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Mr. Oscar Biondi
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Division of Water Rights
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Sent Via Email : obiondi@waterboards.ca.gov

July 27, 2012

RE: Comments to Draft Water Quality Certification for Eagle Crest Energy Company

Dear Mr. Biondi,

These comments are submitted on behalf of Donna & Larry Charpied and, the Desert Protection Society.
The Desert Protection Society ("DPS") is a 501(c) (3) organization (formerly known as Citizens for the Chuckwalla Valley ["CCV"]), made up of residents of Eagle Mountain/Desert Center, Native Americans, local environmental activists from San Bernardino, Imperial, San Diego, Riverside Counties, and Nevada. DPS was formed in 1990 to prevent the World's largest garbage dump from being built across the street from the Eagle Mountain elementary school, and on the doorstep of Joshua Tree National Park. We have since expanded our mission to include other potentially damaging proposals and actively participate in the decision making process for proposals that include, but are not limited to water storage projects, power generating projects, questionable land use issues, and other projects that have the potential to harm desert communities and the environment in and around Joshua Tree National Park.

The basis of the Draft Water Quality Certification is drawn from a woefully inadequate Draft EIR and Final EIS that fails to adequately analyze Project impacts.

In judging the legal sufficiency of an EIR, the focus is on adequacy, completeness and a good faith effort at full disclosure. The document should provide a sufficient degree of

analysis to allow decision makers to make intelligent judgments. CEQA Guidelines 15151. A number of court decisions have developed criteria for determining what constitutes a "reasonable" effort to analyze projects' potential impacts. Kings County Farm Bureau v. City of Hanford (1990) 221 Cal. App. 3d 629, is particularly instructive this point. That opinion emphasizes than an EIR must support with rigorous analysis and substantial evidence the conclusion that environmental impacts will be insignificant. The Draft Certification, concluding impacts will be insignificant lacks such support for its conclusions.

Here, all conclusions are speculative, at best and depend upon some future analysis AFTER all approvals, because the project proponent has been denied access to the site. The majority of analysis depended upon by the agencies is from materials over 20 years old.

Seismic Hazards:

There are many impacts that the draft water quality certification declares will be insignificant without providing any substantial evidence to support such a conclusion. Again conclusions are based on dated information. Providing any approvals with this project without full analysis is improper. For example the DEIR declares that no significant seismic hazards are associated with the project. Yet, during the public process for the defunct Eagle Mountain dump, both the Colorado Regional Water Quality Control Board and the California Division of Mines and Geology believe that further investigation and analysis needs to be done regarding fault activity before any conclusions can be drawn that there has been no Holocene faulting at the site.

Groundwater Contamination:

Related to seismic hazards is the issue of potential groundwater contamination. It is common knowledge that, sooner or later, all liner systems will fail to one degree or another.

The DEIR/FEIS does not provide any information to confirm that the tailings onsite are adequate for use in the liner system, it does not show how the liner can properly be installed given the site configuration. The DEIR/FEIS provide no meaningful information to characterize the hydrogeological characteristics of the site, and there is no evidence to back up the conclusion that no seismic activity could occur that would cause a break in the liner system and resulting groundwater contamination.

Again, with the dump, both RWQCB and the State Integrated Waste Management Board agree that further investigation is needed before any conclusions can be drawn on significance of potential groundwater characteristics – flow, gradient, and other parameters – is also inadequate.

The hydroelectric project doesn't even come close to the containment system that USEPA feels is the best to protect the environment. In fact, soil cement and other flimsy protection measures are so antiquated it is hard to believe they are being

incorporated into the design of the project. Further, the DEIR states that some wells at the Kaiser site will be destroyed. Are these the wells that have been installed to protect the aquifer from garbage juice? If the WQCB, FERC, and ECEC, *REALLY* wanted to monitor leakage from the pits, they would be required to install horizontal monitoring wells to detect any leakage and then minimize any problems with water rising into the garbage dump or undermining the Colorado River Aqueduct. These monitoring wells could also serve to monitor pollutants escaping from the reservoirs and surface impoundments.

We are dealing with a highly fractured area from over 40 years of mining blasts. The pits are so porous they are like a sieve. Here is what the USEPA said about monitoring the site:

"…While contaminated groundwater detection may be feasible for a single discrete unit where fracture geometry may be mapped at or near the surface, it would be extremely difficult to project, laterally and vertically, faults and fractures such that they would be intercepted by a groundwater monitoring network installed…compliance with the groundwater monitoring requirements may only be feasible by installing less-than-vertically oriented monitoring wells… The scale of the project is extremely important in appreciating the difficulty of tracing fractures to monitor for possible releases of contaminants. The difficulty of scale can be illustrated with a hypothetical case:

A fracture dipping at 80 degrees is mapped as most likely to be impacted by a release…Therefore the fracture is intercepted by a monitoring well at the unit boundary….In order to monitor the same fracture, a vertically oriented monitoring well would have to be drilled to 30,000 ft…".

The site is not conducive for hydroelectric projects nor dumps.

Further, ECEC drilled three monitoring wells on the Charpied property around 1992 or so. Not once have the consultants for ECEC traveled to our farm (a mere two miles as the raven flies from the project area) to monitor water levels or water quantity. This MUST be done prior to construction of the project (if built) to obtain baseline information. It appears they are not monitoring the wells they drilled because they will not obtain the results they are looking for.

Lastly, in addition to the direct impacts to vegetation, project construction would have several indirect impacts to native vegetation, special-status plants, and jurisdictional streambeds on and off site, including introduction or spread of invasive weeds and, potentially, ***depletion of ground water*** and diversion of surface water flows and subsequent effects to groundwater-dependent vegetation.

USGS conducted a study in the Chuckwalla Valley, Groundwater Ambient Monitoring Analyzing or "GAMA", which provided age dating for the area. In a personal conversation with Mr. Michael Wright, USGS, we learned that they examined wells in Desert Center and determined the water is "very, very old", thousands of years old. He explained if tritium is not detected **there has been no recharge for the past 50**

years, which is a commonly accepted hydrological fact. Why didn't the DEIR/FEIS do tritium analysis? Also, C14 will tell exactly how old the water is, but the DEIR/FEIS did no such analysis. http://pubs.usgs.gov/ds/659/ - this is the link to the GAMA study.

Impacts to Biological Resources:

Some of the most egregious environmental impacts swept under the rug are impacts upon various biological resources, including the Desert Tortoise, Bighorn sheep, mountain lion, bats, and other wildlife species. It is particularly interesting that studies based on the dump environmental analysis is used for some issues, but become lock-lipped on other issues. For example, wildlife observed at the project area have been documented, and outlined in our comments to the DEIR, but only a few species are being analyzed. These issues have been discussed by numerous commentors on the DEIR, we will not reiterate all of those comments here.

The DEIR/FEIS neglected to evaluate the direct and indirect impacts on wildlife and the tortoise in particular of increased population in the townsite and general vicinity. These impacts include increased off-road vehicle use and general human presence in areas where the tortoise and other reside, which will affect wildlife. With respect to the tortoise, all available evidence indicates that intrusion upon Class I habitat, together with the dump, mining, future "green energy" projects, transportation activities and increased human presence in the area, all promise to significantly and adversely affect the tortoise.

The treatment of other wildlife species suffers from the same defects as the treatment of the tortoise. Inventory information is incomplete and inaccurate, impacts of the project are underestimated, and indirect impacts of increased human presence in and around the site have not been analyzed.

Desert Tortoise *(Gopherus agassizii)*

The proposed project site will remove thousands of acres of a connectivity corridor of desert tortoise habitat. The site represents a linkage between the Fish and Wildlife Service designated Colorado Recovery Unit and the West Mojave Recovery Unit. It also represents an important connectivity habitat between the Chuckwalla Desert Wildlife Management Area (DWMA)/Critical Habitat and the Joshua Tree Desert Wildlife Management Area/Critical Habitat. The revised recovery plan also makes the following statement concerning the importance of gene-flow in Recovery Units:

"(a) Genetic variation. Gene flow is the result of dispersal accompanied by successful reproduction and incorporation of genes in a population. Ultimately, gene flow governs the amount of genetic connectivity among populations. A lack of gene flow will allow populations to differentiate over time by means of genetic drift and natural selection. Desert tortoises possess characteristics that potentially allow for high levels of gene flow among populations. For example, individuals have the ability to move long distances (Berry 1986; Edwards et al. 2004a). The capability for long-distance dispersal, combined with longevity and opportunities to reproduce annually

throughout adulthood, indicates high potential for gene exchange outside of local areas. Free genetic exchange will be constrained, however, by the large distributional range of the tortoise given the relatively much smaller home range size and dispersal ability (isolationby-distance phenomenon; see Allendorf and Luikart 2007:209). Topographic features (e.g., mountain ranges) and other potential barriers (e.g., impassable habitat types, extreme climate conditions) can structure regional populations and lead to variable exchange of migrants among populations." (pg 55) Approval of this project could block a portion of this connectivity zone:

Niche modeling and implications of climate change on desert tortoises and other selected reptiles within Joshua Tree National Park , Cameron W. Barrows, University of California, Riverside, 28th September, 2009 *Suitable desert tortoise habitat under current climate conditions was mapped in all but the highest elevation and or most rugged regions of Joshua Tree National Park .Under increasing summer temperatures and reduced annual precipitation scenarios, that suitable habitat initially increases However under more extreme climate shifts the models indicate that suitable habitat for tortoises would become reduced and more fragmented, with much of the central and southern portions of the Park no longer supporting suitable habitat. (pg 7)*

Of the species analyzed, the threatened desert tortoise has been a focus of protection and conservation related research throughout the Mojave Desert (Doak et al. 1994, Chaffee and Berry 2006, Wallace and Thomas 2008). Desert tortoises occur in the Mojave and Sonoran Deserts; within the Sonoran Desert, the majority of their distribution is associated with regions typified by summer monsoon rain patterns; whereas the Mojave Desert's highly variable colder winter-dry summer climate may be a source of stress to the tortoises, and be a contributor to recent population declines (Curtin et al. 2009). Within Joshua Tree National Park, the Colorado Desert subdivision of the Sonoran Desert is drier and hotter still and so may constitute an even more marginal climate for tortoises. With this as a framework for current conditions, a climate shift toward a still more variable, hotter-drier condition would likely further stress the Park's tortoise population. An important component of that stress could be more frequent drought (Parmesan et al. 2000), reducing the availability of annual plants (Wallace and Thomas 2008), which are the tortoises' primary food (Jennings 2002). (pg 17)

While resilient to the evaluated least severe climate change increment, under more severe climate shifts the tortoise niche model indicated a reduction of 9-49% in suitable habitat within the Park. There was also increasing fragmentation; and assuming that a sustainable tortoise population would require at least 1000-5000 ha of contiguous suitable habitat, there could be a more biologically relevant reduction of 76-83% less in available habitat than the current condition.

Desert tortoises within this region rarely range below 500 m elevation. . In extremely arid deserts variation in annual precipitation is high; long periods of drought are often broken with rare pulses of wet conditions (Noy-Meir, 1973; Bell, 1979; MacMahon, 1979), so as the region gets drier drought frequency will likely increase. For annual plant-eating tortoises this would mean extended periods with no food

available, and in part would explain the tortoises' absence from lower elevations. Chuckwallas more often forage on perennial trees and shrubs (Kwiatkowski and Sullivan 2002), plants with deeper root systems and so less impacted by short term variation in rainfall. (pg 17,18)

Barrows recommends maintaining these connectivity zones:
1. Maintaining connectivity to regions outside the Park, especially to the cooler wetter northwest, may provide genetic connections to larger populations outside the Park and so improve the sustainability of those populations inside the Park.

2. Taking a longer temporal view, these corridors could provide linkages for reestablishment of species once anthropogenic climate warming is abated.

3. Focus management efforts within the Park on maintenance of areas identified in this study as climate change refugia in order to provide the best potential habitat for those at- risk species. These manage efforts may include controlling exotic vegetation and fires (see E. Allen and colleagues).

4. Finally, the development of a monitoring program that will provide empirical data on how species and communities within the Park are responding to changes in habitats, including those catalyzed by climate, will be extremely valuable for reinforcing management actions. Such a monitoring program could be implemented through a citizen science outreach program (i.e. Sullivan et al. 2009, Howard and Davis 2009). These programs have the potential to provide quality data and relatively low costs, and to strengthen a public support cadre for the Park in the face of increasing challenges to the Park from surrounding development proposals. (pg. 18,19)

Due to the controversy associated with desert tortoise translocation, we would like to request that you consider an alternative. The below numbers from the Fish and Wildlife Service indicate 50 percent mortality from translocation of desert tortoise.

-Tortoises handled for blood testing will have 5% mortality rate from handling.
- Tortoises translocated will have a 50% mortality rate.
- Resident Tortoises on the recipient site will also have a 50% mortality rate due to competition from translocated tortoises.

<u>Golden Eagle Nest Surveys</u>:

ECEC should be required to conduct their own golden eagle nest surveys instead on relying on data from other projects. At this time, that data may be outdated from surveys conducted by Solar Millennium and First Solar.

The loss of foraging habitat is considered a "Take" under the Bald and Golden Eagle Protection Act.

There are six active golden eagle nests within 20 miles of the site. The closest active

territory is located one and a half miles from the project boundary, and one Golden Eagle was observed flying south of I-10 in Chuckwalla Valley in the vicinity of the Red Bluff substation during surveys.

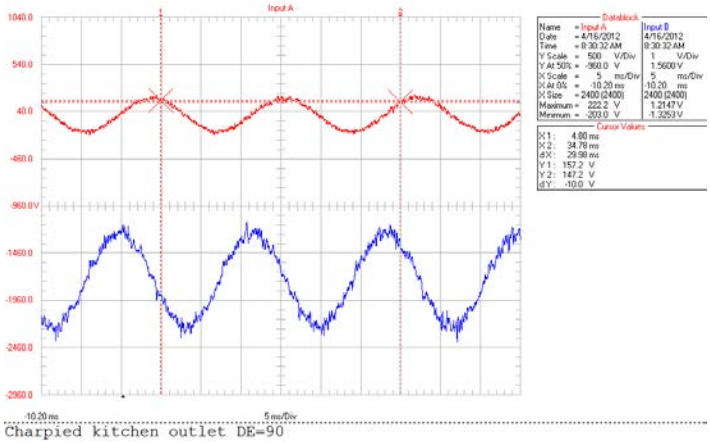
Electromagnetic Field:

Sam Milham, MD,MPH has written a book "Dirty Electricity – Electrification and the Diseases of Civilization" where he details illnesses from electromagnetic fields, telephones, televisions, and other electrical devises. This book does for electromagnetic fields what "Silent Spring" did for pesticides. Dr. Milham is a physician-epidemiologist specializing in public health. He has more than 100 scientific publications, many dealing with the health effects of electricity. In 1997 Dr. Milham was awarded the Ramazzini prize for his pioneering work in describing the occupational cancer risks of electromagnetic fields. Dr. Milham has discovered that most twentieth century diseases of civilization, including cancer, cardiovascular disease, diabetes, and suicide are caused by electromagnetic field exposure. See http://sammilham.com/index.shtm for more information on Dr. Milham, and his research.

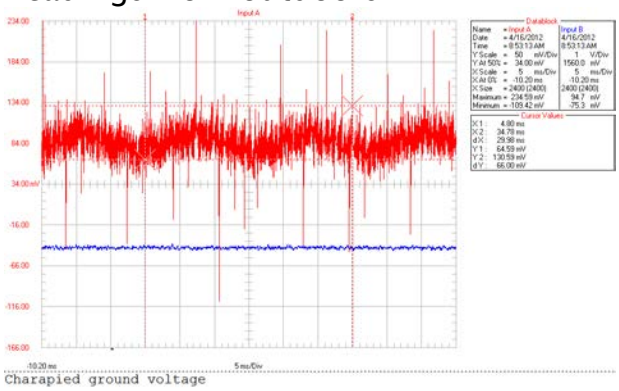
Dr. Milham traveled to the Charpied farm in April 2012, to obtain "dirty electricity" readings from our home, office, and outdoors for baseline information. He will be back to perform some more readings once the Desert Sunlight project goes on line.

The readings inside our home were good – inside the safe level for such things. The readings in our office were a bit high, but that was due to using a dact telephone, which has been replaced, and the numbers decreased significantly.

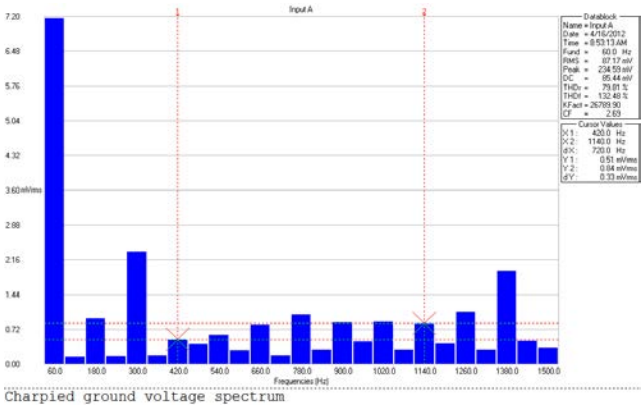
The readings he obtained outside were off the charts! Dr. Milham performed test of the air, and the ground. He believed the high ratings were from the transmission lines to the north of us. This is particularly disturbing because WE ARE FARMERS WHO WORK OUTSIDE !!! Once Desert Sunlight is fired up, combined with this project and Desert Harvest, and I say, why don't you just come out here and put a bullet in our head – it will be quicker and less painful. Below dirty electricity reading in our home:



Readings from outdoors:



Charapied ground voltage



Charpied ground voltage spectrum

Greenhouse Gases and Climate Change:

The FEIR should quantify the amount of GHG used for construction. How many pounds/tons of fossil fuel will be used? How much fossil fuel will vehicles use for construction, commuters to work, etc? Multiply these factors by a 30 year lifespan of the project.

Transmission line upgrades and new transmission facilities may increase the use of the green house gas called SF6 which is used primarily in electricity transmission – and is emitted in especially large amounts in construction of new lines – and is 24,000 times as potent as CO2 in its global warming impacts. The Environmental Protection Agency has declared "that the electric power industry uses roughly 80% of all SF6 produced worldwide". Ideally, none of this gas would be emitted into the atmosphere. In reality significant leaks occur from aging equipment, and gas losses occur during equipment maintenance and servicing. With a global warming potential 23,900 times greater than CO2 and an atmospheric life of 3,200, one pound of SF6 has the same global warming impact of 11 tons of CO2. In 2002, U.S. SF6 emissions from the electric power industry were estimated to be 14.9 Tg CO2 Eq. …

http://www.epa.gov/electricpower-sf6/basic.html

Please provide a more detailed analysis of the amount of SF6 gases that would be released by this project, other than saying "it won't be much".

Will commuters be driving gas powered vehicles to and from work in a rural area for the next 30 years or however long the lifespan of the project is? How much green house gas is this?

Carbon Sequestration and removal of plants, caliche layers and biological soil crust would all be removed for this project. The FEIR should address the potential impacts of removal of these features. Will the new energy plant actually increase greenhouse gases?

Trampling arid soils promotes climate change. This summer a panel of scientist will convene during the Ecological Society of America to educate the masses on cryptobiotic soils.

Bettina Weber , Biology, Plant Ecology and Systematics, University of Kaiserslautern, Kaiserslautern, Germany offers research conducted, "*Biological crusts: A forgotten component of the global carbon and nitrogen cycle?*" :

Background/Question/Methods

Cryptogamic covers are composed of cyanobacteria, green algae, lichens, bryophytes, fungi and bacteria in varying proportions. As cryptogamic ground covers, including biological soil and rock crusts as well as bryophyte and lichen carpets they occur on many terrestrial ground surfaces. Cryptogamic plant covers, comprising epiphytic and epiphyllic crusts as well as foliose or fruticose lichens and bryophytes are spreading over large portions of terrestrial plant surfaces. Photoautotrophic organisms within these crusts sequester atmospheric CO2 and many of them inhabit nitrogen-fixing cyanobacteria, utilizing atmospheric N2 to form ammonium which can be readily used by vascular plants. In a thorough literature search, we compiled all available data on the photosynthetic properties of cryptogamic covers and developed a model to calculate their net primary production.

In a detailed long-term study, the net primary production of biological soil crusts (BSC) is analyzed.

Results/Conclusions

We obtained a total value of 3.9 Pg a-1 for the global net uptake of carbon by cryptogamic covers, which corresponds to approximately 7% of the estimated global net primary production of terrestrial vegetation (Elbert et al., in press). This value is of the same magnitude as the global annual carbon turnover due to biomass burning, which has been estimated at 3.6 Pg a-1. The corresponding study on the nitrogen assimilation of cryptogamic covers revealed a global estimate of ~49 Tg a-1, accounting for as much as half the estimated total terrestrial biological nitrogen

fixation.

In the long-term study, the microclimatic conditions (water status, temperature, light intensity) of four different types of BSC have been monitored over one whole year. These data reveal that BSC are active for a total duration of approximately 35 days during the year, experiencing mean temperatures of only 14.6°C in an active state. Microclimate data are combined with ecophysiological characterizations of the four crust types to obtain their annual balance of net primary production. Calculation of the net primary production on a spatial scale is being accomplished in a remote sensing approach. Based on hyperspectral remote sensing data we have developed an algorithm to classify biological soil crusts of the Succulent Karoo. Knowing the percentage of each crust type, we depict and calculate the long-term productivity of each crust type with high accuracy.

Literature:

Elbert W, Weber B, Burrows S, Steinkamp J, Büdel B, Andreae MO, Pöschl U (in press). Contribution of cryptogamic coverst to the global cycles of carbon and nitrogen. Nature Geoscience.

More research may be found at: http://eco.confex.com/eco/2012/webprogrampreliminary/Paper33350.html

Impacts to Joshua Tree National Park:

In 1936, Joshua Tree (JoTr) National Monument was established by Presidential Proclamation, to protect and preserve the area's historic, prehistoric, and scientific features, including the natural resources of the Colorado and Mojave deserts. In 1976 JoTr was given federal wilderness designation. In 1977 it received Class I Wilderness airshed status. In 1984, it was designated a World Biosphere Reserve. In 1994, JoTr's status as a nationally significant area was reaffirmed by Congress when they designated it a National Park and added 234,000 acres to the Park and designated an additional 163,000 acres as wilderness.

Regarding the abandoned Kaiser mine and other lands in the Eagle Mountains comprising a total of 29,775 acres should be restored to Joshua Tree National Park. To that end the Desert Protection Society and the Center for Community Action and Environmental Justice launched the Give It Back! Campaign.

This campaign is the answer to the economic blight the local community of Eagle Mountain and Desert Center have lived with since Kaiser Steel went bankrupt in 1983. The vision we have for the community is far different than the vision of our elected officials and developers. We look at the old mine and see a historical site. We look at the boarded up houses and see wilderness huts.

The campaign is petitioning members of Congress, and local and state legislators to authorize the 29,775 acres of land, once part of the park but set aside by Congress in the 1950s for mineral exploration, to be returned to the National Park Service. Activists are concerned that the development of the world's largest garbage dump,

proposed on these lands, would be detrimental to the health of the community and the national park. The campaign proposes instead that the land be managed by the Park Service to attract tourism to the area.

Returning the land is not only important for protecting the park, it is called for by law. The first law, a Congressional Act of 1950, Public Law 837 ("PL 837"), omitted 265,340 acres from Joshua Tree National Monument for mineral extraction. Prior to omitting the land, the President of the United States ordered the land surveyed to "determine to what extent said area is more valuable for minerals than for National Monument purposes…". An explicit provision in PL 837 states if the land is not used for mineral purposes it should be returned to Joshua Tree.

A second law, passed in 1952, also supports returning this land to Joshua Tree. Through Private Law 790 ("PL 790"), Congress granted the Kaiser Steel Corporation rights-of-way and land in the Eagle Mountains for campsite and millsite purposes to "promote the development of steel in the West by facilitating the mining operations of the Kaiser Steel Corporation" (House Report 1853). When PL 790 was enacted, Congress explicitly stated "…**said property <u>shall revert</u> in fee to the United States in the event that said property is not used for a continuous period of seven years as a camp site or mill site or for other incidental purposes in connection with mining operations of said corporation or its successors in interest"** (emphasis added). Kaiser has not mined this property since 1983, and has leased the property to Mine Reclamation Corporation to develop the world's largest garbage dump, which is not related to mining. Thus, the "Give It Back" campaign seeks for the federal government to enforce PL 790 and alleviate Joshua Tree National Park from the threat of the Eagle Mountain dump, hydro-electric project, future mining, and any other questionable land use industry and government can think of.

NPCA released a report in 2003, which showed that California's national parks are a financial boon to local communities. Based on a conservative economic model developed by Michigan State University, the NPCA report showed that the 1.3 million visitors to Joshua Tree in 2001 contributed $46.3 million to local economies, supporting 1,115 jobs and $21.9 million in income and employee benefits in the region.

The acres of land omitted from Joshua Tree in 1950, including land slated for this project and the dump, must be returned to the park or the results will be the death of one of our nation's premier parks and intolerable pollution to community residents.

As you know this area is targeted with vast industrialization, on a scale never seen before in this pristine desert. We all have a chance to "save" a righteous part of this area in perpetuity.

There must be a balance of the scales of industrialization and conservation (and a little Environmental Justice is warranted here!), and this could happen by restoring the 29,775 acres of lands in the Eagle Mountains to Joshua Tree National Park. This can be easily achieved since MRC, the dump applicant went bankrupt in 2011. No legislation would be required as the DOI would simply transfer administration of said lands from BLM to NPS.

A new National Park Service (NPS) report shows that in 2010, 1,434,976 visitors spent $58,798,000 in Joshua Tree National Park and in communities near the park. That spending supported 804 jobs in the local area. “The people and the business owners in communities near national parks have always known their economic value,” park superintendent Mark Butler said. “Joshua Tree National Park is clean, green fuel for the engine that drives our local economy.” Most of the spending/jobs are related to lodging, food, and beverage service (52 percent) followed by other retail (29 percent), entertainment/amusements (10 percent), gas and local transportation (7 percent) and groceries (2 percent).

To download the report visit http://www.nature.nps.gov/socialscience/products.cfm#MGM and click on Economic Benefits to Local Communities from National Park Visitation and Payroll, 2010.

The project would be built very close to the boundary Joshua Tree National Park. The industrial cumulative impacts will change the character of the park forever and could impact future tourism potential.

The Joshua Tree National Park General Management Plan:

http://www.nps.gov/jotr/parkmgmt/gmp.htm makes the following conclusions about activities adjacent to the park that can have negative impacts:

“Developments and other land uses adjacent to the boundary threaten the integrity of the park's resources, views and wilderness values. Surrounding land use has changed significantly since creation of the monument. Subdivisions, utility corridors, mining, military facilities, and agricultural interests are, in some cases, right along the boundary. Eagle Mountain dump has been proposed near the southeast boundary. Concerns include impacts to the desert tortoise and other wildlife, trash blowing, leaks and air quality degradation. Development would intrude on the scene and diminish the naturalness and solitude of the wilderness. Other concerns include effects from air and water pollutants, invasion of non-native species from adjacent lands, and noisy overflights that effect wilderness solitude. The park's resources are also seriously threatened by illegal activities and uncontrolled access along the boundaries, such as off road vehicle use, theft of desert vegetation and archeological resources, wood cutting and dumping of hazardous and domestic wastes.

Fulfillment of the biosphere reserve concept and long-term protection of ecological units that extend outside the boundary are also made more difficult by land use and development around the park. The boundaries were revised in the early 1950's to accommodate mineral extraction. The configuration that had been designed by biologists to protect the natural systems of two deserts has been destroyed in many areas. Consequently, wildlife and vegetation systems were fragmented by uses such as hunting and mining and other developments.”

Lighting:

The ECEC proposal is located in an area of notable night sky quality which is very sensitive. NPS data indicates that the eastern end of Joshua Tree NP possesses the highest quality night sky measured in the park. The DEIS does not adequately describe the affected environment, the potential adverse impacts to the night sky resource, and measures that will be required in order for the applicant to mitigate those impacts to avoid "*creating a new source of substantial light, glare, or adversely affect nighttime views of the area."* The FEIS should incorporate an adequate analysis of the adverse impacts to the park's night sky resources and propose measures to mitigate those impacts.

In addition, the applicant should be required to develop and implement an Outdoor Lighting Plan, as was done for Desert Sunlight solar project. This would allow detailed articulation of lighting specifications to mitigate and meet the DEIS objectives of not creating significant adverse impact to the nighttime environment. Outdoor lighting, located only at your offices should be no more than 2700 Kelvin color.

There should be no continuous roadway lighting through the project area, only roadway lighting at the entrance of the project access road. The Final EIS should provide information addressing this issue. First Solar's security vehicles had strobes on them that significantly impacted night skies, and interrupting sleep. There should be no strobe lights on any vehicles in the project site. Further, when security or biologists are patrolling/observing wildlife, they must not use high beams on their vehicles at night time.

White lighting (e.g., metal halide) should only be used temporarily when necessitated by work tasks. This source should not be used for general security lighting nor for dusk-to-dawn lighting. White lighting should be less than 2700 Kelvin color temperature (warm white). Blue- white lighting (cool-white) has a much greater environmental impact.

We request that the FEIR stipulate that outdoor lighting be less than 2700 Kelvin color temperature (warm white). Blue-white lighting (cool-white) has a much greater environmental impact. Additionally, there are ample commercial solutions in warm white applications.

Air Quality:

Members of DPS have lived and farmed in Desert Center/Eagle Mountain for over 35 years. During that time, we experienced an outrageously beautiful viewshed of Joshua Tree National Park Wilderness and surrounding undisturbed desert where Desert Sunlight is now, and where Desert Harvest may be built. Our skies were crystal clear most of the year, with a handful of dust storms occurring that completely engulfed the Valley. This project will exacerbate an already significant problem.

Today, we cannot even count the number of times dust engulfed our community from the construction of Desert Sunlight. Except after a rare rain event, there is constantly dust in the air. First Solar uses palliatives and water to suppress the dust, and in fairness do they best that they can, but it is inadequate.

One reason dust is significantly impacting air quality and human health is that they cleared approximately 1,000 acres of land on their southeast that has sat denuded for nearly a year, and several hundred acres for storage in the north. Dust picks up from those areas first and gains momentum engulfing the valley. If this project is constructed, dust will blow from the site as well as across the valley installing water pipes and transmission lines. This project is even closer to Joshua Tree National Park, and the entire area will be engulfed in dust.

The above are just a few images taken from November 2011 – April 2012.

ECEC must install air quality monitoring stations that collects data on PM10, PM2.5, arsenic, diesel, and other constituents of concern **prior to construction!**

Further, the Charpied jojoba farm will become an endangered species if this project is approved. Jojoba is a wind pollinated plant. During pollination times, cultural practices are such that no tractor work or any dust creating equipment is used. When the styles are exposed on the female plant for pollination, it creates a sticky substance to ensure it catches pollen. If dust happens to fall on the style, the flower ceases creating the sticky substance because it thinks it has been

pollinated. The result is aborted seeds, i.e. empty seed capsules. During construction and throughout the life of the project, the jojoba farm is threatened with no production. What government agency oversees the regulation for taking of people's livelihoods? There will be a huge significant impact to the jojoba if this project goes forward. There will be lawsuits filed if this project is approved and yields from the crop decrease due to dust and insects introduced due to the project. The above image is of aborted seed from dust created from Desert Sunlight. Growing conditions for jojoba were spectacular for jojoba in 2012. The temperatures were perfect – no freezes and no unseasonably hot weather. **We lost 50% of our crop to dust.** Will this loss become exponentially greater if this white elephant is built?

Where in CEQA does it say it okay to "take" a 30 year old business with impunity?

Blowing dust from employees going to and fro, along with equipment trucks, trash trucks, and general construction will cause a lot of dust. Dust is also is a problem for jojoba (all plants actually) because it carries with it, spider mites. Once the land is disturbed by the project, dust (PM10) will become a significant problem.

Failure to adequately analyze cumulative, indirect, and growth inducing impacts:

To be adequate, a cumulative impact analysis must include the following elements: (1) either (a) a list of past, present, and reasonably anticipated future projects, including those outside the agency's control, that have produced, or are likely to produce, related or cumulative impacts, or (b) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or areawide conditions, provided that such documents are referenced and made available for public inspection at a specified location; (2) information stating where such information is available; and (3) a reasonable analysis of all relevant projects' cumulative impacts, with an examination of reasonable options for mitigation or avoiding such effects. CEQA Guidelines § 15130(b); see 40 C.F.R. §§1508.7, 1508.8, 1508.5. 1508.27(b). Cumulative impact anaylsees have been held inadequate when they "understate the severity of impacts, when they omit information that should reasonably have been included, and when they have not covered a reasonable geographic scope. E.g., Kings County Farm Bureau v. City of Hanford, supra; San Francisco for Reasonable Growth v City and County of San Francisco (1984) 151 Cal. App. 3d, 61, 74-77.

Notwithstanding the particular importance of a good cumulative impacts analysis for this project, the cumulative impact section of the DEIR contains none of the legally-required components. It not only fails to reference either a "list" of reasonably foreseeable projects or a "summary" from a recent general plan or similar document, but it contains no real analysis whatsoever. It is simply a collection of meaningless common-sense pronouncements.

Foremost among these is the proposed continued mining at Eagle Mountain. We maintain that Kaiser has been mining and shipping aggregate for years. Common knowledge. Kaiser has applied to the States Department of Conservation to mine

(guess they want to do it legally now), under the provisions of SB 108, passed last year, providing for idle mines to become active again. As an aside, the Department of Mines and Geology currently classifies the mine as "abandoned". Mining activity can be expected to generate numerous impacts: transportation impacts, more people in the townsite, air and water quality impacts, etc. Yet none of these impacts are described or analyzed in relation to the proposed project, the dump, solar projects, future "green energy" projects that are being established under the Solar Final PEIS, and wind turbine projects.

In addition, in light of the fact that Kaiser has mining claims on several thousands acres of land in Eagle Mountain, the DEIR/FEIS must analyze the likelihood that mining operations will occur on any of those claims in the foreseeable future. It fails to do this however.

Law Enforcement

What will the impact be on law enforcement with this influx of construction workers, who have the reputation of being quite rowdy? The nearest Sheriff station is 50 miles to the east in Blythe or 50 miles to the west in Indio. How will this area not turn into a lawless, haven for illegal activity? What would the economic impact be to law enforcement's resources having to drive 50 miles one way to answer a call?

Also, there are no doctors, hospitals, or urgent care centers here. What is the plan if something goes terribly wrong and people are seriously injured?

Among the illegal activities construction workers engage in is off roading. Do you plan to educate your employees on off roading issues? Surely once people become familiar with the area they will explore more and very easily end up inside Joshua Tree's Wilderness. This problem is nearly non-existent currently. A large percentage of construction workers own off road vehicles and very few obey the road rules. What will be the impact to Joshua Tree National Park when these people decide to recreate in the desert when the work day is over? Active Golden Eagle nests were located in the Coxcomb mountains, which is Joshua Tree National Park Wilderness. What impact would these activities have on the Golden Eagle, Desert Tortoise, vegetation, etc?

Fire Response

This project is located virtually in the middle of nowhere. What contingencies are in place if (when) there is some kind of short in the lines, or other reasonable scenario that would cause the solar swath to start on fire? Although there is a County Fire Station located in Lake Tamarisk, about 5 miles south of the project, it is not equipped for large industrial fires. There are no fire hydrants anywhere nearby. The fire trucks would have to drive approximately 10 miles (5 miles each way) to fill the truck with water from one of the man-made lakes at Lake Tamarisk. How does Desert Harvest plan for the worse case fire scenario? Perhaps a mitigation would be to construct another firehouse closer to the site, with a source of water.

DPS very much wants this project to be denied. However if it is to go to fruition, there are a number of mitigation measures that must be implemented:

- All transmission lines inside the project area must be buried under ground. We have seen Ravens perch on the most unlikely sources and transmission lines are ripe for birds who prey on desert tortoise.

- Lighting at night only for repairs, and 2700 Kelvin at your entrance. In this area, even a penlight could be seen in the nighttime from a mile away. There simply are no barriers and light will travel much farther than in urban areas.

- Begin monitoring neighboring water wells prior to construction for water levels and quality.

- Air monitoring and weather stations needs to be constructed as close as practical to the project.

- All tours to the site, as well as security vehicles must be conducted with electric cars, golf carts, shuttle buses. This would reduce the use of fossil fuels and lessen pollution and noise.

- Employees must be shuttled to work from Indio, Blythe and other areas 50 or so miles away, to lessen traffic on Kaiser Road, which is the only road to the community of Eagle Mountain, where the project is proposed.

- Cactus and trees removed for the project must be replanted elsewhere to enable replacement after the life of the project.

- Restore the 29,775 acres of lands in the Eagle Mountains to Joshua Tree National Park

- Construction limited to 100 acre blocks at a time to minimize blowing dust.

- Provide funding to Riverside County fire and law enforcement services.

Before any final water quality permit is issued for this project, based upon a faulty DEIR all of these issues must be addressed. Since the DEIR is so woefully inadequate, a supplemental document must be circulated for public comment.

Lastly, last year DPS's Executive Director, Donna Charpied was presented with the Golden Presidential Volunteer Service Award. The Letter from President Obama states in part, "…Our Nation faces the most challenging economic crisis in a lifetime. We will only renew America if we all work together. Individuals, the private sector, and government must combine efforts to make real and lasting change so that each person has the opportunity to fulfill his or her potential…".

The government's misguided energy policy is fulfilling the needs of corporate America while rural communities and our vulnerable Parks are being squashed like bugs.

Respectfully Submitted,

Donna Charpied

Donna Charpied, for

Desert Protection Society
Donna & Larry Charpied

CC: Interested Parties