

# ***CITIZENS FOR THE CHUCKWALLA VALLEY***

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**“DON'T WASTE THE DESERT”**

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Dear Mr. Murphy,

The Citizens for the Chuckwalla Valley (“CCV”) thank you for this opportunity to provide comments on the Draft Environmental Impact Report (“DEIR”) released by State of California State Water Resources Control Board (“SWRCB”) for the Eagle Mountain Pumped Storage Project, FERC No. 13123 (“Project”).

The project would consist of: (1) a 191 - acre upper reservoir impounded by two diversion dams with a total storage capacity of 20,000 acre-feet; (2) an 163 - acre lower reservoir with a total storage capacity of 21,900 acre-feet; (3) an upper reservoir spillway channel about 4000 feet long; (4) a 14,000-foot-long section of Eagle Creek; (5) an upper reservoir intake structure; (6) 29-foot-diameter by 4,000 – foot - long low pressure upper tunnel; (7) a surge tank with a 33 - foot diameter by 1,348 - foot - long tunnel shaft; (8) a 29 - foot-diameter by 1,560 - foot –l long high pressure lower tunnel; (9) a 33 - foot-diameter by 6,835-foot - long tailrace tunnel; (10) a 72-footwide, 130 – foot - high, and 360 – foot - long underground powerhouse; (11) four reversible pump turbine units at 325 megawatts each, for a total installed capacity of 1,300 megawatts; (12) a 28 – foot - wide, 28 – foot - high, by 6,625-foot-long access tunnel to the underground powerhouse; (13) a lower reservoir inlet structure; (14) a site near the switchyard for the reverse osmosis system; (15) a desalination area; (16) a buried water supply pipeline ranging from 12 - to 24 – inch diameter totaling 15.3 miles; (17) a 13.5 - mile - long, 500-kilovolt transmission line connecting to a new Interconnection Collector Substation; (18) many miles of permanent construction and access roads; (19) staging, storage, and administration areas near the switchyard; and (20) appurtenant facilities. The average annual generation is estimated to be 22.2 gigawatt-hours. Joshua Tree National Park encompasses this project on three sides, and is located approximately 1.5 miles north of, 2 miles south of, and 5 miles west of the project footprint.

CCV has been involved in this project since 1990 when it was included in the initial Environmental Impact Report/Environmental Impact Statement (“EIR/EIS”) conducted from 1990 – 1997 for the Eagle Mountain garbage dump (“dump”) proposed by Kaiser Ventures and Mine Reclamation Corporation (“Polluters”). CCV is a grassroots group formed to prevent the development of the proposed Eagle Mountain dump and to be involved in participating in policies that enhance natural, cultural, scientific, and human environment. (From the beginning CCV felt water and the world’s largest garbage dump simply do not mix). CCV understands and recognizes the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to our community’s and Joshua Tree National Park’s (“JoTr”) natural resources are appropriate. For information on how the environmental community want to see this area grow, **see attachment #1**, that contains the “Vision for Eagle Mountain” designed to promote tourism, while protecting desert communities and JoTr’s resources. Members of CCV and other environmental groups have successfully challenged the Eagle Mountain dump which resulted in setting aside the exchange of land Kaiser/MRC needs for it’s dump. The Polluters appealed the lower court’s ruling and to the 9<sup>th</sup> Circuit Court of Appeals who ruled in favor of the environmental plaintiffs. The Polluters have said they will petition the US Supreme Court. Once the Supreme Court rejects their petition, the lands in question will revert back to the Bureau of Land Management (“BLM”) then ultimately the National Park Service (“NPS”).

Joshua Tree National Park has been described as a living fabric, as pristine as any site in the California desert today or ever will be in the future. Joshua Tree's history elucidates the level of significance placed on the Park by the American people. The lands omitted from Joshua Tree National Monument in 1950 were to be used to mine the minerals first and foremost and if not, the Highest and Best Use is to return the land to the Public, i.e. Joshua Tree National Park, since that is where it originated. There are no intentions to mine these lands in the future, and Kaiser relinquished all of its claims in the hopes of building the world’s largest dump. (Mining will be discussed further below.) The old Kaiser Mine will be designated a National Historic Landmark, managed by National Park Service (“NPS”) for its superlative interpretive value, and its unique role in American culture in the creation of the steel industry on the West Coast. Secretary of the Interior Gayle Norton proposed a Superfund Garbage Dump in Fresno for National Historic Landmark designation in 2002. Here in the desert, we have a National Historic Landmark that the Department of the Interior wants to turn into a superfund site! To this end, environmental groups have launched the Give It Back! Campaign, see **attachment # 2**.

We submit these comments to identify some of the areas that we believe warrant further environmental studies and analysis as part of the environmental review of the Project in accordance with the requirements of National Environmental Policy Act, 42 U.S.C. § 4321 *et seq* (“NEPA”), and the California Environmental Quality Act, California Public Resources Code §§21000-21177 (“CEQA”).

### **Environmental Justice:**

The DEIR claims that there are no environmental justice violations, we could not disagree more! We submitted environmental justice comments to the proposed projects slated for our tiny community(s) of Eagle Mountain/Desert Center, and feel that nobody read them, so we resubmit and request justifying the claim, that no violation is occurring.

*Environmental Justice is ...the confluence of social and environmental movements, which deals with the inequitable environmental burden born by groups such as racial minorities, women, poor, or residents of rural areas and developing nations. It is a holistic effort that seeks to analyze and overcome the power structures that have targeted these groups and thwarted environmental reforms. Environmental justice proponents generally view the environment as encompassing 'where we live, work, and play' (sometimes adding learn and pray). The movement seeks to redress inequitable distributions of environmental burdens (pollution, industrial facilities, crime, etc.) and access to environmental goods (nutritious food, clean air & water, parks, recreation, health care, education, transportation, safe jobs, etc.) in a variety of situations.*

In 1984, a report by Cerrell and Associates, commissioned by the California Waste Management Board outlined the communities most vulnerable and therefore easiest to site polluting facilities near, outlined those communities we refer to as Environmental Justice Communities. The report suggested that the Waste Board should... “target communities with less than 25,000 people, and where the residents are old, poor, politically conservative and Roman Catholic.” That description certainly applies to the Eagle Mountain, Desert Center, and Lake Tamarisk communities where this project is proposed. The report goes on to state, “All socioeconomic groupings tend to resent the nearby siting of major facilities, but the middle and upper socioeconomic strata possess better resources to effectuate their opposition.”

For the DEIR to cite meetings and scoping sessions to satisfy there are no environmental justice violations is unsatisfactory. The meetings usually have taken place during work hours, or held over 50 miles from the “host” community. There is absolutely zero information on the makeup of our community, which is mainly retired or employed people making below poverty wages. It appears the addressing of the ej element only serves to sweep a stubborn problem under the rug, a clear violation of CEQA. The DEIR even talks about a field trip to the area. We bring this up as a way to illustrate the DEIR makes conclusions not based on facts. There may have been a field trip, however the participants had to stand on Kaiser Road and look off into the distance where the proposed project would be built. This “drive-by” field trip would not yield any information that a conclusion may be based upon. This DEIR is rife with such examples.

From 1987 until present, residents, desert activists, grassroots organizations, and national environmental organizations worked together to prevent the world’s largest garbage dump from being built at the defunct Kaiser iron ore mine at Eagle Mountain. The same area as the Project. The plan is to transport and deposit 20,000 tons of garbage from Los Angeles to Eagle Mountain on trains and trucks for the next 117 years. This project has been mired in litigation. On September 20, 2005 Federal District Judge Robert Timlin ruled in favor of environmentalists, however the Government and the Polluters appealed the decision to the 9<sup>th</sup> Circuit Court of Appeals. The case was heard December 6, 2007 and on November 10, 2009 the 9<sup>th</sup> Circuit ruled in environmentalists’ favor. The polluters requested *en banc* review of the 9<sup>th</sup> Circuit, was denied July 30, 2010, and now they plan to petition the U.S. Supreme Court.

As you know, the Eagle Crest Energy Company (“ECEC”) intends to utilize the Eagle Mountain mine site to produce electricity. This project received its preliminary permit in March 2005 from the

Federal Energy Regulatory Commission (“FERC”), and has recently filed a license application, and currently conducting an Environmental Impact Statement. The plan is to pump ground water from designated water wells in the Chuckwalla Valley to the massive east pit at Kaiser’s old mine to be stored until low peak energy times when the water will be pumped to Kaiser’s Central Pit. When electricity demands are at peak times, the water in the central pit is released through monstrous tunnels (built under the dump) heading to the east pit, where very large underground turbines will spin, creating electricity. The initial filling of the east pit will require 8 billion gallons of water, and take two years or more of constant pumping to fill. This project will exacerbate the aquifer’s overdaft condition to depletion. Preliminary studies conducted in the past indicate that there will be significant environmental impacts to the local community as well as the Park. Citizens have voiced strong concerns with the Project’s potential impacts to the environment and the local residents who depend on the desert’s natural resources. This project proclaimed as “green energy”, **will actually use more energy than it creates, defying logic.**

And now to make it a true environmental justice trifecta, Secretary of Interior Salazar has designated and put on the fast tract, a very large area of public lands in the Chuckwalla Valley as solar sacrifice zones (see <http://solareis.anl.gov>). In the Chuckwalla Valley alone, 30,543 acres are being targeted for solar fields. It is unfair to sacrifice this area to benefit urban areas and is truly an environmental justice issue.

There are a number of issues in the DEIR that defers mitigation or further studies after the project is approved and the applicant gains access to the defunct mine site. Clearly, it is no fault of the applicant they cannot enter the property and site(s) of their proposed project. However, it does not provide for blanket statements regarding impacts being significant or not. These issues must be resolved in the FEIR. A court will uphold an agency’s decision in certifying an EIR as adequate IF the agency’s decision is supported by substantial evidence. Substantial evidence is defined as “enough relevant information and reasonable inferences from this information that a fair argument can be made to support the conclusion even though other conclusions might also be reached”. We will show that conclusions in the DEIR were made without the benefit of evidence to reach said conclusions.

## **Biodiversity**

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

- Physical alteration of ecosystems from resource exploitation and changing land use including habitat destruction, degradation, and fragmentation;
- Pollution, which can have direct lethal or sub lethal effects, or can degrade habitat through such factors of eutrophication, acidification, or thermal pollution;
- Over harvesting of populations, which results in disruption of interconnections within and/or between species, thus affecting ecosystem function;

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

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

### **BIOLOGICAL RESOURCES:**

Complete analysis of the impacts to these biological resources need to be conducted singularly and cumulatively with past, present, and foreseeable future projects.

### **Wildlife:**

11.0 Appendix B – Fish and Wildlife Observed in Project Area, is not complete. Below is not a comprehensive list of known birds and mammals who call Eagle Mountain home, or provides exquisite habitat for them. How can mitigation measures be in place for animals and habitat the applicant does not even recognize as existing? This shortcoming must be addressed in the FEIR.

### **Wildlife observed in Project Area but excluded in DEIR:**

**NORTHERN HARRIER:** A California Species of Special Concern. This species is considered to occur seasonally along the rail line, and may seasonally forage in habitat at the project site.

**SHARP-SHINNED HAWK:** A California Species of Special Concern. Likely to migrate in the vicinity of the projects in the fall and spring, and may winter in any part of the project areas. The species may also seasonally forage in habitat at the project site.

**COOPER’S HAWK:** A California Species of Special Concern. Most parts of the project areas are within the year-round ranges.

**GOLDEN EAGLE:** A California Species of Special Concern. The species is highly likely to occur in any portion of the project area. Note: Members of CCV have observed these beauties several times in this area.

**PEREGRINE FALCON:** Is a federal and state listed endangered species with a low to moderate probability to occur at the project site, access roads, and rail line. Members of CCV have observed in the project area.

**CALIFORNIA BLACK RAIL:** A federal Candidate 2 candidate and is state listed as threatened, occur in the project area.

**LECONTE’S THRASHER:** A federal Category 2 candidate and California Species of Special Concern, observed near Kaiser & Eagle Mountain Roads.

**CALIFORNIA LEAF-NOSED BAT:** A federal Category 2 candidate and a California Species of Special Concern who uses the Kaiser Mine as a winter roost. There have been no other winter roosts located during air searches over the Orocopia, Chuckwalla and Coxcomb Mountains.

**PALLID BAT:** A California Species of Special Concern was captured in a mist net over a mine pit pond during the 1990 surveys, and guano was found in two adits west of the project site. The species is likely to forage in areas near access roads and rail line, and it is known to forage over pond water, which forms from standing water after a rainfall in the bottom of the east pit.

**AMERICAN BADGER:** A California Species of Special Concern identified at the project site and near Kaiser Road. The species is highly likely to occur along the rail line. Members of CCV have observed this species a number of times in project areas.

**YUMA MOUNTAIN LION:** A Category 2 candidate and California Species of Special Concern. Mountain lions have been observed at the Eagle Mountain townsite, and several farms in the Desert Center/Eagle Mountain area.

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

**Desert Tortoise:**

The desert tortoise is included the DEIR, but not in a satisfactory manner.

This species is federal and state listed as threatened. Tortoise have been observed in the Upper Chuckwalla Valley, north of I-10 in the Eagle Mountain area, the Chuckwalla Bench north of the Chocolate Mountains, as well as the defunct mine site. The Eagle Mountain railroad and parts of Eagle Mountain road cut through the Chuckwalla Unit of Critical Habitat for desert tortoise. The impacts to this species are not only from train and truck traffic should the dump go to fruition, but from the construction of transmission lines and the pipeline across the Valley to the site. Ravens historically are attracted to dumps, water sources, and transmission lines, and ravens prey on juvenile tortoise. It is expected that predation on the desert tortoise will increase. (Personal conversation with Park ecologist). A recent report by Dr. Richard Knight of the University of Colorado describes the Park's Pinto Basin as the most pristine raven - less habitat in all of the Mojave Desert. He regards Joshua Tree National Park as a unique habitat with unaltered raven densities. A cumulative impact analysis must be performed. If all of the projects proposed in the Chuckwalla Valley are given a No Jeopardy decision from US Fish & Wildlife Service with "take permits," tortoise will become extinct. Clearly every project on the books will kill tortoise.

An artificial lake environment in the desert will serve as an attractant for a variety of wildlife that require open water to survive. As these animals will certainly include known (e.g., coyotes, feral dogs) or potential (e.g., gulls) predators of the desert tortoise, the increased number of these predators may lead to heightened predation of tortoises inside and outside of the project area.

Desert tortoise habitat occurs only a short distance from the project area and it is likely that an increase in number of predators from the artificial lake will have a detrimental effect on desert

tortoise numbers inside Joshua Tree National Park. Augmented populations of coyote, gulls, wild dogs and other potential predators of the desert tortoise from the project were not addressed in the response. Even though the proposed mitigation is to fence ponds and the reservoirs, animals will still be attracted by the smell of water and travel to the site. We suggest the creation of a desert tortoise predator control plan to address this likely increased predation pressure on the desert tortoise realized from both terrestrial and aerial predators.

To conclude the section on Biological Resources, it is clear that the impacts to wildlife will range from moderate to extreme. The proposed dump, if goes to fruition, will bring in 20,000 tons of garbage a day for a century. This is garbage to us, but a source of food for animals. This process will inevitably create additional sources of nutrition for animals to exploit. In the desert where resources are scarce, even a small amount of enrichment is highly attractive to animals and is all that is required to alter wildlife behavior. (Personal conversation with Park ecologist). The entire ecosystem in and around the project site, and Joshua Tree National Park, will be thrown out of kilter, should any of these projects go forward, and the solar projects will compound the impacts by reducing and fragmenting the habitat for animals to live and forage for food.

### **Water Quality and Quantity:**

#### **3.3.2.3 Water Bearing Formations**

There are five groundwater basins surrounding the Chuckwalla Valley Groundwater Basin. North of the Upper Chuckwalla Valley watershed is the Pinto Valley Groundwater Basin and north of the Palen Valley is the Cadiz Valley Groundwater Basin. To the west is the Orocochia Valley Groundwater Basin, which contains Hayfield Valley. About 45 miles east of the Project site are the Palo Verde Mesa and Palo Verde Valley Groundwater Basins. Figure 3.3-1 shows the locations of the groundwater basins. Although the Cadiz Valley Groundwater Basin is adjacent to the Chuckwalla Valley Groundwater Basin, mountains along the edge of the basin provide complete enclosure around the Cadiz Valley so both surface flows and groundwater flows are internal or confined to the Cadiz Valley Groundwater Basin (B&V, 1998). Surface water and groundwater flows are from the edges of the basin toward Cadiz Lake (DWR, update 2003; B&V, 1998).

The western portion of the Orocochia Valley Groundwater Basin drains eastward into the Hayfield (dry) Lake and into the Upper Chuckwalla Valley Groundwater Basin. The Hayfield Valley is about 17 miles long. An artificial groundwater recharge site was constructed in the Hayfield Lake area of the basin, and Metropolitan Water District of Southern California (MWD) stored about 88,000 acre-feet of water in the basin in the late 1990s as part of a conjunctive water management and use program.

The Chuckwalla Valley Groundwater Basin receives both surface and groundwater inflow from the Pinto Valley Groundwater Basin. The water enters into the Chuckwalla Valley Groundwater Basin through a gap in the bedrock about 6 miles north of the Project site (B&V, 1998). A portion of Joshua Tree National Park (JTNP) overlies the Pinto Valley Groundwater Basin. The JTNP also lies within 2 to 3 miles of the Project lands and extends into the bedrock areas of the Chuckwalla Valley watershed. The Palo Verde Mesa and adjacent Palo Verde Valley groundwater basins are

located east of the Chuckwalla Valley Groundwater Basin. A bedrock gap allows groundwater from the Chuckwalla Valley Groundwater Basin to flow into the Palo Verde Mesa Aquifer. Because there is no distinct physical groundwater divide, the groundwater is then connected to the Palo Verde Valley Groundwater Basin. The two groundwater basins are generally distinguished by water quality differences, with the Palo Verde Mesa aquifer having TDS levels of 1,000 to 2,000 mg/L or greater, and the Palo Verde Valley aquifer having TDS levels of about 800 mg/L, similar to the Colorado River, which forms the eastern edge of the Palo Verde Valley Groundwater Basin. This condition has resulted from many decades of irrigation on more than 100,000 acres of land in the Palo Verde Valley, which is constantly replenished and has raised the water table beneath the Valley.

Geologic profile C-C', Figure 3.3-6 shows the relationship of the sediments in the Chuckwalla and Pinto Basin Groundwater Basins. A subsurface volcanic dike or flow is at a shallow depth and blocks some of the inflow from the Pinto Basin into the Chuckwalla Valley basins.

Outflow from the Chuckwalla Valley Groundwater Basin occurs through a gap in the bedrock at the southeastern edge of the basin and into the Palo Verde Mesa Groundwater Basin. Geophysical surveys showed the gap is filled with a rather thin section of recent alluvium that is connected to the Palo Verde Mesa Groundwater Basin aquifers. The recent alluvium pinches out just after crossing into the Chuckwalla Valley Groundwater Basin, and is underlain by the clayey Bouse Formation. Clays and silts of the lower part of the Bouse Formation are almost impermeable and can confine water in the underlying fanglomerate. The fanglomerate consists of moderately to firmly cemented continental sandy gravel (Wilson, 1994).

The fanglomerate has a low capacity to transmit water. The fanglomerate hydraulically connects the Chuckwalla Valley and Palo Verde Mesa groundwater sub-basins, but because it is confined, the Colorado River cannot recharge the aquifer. The Colorado River cannot recharge the Chuckwalla Valley Groundwater Basin because the recent alluvium pinches out just after it enters into the Basin and is isolated by the underlying almost impermeable Bouse Formation.

The profiles show that the coarse grained sediments are continuous throughout the Chuckwalla Valley Groundwater Basin and because they appear to be hydraulically connected, there is only one aquifer in the Chuckwalla Valley. Groundwater levels from 1963 and 1964 were plotted on the geologic profiles to show the saturated sediments. Based on the geology and the water levels the aquifer appears to be unconfined but within the central portion of the Chuckwalla Valley, where clays have accumulated, the aquifer may be semi-confined to confined.

The above from the DEIR is very interesting. To wit, the EIR/S for the dump has stated that the Chuckwalla Basin receives recharge from all of these basins, and in the very first EIR/S for the dump, they stated that the aquifer was in over draught, a significant impact. When everybody showed concern, they merely crunched numbers without further investigation and said all is well. Here we have ECEC even removing basins that reportedly recharged the Chuckwalla, and have more water than even the Polluters stated.

## **Denuding the Desert**



CCV anticipates that excessive pumping will lower the water table to the point that plants' roots will no longer be able to access water. First small plants will not be able to survive, then as the table lowers, ironwoods, smoketrees, palo verde, and creosote will eventually die leaving a denuded desert and a PM10 problem that currently does not exist in the Upper Chuckwalla Valley. This adds to eutrophication of the desert described below. Residents are also concerned about exposing arsenic that naturally occurs in desert soils, by denuding the desert.

Researchers are finding that the desert is sucking up carbon at rates they never imagined:

“...Researchers have found that Nevada's Mojave Desert, square meter for square meter, absorbs about the same amount of CO<sub>2</sub> as some temperate forests. The two sets of findings suggest that deserts are unsung players in the global carbon cycle. "Deserts are a larger sink for carbon dioxide than had previously been assumed," says Lynn Fenstermaker, a remote sensing ecologist at the Desert Research Institute (DRI) in Las Vegas, Nevada, and a coauthor of a paper on the Mojave findings published online last April in *Global Change Biology*.

The effect could be huge: About 35% of Earth's land surface, or 5.2 billion hectares, is desert and semiarid ecosystems. If the Mojave readings represent an average CO<sub>2</sub> uptake, then deserts and semiarid regions may be absorbing up to 5.2 billion tons of carbon a year--roughly half the amount emitted globally by burning fossil fuels, says John "Jay" Arnone, an ecologist in DRI's Reno lab and a co-author of the Mojave paper...”. (Science 13 June 2008: Vol. 320. no. 5882, pp. 1409 – 1410 DOI: 10.1126/science.320.5882.1409).

The DEIR states impacts from pumping water will be within a one-mile radius of the wells. That means any groundwater more than a mile down gradient is not available to ECEC's extraction wells. To claim access to millions of acre-feet of water implies you have access to water 50 miles, 40 miles, 30 miles etc away from the extraction wells. This is not possible. The DEIR grossly over estimate the availability of groundwater and therefore underestimate the impacts.

This DEIR even goes as far to say that recharge will be exceeded within approximately 4 years from pumping and by 2065 (end of 50 year cycle), recharge will increase by about 74,000 acre feet, with no depletion of the aquifer.

We respectfully disagree. First we counter with the average rainfall in the Chuckwalla Valley is 4 inches, and we have had spans of four and seven years without any rainfall at all. NOAA is our source of information. If 11 of the 50 years have no rainfall, the recharge calculations are way off. Even if it does rain a paltry 4 inches a year, that still would not recharge the aquifer with the tens of thousands of acre-feet you purport. Add to the equation that water does not flow from the Cadiz and the Palo Verde basins, the recharge must be even less! Also, the DEIR states that water from the Hayfield pumping station flows to the Chuckwalla. Not true. Back in the 1960's MWD tried to store water on their property at the Hayfield pumping station. They dumped hundreds (if not thousands) of acre-feet of water onto the desert floor to percolate into the ground. The water disappeared. They determined it flowed to the Saltan Sea, as the sea rose at the same time of the

percolation experiment. Again, in the 1990's MWD performed the same test with the same results. MWD claims they had no idea where the water went. So, for the DEIS to say that water flows to the Chuckwalla aquifer from Hayfield is speculative at best. How does this affect the availability of water? During the 1980's everyone's water level dropped in their wells, and a 150 ft drop at the gas pumping station's well occurred. Why will the hydroelectric project's consumption have less of an impact? To say it will not have an adverse affect flies in the face of logic.

Let us present you with some background information. Since the undersigned is most familiar with the water well on the Charpied farm, it is used as the example even though members of CCV have experienced the same water well problem. (As an aside, your DEIR has the Charpied farm listed as abandoned farm land).

As the DEIR states, in the mid-late 1980's many people (if not all) who own water wells had to lower their pumps, including us, the closest private well to the proposed project. Our well began to pump air in 1987 and we had to lower our pump three pipe lengths from 278 ft to 341 ft. In 2004 when we had to replace our pump, we lowered it to 363 feet, where it sets now. We now have less than 40 feet to the bottom of the well.

Over the years, we have monitored the water level, which consistently reads 282.69 feet to 282.75 feet. Thus from 1987 until present, our water level has not reached it's historic level since the over draught occurrence from the 1980's jojoba boom. That is nearly 1/2 the time for this project that claims water tables will rise in 50 years. While it may true that the table is not depleting any longer, we haven't reached historical levels. Additionally, the USGS Scientific Investigations Report 2004-5267 provides supporting isotopic sampling and age dating evidence indicating that most of the groundwater in the region was likely recharged 3,000 to 32,000 years ago.

In 1994, we granted ECEC permission to access our property to drill three monitoring wells. It appears that the DEIR omitted data relating to the three monitoring wells that the consultant firm, Greystone, installed on our ten-acre property. Flow, drawdown, recovery rates were all calculated from 24-hour test pumps. During the time of the data collecting and preliminary analysis, Patti Croen, lead person for Greystone, and Mark E. Sydnor, Senior Hydrologists, both told us that the water necessary was not available. The study was to determine groundwater flow, availability, recovery, etc. The study included the 3 monitoring wells they drilled as well as the on-farm water well. Why was this information omitted?

ECEC measured the levels in the three monitoring wells on 4/22/08 and 5/15/08\*. the measurements:

MW1 April – 280.99	May – 281.06
MW2 April – 280.98	May – 280.88 and,
MW3 April – 281.06	May – 279.55

\*No measurements performed on the farm well

The DEIR states that wells near the ECEC extraction wells will be monitored as well as the Pinto Basin to determine if water levels are dropping. The Charpied well does not seem to be part of this

monitoring, even though it is the closest well to the proposed project. This well should not only be monitored for water levels, water quality monitoring is also required.

ECEC has offered as mitigation for lower tables to a. pay to lower pumps, b. drill well deeper or replace well, c. compensate for increase cost of pumping from lower levels.

Once the water table is below the pump, it is not possible to make that well deeper. The casing inside the well would preclude that. So really mitigation “b” and “c” are feasible. It is commendable that the applicants are willing to pay to play. However, the mere sentences in a book are no guarantees to private water well owners. ECEC needs to enter into a development agreement with the host community (all residents of Eagle Mountain/Desert Center/Lake Tamarisk) well owners that would preclude litigation. What we mean by this is once our water level drops, ECEC could easily say that it is the problem of the dump (still an active proposal), solar companies, farmers, etc. and we all could be in litigation to determine who caused the lowering of the water table. This is unacceptable. Clearly, this Valley cannot sustain the withdrawal of water planned for this project.

The DEIR is insufficient because it did not include cumulative impacts from proposed solar projects. There are approximately 30,000 acres of solar fields proposed for the Chuckwalla Valley.

There is no data presented at all that accounts for the loss of rainfall recharge due to the solar industrialization of the desert. For example, during construction (which coincides with ECEC’s project), the solar developers will consume copious amounts of water for compaction, dust control, construction, and then rinsing of solar panels. Tens of thousands of acres of desert will no longer be able to percolate rainwater to the aquifer. How will this loss of percolation affect the underground aquifer? How much rain water will simply run-off and evaporate, instead of percolating into the underground aquifer? The hydroelectric project along with the proposed dump and proposed solar farms will deplete this aquifer. And for some, depletion means when the pump in their well can no longer access the water. This is a serious lack of CEQA requirements.

The DEIR states a number of ways to prevent seepage. We need to preface these next comments by declaring we do not support the proposed dump, but will illustrate the difference in lining systems.

The dump plans to use the Best Available Control Technology (“BACT”). :

Lets start with the plastic liner that would be installed to prevent leachate from escaping containment. The USEPA commissioned Geosyntec when promulgating Subtitle D regulations for dumps. EPA wanted a liner with zero action leakage rates. The results were if EPA were to insist on zero action leakage rates, then no more dumps could be built. Studies concluded that under the very very best quality control, liners will leak 21 gallons per acre per day, with one foot of head pressure. The hydroelectric project would have over 1,000 feet of head pressure. The studies concluded that leaks will occur from seam leaks, fissures, and tears in the liner from manufacturing and installation.

Then for another layer of protection, a leachate collection system would be installed under the dump. The problem there is according to Drexel Institute is eventually the system will reach a

terminal flow. This occurs due to the mineralization of the site, silt, and organisms clog the system. This gives a false reading that no liquids are being generated where it is still being generated only escaping through the least path of resistance. Now with the hydroelectric company, we KNOW water will escape, bringing along with it contaminants (acid mine drainage) straight into the aquifer. Drexel's studies also concluded different cleaning techniques to enable the collection system to work again, however after a small amount of time, the clogging continues. So, in case the first two systems fail, they will install monitoring wells 1,000 feet apart completely around the dump. These monitoring wells will also fail. First, they have a capture zone of one foot. This means that any water flowing by must come within 2 feet of the wells to be detected. This might work with an unlined facility where liquids escape in a fan-shaped plumb, making detection with monitoring wells possible. Not so with a lined facility. Leaks from lined facilities come from holes, tears etc that allow liquids to escape in finger-like trails. A leak would have to be right in line of the monitoring wells to be detected. Again, a false sense of security arises when no liquids are detected, but they simply flowed around the monitoring wells.

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 ECEC *REALLY* wanted to monitor leakage from the pits, they would 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...”.

### **JoTr's comments to FERC RE: Water Quality:**

“...Regarding FERC response to NPS-6b (*Conduct additional leachate analysis on the native bedrock underlying the proposed reservoirs to assess the potential impact of acid mine drainage*),

the NPS is confused by the Commission's response to this portion of our study request. FERC states that acid mine drainage (AMD) leachate testing does not fully address the long-term potential production of acidic runoff and other natural environmental factors, and is therefore inadequate for assessing the potential for AMD. Yet, this is exactly what the applicant is relying on in the supporting documents accompanying their application. The NPS asks that the Commission further clarify their response so that we can better understand the Commission's reasoning for not adopting this portion of our study request. In a December 1994 technical document on acid mine drainage prediction (EPA530-R-94-036), the Environmental Protection Agency (EPA) describes several industry-recognized static and kinetic tests that can be used for determining the AMD leachate potential at a mine site. Based on the descriptions of the different tests provided in EPA's technical document, the Commission's response to our study request seems to be suggesting that kinetic tests may be needed to fully address the AMD potential. Additionally, the applicant has indicated in their response letter to the NPS's study request that they plan on conducting additional rock testing and laboratory analysis (type unspecified) during the two year design phase following licensing to address this issue. EPA's technical document notes that researchers agree that sampling and testing should be concurrent with resource evaluation and site planning. It is the NPS's contention that additional static and/or kinetic testing of AMD generating potential be explicitly defined and conducted on the tailings and mine rock located at the project site in preparation of the EIS and final licensing and NOT after the EIS and licensing are completed, as proposed by the applicant. The expectation that the project will be leak-proof is questionable. The lower pit is not bound by bedrock on all sides. Iron sulfide is one of the most common AMD-generating minerals found in metal mining sites. The necessity for utilizing fine, possibly iron sulfide-bearing tailings material to create an impervious layer has been proposed to minimize loss of water in the lower pit. However, as noted in EPA's technical document, the finest particles expose more surface area to oxidation (and AMD potential), for example from leaking oxygenated reservoir water. The necessity for testing for the potential of AMD release should be of paramount concern during the application and EIS process...". We could not agree more with this detailed comment from NPS.

### **Impacts from Runoff**

The State's Department of Mines and Geology said in 1990 that 90% of the slopes have failed. How will soil as well as water be prevented from flowing into the reservoirs? A three-inch rain incident will produce over one million gallons of water over a ten-acre footprint. With the footprint of this project being several thousand acres, how will the million gallons of water and millions of cubic feet of soil affect the volume of the reservoirs? How will the erosion and undermining of the liner be prevented?

### **Dam Failure Hazard**

On June 9, 2008, Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC ("Kaiser") submitted comments to FERC in response to Eagle Crest Energy Company's ("ECEC") Pre-Application Document for the Project ("PAD"). [FERC accession number 20080619-0045 in P-12509 the docket preceding P-13123].

Kaiser points out that.... beginning on page 3-5 of the PAD, ECEC states, "No spillway will be

needed because the dams, which will be RCC, could withstand overtopping during an over pumping event, without serious consequences". Kaiser requested documentary proof of that statement. We have been unable to find anything in the DEIR that supports the claim that over pumping is not a problem. ECEC merely continues with the unsupported claim that a roller compacted concrete ("RCC") dam can withstand over pumping.

ECEC should undertake the studies necessary to provide an assessment of the impacts of an over pumping event and a reservoir breach event for the upper and of the lower reservoirs including, at a minimum, the impacts to the Landfill Project and the town of Eagle Mountain upon the occurrence of such events. Additionally, please provide information on whether these flooding events are insurable risks.

We are given assurances concerning the safety of the dam based on an RCC dam. It is disconcerting to find the following statement in the DEIR. "The foundation conditions at the upper reservoir are judged to be suitable for either a concretefaced, rockfill dam or a roller-compacted concrete (RCC) gravity dam. Selection of the type of dam will be made during final design and following intensive subsurface explorations and materials testing. The layouts presented in this application are based on constructing an RCC dam, using on-site mine tailings that would be processed and/or using materials generated from tunnel and underground structure excavations." Why are we given assurances based on one type of construction when that may not be the construction used?

In addition the studies necessary to make the determination have not yet been made so we actually have no idea nor a method to even estimate what the actual design may be. This postponement of information which will be very difficult for the public or even SWRCB to obtain and evaluate is forbidden by CEQA.

It may be objected that the dam engineering capability of civil engineer designers in the United States makes dam failure unlikely. We disagree.

On December 14, 2005, there was a breach of the upper reservoir of the Taum Sauk Project. The breach caused personal injury and significant environmental and property damage. A house downstream from the Taum Sauk project was destroyed as a result of the breach, injuring the residents, including three children. Water from the reservoir toppled trees and left a path of mud and debris on the land and in a river downstream, including the Johnson's Shut-Ins State Park.

This is a stipulation by the owner. Others have said that had the breach happened on a summer day there would have been significant loss of life. This dam was a pumped storage facility licensed by FERC and we can be assured that preliminary licensing proceedings made the same sort of safety statements now being made in this DEIR. There were mitigations provided for which included regular inspections by FERC staff.

The Federal Energy Regulatory Commission licenses this facility under docket P-2277. According to the docket, available online in FERC's eLibrary, FERC inspected the project's safety within three months prior to the breach and certified that the project was satisfactorily compliant.

There aren't so many pumped storage dams licensed by FERC that we can't count this event as highly unlikely. FERC has taken precautions against terrorist attacks on electric infrastructure (so far much less likely than a dam breach) so more robust precautions must be accorded dam safety.

These should include: 1) discussion of dam design differences and similarities with Taum Sauk, 2) professional evaluation of the engineering relevance of these factors, 3) an estimation of the effects of a dam breach, 4) provisions for emergency response, e.g. a disaster plan, 5) insurance, 6) a clean up plan.

**vol 1 p.437 4.8.2.3 Upper Reservoir:**

Some flexibility exists in the selection of the minimum and maximum operating levels of the upper reservoir. The respective levels of El. 2485 and El. 2343 were selected based on the required submergence for the intake structure at the upper reservoir and the energy storage required to support the intended weekly operating cycle. Also, the range of levels was checked to ensure that the maximum and minimum operating heads will remain within the range that is acceptable for reversible pump/turbines.

The foundation conditions at the upper reservoir are judged to be suitable for either a concrete faced, rock fill dam or a roller-compacted concrete (RCC) gravity dam. Selection of the type of dam will be made during final design and following intensive subsurface explorations and materials testing. The layouts presented in this application are based on constructing an RCC dam, using on-site mine tailings that would be processed and/or using materials generated from tunnel and underground structure excavations.

**Tech memo 12.1:**

ECEC will undertake detailed site investigations to support final configuration and design of the Eagle Mountain Pumped Storage Project. These detailed investigations will be conducted in two phases, as follows:

Phase 1 - Subsurface Investigations: Based on available information and the current project configuration, conduct a limited pre-design field investigation program designed to confirm that basic project feature locations are appropriate and to provide basic design parameters for the final layout of the project features. Phase 1 Subsurface investigations will be initiated within 60 days of licensing and receipt of site access, field work will be completed within four months of the start of field investigations, and results filed with the Commission six months after the start of field investigations.

At this point we must say, these studies must be performed BEFORE any approvals are given to the Project. It is a violation of CEQA for a Lead Agency to defer analyzing impacts and recommend mitigations to another Agency.

They may actually build a filled dam like the one that failed.

## **Analysis of Impacts From Known Activities:**

All of the activities described below must be analyzed with the impacts to the community (Eagle Mountain/Desert Center/Lake Tamarisk), Joshua Tree National Park, and surrounding environment.

### **1. Military Training:**

The DEIR failed to discuss activities at the defunct mine, citing that they are not allowed on the property and are not familiar with on-going activities. This does not satisfy CEQA requirements to analyze all past, current and foreseeable future activities. One such activity ignored in the DEIR is the training of mercenaries at the old mine site. The US Marine Corps trained for two weeks, mercenaries remain on the site today, with IPG having an office at Eagle Mountain.

The training exercises began in July 2006. Activities include detonation of ordnance, cannon fire, machine gun fire, helicopter maneuvers, thousands of troops, heavy equipment, tanks, personnel carriers, and everything necessary to train troops. Training was conducted by a private contractor, International Program Group, Inc.

Kaiser claims that the mercenaries are being trained on land they own. However, the Marines produced a power point presentation - **see Attachment #3** - stating they are training on 10,000 acres. According to Kaiser's filings to the Security Exchange Commission, they own 5,400 acres; therefore they are running tanks, personnel carriers, jeeps etc., over Public Lands. Even if they were on Kaiser lands only, that is a red herring. The public process should not have been bypassed.

Among questions that remain unanswered are; where is solid and liquid waste going? What airborne toxins are being exposed to schoolchildren virtually next door to these activities? How will the Project prevent airborne dust containing these air borne toxins from exposing the school children and employees at the Eagle Mountain Elementary School? What will prevent water, air, and soil contamination from perchlorate and other toxic chemical residues? Does wildlife have access to fluids and debris from blowing up cars and buildings? What impact is caused to the Big Horn Sheep who have guzzlers in the area? What happens to ordnance that do not explode?

The EIR MUST analyze the impacts from filling the pits with water where all the above activities took place. As mentioned earlier, the area is so highly fractured; poisonous contaminants from conventional weaponry will flow straight into the underground aquifer. Also, when the water starts to rise from leakage that is inevitable, what will prevent these contaminants from entering the undermined Colorado River Aqueduct that feeds over 18 million Southern Californian's water?

### **2. Detonation of ordnance:**

Kaiser allows law enforcement to detonate bombs at the Eagle Mountain site, apparently without the benefit of permits. Regardless, this is an on-going activity and needs to be addressed in the FEIR. How will vibrations from percussion of detonating ordnance going to affect the stability of slide slopes, dams, and other containments for the Project? Cumulative impact analysis of these



activities along with other activities at the site described above must be conducted for an adequate document to be crafted. This analysis must also include the impacts from a detonated bomb and an earthquake with a magnitude 7.6 happening simultaneously.

### 3. **Mining:**

According to Riverside County, mining including blasting continues, despite the fact that a reclamation plan was approved that stated the mine will be reclaimed to its natural repose through erosion, time etc. During the dump battle, the polluters would not conduct a cumulative impact analysis with the dump and mining activities because they said they no longer have mining permits. Please see **attachment # 4**, which are pertinent pages from court pleadings, with Counsel representing Riverside County stating that “Mining is Not ‘Reasonably Foreseeable’”. Other evidence that mining ceased will be found in **attachments #'s 5, 6, 7, & 8**, which are copies of pages from the Administrative Record that were before the Superior Court of California in the County of San Diego.

One would think there is no mining happening at the **defunct** Kaiser Eagle Mountain mine, but not so. During the last weeks of December of 2009, Kaiser started mining. They supplied base for the construction of a nearby raceway. They had conveyor belts, rock crusher and all of the equipment necessary to mine, despite no vested mining interest and permits from the County of Riverside. We are also aware that Kaiser plans to supply all of the proposed solar projects in the Upper Chuckwalla Valley. We complained to County Code Enforcement then County Counsel Katherine Lind said Kaiser has never ceased mining and they may continue. See **attachment # 9**, a letter from County Counsel to Larry Charpied, and **attachment #10**, a letter from County Counsel, Katherine Lind, one of the counsels of record for Riverside County in Superior Court, to Terry Cook, Kaiser lawyer, who said mining is not foreseeable in attachment # 4 court pleadings.

Clearly, Kaiser along with the County of Riverside will tell whatever story fits the occasion. Again this is no fault of ECEC, but they DO have to conduct a cumulative analysis of the Project, mining, the dump, and solar projects.

### **Seismicity**

Relying upon information developed more than 20 years ago does not satisfy the requirements for CEQA. We request that the consultant obtain information from Cal Tech for seismic activity in a 15-mile radius of Eagle Mountain. The data should exclude blasting from mining. The Blue Cut fault is capable of a 7.2 magnitude earthquake. Many faults that were not identified 20 or more years ago have been identified because of new seismic activities. Where is this information in the DEIR?

Analyze how the crumbling slopes will be prevented from filling in the reservoirs, which in turn could cause massive flooding caused by displaced water. The DEIR must contain a mitigation for such an emergency to arrive. What contingency plan would be in place to transport school children and employees from the site? There is only one road in and out. Map exactly where the water would flow with such a scenario. What damaged could be expected from flooding private property resulting in massive damage? What damage will be visited to surrounding desert, including the

Colorado River Aqueduct? Are the project proponents willing to provide flood insurance to property owners downstream from the project?

### **Transmission Lines**

Why are new transmission lines being proposed when they already exist from Eagle Mountain to the I-10 corridor? The transmission lines are proposed in an area with a high tortoise population. What will the impact to the tortoise be with new miles of raven and perches being erected for the Project. Why not place the transmission lines under ground?

It appears that the lines will run along the Old Kaiser Truck Road. The scenery around this area is pristine desert. With the exception of Kaiser's dilapidated rail line, there is a vast expanse with vistas to Joshua Tree National Park Wilderness. It appears the lines will cut across Victory Pass and run along the boundary of Joshua Tree National Park. How will that affect the Wilderness experience for a visitor trying to escape the eye pollution of the city? Why propose these lines so close to the Park's Wilderness, when a corridor already exists?

There needs to be a complete analysis of how much carbon will not be absorbed due to denuding the desert from pumping, and how much carbon will be added to the environment from the necessary transmission lines? To wit:

On April 17th, the Environmental Protection Agency released a list of the top 5 toxic gases being emitted that "endanger public health and welfare". One of these gases is sulfur hexafluoride, also known as SF6. Here is what the EPA says about SF6:

"With a global warming potential 23,900 times greater than CO2 and an atmospheric life of 3,200 years, one pound of SF6 has the same global warming impact of 11 tons of CO2."

As it turns out, the most common use for SF6 worldwide is as an insulator in high voltage equipment that transmits electricity!

### **Eutrophication**

Derived from the field of limnology, eutrophication means "an addition of nutrients" and is derived from the Greek word "eutrophos" meaning "well-nourished." Our concern was the addition of trash to the desert constituting "eutrophication."

In lakes and streams the term refers to addition of a substance which would otherwise limit growth, typically phosphorus (found in detergents) or nitrogen (as in agricultural run-off rich in fertilizer). Freed from the limit of this ingredient plants first and then animals start using the food to grow and reproduce. Enormous numbers of living organisms (e.g., algae) quickly use up all the available oxygen required for metabolism (of both plants and animals). This causes the now-huge population to die. The dead bodies of these organisms now provide yet another wind-fall food source for yet another set of organisms, the decomposers and anaerobic bacteria. These organisms now grow enormously numerous creating the foul odors and putrid conditions associated with decay and anaerobic metabolism. Such is an example of "eutrophication" in a lake or stream.

Human-caused (anthropogenic) eutrophication has been a blight on our fresh waters since the 19th century when industry and commercial agriculture began to have far-reaching effects on natural ecosystems. It wasn't until pioneering work of D. Schindler and other limnologists in the early 1970's that the precise cause and sequence of events in human eutrophication was established. (Valentyne 1974).

To the extent that a lake will be created by the proposed pumped storage facility at Eagle Mountain, lake eutrophication induced by nearby trash is possible.

### **The Affected Environment:**

Joshua Tree National Park is considered one of the finest examples of Mojave Desert and Colorado Desert in existence today. Since President Roosevelt established Joshua Tree National Monument in 1936, national park status has precluded off-road driving, livestock grazing, hunting, mining, and most other anthropogenic disturbances. Additional distinction was added by declaration of Wilderness status for nearly 80% of the park and designation as an International Biosphere Reserve. The American people and the Congress of the United States have felt these acres worthy of preservation for the enjoyment of future generations. Dr. E. Jaeger (1965) wrote, "[California deserts] are among the most appealing of our scenic wonderlands... places which, left undisturbed, minister greatly to the pleasure and ennoblement of man's mind."

The Joshua Tree desert is characterized by geographic, botanical, and wildlife diversity. With rainfall amounts ranging from 4-12 inches annually and summer heat often reaching over 100 degrees Fahrenheit both wildlife and vegetation must adapt to harsh conditions and short periods of suitable conditions for feeding, growth and reproduction. This is a fragile land with little soil development, few nutrients and sparse water. It is this combination of traits which was set aside as a national park and it is this set of circumstances we are all charged to protect.

### **Nutrient Addition:**

Human activities are rarely sanitary. Just as a lake can be eutrophied by addition of small amounts of phosphorus, deserts can be "eutrophied" by small amounts of water, trash, and other things. Once changes are set in motion, subsequent related ecological effects may proliferate.

Human presence is often characterized by an abundance of unguarded resources. Cake crumbs in a kitchen are a bonanza for ants. Many other species are noted for their ability to exploit desert resources. Such "weedy" species include gulls, starlings, house sparrows, and Old World rats (Marsh and Howard 1969). There are hundreds of other such species if insects, nematodes and micro-organisms are included.

According to the document, drawdown of the aquifers is not expected to affect local springs. We seriously question this conclusion and would require additional studies to analyze the potential impacts to local springs. The springs in the area surrounding the project are important water sources for local wildlife including Desert Bighorn Sheep. There is a deficiency in reliable data and observations on the existing springs in the area. There are times during droughts when Buzzard

Springs is dry, but after year of rainfall the spring flows. When the Desert Protection Act was enacted, Buzzard Springs was included in the new boundaries of Joshua Tree National Park.

Colonization of the reservoirs by fish is likely. Typically one would expect growth of “weedy” species that might include alien or exotic species. If this project were somewhere in a city, perhaps these biotic components would be insignificant, but coming as they do to a pristine desert ecosystem, all of these organisms constitute an uncontrolled, probably uncontrollable eutrophication experiment. By adding large amounts of biological material to what should be a pristine, arid, part of the world, far-reaching biological effects are likely which cannot be foreseen and which certainly are not addressed in this section.

Fish and their associated algal and invertebrate food bases will be added to an area where they do not naturally belong, only a mile from national park land, designated wilderness, and an international biosphere reserve. All of these designations intended to preserve and protect the unique and highly desirable **natural** resources of the Mohave and Colorado Deserts. Add the dump to the equation and we may as well kiss our Park good-bye.

### **Critical Energy Infrastructure Information (CEII)**

A number of the documents in the FERC elibrary for P-13123 contain the designation “Availability CEII”. CEII means Critical Energy Infrastructure Information which has restricted public access. This is a designation used by FERC shortly after the 9/11/2001 attacks on the World Trade Center. After some discussion FERC issued Order No. 630 (102 FERC ¶ 61, 190, February 21, 2003). There has since been a rather constant stream of rule making and discussion about the necessity, utility, and effectiveness of restricting information to the public which may be useful in analyzing and evaluating proposed projects.

The designation is legally facilitated in part by the USA Patriot Act. When FERC issued this rule on Critical Energy Infrastructure Information (CEII) they explained that despite the fact that the rule would hamper stakeholders in their ability to participate fully in FERC proceedings, it was necessary for security reasons. CEII places new restrictions on the types of information about energy infrastructure that will be freely available to the public and by extension to terrorists.

In their response to comments FERC said; The Commission remains convinced that the responsible course is for it to protect CEII. The arguments that such protection is unnecessary are speculative and unconvincing. For instance, one commenter points to an estimate that seventy percent of infrastructure attacks come from insiders as evidence that CEII is unlikely to aid an attack, while another states that "the possibility that terrorists will study government records and take advantage of perceived weaknesses is speculative." The Commission is not prepared to stake the public's safety on this reasoning. According to the National Infrastructure Protection Center, the energy sector is considered one of the most attractive terrorist targets.

It should be made clear that in all discussions FERC consistently maintains that by taking steps to restrict information in an open society (frequently used to characterize less democratic governments) they are mitigating and reducing significant terrorist risks to public safety both locally and nationally by using a CEII designation. This being the case FERC has lent sufficient authority

to include a section in the DEIR for an analysis and risk assessment and at least give some estimate of their nature and severity of the risk. These risks will offset benefits and that they can be mitigated by emphasizing electricity conservation and power reduction. Furthermore, it should go one step further and prohibit any foreign investors from buying into or controlling the Project

It should be clear that the best way to achieve security is also one of the best means for achieving reliability (what happens when a large facility like this is suddenly taken off line for an extended period?). This is to use distributed generation (e.g. solar rooftops) and distributed storage (flywheels, fuel cells, electric auto batteries and ice makers for air conditioning) whenever possible. If we as a society are to achieve the agreed aims of reducing energy dependence and preserving our dwindling environmental assets we must get serious about raising the bar for the No Project alternative.

When a national policy is encountered in an environmental assessment it is common practice to refer to a federal agency for consultation. The National Infrastructure Protection Center is a good candidate along with the Department of Homeland Security for making these assessments and they should be called in to participate in obtaining maximum security for what FERC has told us is an important and vulnerable part of our society. We do not have to wait for a major attack to begin taking precautions; we have a whole new federal agency put in business for that purpose, let's start using them.

With all of the activities occurring simultaneously at this site, the project proponents should agree to finance a "watchdog group" who would have access to the site to observe data and to ensure mitigations that would be implemented are indeed implemented. This watchdog group should be made up of at least 5 people, with two from the local community, one from the environmental community (preferably Center for Biological Diversity), an industry person, and a government entity (preferably Joshua Tree National Park).

### **Light Pollution**

Enough is enough. In the desert there should be no net addition. Mitigation is to get some reduction somewhere. Joshua Tree National Park and surrounding area will be lit up like an Orange County car lot. There is no cumulative analysis with lighting along with the dump and the 30,000 acres of proposed solar projects, nor any affective mitigation measures.

### **Greenhouse Gas**

This project is being discussed as if we are to assume that it will in fact be a source of renewable energy which will have the overall effect of reducing the generation of CO<sub>2</sub>. We choose just one of a large collection of "green" statements. On page 2-29 "Greenhouse Gas (GHG) Emissions – Construction may affect GHG levels, however, operational activities would displace energy demand for single cycle natural gas power plants and if effectively used would reduce GHG emissions necessary for meeting the energy demands in California and assist meeting future targets for a larger portfolio of renewable power generation sources."

There are many other statements about what this project “can” do to reduce GHG emissions. In the above quote we note the phrase “if effectively used”, we prefer the phrase “this project is contractually obligated to.....” and in other places we prefer “will...” rather than “can...”.

We have the general idea that this project will pay off its debt and produce profit by purchasing inexpensive (mostly night time) power and selling it at a higher price (mostly at peak day time demand). However, given no constraints the owners will buy the cheapest power available. This could well turn out to be coal fired power.

Coal power is rated as the most GHG producing power. The national effort to reduce GHG therefore translates into an effort to reduce coal fired power. In a normal economic situation this means that coal baseline generators will sell night time power at a deep discount. This project could well buy all of its pumping power from coal generators and sell it in competition with peak renewable sources. It could just as well be a GHG disaster as otherwise.

The DEIR states that there is 359 MW of wind generation in the local area. How much of that is already committed to long term contracts? We assume that even with that full capability there will be the need to purchase nearly 1000MW of carbon based pumping power. When coupled with pumping inefficiencies as well as double transmission losses (pumping/generation) this project has a carbon multiplying effect (higher carbon production for power used at the load).

Given the operational generality we just mentioned, any discussion of solar energy as a source of pumping power is misleading. Solar is inherently a peak generator which will be sold at a premium, it is hardly a low cost source of pumping power and till proven otherwise we assume that discussions of solar pumping power is a “greenwashing” red herring.

We want to know how power from this project will be counted. Given the possibility of a pumping power mix it might end up attempting to sell all of its generation as renewable power.

Before we are willing to consider this as a project which will help us to reach renewable, low carbon goals we need to see a more detailed analysis of the market and some contractually binding or permit binding conditions on the minimum amount of renewable pumping power and maximum amount of carbon generation taking into account efficiency and transmission losses. Until then we will consider this a profit making carbon generator.

In general we find too many assumptions about how the plant will operate with no real analysis that we can count on. What are the actual sources of pumping power in the real world of the southern California grid and what types of power will this plant compete with – we expect data not speculation! Until we get real world data rather than hypothetical scenarios we will object to this project's potential to worsen rather than correct carbon generation. With this assumption (rather than self serving speculation) we insist that the No Project Alternative is the preferred alternative. In this regard any statement of over-riding considerations necessary to address irreversible significant effects must be based on fact.

## **Alternative Analysis**

## **We support the No Project Alternative:**

It appears the real requisite need for these projects is to give away our public lands at bargain basement prices and to line the pockets of the developers and the utilities. We request that a full analysis be conducted on the alternatives to this Project, including but not limited to the following:

### **Distributed Generation:**

Is an important local resource that can enhance reliability and provide high quality power, without compromising environmental quality. The state is promoting and encouraging clean and renewable customer and utility owned distributed generation as a key component of its energy system. Clean distributed generation should enhance the state's environmental goals. This determined and aggressive commitment to efficient, clean and renewable energy resources will provide vision and leadership to others seeking to enhance environmental quality and moderate energy sector impacts on climate change.

Such resources, by their characteristics, are virtually guaranteed to serve California load. With proper inducements distributed generation will become economic.

- Promote clean, small generation resources located at load centers.
- Determine system benefits of distributed generation and related costs.
- Develop standards so that renewable distributed generation may participate in the Renewable Portfolio Standard program.

The California Energy Commission's *2009 Integrated Energy Policy Report (IEPR) – Final Committee Report* (December 2009), underscores the integration of building PV as a critical component of "net zero" energy use targets for new residential and commercial construction, under the heading "Energy Efficiency and the Environment," explaining:

"With the focus on reducing GHG emissions in the electricity sector, energy efficiency takes center stage as a zero emissions strategy. One of the primary strategies to reduce GHG emissions through energy efficiency is the concept of zero net energy buildings. In the 2007 the Energy Commission recommended increasing the efficiency standards for buildings so that, when combined with on-site generation, newly constructed buildings could be zero net energy by 2020 for residences and by 2030 for commercial buildings.

A zero net energy building merges highly energy efficient building construction and state-of-the-art appliances and lighting systems to reduce a building's load and peak requirements and includes on-site renewable energy such as solar PV to meet remaining energy needs. The result is a grid-connected building that draws energy from, and feeds surplus energy to, the grid. The goal is for the building to use net zero energy over the year."

Distributed energy is the most environmentally prudent approach to take. Not only will there be no need for SF6 spewing transmission lines, but it will create a whole new economic engine – people

must make the panels, install them, and maintain them.

### **Industrial Plants:**

Over 6,000 acres of jojoba were planted in Desert Center/Eagle Mountain in the early 1980's. The BLM gave away land at \$2.50 an acre under the Desert Land Entry Program, which has since been discontinued. Hundreds of acres of ironwood forests and dry wash woodlands were developed with jojoba, now abandoned. What will be the impacts be to the environment (i.e. soil erosion, flooding etc.) when the remaining ironwood forests and dry wash woodlands are scraped away for solar?

Jojoba, a renewable natural resource, was included in the 98th Congress Report 98-109, CRITICAL AGRICULTURAL MATERIALS LIST. The Report states, in part, "...Congress recognizes the need of a domestic industry or industries for the production and manufacture from native agricultural crops of products other than rubber which are of strategic and industrial importance but for which the Nation is now dependent upon foreign sources, that such activities would benefit the economy, the defense, and the general well - being of the Nation, and that additional research efforts in this area should be undertaken or continued and expanded...". Former Congressman Al McCandless (R Palm Springs) was responsible for adding jojoba to the critical agricultural materials list. Jojoba plantings need to be part of the Alternative Actions section of the environmental documents. Members of CCV are experts in the field and will be happy to provide further information. This plant is native to the area, and the infrastructure is already in place to re-start the industry, thus providing an alternative energy source from the region you desire to develop alternative energy projects. It too is left out of the alternatives for renewable energy.

### **Lake Elsinore Advanced Pumped Storage:**

Riverside County is home to 2 current pumped storage projects both with open applications with FERC for permission to build and operate. In addition to the Project, the local chapter of the Sierra Club have been involved Lake Elsinore Advanced Pumped Storage ["LEAPS"], FERC docket P-11858. As SWRCB is aware the LEAPS proponents are seeking a 401 permit and in a recent petition for reconsideration have claimed that the Final Environmental Impact Statement ["FEIS"] issued by FERC, accession number 20070130-4000, satisfies CEQA requirements.

Since this Project and LEAPS are on the same segment of the southern California 500kV grid they will draw pumping power from essentially the same sources and will provide power to essentially the same load. These major pumped storage projects are only about 140 miles apart and we don't see how building both with their combined accumulated impacts can be justified. "The court found it "illogical that an EIR should carefully evaluate the direct impacts of one project which is 'under environmental review', but completely ignore the cumulative impacts of that project's siblings in the same category.'"(Remy p. 478). But the DEIR does completely ignore the LEAPS sibling.

Comparing the FEIS with this DEIR shows that many of the goals and claimed benefits are the same for both projects. Since the developers are both seeking approval from SWRCB and FERC for the same type of project in the same grid vicinity it is incumbent on the permitting agencies to consider each project as an alternative to the other. If there is any reason for not doing so the reason



must be stated and supported. (Remy pp. 577-587, on alternatives).

We could find only one reference to LEAPS in the thousands of pages in the DEIR (its as if the LEAPS project doesn't exist) and that was a recorded statement from a scoping meeting. The DEIR is deficient in that it ignores cumulative impacts and contains a faulty alternative analysis.

The DEIR is also woefully inadequate in not analyzing distributed generation as an alternative to this environmentally unfriendly project.

### **Mitigation Assurances**

It seems that recently those agencies responsible for the protection of the public safety, health and welfare have had lapses with sometimes devastating consequences. There have been indications that these may well be due to private influence on the operations of public agencies charged with matters of regulation or protection or to politically driven adverse decisions on emphasis regarding bureaucratic attention. We refer to the recent operation of the largest "Ponzi" scheme ever, the recent meltdown of the entire financial system, a massive egg recall, the largest ever oil spill in continental waters and the World Trade Center attacks. In most cases there are suggestions that alertness to warnings would have prevented or minimized these events.

In the case of the Taum Sauk dam failure just discussed, the FERC docket P-2277 discloses that FERC inspected the project's safety just three months before the massive failure and certified that the project was satisfactorily compliant. FERC has attempted to downplay its role but the fact remains that a recent FERC safety inspection was inadequate protection against total dam failure.

We point out that the failure to implement mitigations in a timely and effective manner is itself a significant impact on the environment. As a consequence discussion of the financial, political, bureaucratic, social and physiological factors involved is called for (we are able to provide instances known to us). In the discussion we want a mitigation of the impacts of failure to mitigate in a timely and effective manner. We know that we can seek a writ of mandamus, but this is slow, cumbersome and expensive. We suggest a prepaid ombudsman with the power to issue an enforceable writ on proof of mitigation failure.

### **Conclusion:**

We fully incorporate the comments submitted to FERC from NPS/JoTr as though fully contained herein. To access the comments:

[http://elibrary.FERC.gov/idmws/file\\_list.asp?accession\\_num=20090818-5053](http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20090818-5053)

We fully incorporate comments submitted from the Center for Biological Diversity as though fully incorporated herein.

In closing, The Citizens for the Chuckwalla Valley strongly encourage the SWRCB to chose the **No Action alternative**.

Respectfully Submitted,

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***"Don't Waste The Desert"***

Attachments

CC: Interested Parties

## **LIST OF ATTACHMENTS**

**ATTACHMENT #1:** The “Vision for Eagle Mountain” – The N.E.S.T.

**ATTACHMENT #2:** Give It Back Fact sheet

**ATTACHMENT #3:** U.S. Marine Corps Powerpoint on training in Eagle Mountain

**ATTACHMENT #4:** Court pleadings in the Superior Court (pertinent pages RE: mining)

**ATTACHMENT #5, 6, 7 & 8:** Pertinent pages from Administrative Record before the Court RE: Mining

**ATTACHMENT #9:** 5/27/2010 letter from County Counsel to Larry Charpied RE: Mining

**ATTACHMENT #10:** 5/25/2010 letter from County Counsel to Terry Cook (Kaiser) RE: Mining