2022 6:59 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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To preserve diverse Mojave Desert Habitat on public lands and the quality of life in Pahrump, Nevada, BLM should reject the application for the Copper Rays Solar Project."

Best,



Sent from my iPhone

[EXTERNAL] Copper Rays Solar Project Public Comment Nevada Offroad Association

Kim Murcia <kim@trailnv.com>

Fri 1/7/2022 4:40 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

Cc:

; Mathew Giltner <mathew@trailnv.com>

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Copper Rays Solar Project, LLC, Bureau of Land Management, and project leaders,

Nevada Offroad Association appreciates the public comment process and this opportunity to bring forward concerns regarding the direct negative impacts that the Copper Rays Solar Project proposal has on Nevada's motorized community and its motorized recreational use of public lands within and surrounding the proposed project area.

It is grossly apparent to the Nevada Offroad Association (NVORA) that the Bureau of Land Management (BLM) has not been genuinely engaged with the motorized recreation community that are active users of public lands in the proposed Copper Rays Solar Project area. Off-Highway Vehicle (OHV) business operators and community members have attempted to map and discuss the documentation of existing OHV routes with BLM recreation managers in an effort to advocate and properly protect historic motorized public land access and use in the proposed project area. **The BLM has failed to meet its mission to proactively protect public land access and motorized recreation values that are a recognized and vital component of rural Nevada's tourism economy.**

It has been reported to NVORA by the Nevada motorized community that previous special use permits for motorized recreation use have been rejected on the basis that there are biological and cultural concerns in the area of the proposed commercial activity development of the Copper Rays Solar Project. NVORA questions the scoping process that has determined that the ground disturbing activities of the commercial installation of the Copper Rays Solar Project will not adversely affect the biological and cultural values identified in previous scoping processes of lesser ground disturbing activities of proposed OHV recreational use. **The inequality that the BLM continues to display with regard to the protection and management of motorized recreation values in the State of Nevada is unacceptable.**

NVORA also recognizes that the proposed area is the footprint of the physical structures only and does not include previously identified mitigating concerns that have increased the footprint of other Nevada solar projects to date. Other Nevada commercial solar project footprints became much larger when nearby authorized dust creating activity inhibited the projected solar energy production thereby permanently removing additional motorized recreation values from inventory that was not part of the original project scoping process and proposal presented to the public and surrounding community leadership. The rural nature of the surrounding communities of the Copper Rays Solar Project, and others like it, is such that the State of Nevada and national economic development agencies have unequivocally determined that outdoor recreation is a major and vital component of established and growing rural tourism-based economies. **Maintaining the existing recreation inventory of**

motorized public land access, motorized trails, and Nevada's large open and uninterrupted spaces and views is a priority to maintain and smula te the rural tourism economies of the State of Nevada.

Due to the proposed permanent loss of the State identified economic value of motorized recreation trails and public access, NVORA and the Nevada motorized recreation community insist that a more proactive and comprehensive proposal include a plan to preserve the miles of motorized trail and acres of uninterrupted views that the Copper Rays Solar Project and future solar projects will permanently remove from BLM recreation value inventory. **Replacing motorized recreaon ar eas and trail systems with recreaon ar eas that restrict motorized use is not an acceptable land exchange.** NVORA, Nevada rural community citizens and the motorized recreation community is willing and prepared to be fully engaged in actively providing a proposal for alternative motorized trails and open uninterrupted spaces in cooperation with BLM land managers to be developed at the expense of the Copper Rays Solar, LLC.

Respectfully,

Kim Murcia

Associate Director, Government Liaison

Nevada Offroad Association

PO Box 1111

Carson City NV 89701

P: 775.430.0000

C: 478.744.1315

nevadaoffroad.us

#RideResponsiblyNevada

Wirthlin, Whitney J

From: SNDO_Web_Mail, BLM_NV
Sent: Friday, January 7, 2022 12:56 PM
To: Ransel, Beth E; Wirthlin, Whitney J
Cc: Cannon, Kirsten S
Subject: FW: [EXTERNAL] Copper Rays Solar Project Comment

John Asselin
Public Affairs Specialist
Bureau of Land Management
Southern Nevada District Office
4701 North Torrey Pines
Las Vegas, Nevada 89130
Office: (702) 515-5046
Cell (702) 444-1476
jasselin@blm.gov

.....
Follow BLM Southern Nevada on Social Media
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From: [REDACTED]
Sent: Friday, January 7, 2022 10:41 AM
To: SNDO_Web_Mail, BLM_NV <lvfoweb@blm.gov>
Subject: [EXTERNAL] Copper Rays Solar Project Comment

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I strongly oppose construction of this project.

It's too close to the approved Yellow Pine Solar Project. Disperse use to mitigate impacts. Limit the size of projects and avoid concentration of projects. Interconnection can be by public ROWs.

It's too close to the community of Pahrump. People live in and move to small communities to be surrounded by Nature and ready access to natural places. Public land surrounding Pahrump is used by citizens and visitors for recreation. .Copper Rays and other proposed solar projects will

take public land from current users without compensation for the lost. There are places projects could be built without negatively impacting people living there.

Wherever they're built, maintaining the visual resource and public access to public land should be primary considerations..

Thank you.

Respectfully,

A solid black rectangular redaction box covering the signature area.

[EXTERNAL] Copper rays solar project[REDACTED]
Fri 1/7/2022 7:09 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Best,



Sent from my iPhone

[EXTERNAL] Please reject the application for the Copper Rays Solar Project

[REDACTED]
 Fri 1/7/2022 9:04 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

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Within the BLM, to whom it may concern:

While I do not currently reside in CA, I have spent a good part of my life in appreciation of California's unique desert lands. Over the past decades, I have seen many threats to these lands through destructive mining, irresponsible off road vehicle use, poor development models, dumping and vandalism to name a few. The latest threat comes from the wholesale clearing of otherwise undisturbed desert ecosystems for the installation of expansive PV solar arrays. The irony is that the development of solar energy production is a critical need as we transition away from fossil fuels. However, such solar installations can and should be made a part of the urban fabric as a decentralized and more efficient alternative. In the past, ignorance saw the treeless desert as wasted expanses where almost any disturbance was of little consequence. Clearly, it is the pursuit of profit and control that sees these lands as opportunistic for the development of a centralized energy production. The collateral destruction of the desert ecosystems within and adjacent to these sites is short sighted. When, in the future this technology is superseded by another - and it will be, all that will be left will be huge tracts of spoiled land and we will wonder why, as with other mistakes, we allowed destruction over reasonable alternatives. As the land's steward, the BLM must be its protector and reject this application.

Included is a sample letter below from Basin and Range.Org as it more fully identifies the issues.

Please log my comments in the proposal evaluation.

Thank you,

Please reject the application for the Copper Rays Solar Project.

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[Redacted]

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[Redacted]

[EXTERNAL] Please reject the application for the Copper Rays Solar Project.

Sat 1/8/2022 1:35 PM

To: BLM_NV_SND_EnergyProjects <BLM_NV_SND_EnergyProjects@blm.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

January 7, 2022

ATTN- Copper Rays Solar Project
Bureau of Land Management
Southern Nevada District Office
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

Dear BLM Leadership, RE: Please reject the applicaon f or the Copper Rays Solar Project.

The Mohave Desert area will be my primary home later this year. Preserving the desert is vital to the health of our planet. I contribute to the local economy. I encourage family and friends to do so through vising and r elocang. W e all play a role. **I strongly encourage you to reject the applicaon f or the Copper Rays Solar Project.**

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Thank you


Sherman Oaks, CA