State Water Resources Control Board
Eagle Mountain Pumped Storage Project
(FERC Project No.13123)

Responses to Comments on July 2010
Draft Environmental Impact Report (SCH #2009011010)

January 2013

Package 3 of 6

This package contains the following responses to comments:

PACKAGE	LETTER	COMMENTER	DATE OF LETTER
3	K	BH – Brendan Hughes (citizen)	August 21, 2010
3	L	JC – Ms. Johnney Coon (citizen)	September 30, 2010
3	M	ECE – Eagle Crest Energy Company	October 5, 2010
3	N	NPCA – National Parks Conservation Association (national environmental group)	October 5, 2010
3	O	Tribe – Morongo Band of Mission Indians (local Tribe)	October 7, 2010
3	P	CCV – Citizens for Chuckwalla Valley	October 7, 2010

Paul Murphey - Eagle Mountain Pumped Storage Project

From: Brendan Hughes <jesusthedude@hotmail.com>
To: <pmurphey@waterboards.ca.gov>
Date: 8/21/2010 5:44 PM
Subject: Eagle Mountain Pumped Storage Project

To whom it may concern:

I would like to express my objections to the Eagle Mountain Pumped Storage Project. First, the field surveys done for this project are inadequate. Also, this project will have detrimental impacts on wildlife and water resources. Finally, the soundness of the whole concept of this project is questionable in the desert. The State Water Quality Control Board, FERC, and BLM should reject this project for these serious impacts to the environment of the Chuckwalla Valley and the Eagle Mountains.

BH # 1

The DEIR is inadequate due to the lack of thorough field surveys of the project site. Kaiser denied access to its property to field personnel for the project, and therefore current information about the biological resources of that property is unknown. This property could harbor threatened, endangered, or sensitive species such as the desert tortoise, bighorn sheep, or various bat species. This lack of information makes the DEIR incomplete and therefore invalid as a planning document. Until thorough surveys can be completed, any document presented by the project proponent should be rejected.

The surveys that were completed for this project showed abundant wildlife. First, much of the the proposed transmission line and water line travel through the BLM-designated Chuckwalla Desert Wildlife Management Area. This area has been protected for the desert tortoise, and should not be fragmented and degraded by these access lines. The field surveys found abundant evidence of tortoises along these lines, and especially in the vicinity of the proposed substation. The surveyors also found chuckwallas, burrowing owls, bats, badgers, and kit foxes in the area, as well as evidence of bighorn sheep. This is clearly a biologically sensitive area, and should be treated as such by the regulatory agencies.

BH # 2

This project will pump almost 10,000 acre-feet of water per year for four years and 2,000 af per year thereafter to maintain the storage reservoirs. This pumping could have significant impacts on surrounding springs and residential users of water in the area. The wildlife in this area, including bighorn sheep and countless other birds and mammals, rely on these springs, especially during the hot summer months. Any disruption of these water sources could kill hundreds or thousands of animals within Joshua Tree National Park. This is an unacceptable risk to take for energy storage. Additionally, the residents of Desert Center and Eagle Mountain could face reductions in their groundwater supplies due to this project, which is an environmental justice consideration due to the income levels of the local residents.

BH # 3

Finally, as we continue to try to build an economy around renewable energy, this project makes less and less sense. A refined "smart grid" will be able to deliver energy to where it is needed during off-peak and peak hours, and will not require expensive storage projects. Also, as electric cars gain more market share, renewable off-peak electricity will be used to charge these vehicles. Another consideration is the large amount of water loss due to evaporation from the reservoirs. The California Desert has some of the highest evaporation rates in the world, and this project is going right in the middle of it. Precious desert water will be lost so that an average of two megawatts can be doled out by this project. This is not worth the cost of this project. This project appears to be a ploy to make huge profits from ratepayers during high energy use and emergency periods. We need to move past this type of profiteering model and look to the new energy future.

Thank you for your consideration.

Brendan Hughes
61093 Prescott Trail
Joshua Tree, CA 92252

Responses to Comments from Brendan Hughes (BH):

BH #1-A: Respondent objects to the Project.

Response to BH #1-A: Comment noted. Please see Response to BH #1-B and BH #1-C for additional details on the field surveys conducted for the Eagle Mountain Pumped Storage Project's (Project) Draft Environmental Impact Report (EIR).

BH #1-B: Field surveys done for this project are inadequate. The DEIR is inadequate due to the lack of thorough field surveys of the project site. Kaiser denied access to its property to filed personnel for the project, and therefore current information about the biological resources of that property is unknown. This property could harbor threatened, endangered, or sensitive species such as the desert tortoise, bighorn sheep, or various bat species. This lack of information makes the DEIR incomplete and therefore invalid as a planning document. Until thorough surveys can be completed, any document presented by the project proponent should be rejected.

Response to BH #1-B: Extensive field surveys were conducted on all Project lands for which legal access was available, including the transmission line corridor and alternative routes, the water line corridor, and the well sites. Only the Central Project Area, where the reservoirs and powerhouse will be located, was not available for field surveys. A combination of literature review and remote sensing using low level aerial photography was used to evaluate environmental conditions of the Central Project Area. Field surveys for the corridors included protocol-level desert tortoise surveys (summarized in Sections 3.6 and 10 of the Draft EIR), sensitive plant surveys (summarized in Sections 3.5, 10, and 11 of the Draft EIR), golden eagle surveys (summarized in Sections 3.5 and 12.15 of the Draft EIR), aesthetic resource evaluations (summarized in Section 3.7 of the Draft EIR), cultural resource surveys (summarized in Section 3.8 of the Draft EIR) and others (see Section 3 for a summary of the methods used to assess each issue area in the Draft EIR).

In addition to field surveys, a complete literature review was conducted of the entire Project area. For the Kaiser mined lands an extensive library of information about the Project area was developed during the permitting process for the proposed Eagle Mountain Landfill (Landfill). In addition, aerial photography was used to assess the current conditions of the Central Project Area. The Central Project Area is highly disturbed from past mining activities, and remains mostly denuded of vegetation.

The California Environmental Quality Act (CEQA) Guidelines require an EIR to be prepared with a "sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences" (CEQA Guidelines §15151). An EIR must include a description of the physical environmental conditions in the vicinity of the Project … The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed Project and its alternatives." (CEQA Guidelines §15125(a))

Adequate information is presented in the Draft EIR to make an assessment of potential environmental impacts, and identify mitigation measures required to address those impacts.

BH #1-C: The surveys that were completed for this project showed abundant wildlife. First, much of the proposed transmission line and water line travel through the BLM-designated Chuckwalla Desert Wildlife Management Area. This area has been protected for the desert tortoise, and should not be fragmented and degraded by these access lines. The filed surveys found abundant evidence of tortoises along these lines, and especially in the vicinity of the proposed substation. The surveyors also found chuckwallas, burrowing owls, bats, badgers, and kit foxes in the area, as well as evidence of bighorn sheep. This is clearly a biologically sensitive area, and should be treated as such by the regulatory agencies.

Response to BH #1C: The Draft EIR describes wildlife, desert tortoise, special status plants, and animals in Sections 3.5 and 3.6. Potential impacts are disclosed, and mitigation measures are presented to reduce potential impacts to less than significant levels. The Draft EIR (Section 4.10) recommends alternative transmission route #1A as the Environmentally Superior Alternative, in part because this alternative has far less potential to impact desert tortoise and other sensitive species of wildlife, than the Applicant's [Eagle Crest Energy Company] originally proposed project alternative. The Eastern Red Bluff substation is the Environmentally Superior Substation alternative (Draft EIR Section 4.10), with less potential for impacts to desert tortoise than the Western Red Bluff substation.

BH #2: This project will pump almost 10,000 acre-feet (af) of water per year for four years and 2,000 af per year thereafter to maintain the storage reservoirs. This pumping could have significant impacts on surrounding springs and residential users of water in the area. The wildlife in the area, including bighorn sheep and countless other birds and mammals, rely on these springs, especially during the hot summer months. Any disruption of these water sources could kill hundreds or thousands of animals within Joshua Tree National Park. This is an unacceptable risk to take for energy storage. Additionally, the residents of Desert Center and Eagle Mountain could face reductions in their groundwater supplies due to this project, which is an environmental justice consideration due to the income levels of the local residents.

Response to BH #2: Mitigation measures have been developed to reduce potential impacts to wildlife to less than significant levels; see Draft EIR Sections 3.5 and 3.6.

Section 3.3.2 of the Draft EIR addressed potential Project impacts on springs, and Section 12.4 of the Draft EIR addressed potential groundwater level effects. The springs in the mountainous areas surrounding the Project site are hydrologically disconnected from the Pinto and Chuckwalla aquifers. Therefore, the springs will not be affected by the Project. All existing springs will be accessible to wildlife during both construction and operation of the Project.

For clarification, Section 3.2.2 of the Final EIR has been modified as follows (new text in red):

> Springs that are fed by groundwater in the Eagle Mountains (*see* Figure 3.3-1) are hydrologically disconnected to the Pinto or Chuckwalla basin aquifers (NPS, 1994). The springs are located in the bedrock above the Pinto and Chuckwalla basins and the water is derived from fractures in the rock in the local area. Seasonal precipitation likely fills the fractures. None of the springs are documented as permanent, year round springs (SCS

> Engineers, 1990) (Table 3.2-1). It is unlikely the fractures are connected to the sediments in the Pinto or Chuckwalla groundwater basins because if so, water would drain from the fractures into the sediments, leaving the springs dry. If the fractures did extend to the valley, it is unlikely that it would be refilled by the limited precipitation in the area. The difference of the spring elevations to groundwater in the adjacent valleys is 200 to 1,000 feet, which supports the conclusion that the fractures are not hydraulically connected to the valley sediments. None of these springs are identified by RWQCB Region 7 [Colorado River Basin Regional Water Quality Control Board] as having site-specific use classifications. Therefore, the default use classifications for these springs are the uses for miscellaneous unnamed tributaries (e.g., groundwater recharge; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; and preservation of rare, threatened, or endangered species).

Mitigation measure (MM) GW-2 specifies that wells on neighboring properties whose water production may be impacted by the Project will be monitored during the initial fill pumping period. If it is determined that Project pumping is lowering water levels in those wells by five feet or more, the Project will either replace or lower the pumps, deepen the existing well, construct a new well, and/or compensate the well owner for increased pumping costs to maintain water supply to those neighboring properties.

Section 5.5 of the Draft EIR discusses cumulative effects of the Project in combination with existing projects and future foreseeable projects along the Interstate 10 (I-10) corridor, as listed in Tables 5-2 and 5-3 of the Draft EIR. Section 5.5.3 of the Draft EIR discusses cumulative effects on groundwater. The Project itself would have a less than significant impact on groundwater hydrology (drawdown elevation) after implementation of the mitigation program. Other cumulative projects in the planning and permitting stages within the Chuckwalla Groundwater Basin include the Landfill, solar generating facilities, and the existing Metropolitan Water District of Southern California (MWD) groundwater banking program in the Orocopia Valley. Together, these and other projects (the Project, agricultural users, the prisons, and local residences) could contribute to significant cumulative effects. . Overall, pumping by the cumulative solar projects and the proposed Landfill will add about five feet of additional drawdown to the areas of the basin where water is being pumped. Over the 50-year life of the Project, the resulting cumulative drawdown will exceed the maximum historic drawdown by seven feet beneath the Colorado River Aqueduct (CRA) near the Project site, six feet in the Orocopia Valley, and one foot at the mouth of the Pinto Basin. The maximum historic drawdown would not be exceeded in the Desert Center area.

Table 5-5 of the Draft EIR (Chuckwalla Groundwater Basin Water Balance Cumulative Effects on Groundwater Years 2008-2100) demonstrates the results of the groundwater balance and potential effects of groundwater pumping on groundwater storage over the life of the Project with the proposed Landfill and solar projects. Using 2008 as the start of the budget, recharge will exceed pumping until the start of the Project in 2014 at which time pumping will exceed

recharge by about 6,500 to 10,700 acre-feet per year (AFY) for four years. Throughout much of Project life the combination of pumping, including the cumulative solar projects and the proposed Landfill will exceed recharge by about 2,600 to 3,200 AFY. By 2046 the aquifer storage (cumulative change) will have been reduced by about 95,300 acre-feet (AF), equal to 1 percent of the total groundwater in storage in the Chuckwalla Groundwater Basin for the California Department of Water Resources (DWR) estimate of 9,100,000 AF (DWR, 1975), or 0.6 percent based on DWR's more recent estimated volume of 15,000,000 AF (DWR, 1979). As a comparison, the cumulative change in groundwater storage during agricultural pumping between 1981 and 1986 was more than 36,000 AF as shown in Table 3-7 of the Draft EIR. Near the end of the Project life, 39 years after the Project begins, recharge would be greater than pumping. As shown in Table 5-4 of the Draft EIR, the basin will recover to pre-Project levels approximately 36 years after the Project ends.

Although the combination of existing water use, the Project, and other proposed pumping will result in temporary overdraft, for the most part groundwater levels will remain within the range of past drawdown, which showed little to no change in water quality. For this reason, projected cumulative pumping is not anticipated to adversely affect the water quality in the groundwater basin.

The analysis shows that with the combined pumping of all reasonably foreseeable projects, a basin overdraft of about nine feet is likely to occur over the life of the Project in the Chuckwalla Valley (i.e., 50 years).

Environmental Justice is a defined term in California statute. Specifically, California Government Code Section 65040.12 defines Environmental Justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." The United States Environmental Protection Agency (USEPA) defines environmental justice as:

> …the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The USEPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.
> http://www.epa.gov/environmentaljustice

Environmental Justice is discussed in Section 3.17 of the Draft EIR. In summary, the Environmental Justice analysis concludes that the Project will not result in disproportionate adverse effects on minority and low-income communities or Native Americans.

The Project has been developed with public involvement opportunities in the local communities in order to ensure that people in the Project area have access to the decision-making process. This process is described in Section 3.17 of the Draft EIR. Many of the public meetings on the

Project, including the scoping meetings held on January 15 and 16, 2009, were scheduled during evening hours for the convenience of the public. Additional informal meetings organized by the Applicant were held in the communities near the Project site in Lake Tamarisk during both the day and evening hours. The purpose of these meetings was to ensure that the public would have information regarding the Project description and involvement in, and access to, the decision-making process.

The following additional information has been added to Section 3.17 of the Final EIR to clarify the conclusions drawn in the impact assessment of Environmental Justice (new text in red):

> Pumped storage hydroelectric projects require a number of very site-specific characteristics to be viable. The proposed Project will: have only a small number of permanent employees; will not produce significant growth of population in the Project area; and will not be intrusive on the region's social fabric.
>
> The years following the cessation of major mining activity at the Kaiser mine saw a steady decline in population and associated socioeconomic conditions. The 2010 U.S. Census data are the most current detailed data available for the Project region. The census designated place for Desert Center had a population of 204 in 2010 of which 164, or 80 percent, were white. This is comparable to the racial profile of Riverside County, which is 81 percent white. Between 10 – 20 percent of the population lived below the poverty level. Economic information for Desert Center was not available; the Riverside County population below the poverty level in 2010 was 14.2 percent, with the state average of 14.4 percent. Therefore, the proposed Project will not have a disproportionate effect on people who are poorer than average or minorities. The statistics for race and poverty in the Project area are consistent with those of the state.
>
> EJView, formerly known as the Environmental Justice Geographic Assessment Tool, is a mapping tool that allows users to create maps and generate detailed reports based on the geographic areas and data sets they choose. It can be accessed at http://epamap14.epa.gov/ejmap/entry.html. EJView includes data from multiple factors that may affect human and environmental health within a community or region, including:
>
> - demographic
> - health
> - environmental
> - facility-level data
>
> The EPA EJView application indicates that there are no major pollutant violations or sites within the Project area. The application

does not list any: designated Brownfields sites per the Assessment, Cleanup and Redevelopment Exchange System (ACRES); Superfund sites per the National Priority List (NPL); toxic releases per the Toxic Release Inventory (TRI); Water Dischargers per the EPA Permit Compliance System (PCS); or air emissions within the Project area per the Air Facility System (AFS). The EPA EJView application also does not list the Project area within a non-attainment area for ozone 8-hour or particulate matter (EPA EJView, 2010).

The proposed Project will not create an increase in inequitable environmental burdens to the surrounding community (pollution, industrial facilities, crime, etc.). The proposed Project is sited in an area that was previously developed with the majority of roads and infrastructure already in place. While the proposed Project will contribute to a change in the region, the significance of this change is small compared to the region's past large scale mining activity and relative to future development planned for the Valley. Lastly, it is reasonably anticipated the proposed Project will provide economic benefits in the way of construction and operation jobs.

BH #3: As we continue to try to build an economy around renewable energy, this project makes less and less sense. A refined "smart grid" will be able to deliver energy to where it is needed during off-peak and peak hours, and will not require expensive storage projects. Also, as electric cars gain more market share renewable off-peak electricity will be sued to charge these vehicles. Another consideration is the large amount of water loss due to evaporation from the reservoirs. The California Desert has some of the highest evaporation rates in the world, and this project is going right in the middle of it. Precious desert water will be lost so that an average of two megawatts can be doled out by this project. This is not worth the cost of this project. This project appears to be a ploy to make huge profits from ratepayers during high energy use and emergency periods. We need to move past this type of profiteering model and look to the new energy future.

Response to BH #3: The rationale for the Project is described in Section 2.2 of the Draft EIR.

Groundwater will be used to refill the reservoirs to make up water that is lost to evaporation. The potential environmental impacts of the 'make up' groundwater use are described in the Draft EIR in Section 3.3.

There is growing recognition in California of the need for energy storage in general and hydropower pumped storage specifically. As evidence of that, in September 2010, the California legislature passed Assembly Bill (AB) 2514 (Statutes 2010, Chapter 469, Skinner), and was signed by the Governor. This law requires the California Public Utilities Commission and the boards of publicly owned utilities to determine appropriate levels of energy storage in jurisdictional utility portfolios and establishes 2015/2016 and 2020/2021 storage procurement targets. AB 2514 states:

> The Legislature finds and declares all of the following:
> (a) Expanding the use of energy storage systems can assist electrical corporations, electrical service providers, community choice aggregators, and local publicly owned electric utilities in integrating increased amounts of renewable energy resources into the electrical transmission and distribution grid in a manner that minimizes emissions of greenhouse gases.
> (b) Additional energy storage systems can optimize the use of the significant additional amounts of variable, intermittent, and off-peak electrical generation from wind and solar energy that will be entering the California power mix on an accelerated basis
> (c) Expanded use of energy storage systems can reduce costs to ratepayers by avoiding or deferring the need for new fossil-fuel powered peaking powerplants and avoiding or deferring distribution and transmission system upgrades and expansion of the grid.
> (d) Expanded use of energy storage systems will reduce the use of electricity generated from fossil fuels to meet peak load requirements on days with high electricity demand and can avoid or reduce the use of electricity that was generated by high carbon-emitting electrical generating facilities during those high electricity demand periods. This will have substantial cobenefits from reduced emissions of criteria pollutants.
> (e) Use of energy storage systems to provide the ancillary services otherwise provided by fossil-fueled generating facilities will reduce emissions of carbon dioxide and criteria pollutants.
> (f) There are significant barriers to obtaining the benefits of energy storage systems, including inadequate evaluation of the use of energy storage to integrate renewable energy resources into the transmission and distribution grid through long-term electricity resource planning, lack of recognition of technological and marketplace advancements, and inadequate statutory and regulatory support.

It is also noted that the Project is sized to generate 1,300 megawatts (MW), rather than the two MW cited in the comment.

The comments regarding electric cars and the Applicant's financial objectives do not pertain to the adequacy of the Draft EIR or potentially significant environmental concerns.

LL/PGM
FERC 13123

Mr. Paul Murphy
Hearings and Special Projects
State Water Resources Control Board
1001 I Street, 14th Floor
Sacramento, CA. 95814

September 30, 2010

Dear Mr. Murphy,

As a long time resident & landowner in Desert center, over 33 years & over 300 acres, I'm very concerned about the consequences of the Eagle Mountain Pumped Storage Project, FERC No. 13123. I understand it will require over 8 billion gallons of our groundwater & take over 2 years to fill the east pit @ Eagle Mountain. This is just the initial filling. What about evaporation and leakage? JC # 1

Appendix B in the DEIR regarding Fish and wildlife observed in the project area does not contain a complete list of animals observed in the area. I have 20 acres of my land, which includes a wildlife pond, in the USDA, "Wildlife Habitat Incentive Program". I have personally observed the following animals and birds: Northern Harrier Hawk, Coopers Hawk, Lecontes Thrasher, Pallid Bat, American Badger and Yuma Mountain Lion. I have seen all of the above on or near my property. JC # 2

Water is becoming increasingly scarce throughout the world. I can't understand how a project such as this could even be considered. There is nothing "green" about this proposal. To approve it, would ensure the eventual demise of our valley residents, flora and fauna.

JC # 3

Please register my opposition to this ill-advised project that will waste a precious and vital resource: WATER.

Sincerely,

Ms. Johnny Coon
P.O. Box 436
Desert Center, CA. 92239
760 227-3188

Responses to Comments from Ms. Johnney Coon (JC):

JC #1: As a long time resident and landowner in Desert Center, over 33 years and over 300 acres, I'm very concerned about the consequences of the Eagle Mountain Pumped Storage Project, FERC No. 13123. I understand it will require over 8 billion gallons of our groundwater and take over 2 years to fill the east pit at Eagle Mountain. This is just the initial filling. What about evaporation and leakage?

Response to JC #1: Section 3.3 of the Draft Environmental Impact Report (Draft EIR) discusses the potential impacts to groundwater as a result of the Eagle Mountain Pumped Storage Project (Project). Section 5.5.3 of the Draft EIR discusses cumulative effects of the Project on groundwater in combination with existing projects and future foreseeable projects along the Interstate 10 (I-10) corridor, as listed in Tables 5-2 and 5-3 of the Draft EIR.

Groundwater will be used to refill the reservoirs to make up water that is lost to evaporation. The potential environmental impacts of the 'make up' groundwater use are described in the Draft EIR in Section 3.3. The Project itself would have a *less than significant impact* on groundwater hydrology (drawdown elevation) after implementation of the mitigation program. Pumping will exceed recharge for approximately four years of the 50-year Project life. During the remaining years, recharge will exceed pumping. By 2065, at the end of the 50-year Federal Energy Regulatory Commission (FERC) Project license period, the aquifer storage (cumulative change) will have been increased by about 74,000 acre-feet (AF). The Project will not result in depletion of groundwater supplies.

Although not significant basin-wide, the modeling predicts initial Project water supply pumping will cause drawdown of the groundwater levels in the vicinity of the Project's wells. During the initial fill about 50 feet of drawdown will be created at the cone of depression of the pumping wells for about four years. Thereafter the drawdown will be reduced to about 14 feet by the end of a 50-year FERC license. At distances of one mile from the pumping wells the drawdown will be about six feet. The greatest drawdown will occur after the first four years of pumping. The drawdown created by just Project pumping will be approximately 3.6 to 4.3 feet near the Colorado River Aqueduct (CRA) in the upper Chuckwalla and Orocopia Valleys. Project pumping by itself would not exceed the maximum historic drawdown, and this impact is not considered a substantial depletion of the local groundwater level. Local drawdown effects do have the potential to interfere with pumping costs and yields from nearby neighboring wells. Mitigation measures (MM) GW-1 and MM GW-2 are proposed to address this potential impact.

Other projects in the planning and permitting stages within the Chuckwalla Groundwater Basin include the proposed Eagle Mountain Landfill (Landfill), solar generating facilities, and the existing Metropolitan Water District of Southern California (MWD) groundwater banking program in the Orocopia Valley. Together, these and other projects (the Project, agricultural users, the prisons, and local residences) could contribute to significant cumulative effects. Overall, pumping by the solar projects and the proposed Landfill will add about five feet of additional drawdown to the areas of the basin where water is being pumped. Over the 50-year life of the Project, the resulting cumulative drawdown will exceed the maximum historic drawdown by seven feet beneath the CRA near the Project site, six feet in the Orocopia Valley, and one foot

at the mouth of the Pinto Basin. The maximum historic drawdown would not be exceeded in the Desert Center area.

Table 5-5 of the Draft EIR (Chuckwalla Groundwater Basin Water Balance Cumulative Effects on Groundwater Years 2008-2100) demonstrates the results of the groundwater balance and potential effects of groundwater pumping on groundwater storage over the life of the Project with the proposed Landfill and solar projects. Using 2008 as the start of the groundwater budget, recharge will exceed pumping until the start of the Project in 2014 at which time pumping will exceed recharge by about 6,500 to 10,700 acre-feet per year (AFY) for four years. Throughout much of Project life the combination of pumping, including the cumulative solar projects and the proposed Landfill will exceed recharge by about 2,600 to 3,200 AFY. By 2046 the aquifer storage (cumulative change) will have been reduced by about 95,300 AF, equal to one percent of the total groundwater in storage in the Chuckwalla Groundwater Basin for the 1975 DWR's estimate of 9,100,000 AF, or 0.6 percent based on the 1979 DWR's estimated volume of 15,000,000 AF. As a comparison, the cumulative change in groundwater storage during agricultural pumping between 1981 and 1986 was more than 36,000 AF as shown in Table 3.3-7 of the Draft EIR. Near the end of the Project life, in 2047, recharge would be greater than the pumping. As shown in Table 5-4 (Draft EIR, Section 5.5), the basin will recover to pre-Project levels by about 2094.

Although the combination of existing water use, the proposed Project, and other proposed pumping will result in temporary overdraft, for the most part groundwater levels will remain within the range of past drawdown, which showed little to no change in water quality occurred. For that reason, projected cumulative pumping is not anticipated adversely affect the water quality in the groundwater basin.

The analysis shows that with the combined pumping of all reasonably foreseeable projects, a basin overdraft of about nine feet is likely to occur over the life of the Project (i.e., 50 years).

JC #2: Appendix B in the DEIR regarding fish and wildlife observed in the project area does not contain a complete list of animals observed in the area. I have 20 acres of my land, which includes a wildlife pond in the USDA [United States Department of Agriculture], "Wildlife Habitat Incentive Program." I have personally observed the following animals and birds: : Northern Harrier Hawk, Cooper's Hawk, Lecontes Thrasher, Pallid Bat, American Badger, and Yuma Mountain Lion. I have seen all of the above on or near my property.

Response to JC #2: As stated, Appendix B of the Draft EIR contains a list of plants and wildlife that were observed during surveys. The list is not presented as a comprehensive list of all species that might be in the Project vicinity. Although surveys cover only discrete points in time, they are conducted at the optimum time to observe special-status species. Even if some special-status species were not observed, habitats for those species were noted during the surveys and an analysis of whether the animals or plants could be there was completed (see Sections 3.5 and 3.6 of the Draft EIR). Where the potential exists for biological impacts, mitigation measures and project design features (PDF) are proposed (PDF BIO-1 through PDF BIO-4; MM BIO-1 through MM BIO-22; MM TE-1 through MM TE-7).

JC #3: Water is becoming increasingly scarce in the world. I can't understand how a project such as this could even be considered. There is nothing "green" about this proposal. To approve it, would ensure the eventual demise of our valley residents, flora, and fauna. Please register my opposition to this ill-advised project that will waste a precious and vital resource: WATER.

Response to JC #3: Commenter opposes project and believes it will adversely affect natural resources in the region. The Draft EIR presents comprehensive analyses of groundwater use, habitat, and the potential effects on the regional aquifer and biological resources. The Draft EIR includes mitigation measures to reduce and/or offset identified effects.

The Draft EIR presents design features and mitigation for seepage control, as well as long-term monitoring and recovery of seepage water. Water used for hydropower is identified as a beneficial use of water by the state of California (California Code of Regulations, Title 23, Section 662). Also, the California Constitution prohibits waste and unreasonable use of water. Given the amount of water the Project will use and mitigation measures that will be employed to address seepage, this Project is viewed as a reasonable and beneficial, use of water.

Eagle Crest
Energy Company

One El Paseo West Building
74-199 El Paseo, Suite 204
Palm Desert, CA 92260

Tel: (760) 346-4900
Fax: (760) 346-4911

www.EagleCrestEnergy.com

October 5, 2010

Paul Murphey
Division of Water Rights
State Water Resources Control Board
Post Office Box 2000
Sacramento, California 95812

Re: Comments on the Eagle Mountain Pumped Storage Project Draft Environmental Impact Report,
SCH # 2009011010

Dear Mr. Murphey:

Eagle Crest Energy Company (ECE) wishes to express our appreciation for the efforts of the State Water Resources Control Board (SWRCB, or Board) to process ECE's application for Water Quality Certification for the Eagle Mountain Pumped Storage Project. Completion of the Draft Environmental Impact Report (DEIR) is an important milestone in the application process. We have reviewed the DEIR and have a few comments and updates for your consideration.

ECE #1

It is ECE's intention to develop the Eagle Mountain Pumped Storage Project with minimal impact to the local environment. ECE concurs with the Board's proposed mitigation measures for the Project as described in the Draft EIR, and commits to implementing these measures at the appropriate time during final engineering, project development, construction and operation.

As the DEIR describes, there are a number of other projects being proposed in the nearby area in the Chuckwalla Valley. These projects include the proposed Eagle Mountain Landfill Project, and several commercial scale solar energy projects. We want to reiterate our commitment to cooperating with other local and regional projects to minimize conflicts with one another. For example, we have actively coordinated with solar project developers over the past year regarding transmission alignments and potential conflicts with access roads. As a part of developing our applications to the SWRCB and FERC, we have made adjustments to our Project Description and site layout to avoid potential conflicts with the neighboring landfill project. We will continue to work with all the project developers to resolve potential conflicts and easement / access issues.

ECE #2

The DEIR describes the proposed Eagle Mountain Pumped Storage Project as interconnecting to the transmission grid at a substation north of the I-10 and west of the community of Desert Center. The proposed interconnection transmission line would parallel the Eagle Mountain Road, from the Central Project Area to near the I-10, before going southeast to interconnect to the proposed substation site. The DEIR also describes two alternative substation locations (the

eastern and western Red Bluff Substation sites) and three alternative interconnection routes to interconnect to these substations. The eastern Red Bluff substation is identified as the environmentally preferred alternative, with the interconnect route that parallels an existing SCE transmission line as being the environmentally preferred interconnection route. ECE concurs with the SWRCB regarding the environmentally preferred alternative described in the DEIR. We would like to confirm our commitment to develop the project's interconnection along the environmentally preferred alternative route, and to the environmentally preferred eastern substation site.

ECE #2

The final decision on the substation location will be made by the Bureau of Land Management (BLM), Southern California Edison, and the California Independent System Operator (CAISO). While no Record of Decision (ROD) on the substation location has been released to date, the BLM has concluded in their environmental documentation on the Desert Sunlight Solar Project that the eastern Red Bluff Substation site is their preferred substation site.[1]

The DEIR accurately describes nine goals and objectives for the Eagle Mountain Pumped Storage Project:

- Support California's long term energy policy;
- Provide energy generation to meet part of California's peak power requirements;
- Provide energy storage for integration of renewable energy generation;
- Provide ancillary services for management of the transmission grid;
- Provide for flexible transmission grid operations;
- Reduce greenhouse gas emissions;
- Re-use an existing industrial site;
- Locate energy generation close to the transmission grid; and
- Generate hydropower without causing significant impacts to surface waters and aquatic ecosystems.

ECE #3

There is growing recognition in the State of the need for energy storage in general, and hydropower pumped storage specifically. As evidence of that, the California legislature recently passed AB 2514, which has been signed by the Governor. This law requires the California Public Utility Commission and the boards of publicly owned utilities to determine appropriate levels of energy storage in jurisdictional utility portfolios and establish 2015/2016 and 2020/2021 storage procurement targets. The law states:

> "The Legislature finds and declares all of the following: (a) Greatly expanded energy storage systems are necessary to enable electrical corporations and local publicly owned electric utilities to integrate increased amounts of renewable energy resources into the electrical transmission and distribution grid in a manner that minimizes emissions of greenhouse gases and reduces costs to ratepayers. (b) Additional energy storage systems are necessary to make full and efficient use of the significant additional amounts of variable, intermittent, and off peak electrical generation from wind and solar energy that will be entering the California power mix on an accelerated basis (c) Expanded use of energy storage systems can reduce costs to ratepayers by avoiding or deferring the need for new fossil-fuel powered peaking power plants and avoiding or deferring distribution and transmission system upgrades and expansion of the grid. (d) expanded use of energy storage systems will

[1] The Draft Environmental Impact Statement (DEIS) on the proposed Desert Sunlight Solar Project is available at http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects/Desert_Sunlight.html.

reduce the use of electricity generated from fossil-fuels to meet peak-load requirements on days with high electricity demand and can avoid or reduce the use of electricity that was generated by high carbon-emitting electrical-generating facilities during those high electricity demand periods. This will have substantial co-benefits from reduced emissions of criteria pollutants. (e) Use of energy storage systems to provide the ancillary services otherwise provided by fossil-fueled generating facilities will reduce emissions of carbon dioxide and criteria pollutants. (f) There are significant barriers to obtaining the benefits of energy storage systems including inadequate evaluation of the use of energy storage to integrate renewable energy resources into the transmission and distribution grid through long-term electricity resource planning, lack of recognition of technological and marketplace advancements, and inadequate statutory and regulatory support."

ECE #3

The growing need for energy storage is being recognized at the national level as well. At his September 22, 2010 address to the Montana Economic Development Summit, U.S. Department of Energy Secretary Steven Chu remarked on the important role of energy storage, including pumped storage hydropower, in development of renewable energy. In addition, in March 2010, the Department of Energy, Department of Interior, and Department of the Army signed a Memorandum of Understanding for Hydropower. Included in this MOU is a goal to emphasize the critical role that hydropower can play in working to integrate other renewable energy technologies into the U.S. electric grid. The MOU includes an initiative to conduct a technical, economic, and environmental feasibility analysis of environmentally sustainable potential pumped storage sites that could be developed at existing Army Corps of Engineers and Bureau of Reclamation facilities.

ECE continues to believe that the Eagle Mountain Pumped Storage Project is among the premier potential pumped storage sites in the nation, and that its development has significant and important benefits of the people of California.

Thank you again, and please do not hesitate to contact our Project Director, Dr. Jeff Harvey, at (916) 799-6065, or me if you have any questions or need additional information.

Sincerely

Stephen Lowe
President

Cc: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission

Responses to Comments from Eagle Crest Energy (ECE):

ECE #1: It is ECE's intention to develop the Eagle Mountain Pumped Storage Project (Project) with minimal impact to the local environment. ECE concurs with the Board's proposed mitigation measures for the Project as described in the Draft EIR, and commits to implementing these measures at the appropriate time during final engineering design, Project development, construction and operation.

Response to ECE #1: Comment noted; no further response is required.

ECE #2-A: As the Draft EIR describes, there are a number of other projects being proposed in the nearby area in the Chuckwalla Valley. ECE states its commitment to cooperating with other local and regional projects to minimize conflict with one another.

Response to ECE #2-A: Comment noted; no further response is required.

ECE #2-B: ECE states its commitment to develop the Project's interconnection along the State Water Board's environmentally preferred alternative route, and to the environmentally preferred eastern substation site. The final decision on the substation location will be made by the Bureau of Land Management (BLM), Southern California Edison, and the California Independent System Operator (CAISO). While no Record of Decision (ROD) on the substation location has been released to date, the BLM has concluded in their environmental documentation on the Desert Sunlight Solar Project that the eastern Red Bluff Substation site is their preferred substation site.

Response to ECE #2-B: Comment noted. The Draft Environmental Impact Report (EIR) identifies the eastern substation site as the environmentally preferred location for Project interconnection. The California Public Utilities Commission issued a permit to construct the Red Bluff substation to Southern California Edison Company (SCE) in July 2011. BLM issued a ROD on the Desert Sunlight Solar Farm in August 2011, which included a decision to issue a right-of-way to SCE for the Red Bluff substation, to be located at environmentally preferred substation site. At the time of this writing (December 2012) the substation is under construction at a site south of the I-10, east of Aztec Road and west of Corn Springs Road.

ECE #3: The Draft EIR accurately describes nine goals and objectives for the Eagle Mountain Pumped Storage Project. There is growing recognition in the state of the need for energy storage in general and hydropower pumped storage specifically. As evidence of that, the California legislature recently passed AB 2514, which has been signed by the Governor. This law requires the California Public Utility Commission and the boards of publicly owned utilities to determine appropriate levels of energy storage in jurisdictional utility portfolios and establish 2015/2016 and 2020/2021 storage procurement targets.

Response to ECE #3: Comment noted. Reference to Assembly Bill (AB) 2514 (Statutes 2010, Chapter 469, Skinner) has been added to the discussion of goals and objectives in the Project Description in Section 2 of the Final EIR.

National Parks Conservation Association®
Protecting Our National Parks for Future Generations®

October 5, 2010

Paul Murphey
Division of Water Rights
State Water Resources Control Board
Post Office Box 2000
Sacramento, CA 95812

Dear Mr. Murphey:

The National Parks Conservation Association (NPCA) is a nonprofit dedicated to "Protecting and enhancing America's national parks for present and future generations." On behalf of our 325,000 members nationwide, NPCA would like to thank you for the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the Eagle Crest Pumped Storage Project. Our members care deeply for America's shared natural and cultural heritage that is preserved by units of the National Park System.

NPCA #1

Eagle Crest Energy Company (ECEC) has proposed its Eagle Mountain Pumped Storage Project for an area directly to the south and adjacent to Joshua Tree National Park. Joshua Tree National Park was established by the California Desert Protection Act of 1994 to preserve and protect the natural and cultural resources of the Colorado and Mojave Desert. Joshua Tree National Park had over 1.3 million visitors and is a significant economic engine, generating over 37 million dollars to the local and regional economy in 2009. The park is recognized as an outstanding rock climbing, hiking, stargazing and wildlife viewing area and boasts two intact desert ecosystems meeting in a distinct transition zone, the thousands of years of cultural history, and vast areas of federally designated wilderness—including wilderness areas to the immediate north and south of the proposed project area. The proposed project area lies a mere 1.5 miles from the border of Joshua Tree National Park.

The Eagle Mountain Pumped Storage Project is projected to start construction in 2012 and begin with an initial fill of 8,100 Acre feet of water per year in (AFY) about 2014, with replacement pumping of 1,800 AFY starting in 2018 and continuing through the 50-year life of the Project. The water will be deposited in two depleted mining pits in the former Eagle Mountain Mine in Riverside County, California, adjacent to Joshua Tree National Park. The water would flow downhill to produce energy to the lower pit at times of peak energy demand. During non-peak demand, the water would be pumped uphill, back uphill to the depleted mine pit that is higher in elevation. This project is proposed to occupy federal lands currently administered by the Bureau of Land Management (BLM) and private lands currently owned by Kaiser Eagle Mountain and would not exclude development of the Eagle Mountain Landfill.

The National Parks Conservation Association has the following concerns with this project that should be addressed before the Eagle Mountain Pumped Storage Project moves forward:

Groundwater Impact

The project will mine groundwater from the Chuckwalla Basin, which is in communication with several of the surrounding aquifers, including the Pinto Basin Aquifer, which lies underneath Joshua Tree National Park. The proposed Project is projected to start construction in 2012 and the initial fill of 8,100 AFY in about 2014, with replacement pumping of 1,800 AFY starting in 2018 and continuing through the 50-year life of the Project. The Draft EIR estimates the amount of recharge for the Chuckwalla Aquifer based on precipitation, runoff and communication with other aquifers.

NPCA #2

However, the data and assumptions behind these calculations appear fundamentally flawed. The percent groundwater recharge of the Chuckwalla Basin used in the report is cited as 3-7% of annual precipitation, but it is common knowledge in arid ecosystems that during some years there is no groundwater recharge at all. In fact, groundwater recharge in the desert is influenced by variability in precipitation and according to many climate change projections, variability in precipitation is only expected to become more pronounced in the California desert.

But additionally Table 3.3-8, Chuckwalla Valley Groundwater Basin Groundwater Balance Existing and Project Pumping Effects on Groundwater Storage (AF), makes the incredible assumption that over a 92 year period from 2008-2100 the amount of groundwater recharge remains completely constant. That defies logic and neglects to take in account the Mojave and Colorado Desert's variability of precipitation, as well as changing land and water use patterns in the area. Finally, to claim that by 2060, at the end of the 50-year FERC Project license period, the aquifer storage (cumulative change) will have been increased by about 74,000 acre-feet seems specious at best. The final EIR needs to have a realistic assessment of groundwater recharge and should include comparative baseline data from arid systems over the 92 year period which would shed light on whether this is a realistic projection.

Cumulative Impacts

The National Environmental Policy Act requires a thorough analysis of cumulative impacts in an environmental process. The proposed project is in the same immediate area as the proposed Eagle Mountain landfill. The Eagle Mountain Landfill would dump up to 20,000 tons of trash for 117 years on adjacent Kaiser and BLM lands. The trash from the landfill would tower 1500 feet above pristine desert canyons, impact air quality from landfill operations, increase the populations of predatory ravens and coyotes that prey on desert tortoise and create noise and light pollution that would impair the adjacent wilderness. NPCA has consistently and successfully opposed the ill-conceived Eagle Mountain landfill project as illegal and environmentally inappropriate for this area adjacent to Joshua Tree National Park. Most recently, the Ninth Circuit Court of Appeals rejected Kaiser Mining Inc.'s attempt to appeal. The Ninth Circuit Court of appeals upheld its prior ruling that the BLM land exchange that made the landfill possible was flawed, the Environmental Impact Statement's goals merely adapted Kaiser's business plan and the science in the document inadequately examined the problem of atmospheric nitrogen deposition from landfill operations. The State Water Resources Board should seriously examine the cumulative impacts of a landfill and a massive pumped storage project in the same immediate area. The cumulative impacts on the threatened desert tortoise and biotic communities, the cumulative impacts on wilderness values, and the cumulative impacts on groundwater must be further examined.

NPCA #3

Additionally, First Solar is developing a 4,410-acre industrial energy Desert Sunlight facility to the East of the Eagle Mountain Pumped Storage Project. The Desert Sunlight facility will use 1300 to 1400 acre feet of water from the Chuckwalla Basin Aquifer over the 26 month construction period, but this is not reflected in the Draft EIR. It will also impact air quality by creating fugitive dust during construction and desert tortoise populations. Additional consequences of this project may be noise and light pollution that could be perceived from wilderness inside Joshua Tree National Park. The proposed First Solar project is within the Bureau of Land Management's Riverside East Solar Energy Study Area, which literally runs right up to Joshua Tree National Park's boundary and wraps around the Coxcomb Mountains, surrounding this wilderness peninsula of Joshua Tree National Park.

To the West in Shaver's Valley, the Glorious Land Company is seeking to build a brand-new, 40,000-person city adjacent to Joshua Tree National Park, with all associated infrastructure, including plans for water-intensive golf courses. The cumulative impacts of industrializing the entire southeast boundary of Joshua Tree National Park with the nation's largest garbage dump, a pumped storage project and a 4000 plus acres solar development would fundamentally alter Joshua Tree National Park's southern border. The cumulative impacts of these developments must be thoroughly examined in the final EIR with specific attention to wilderness values, impacts on threatened species and the cumulative impacts on Joshua Tree National Park's ability to manage its resources unimpaired for future generations. NPCA #3

Ecological considerations

The large quantities of standing water in the upper and lower reservoir of the pumped storage project could artificially inflate the population of predatory ravens and coyotes, which could have an impact on their prey; desert tortoise, amphibians and nesting and migrating birds in the area. NPCA #4

Light and noise pollution associated with the construction phase of this project and subsequent operations threaten to disrupt patterns of bighorn sheep, which use springs and tanks within two miles of the project area. In fact, Bighorn scat were observed at the main project site during 1989-90 and 1995 surveys for the Eagle Mountain Landfill and Recycling Center and during related project surveys (Riverside County and BLM 1996). The surveys indicated the bighorn ewes utilize this area during the spring, summer, fall and winter. Additionally, The reversible pump turbine units which will run with 12 hours of pumping each weekday night to fully recharge the upper reservoir with additional pumping will likely generate a great deal of ambient noise that may impact sensitive species like bighorn sheep, as well as the qualities of adjacent Joshua Tree National Park Wilderness. NPCA #5

Finally, the switchyard (Project Connection Point) that will be located about 4,500 feet south of the powerhouse, outside the boundaries of the proposed landfill, and will have security and maintenance lighting system that will doubtlessly impact nocturnal species. Corresponding transmission lines that run to the southwest and connect to the switchyard will also serve as a perch and nesting area for ravens that often prey on immature desert tortoise.

The National Parks Conservation Association would like to thank the State Water Resources Board for the opportunity to comment on the Eagle Mountain Pumped Storage Project and respectfully requests that the final EIR fully address groundwater, cumulative and ecological issues and how they will impact the natural and cultural resources of Joshua Tree National Park.

Sincerely,

Seth Shteir
California Field Representative
National Parks Conservation Association
Joshua Tree, CA
760-366-7785
sshteir@npca.org

Responses to Comments from the National Parks Conservation Association (NPCA):

NPCA #1: The proposed project area lies a mere 1.5 miles from the border of Joshua Tree National Park.

Response to NPCA #1: Maps in (Figures 2-1, 2-6 and 2-7) of the Draft Environmental Impact Report (EIR) accurately depict the location of Joshua Tree National Park (JTNP) boundary relative to all proposed features of the Eagle Mountain Pumped Storage Project (Project). A small segment of the proposed transmission line and access road lie 1.5 miles from the JTNP boundary. The Central Project Area, where the reservoirs and powerhouse will be located, lies approximately three miles from the nearest JTNP boundary. No physical Project features intrude on the JTNP boundary.

NPCA #2: The data and assumptions behind the groundwater calculations appear fundamentally flawed. The percent groundwater recharge of the Chuckwalla Basin used in the report is cited as 3-7% of annual precipitation, but it is common knowledge in arid ecosystems that during some years there is no groundwater recharge at all. In fact, groundwater recharge in the desert is influenced by variability in precipitation and according to many climate change projections, variability in precipitation is only expected to become more pronounced in the California desert.

Table 3.3-8 makes the incredible assumption that over a 92 year period from 2008-2100 the amount of groundwater recharge remains completely constant. That defies logic and neglects to take in account the Mojave and Colorado Desert's variability of precipitation, as well as changing land and water use patterns in the area. Finally, to claim that by 2060, at the end of the 50-year Federal Energy Regulatory Commission (FERC) Project license period, the aquifer storage cumulative change will have been increased by about 74,000 acre-feet seems specious at best. The final EIR needs to have a realistic assessment of groundwater recharge and should include comparative baseline data from arid systems over the 92 year period which would shed light on whether this is a realistic projection.

Response to NPCA #2: Recharge is estimated as an annual average figure, which accounts for annual variability. The commenter is correct that precipitation, and therefore recharge, varies from year to year. The water balance is intended to reflect the long-term average condition.

Table 3.3-8 of the Draft EIR describes the existing and Project pumping effects on groundwater storage. Over the long-term the Chuckwalla aquifer will contain more water in storage because recharge is projected to be in excess of water use by the existing water users and the Project.

Cumulative impacts of the Project along with existing water use and the water use of other proposed projects is displayed in Table 5-4 of the Draft EIR. Please note that Table 5-4 of the DEIR was corrected via an errata issued on August 31, 2010. Model results for the cumulative water use of the Project, all existing uses, and other proposed projects (i.e., solar projects and the Eagle Mountain Landfill and Recycling Center) show that cumulative water withdrawals are anticipated to exceed recharge. At the end of the license period, aquifer storage (cumulative change) will be reduced by about 95,300 acre-feet (AF), about one percent of the total groundwater in storage in the Chuckwalla Groundwater Basin. This is based on a conservative

assumption of a total of 9,100,000 AF of groundwater in storage (DWR, 1975). The most recent California Department of Water Resources (DWR) estimate of groundwater in storage for the Chuckwalla Valley is 15,000,000 AF (DWR, 1979).

NPCA #3: The State Water Resources Control Board should seriously examine the cumulative impacts of a landfill and a massive pumped storage project in the same immediate area. Additionally, First Solar is developing a 4,410-acre industrial energy Desert Sunlight facility to the East of the Eagle Mountain Pumped Storage Project. To the West in Shaver's Valley, the Glorious Land Company is seeking to build a brand-new, 40,000-person city adjacent to Joshua Tree National Park, with all associated infrastructure, including plans for water-intensive golf courses. The cumulative impacts of industrializing the entire southeast boundary of Joshua Tree National Park with the nation's largest garbage dump, a pumped storage project and a 4,000 plus acres solar development would fundamentally alter Joshua Tree National Park's southern border.

The cumulative impacts of these developments must be thoroughly examined in the final EIR with specific attention to wilderness values, impacts on threatened species and the cumulative impacts on Joshua Tree National Park's ability to manage its resources unimpaired for future generations.

Response to NPCA #3: The California Environmental Quality Act (CEQA) Guidelines §15355 (b) state that "cumulative impact from several projects is the change in the environment which results from the incremental impact of the Project when added to other closely related past, present, and reasonable foreseeable probable future projects." A reasonable foreseeable probable future project refers to land development projects that are in various phases of entitlement, planning, construction, and/or operation and that may affect the same resources and geographic area as the proposed Project.

Cumulative projects and cumulative impacts are discussed in Sections 5.4 and 5.5 of the Draft EIR respectively. See in particular Section 5.5.9 for a discussion of cumulative impacts on wilderness values.

Table 5-2 in Section 5.4 of the Draft EIR describes the present and past projects along the Interstate 10 (I-10) corridor that were analyzed in the cumulative impact review. Table 5-3 Section 5.4 of the Draft EIR describes the future foreseeable projects along the I-10 corridor that were analyzed in the cumulative impact review. Solar projects in the Project area were included in the cumulative effects analysis, including an analysis of water use.

The proposed master plan, commonly referred to as Paradise Valley, is envisioned by Glorious Land Company. The site is located west of Chiriaco Summit (a watershed and groundwater basin divide) along the north and south sides of I-10, east of the Coachella Valley. The development is not located in the Chuckwalla Groundwater Basin and is proposing to use imported water from Kern County. Therefore, the development has no relation to the Chuckwalla Valley, and is not relevant to the cumulative impact assessment.

The Project and the proposed solar power projects are all located well outside of and to the east of JTNP, and do not have potential to alter JTNP's southern boundary.

The proposed Eagle Mountain Landfill (Landfill) is included in the list of projects analyzed in the cumulative impact analysis, found in Section 5.4.2.4 of the Draft EIR.

NPCA #4: The large quantities of standing water in the upper and lower reservoir of the pumped storage project could artificially inflate the population of predatory ravens and coyotes, which could have an impact on their prey; desert tortoise, amphibians and nesting and migrating birds in the area.

Response to NPCA #4: Section 3.6.3.3.2 of the Draft EIR discusses the potential for increased predators attributable to the added water sources. As discussed in the analysis, food, and water are not substantially limiting factors for raven populations in the area under existing conditions. Water sources present in the Project area include a water treatment pond, ponds at Lake Tamarisk, the open water portions of the Colorado River Aqueduct (CRA), and Metropolitan Water District's Eagle Mountain Pumping Plant (which is part of the CRA system). In addition, humans have occupied the Eagle Mountain townsite for many years. Perching, roosting and nesting sites for ravens are plentiful under the existing condition of the Project area. The proposed Project will have mitigation and monitoring requirements for ravens and other predators that will reduce this potential cumulative impact to less than significant.

MM TE-5 of the Draft EIR included a Raven Monitoring and Control Program. In January 2012, the Federal Energy Regulatory Commission (FERC released the Final Environmental Impact Statement (Final EIS) for the Project. The Final EIS recommended a modification of MM TE-5 to include other tortoise predators, including coyotes, wild dogs, and gulls. Consequently, MM TE-5 was revised in the Final EIR to include the modifications recommended by FERC, as follows (modifications in red).

MM TE-5. **Predator Monitoring and Control Program.** The Predator Monitoring and Control Program is found in its entirety within Section 12.14. Proposed projects on federal lands that may result in increased desert tortoise predator populations must incorporate mitigation to reduce or eliminate the opportunity for raven proliferation. One of the most significant desert tortoise predators are ravens. The USFWS [United States Fish and Wildlife Service] has developed a program to monitor and manage raven populations in the California desert in an effort to enhance desert tortoise recovery. In order to integrate monitoring and management, the USFWS has agreed to an "in-lieu" fee to replace quantitative raven monitoring on new projects in the range of the desert tortoise. The Licensee will pay in-lieu fees to the USFWS that will be directed toward a future quantitative regional monitoring program aimed at understanding the relationship between ongoing development in the desert region, raven population growth and expansion and raven impacts on desert tortoise populations. The vehicle for this program is a Memorandum of Understanding between the Licensee, the CDFW, and USFWS.

The Predator Monitoring and Control Program may include this in-lieu fee if it is determined that the raven population may increase over current levels due to the Project.

In addition to this in-lieu fee, the program will include, at a minimum:

- A suite of construction and operations measures to reduce food scavenging and drinking by ravens (e.g., trash containment, minimization of pooling water on roadways and construction right-of-ways)
- Roadkill removal
- Qualitative monitoring of raven use of the Project site during operations, conducted on a pre-determined schedule by the on-site Project environmental compliance officer
- Breeding season nest surveys
- Baseline and post-construction surveys for other desert tortoise predators, including coyotes, wild dogs, and gulls
- Mitigation measures to be implemented if the number of predators increases
- A schedule for post-construction surveys during the second year of project operation, followed by surveys once every 5 years

The Licensee will continue to work collaboratively with the resource management agencies to conduct adaptive management as needed to control ravens and other predators in the Project area.

NPCA #5: Light and noise pollution associated with the construction phase of this project and subsequent operations threaten to disrupt patterns of bighorn sheep, within two miles of the project area. The switchyard will have security and maintenance lighting system that will doubtlessly impact nocturnal species. Corresponding transmission lines that run to the southwest and connect to the switchyard will also serve as a perch and nesting area for ravens that often prey on immature desert tortoise.

Response to NPCA #5: Impact 3.5-4 identifies the potential effects of night lighting from Project operation. MM BIO-20 and MM AES-1 are designed to prevent casting of nighttime light into adjacent native habitat. Section 3.5.3.3.1 of the Draft EIR discusses that noise levels during Project construction are not anticipated to exceed typical noise levels for construction; and blasting and boring for the tunnels and powerhouse facilities will be conducted deep underground. Section 3.14.3.3.1 of the Draft EIR describes the estimated noise levels at the boundary of JTNP, during the loudest portion of the construction period as being “audible,” with decibel levels using an DeciBel A-weighted filter (dBA) that are very quiet with a sound level of approximately 40 dBA and 12.5 percent peaks as loud as 70 dBA (see Table 3.14-3 of the Draft EIR).

The Central Project Area, in which construction will take place (Upper and Lower reservoirs, the proposed pressure and tailrace tunnel locations, and the proposed powerhouse, switchyard, and reverse osmosis treatment sites), lies within the mined lands. These sites are in or beneath mountainous terrain and mine tailings, approximately 1.5 to 4 miles from the nearest sensitive receptors (i.e., the school and rural residences along Kaiser Road and Eagle Mountain Road) and approximately 1.5 miles from the closest JTNP boundary.

Table 3.14-4 in the Draft EIR presents the estimated construction noise levels that would affect people at the nearest sensitive land uses to the reservoir sites (the general Project vicinity) and the preferred pipeline/transmission line routes. It should be noted that the estimated noise levels shown in Table 3.14-4 represent the worst-case scenario because the estimates do not account for noise attenuation due to the presence of natural sound barriers. Noise levels associated with reservoir site construction activities would be expected to be at least 5 to 10 dBA lower at the nearest sensitive receptors because most of the work would be completed at the bottom of the reservoir sites where the line of sight between the construction activities and the receptors would be blocked.

As indicated in Table 3.14-4 in the Draft EIR, maximum construction noise from the vicinity of the reservoir sites at the boundary of JTNP would be up to 43 dBA. However, it should be noted that rock drilling, if necessary, would only generate loud noises during early stages of the construction and would be attenuated to undetectable levels when the excavation proceeds deep into the ground. Rock drilling activities may be audible at the boundary of JTNP; however, noise levels would be temporary, resulting in less than significant impacts.

Impact 3.5-7 discusses potential transmission line impacts to birds, and concluded that birds (including golden eagles) could be affected by collision with transmission lines or electrocution. The Draft EIR recognizes this impact as potentially significant. Therefore a mitigation program (project design feature [PDF] BIO-4) is required. The avian protection plan (filed for FERC approval) includes adequate insulation, and any other measures necessary to protect raptors from electrocution hazards. PDF BIO-4 was updated in the Final EIR to include the most current avian and bat protection measures, approved by the USFWS (e.g., recent guidance on development of avian and bat protection plans) (USFWS, 2010a). The revised text of PDF BIO-4 reads (new text in red):

PDF BIO-4. **Avian Protection of Transmission Line**. The Licensee will develop an avian protection plan in consultation with the USFWS. The plan will: meet Avian Power Line Interaction Committee/Fish and Wildlife Service (APLIC/FWS) guidelines for an avian protection plan; present designs to reduce potential for avian electrocution and collisions; provide methods for surveying and reporting Project-related raptor mortality and managing nesting on the transmission lines; and include a workers education program.

The raptor-friendly transmission lines will be developed in strict accordance with the industry standard guidelines set forth in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006*, by Avian Power Line Interaction Committee, Edison Electric Institute, and Raptor Research Foundation and the USFWS-approved Avian and Bat Protection Guidelines. The design plan (filed for Commission approval) will include adequate insulation, and any other measures necessary to protect bats and raptors from electrocution hazards.

Please see Response to NPCA #4 for a discussion of mitigation for ravens and other predators.

clear
10/7/10 ~~9/10/10~~
e.

MORONGO
BAND OF
MISSION
INDIANS
A SOVEREIGN NATION

August 16, 2010

State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

SUBJECT: Notice of Completion & Notice of Availability & Environmental Document Transmittal Eagle Mountain Pumped Storage Project SCH#2009011010

Thank you for contacting the Morongo Band of Mission Indians regarding the above referenced project. The Tribe greatly appreciates the opportunity to review the project and, respectfully, offer the following comments.

The project is outside of the Tribe's current reservation boundaries but within an area that may be considered a traditional use area or one in which the Tribe has cultural ties (e.g. Cahuilla/Serrano territory). Because the project is a pumped storage hydroelectric project which will provide 1,300 MW of generating capacity, using reversible pump-turbine units, with four units of 325 MW each using off-peak energy to pump water from a lower reservoir to an upper reservoir during periods of low electrical demand and generate energy by passing water from the upper to the lower reservoir through the generating units during periods of high electrical demand the Morongo Band of Mission Indians asks that you impose specific conditions regarding cultural and/or archaeological resources and buried cultural materials on any development plans or entitlement applications as follows:

TRIBE #1

- If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5.

- In the event that Native American cultural resources are discovered during project development/construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the overall project may continue during this assessment period.

  If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or his archaeologist shall contact the Morongo Band of Mission Indians

12700 PUMARRA ROAD · BANNING, CA 92220 · 951-849-4697 · FAX 951-849-4425

("Tribe")[1]. If requested by the Tribe, the developer or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).

TRIBE #1

If I may be of further assistance with regard to this matter, please do not hesitate to contact me at your convenience.

Very truly yours,

MORONGO BAND OF MISSION INDIANS

Franklin A. Dancy

Franklin A. Dancy,
Director of Planning

[1] The Morongo Band of Mission Indians realizes that there may be additional tribes claiming cultural affiliation to the area; however, Morongo can only speak for itself. The Tribe has no objection if the archaeologist wishes to consult with other tribes and if the city wishes to revise the condition to recognize other tribes.

Responses to Comments from the Morongo Band of Mission Indians (Tribe):

Tribe #1: The Morongo Band of Mission Indians asks for imposition of specific conditions regarding cultural and/or archaeological resources and buried cultural materials.

Response to Tribe #1: All of the comments raised in the comment letter have been addressed in the Historic Properties Management Plan (HPMP), which is referenced in Section 12.13 of the Draft Environmental Impact Report (EIR). Section 12.13 of the Draft EIR contained confidential information and was not disclosed to the public. However, since the Draft EIR was released, the HPMP has been modified to remove the confidential portions from the document. The public portion of the HPMP can be found in Section 12.13 of the Final EIR. Although the HPMP itself contained confidential information on sensitive resources (and therefore was not made available for general public review at the time of the Draft EIR), the mitigation measures from the HPMP were included in Section 3.8 of the Draft EIR. The Draft EIR includes summaries of, and references to: the California Health and Safety Code regarding disturbance of human remains; and the California Native American Graves Repatriation and Protection Act. The full text of the Intentional Archaeological Excavations and the Inadvertent Discoveries sections of the Native American Graves Repatriation and Protection Act are included in Section 12.13 of the Final EIR.

Mitigation measure (MM) CR-11 in the Draft EIR and the HPMP stipulate that if prehistoric archaeological sites or Traditional Cultural Properties are identified during future planning, construction, or operation of the Eagle Mountain Pumped Storage Project (Project), then all work will cease and be directed away from the finds pending consultation with Native American groups, the United States Bureau of Land Management (BLM), and the State Historic Preservation Officer (SHPO). Provisions to evaluate those resources and mitigate impacts are discussed in Section 3.8.4 of the Draft EIR, with priority given to preservation of the discovered resources in place where feasible.

MM CR-9 in the Draft EIR stipulates development of a Treatment Plan/Research Design for evaluation and data recovery upon the discovery of cultural resources. Native American consultation requirements include involvement by concerned Tribes to review and recommend content for the Treatment Plan. Any Treatment Plan would include provisions for Native American monitoring, preservation approaches where appropriate, and involvement in decisions regarding data or artifact recovery.

CITIZENS FOR THE CHUCKWALLA VALLEY

PO BOX 397
DESERT CENTER CA 92239
(760) 392-4722
stopthedump@yahoo.com

"DON'T WASTE THE DESERT"

Mr. Paul Murphy
Hearings and Special Projects
State Water Resources Control Board
1001 I Street, 14th Floor
Sacramento CA 95814

Sent Via:
USPS
EMAIL: wrhearing@waterboards.ca.gov

October 7, 2010

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").

CCV #1

The project would consist of: (I) 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-Iong 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 9th 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").

CCV #1

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.**

CCV #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").

CCV #3

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.

CCV #4

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."

CCV #4

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 9th Circuit Court of Appeals. The case was heard December 6, 2007 and on November 10, 2009 the 9th Circuit ruled in environmentalists' favor. The polluters requested *en banc* review of the 9th Circuit, was denied July 30, 2010, and now they plan to petition the U.S. Supreme Court.

CCV #5

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

CCV #6

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**.

CCV #6

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.

CCV #7

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.

CCV #8

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:

CCV #9

• 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

CCV #9

• 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:

CCV #10

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.

CCV #10

<u>Desert Tortoise</u>:

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.

CCV #10

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 Orocopia 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).

CCV #11

The western portion of the Orocopia 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.

CCV #11

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 BouseFormation. 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 CO2 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 CO2 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).

CCV #12

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. CCV #12

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). CCV #13

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 CCV #14

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.

CCV #14

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.

CCV #15

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"). :

CCV #16

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.

CCV #16

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.

CCV #17

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…".

<u>JoTr's comments to FERC RE: Water Quality</u>:

CCV #18

"…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.

CCV #18

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?

CCV #19

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].

CCV #20

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.

CCV #20

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.

CCV #20

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.

CCV #21

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. CCV #22

Kaiser claims that the mercaneries 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 by-passed.

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 CCV #23

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.

CCV #23

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.

CCV #24

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?

CCV #25

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?

CCV #25

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?

CCV #26

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."

CCV #27

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. (Vallentyne 1974).

CCV #27

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."

CCV #28

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.

CCV #29

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.

CCV #29

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.

CCV #30

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.

CCV #30

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.

CCV #31

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 CO2. 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."

CCV #32

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.

CCV #32

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: CCV #33

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.

CCV #34

- 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.

CCV #34

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. CCV #34

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. CCV #35

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 CCV #36

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.** CCV #37

Respectfully Submitted,

_____

Donna Charpied, Executive Director, for
Citizens for the Chuckwalla Valley

Donna Charpied, Executive Director
Citizens for the Chuckwalla Valley
PO Box 397
Desert Center CA 92239
h (760) 392-4722
c (760) 987-1363
stopthedump@yahoo.com
http://www.basinandrangewatch.org/ChuckwallaValley1.html
"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 befote the Court RE: Mining

ATTACHMNET #9: 5/27/210 letter from County Counsel to Larry Charpied RE: Mining

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

Responses to Comments from the Citizens for the Chuckwalla Valley (CCV):

CCV #1: CCV has been involved in this project since 1990 when it was included as a cumulative project 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 the 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.

Response to CCV #1: The comment is noted, and does not pertain to the adequacy of the Draft Environmental Impact Report (EIR).

CCV #2: 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. 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. 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.

Response to CCV #2: The comment is noted, and does not pertain to the adequacy of the Draft EIR.

CCV #3: 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.

Response to CCV #3: The comment is noted. All comments submitted on the Draft EIR will be considered as part of the State Water Resources Control Board's (State Water Board) decision-making process for the Eagle Mountain Pumped Storage Project (Project). Responses to more specific comments in the comment letter are included below.

CCV #4: The DEIR claims that there are no environmental justice violations, we could not disagree more! There is absolutely zero information on the makeup of our community, which is mainly retired or employed people making below poverty wages.

Response to CCV #4: "Environmental Justice" is a defined term in California statute. Specifically, California Government Code Section 65040.12 defines Environmental Justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies."

The United States Environmental Protection Agency (USEPA) defines environmental justice as:

> …the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The USEPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.
> http://www.epa.gov/environmentaljustice

Potential issues pertaining to Environmental Justice are assessed in Section 3.17 of the Final EIR, which has been revised in response to comments on the Draft EIR.

The State Water Board concludes (on the basis of the Environmental Justice analysis) that the Project will not result in disproportionate adverse effects on minority and low-income communities or Native Americans.

The Project has been developed with public involvement opportunities in the local communities in order to ensure that people in the Project area have access to the decision-making process. This process is described in Section 3.17 of the Draft EIR. Many of the public meetings on the Project, including the scoping meetings held on January 15 and 16, 2009, were scheduled during evening hours for the convenience of the public. Additional informal meetings were held in the communities near the Project site in Palm Desert, Desert Center, and Lake Tamarisk during both the day and evening hours. The purpose of these meetings was to ensure that the public had information regarding the Project description, as well as involvement in, and access to, the decision-making process.

The following additional information has been added to Section 3.17 of the Final EIR to clarify the conclusions drawn in the impact assessment (new text in red):

> Pumped storage hydroelectric projects require a number of very site specific characteristics to be viable. The proposed Project will have only a small number of permanent employees; will not produce significant growth of population in the Project area; and will not be intrusive on the region's social fabric.
>
> The years following the cessation of major mining activity at the Kaiser mine saw a steady decline in population and associated socioeconomic conditions. The 2010 U.S. Census data are the most current detailed data available for the Project region. The census designated place for Desert Center had a population of 204 in 2010 of which 164, or 80 percent, were white. This is comparable to the racial profile of Riverside County, which is 81 percent white. Between 10 – 20 percent of the population lived below the poverty level. Economic information for Desert Center

was not available; the Riverside County population below the poverty level in 2010 was 14.2 percent, with the state average of 14.4 percent. Therefore, the proposed Project will not have a disproportionate effect on people who are poorer than average or minorities. The statistics for race and poverty in the Project area are consistent with those of the state.

EJView, formerly known as the Environmental Justice Geographic Assessment Tool, is a mapping tool that allows users to create maps and generate detailed reports based on the geographic areas and data sets they choose. It can be accessed at http://epamap14.epa.gov/ejmap/entry.html. EJView includes data from multiple factors that may affect human and environmental health within a community or region, including:

- demographic
- health
- environmental
- facility-level data

The EPA EJView application indicates that there are no major pollutant violations or sites within the Project area. The application does not list any designated Brownfields sites per the Assessment, Cleanup and Redevelopment Exchange System (ACRES); Superfund sites per the National Priority List (NPL); toxic releases per the Toxic Release Inventory (TRI); Water Dischargers per the EPA Permit Compliance System (PCS); or air emissions within the Project area per the Air Facility System (AFS). The EPA EJView application also does not list the Project area within a non-attainment area for ozone 8-hour or particulate matter (EPA EJView, 2010).

The proposed Project will not create an increase in inequitable environmental burdens to the surrounding community (pollution, industrial facilities, crime, etc.). The proposed Project is sited in an area that was previously developed with the majority of roads and infrastructure already in place. While the proposed Project will contribute to a change in the region, the significance of this change is small compared to the region's past large scale mining activity and relative to future development planned for the Valley. Lastly, it is reasonably anticipated the proposed Project will provide economic benefits in the way of construction and operation jobs.

CCV #5: 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 EMPS Project. The landfill project has been mired in litigation.

Response to CCV #5: The comment is noted, and does not pertain to the adequacy of the EIR.

CCV #6: The Eagle Crest Energy Company ("ECE") intends to utilize the Eagle Mountain mine site to produce electricity. This project will exacerbate the aquifer's overdraft 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.

Response to CCV #6: Detailed analyses of groundwater use, potential impacts and mitigation measures are included in Sections 3.3 and 12.4 of the Draft EIR. In response to comments, Section 12.4 was updated in the Final EIR to include additional analyses of the Project's potential effects on groundwater. The Project will individually have a less than significant impact on the regional aquifer. To the extent that the Project has the potential to impact individual groundwater users in the Chuckwalla Aquifer, mitigation measure (MM) GW-2 is proposed to protect these water uses. This mitigation measure says that wells on neighboring properties that production may be impacted by the Project's groundwater pumping will be monitored during the initial fill pumping period. If it is determined that Project pumping lowers water levels in those wells by five feet or more, the Project will: replace or lower the pumps; deepen the existing well; construct a new well; and/or compensate the well owner for increased pumping costs to maintain the water supply to those neighboring properties.

The cumulative impacts analysis shows that the regional aquifer will experience a slight overdraft condition that will not deplete the resource. The results of the cumulative impact analysis show that maximum historic drawdown will be exceeded beneath the Colorado River Aqueduct in the Chuckwalla Valley by seven feet, within the Orocopia Valley by six feet, and at the mouth of the Pinto Basin by one foot (Section 12.4 of Final EIR).

The Draft EIR also includes an evaluation of potential groundwater impacts within the Pinto and Orocopia Basins and within Joshua Tree National Park (JTNP). The evaluation concludes that implementation of the Project would not result in significant adverse impacts to the aquifer within JTNP.

For a complete discussion about the Project's energy generation and energy consumption, see Sections 2.3 and 3.15 of the Draft EIR. The Draft EIR does not describe the Project as a renewable power generator, nor as a "green" Project. The Project will facilitate the integration of renewable energy into the transmission grid. The Project is an energy storage system (ESS), as defined by the state of California as "a commercially available technology that is capable of absorbing energy, storing it for a period of time, and thereafter dispatching the energy" (summarized from Assembly Bill [AB] No. 2514 [Statutes 2010, Chapter 649, Skinner])).

CCV #7: 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.

Response to CCV #7: The potential cumulative effects of proposed solar projects and the Project are recognized and thoroughly analyzed in the EIR. Please also refer to Response to CCV#4 and Section 3.17 of the Final EIR for a discussion of Environmental Justice.

CCV #8: 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.

Response to CCV #8: The Draft EIR does not rely on deferred mitigation or additional future environmental studies as the basis of its conclusions. All conclusions contained in the Draft EIR are supported by technical studies that are appendices to the Draft EIR. For portions of the Project site that were accessible, detailed field investigations were conducted on wildlife, vegetation, visual resources, land use, cultural resources, and other topics. Data collection and analytical tools that were used in areas of the site where access was not provided included aerial photography, ground level visual observations and review of previous technical studies completed for the Project area. For a complete description of the methods used to develop the EIR, please refer to Section 3.0 of the Draft EIR. The Draft EIR includes an adaptive management program where mitigation measures are refined through the use of additional studies that will be performed during the Project design, construction, and operational periods.

The California Environmental Quality Act (CEQA) Guidelines require an EIR to be prepared with a "sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences" (CEQA Guidelines §15151). According to the CEQA Guidelines, the Project description,

> …shall contain the following information but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact.
>
> (a) The precise location and boundaries of the proposed Project shall be shown on a detailed map, preferably topographic…
>
> (b) A statement of the objectives sought by the proposed Project…
>
> (c) A general description of the project's technical, economic, and environmental characteristics, considering the principal

> engineering proposals if any and supporting public service facilities (CEQA Guidelines §15124).

The landowner of the Central Project Area, where the reservoirs and powerhouse will be located, for the Project has declined to grant access to these lands for purposes of data collection. The Central Project Area is comprised almost entirely of previously mined lands from the Kaiser iron mine, and consists of mine pits, large mounds of mine tailings, and the Eagle Mountain townsite. As cited in Section 7.0 of the Draft EIR, the Central Project Area has been the subject of many years of scientific and environmental investigations for the proposed Eagle Mountain Landfill (Landfill), and for previous versions of the Project. Extensive data are available and were utilized in the impact assessment for the Draft EIR.

CCV #9: 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).

Response to CCV #9: The comment is noted. Changes in diversity may have effects on other aspects of an ecosystem. Some physical alteration of the land will occur as a result of the Project, but major Project features are concentrated underground at a highly degraded mine site. Outside of the Central Project Area, physical alteration from the linear transmission line and water pipeline features will be negligible to minimal in their effects on ecosystem function. These effects are required to be mitigated through implementation of the mitigation measures identified in the Final EIR.

CCV #10: 11.0 Appendix B – Fish and Wildlife Observed in Project Area, is not complete. 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. The commenter identifies the following wildlife as observed in the project area, but excluded from DEIR: Northern Harrier; Sharp-shinned Hawk; Cooper's Hawk; Golden Eagle; Peregrine Falcon; California Black Rail; Leconte's Thrasher; California Leaf-Nosed Bat; Pallid Bat; American Badger; Yuma Mountain Lion; and Nelson's Bighorn Sheep.

The desert tortoise is included the DEIR, but not in a satisfactory manner. Raven predation on juvenile tortoise will increase. An artificial lake environment in the desert will serve as an attractant for a variety of wildlife that require open water to survive. The impacts to wildlife will range from moderate to extreme.

Response to CCV #10: Appendix B of the Draft EIR contains a complete and current list of plants and wildlife that were observed during surveys. It is not presented as a comprehensive list of all species that might be in the Project vicinity. Table 3.5-2 of the Draft EIR identifies all special-status species that could be in the area, based on habitat and/or observations. This list includes the sensitive species that CCV noted if observed or expected to be present at the Project site, plus several more. Although protocol surveys cover only discrete points in time, they are conducted at the optimum time to observe special-status species. Even if some special-status species were not observed, if the habitats for those species were present they were noted during the surveys and an analysis of whether the animals or plants could potentially

be present was completed. Where potential exists for impacts, mitigation measures are included.

Surveys for desert tortoises were conducted per protocols and methods approved by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW; formerly known as California Department of Fish and Game). The results of these surveys as well as an analysis of the potential Project effects on this species are presented in numerous tables in Section 3.6 of the Draft EIR. Potential effects identified in the Draft EIR included both direct and indirect effects. With regard to increased predator attraction due to the presence of water, Section 3.6.3.3.2 of the Draft EIR discusses the potential for increased predators.

As discussed in Section 3.6 of the Draft EIR, neither food nor water are currently the limiting factors for raven populations in the area under existing conditions. Water sources present in the Project area include a water treatment pond, the open water portions of the Colorado River Aqueduct (CRA), ponds at Lake Tamarisk, and Metropolitan Water District's Eagle Mountain Pumping Plant (which is part of the CRA system). In addition, humans have occupied the Eagle Mountain townsite for many years. Existing perching, roosting, and nesting sites for ravens are plentiful under existing conditions within the Project area, and for those reasons the Draft EIR concludes that increased availability of water in the new reservoirs is not anticipated to increase predator populations. Nevertheless, implementation of the Project would include mitigation measures and monitoring requirements for ravens and other predators (see MM TE-5), reducing this potential cumulative effect to less than significant. Section 5.5.5 of the Draft EIR discusses this in the context of a cumulative impact, including the proposed Landfill.

MM TE-5 of the Draft EIR includes implementation of a Raven Monitoring and Control Program. In January 2012, the Federal Energy Regulatory Commission (FERC) released the Final Environmental Impact Statement (Final EIS) for the Project. The Final EIS includes a modification of MM TE-5 to include other tortoise predators such as coyotes, wild dogs, and gulls. Consequently, MM TE-5 was revised in the Final EIR to include the modifications recommended by FERC, as follows (modifications in red):

MM TE-5. **Predator Monitoring and Control Program.** The Predator Monitoring and Control Program is found in its entirety within Section 12.14. Proposed projects on federal lands that may result in increased desert tortoise predator populations must incorporate mitigation to reduce or eliminate the opportunity for raven proliferation. One of the most significant desert tortoise predators are ravens. The USFWS has developed a program to monitor and manage raven populations in the California desert in an effort to enhance desert tortoise recovery. In order to integrate monitoring and management, the USFWS has agreed to an "in-lieu" fee to replace quantitative raven monitoring on new projects in the range of the desert tortoise. The Licensee will pay in-lieu fees to the USFWS that will be directed toward a future quantitative regional monitoring program aimed at understanding the relationship between ongoing development in the desert region, raven population growth and expansion and raven impacts on desert tortoise populations. The vehicle for this program is a Memorandum of Understanding between the Licensee, the CDFW, and USFWS.

The Predator Monitoring and Control Program may include this in-lieu fee if it is determined that the raven population may increase over current levels due to the Project.

In addition to this in-lieu fee, the program will include, at a minimum:

- A suite of construction and operations measures to reduce food scavenging and drinking by ravens (e.g., trash containment, minimization of pooling water on roadways and construction right-of-ways)
- Roadkill removal
- Qualitative monitoring of raven use of the Project site during operations, conducted on a pre-determined schedule by the on-site Project environmental compliance officer
- Breeding season nest surveys
- Baseline and post-construction surveys for other desert tortoise predators, including coyotes, wild dogs, and gulls
- Mitigation measures to be implemented if the number of predators increases
- A schedule for post-construction surveys during the second year of project operation, followed by surveys once every 5 years

The Licensee will continue to work collaboratively with the resource management agencies to conduct adaptive management as needed to control ravens and other predators in the Project area.

CCV #11: Concerned about the groundwater basins surrounding the Chuckwalla Valley. 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.

Response to CCV #11: The Project's Draft EIR did not rely solely on groundwater studies prepared for the Landfill EIR. Many estimates have been made for recharge to the Chuckwalla Groundwater Basin (see Figure CCV-1). Hanson (1992) estimated the recharge was probably not less than about 10,000 acre-feet per year (AFY) and not more than about 20,000 AFY. The United States Bureau of Land Management (BLM) and Riverside County (1996) estimated the recharge was about 12,200 AFY. In 1994, Greystone estimated the recharge to be about 16,600 AFY, which included inflow from Cadiz Valley. In 1998, Black and Veatch assessed the Cadiz Groundwater Basin and found that surface and groundwater flows are internal or confined to the Cadiz Valley. Accordingly no recharge from the Cadiz Groundwater Valley was incorporated into the water balance for the Chuckwalla Groundwater Basin in the Draft EIR.

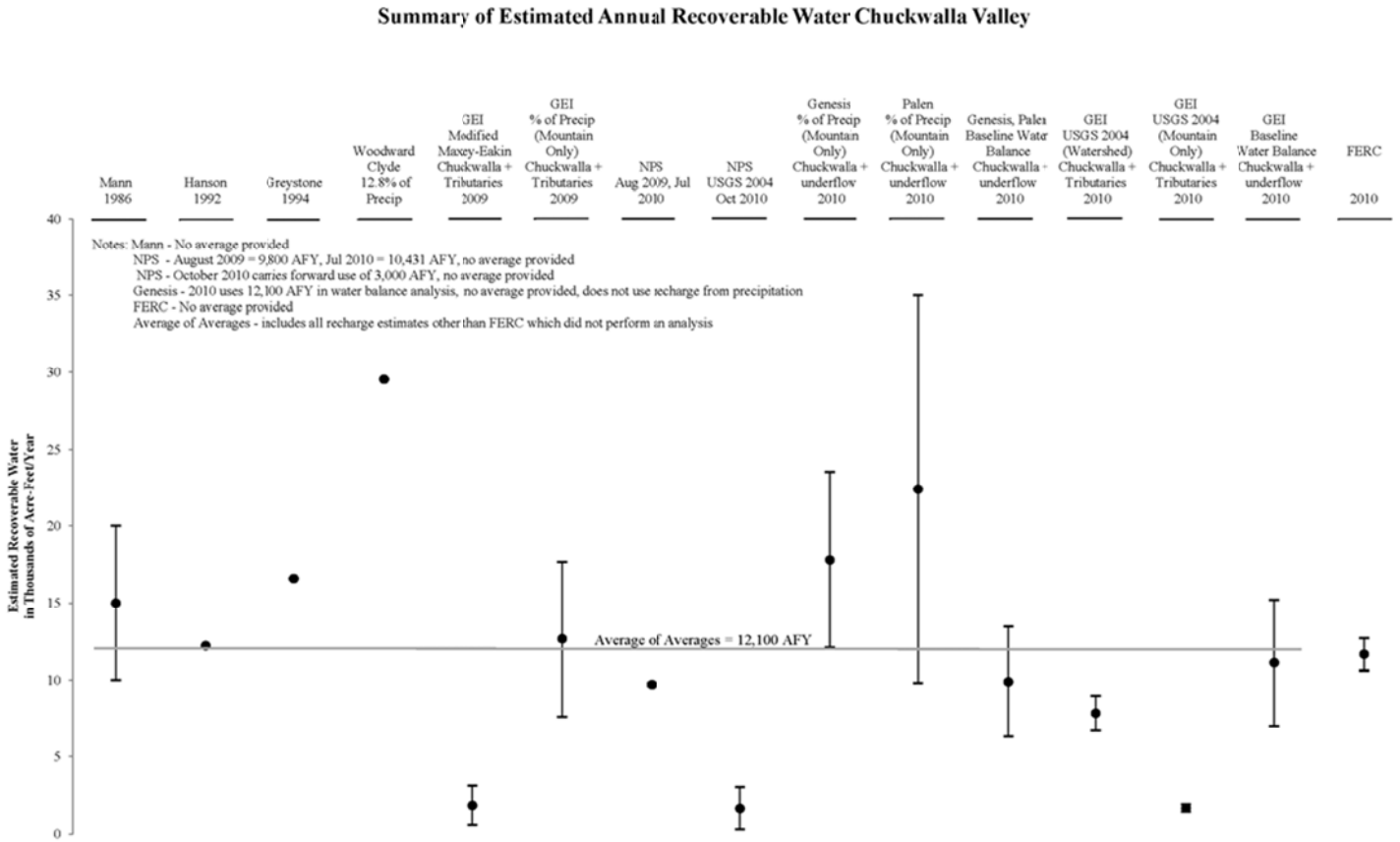

Figure CCV-1: Comparison of Estimated Annual Recharge to the Chuckwalla Aquifer as Developed by Various Authors.
(Recharge used in Draft EIR is 12,700 AFY.)

Section 3.3.2.9 of the Draft EIR estimates the recharge from the Pinto, Hayfield, and Chuckwalla watersheds to range from 7,600 to 17,700 AFY with a mean of 12,700 AFY, similar to previous estimates. The analysis of recharge in the Draft EIR used geographic information system mapping to accurately estimate the area of the watershed at various elevations and combined that information with rainfall records (through 2007), to make an estimate of average annual recharge.

The assessment within the EIR uses the best available data, adequately characterizes conditions in the Chuckwalla Valley region and Central Project Area, and is sufficient to support informed decision-making.

CCV #12-A: CCV anticipates that excessive pumping will lower the water table to the point that plants' roots will no longer be able to access water. This adds to eutrophication of the desert described below (see CCV #28). 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.

Response to CCV #12-A: As described on page 3.3-28 of the Draft EIR, groundwater levels in the Chuckwalla Basin are more than 110 feet below the root zone of plants. Groundwater levels are not in contact with plant root zones. Therefore, overlying desert plant life would not be affected by the Project, landscapes will not be denuded, there will be no reduction in carbon uptake, and there is no potential for an increase in wind erosion as a result of the loss of plant life.

CCV #12-B: The DEIR grossly over estimates the availability of groundwater and therefore underestimates 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. 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.

Response to CCV #12-B: The average rainfall in the valley is approximately four inches, increasing somewhat at higher elevations in the surrounding mountains. As shown in the Draft EIR Section 12.4, Appendix F, estimates of precipitation and recharge were based only on rain that fell on the mountain ranges. The water would infiltrate into the sediments when the water reached the valley, near the fringes with the mountains. There are 507,000 acres of mountains surrounding the valley, a significant area where even a small amount of precipitation can result in a significant cumulative recharge volume.

The Project will have a less than significant impact on groundwater hydrology (drawdown elevation) after implementation of the mitigation program. Pumping will exceed recharge (estimated to be 12,700 AFY) for approximately four years of the 50-year Project life. During the remaining years, recharge will exceed pumping. By 2065, at the end of the 50-year FERC Project license period, the aquifer storage (cumulative change) will increase by about 74,000 acre-feet (AF). This will not result in depletion of groundwater supplies.

As stated in Section 3.3.2 of the Draft EIR, the groundwater in the eastern portion of the Orocopia Groundwater Basin, which is commonly referred to as the Hayfield groundwater subbasin, flows into the Chuckwalla Groundwater Basin. This conclusion is based on the understanding that the watershed divide at Chiriaco Summit is the groundwater divide where water moves south to Coachella Valley or east into the Chuckwalla Valley.

CCV #13: The comment presents the water well on the Charpied farm as an example; 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 feet to 341 feet. In 2004 when we had to replace our pump, we lowered it to 363 feet, where it sets now. We have less than 40 feet to the bottom of our 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 ½ the time for this project that claims water tables will rise in 50 years. While it may be 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 ECE 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. Why was this information omitted?

Response to CCV #13: The cited 2004 United States Geological Survey (USGS) report assessed groundwater in the Joshua Tree and Copper Mountain subbasins. The report did not include information on the Chuckwalla Groundwater Basin. In the USGS 2004 report, fourteen wells were sampled for tritium and carbon-14. Limited information was provided about the well screen intervals, where the water enters the wells. The available information shows the samples were collected from deeper aquifers where older water should be present. Based on isotope studies in the Los Angeles basin where there are large groundwater extractions allowing movement of water through the aquifers and recharge is performed in defined recharge basins, the studies have shown that younger water is present near the top of the groundwater surface and near the recharge basins (Hudson et. al., 2002). Based on this study it would be expected that groundwater isotope results from water collected hundreds of feet below ground surface and not from the top of the water surface would produce very old ages of groundwater in the

Joshua Tree study area. Therefore, it cannot be concluded that there is no young water in the basin.

Information regarding the water level measurements or the aquifer testing that was performed at the Charpied farm was not provided in the 1994 Greystone report. Greystone was sold to another firm in 2005 and its files are not accessible. The data collected in 2008 from the monitoring wells on the Charpied farm were used in the analysis developed for the Draft EIR.

CCV #14: The DEIR states that wells near the ECE 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.

ECE 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.

ECE 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. Clearly, this Valley cannot sustain the withdrawal of water planned for this project.

Response to CCV #14: Please see MM GW-2, which states that wells on neighboring properties whose water production may be impacted by Project groundwater pumping will be monitored during the initial fill pumping period. Specific private wells to be monitored will be defined once agreements have been entered into with each well owner to allow ECE to measure groundwater levels. It is expected that the Charpied well will be included in the monitoring and mitigation program.

As noted in the comment, MM GW-2 states that if monitoring concludes that Project pumping is lowering water levels in those wells by five feet or more, the Project will: replace or lower the pumps; deepen the existing well; construct a new well; and/or compensate the well owner for increased pumping costs to maintain water supply to those neighboring properties.

CCV #15: 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. This is a serious lack of CEQA requirements.

Response to CCV #15: Cumulative effects are discussed in Section 5.4 of the Draft EIR. The term “cumulative project” refers to land development projects that are in various phases of entitlement, planning, construction, and/or operations that may affect the same resources and geographic area as the proposed project.

Table 5-3 in the Draft EIR describes future reasonably foreseeable projects along the I-10 corridor, including all of the solar projects that were proposed at the time of preparation of the Draft EIR. These solar projects in the Chuckwalla Valley were included in the cumulative effects analysis, including an analysis of their proposed water use (*see* Section 12.4, Attachment E of the Draft EIR). These estimates were incorporated into the cumulative effects analysis.

As stated in Section 12.4 Attachment F, page 2, of the Draft EIR groundwater recharge estimates assumed no recharge from the valley floor, and that all recharge comes from the surrounding mountains. Therefore, the Draft EIR assumptions are conservative and precluded the proposed solar projects from impacting the estimated recharge rates.

CCV #16: 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"). Now with the hydroelectric company, we KNOW water will escape, bringing along with it contaminants (acid mine drainage) straight into the aquifer.

Response to CCV #16: The Project includes multiple design features and includes mitigation measures that will be implemented to control seepage from the Project's reservoirs and tunnels. Water used by the Project will be treated to maintain its quality at the ambient level of existing groundwater quality. Seepage will be monitored and pumped back to the reservoirs for reuse. Measures to limit the rise of groundwater levels in the vicinity of the CRA will be implemented as described in the Draft EIR in Project Design Feature (PDF) GW-1, MM GW-4, and MM GW-5. Groundwater quality will be monitored, and if any constituents that could produce acid mine drainage are detected, the required reverse osmosis water quality treatment system will be modified to include treatment for those contaminants, as also required in mitigation measure MM SW-1.

CCV #17: 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 ECE *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.

Response to CCV #17: Protection of the Project water supply is essential to Project operations and includes specific design measures and monitoring components to ensure that seepage is minimized. Seepage control measures for the reservoirs include concrete grouting, clay lining and/or roller-compacted concrete lining, with site-specific applications to be designed during

final engineering based upon the results of core drilling, permeability testing, and lab testing of rock samples. Similarly, during final engineering design, required field investigations will be performed as specified in the Final EIR (Section 12.1) to complete the design of the monitoring system and wells for managing groundwater levels, and water quality.

Existing wells that will be inundated by the reservoirs will be replaced, as described in MM GW-7 in the Draft EIR.

CCV #18: 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. 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.

Response to CCV #18: A discussion of potential impacts of Project water in contact with the mining pits is described in Section 3.2.3.3.2 of the Draft EIR. MM SW-1 is included to address potential impacts to water quality from potential acid generation.

CCV #19: Impacts to 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?

Response to CCV #19: Runoff from the surrounding watersheds will continue to enter the mine pits as it has in the past. In each reservoir a dead storage pool will be provided below the minimum reservoir intake level. Dead storage is the portion of the reservoir below the minimum pool level. Silt will accumulate in the dead storage pools, which have a volume of 2,300 AF for the Upper Reservoir and 4,200 AF for the Lower Reservoir.

As a part of final engineering the reservoir slopes will be designed for stability under conditions of the up and down reservoir levels typical of pumped storage operations. Slope stability engineering will be completed using computer methods such as SLOPE/W that is typically accepted by state of California and FERC dam safety regulators. Interior reservoir slopes will be designed for normally accepted factors of safety identified in the FERC's Engineering Guidelines for Hydroelectric Projects. At locations where natural runoff enters the reservoirs, additional slope protection will be installed as needed in the form of riprap or soil cement to protect against erosion and undermining of the reservoir slopes and liner materials.

Details regarding stormwater management are provided in Section 12.9 of the Draft EIR.

CCV #20: We have been unable to find anything in the DEIR that supports the claim that over pumping is not a problem. ECE merely continues with the unsupported claim that a roller compacted concrete ("RCC") dam can withstand over pumping.

ECE 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.

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 State Water Board to obtain and evaluate is forbidden by CEQA.

On December 14, 2005, there was a breach of the upper reservoir of the Taum Sauk Project.

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.

Response to CCV #20: There are several important differences between the Project and the Taum Sauk Project in Missouri. At Taum Sauk, the lower reservoir is an on-stream facility. The original Taum Sauk upper reservoir had a capacity of 4,350 AF. The lower reservoir is on the East Fork of Black River and has a capacity of 6,350 AF, in addition to the water available from natural stream flow occurring in the river (which averages 79 cubic feet per second, equal to about 155 AF per day). Unlike the Project, which is a closed system, at Taum Sauk water can flow from the lower reservoir into the upper reservoir as long as the pumping continues. When the upper reservoir at Taum Sauk failed, it was because of a misaligned reservoir level gage. The Taum Sauk powerhouse did not receive warning that the upper reservoir was full and the automatic pumping shut-down did not occur. With a continuous water supply source larger than the capacity of the upper reservoir, pumping continued until the upper reservoir overflowed. Unlike the Project, at Taum Sauk the upper dam had no spillway, and the overflow condition caused the rockfill upper reservoir dam to fail.

Unlike Taum Sauk, the Project will be a "closed system" meaning that the water used for generating and pumping is a fixed volume that will be cycled between the two reservoirs. Unlike Taum Sauk, there will not be enough active storage in the Lower Reservoir (or any natural stream flow) to cause overtopping of the Upper Reservoir in an unlikely over-pumping event. The Lower Reservoir has slightly more dead storage than the Upper Reservoir, because of its shape. If an automatic shut-down system should fail, and pumping continues from the Lower Reservoir drawing down water levels to the dead storage pool, water will flow over the Upper Reservoir spillway preventing overtopping of the Upper Reservoir dam. However, even in the unlikely event of overtopping, concrete dams, unlike earthfill and rockfill dams, can withstand some amount of overtopping. The Upper Reservoir dam is proposed to be constructed of roller

compacted concrete (RCC). As a final note, the replacement for the failed rockfill dam at Taum Sauk is a RCC dam.

All dams that could cause damage or loss of life should they fail, are required to have Emergency Action Plans (EAPs) approved by the FERC (Section 12.22 (a) (1) of the FERC's regulations). EAPs include maps showing the extent of flooding that could result from a theoretical dam failure and provide warning times and instructions for actions and responses to be taken in the event of a dam safety emergency. Federal and state regulations for dam safety require owners of high-hazard potential dams to design and maintain dams so that the possibility of a dam failure due to floods, earthquakes, and other natural events is miniscule. Regulations (18 Code of Federal Regulations Part 12) also require that security measures be installed to deter terrorist attacks. These regulations do not require dam owners to assess the economic damages of loss of life from a dam failure.

Portions of the Project description have been classified by FERC as Critical Energy Infrastructure Information (CEII), meaning that the public is not authorized to view the conceptual designs, drawings, and backup materials developed for FERC licensing activities. The FERC requirements for project planning and design of project facilities will ensure that all Project structures and their operation will fully comply with applicable federal and state safety requirements. This information can be released by FERC, with its approval. FERC provides an electronic CEII request form, which is available online at: http://www.ferc.gov/help/filing-guide/ceii-request.asp. This information is also on file with the State Water Board.

CCV #21: ECE will undertake detailed site investigations to support final configuration and design of the Eagle Mountain Pumped Storage Project.

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.

Response to CCV #21: The Project Description contained in the Draft EIR represents a comprehensive and detailed description of all components of the Project. According to the CEQA Guidelines, the Project description:

> …shall contain the following information but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact.
>
> (a) The precise location and boundaries of the proposed project shall be shown on a detailed map, preferably topographic…
>
> (b) A statement of the objectives sought by the proposed project…
>
> (c) A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities (CEQA Guidelines §15124).

In some instances, further studies are needed to select the precise mitigation measure. The State Water Board is not deferring mitigation, rather it is committing to implementing enforceable mitigation measures that will meet defined standards when additional site information is obtained.

The Draft EIR includes PDF GEO-1 and PDF GEO-2 to address subsurface investigations and geologic mapping which will result in the proposed dams being designed to meet the approval of FERC and the California Department of Water Resources Division of Safety of Dams (DSOD). Comments and concerns expressed by other agencies regarding the Project have been incorporated into the Mitigation and Monitoring Program.

The Draft EIR contains a general description of the Project's principal components, including the Upper Reservoir dams. The physical impacts of dam construction are disclosed and discussed in the Draft EIR (Section 3). The impacts have been evaluated in such a way that no additional environmental impacts will result even if the final engineering designs result in modifications to the configuration and design of the Upper Reservoir dams.

Design and construction of the Upper Reservoir dams will be under the regulation of FERC's Division of Dam Safety and the California DSOD. FERC regulates both the construction and operational phases of hydropower projects. As described on FERC's website (http://www.ferc.gov/industries/hydropower/safety.asp):

> …dam safety is a critical part of the FERC's hydropower program and receives top priority. Before projects are constructed, the FERC staff reviews and approves the designs, plans, and specifications of dams, powerhouses, and other structures. During construction, FERC staff engineers frequently inspect a project, and once construction is complete, FERC engineers continue to inspect it on a regular basis.

California DSOD engineers and engineering geologists review and approve plans and specifications for the design of dams and oversee their construction to ensure compliance with the approved plans and specifications. Reviews include site geology, seismic setting, site investigations, construction material evaluation, dam stability, hydrology, hydraulics, and structural review of appurtenant structures. In addition, DSOD engineers inspect dams on a yearly schedule to ensure they are performing and being maintained in a safe manner.

CCV #22: 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 U.S. Marine Corps trained for two weeks, mercenaries remain on the site today, with IPG having an office at Eagle Mountain.

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?

Response to CCV #22: Please refer to Section 5.0 of the Draft EIR for a complete discussion and listing of cumulative projects analyzed. To clarify, CEQA Guidelines defines a cumulative impact as:

> The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. (CEQA Guideline §15355(b)).

Section 3.16 (Hazardous Material) of the Draft EIR describes the previous BLM contaminant surveys conducted on the Project site (1992 and 1996). These surveys did not find any evidence of hazardous substances or contamination. These surveys are on-file with the State Water Board.

Section 3.16.3.3 of the Draft EIR describes the historic and present military uses of the Project area. Impact 3.16-1 describes the potential for environmental impact as a result of hazardous materials that are a result of military training taking place on the Project site. MM HM-1 requires training to identify unexploded ordinance and a reporting plan in the event an ordinance is discovered during the final engineering/pre-construction/construction phases of the Project. If hazardous material is found on-site, it is required to be disposed of, or contained safely and appropriately, according to procedures set forth in the Draft EIR (Section 3.16) pursuant to state and federal regulations.

The potential water quality impact of filling the pits with water is discussed in Section 3.2 of the Final EIR. Impact 3.2-3 describes the potential impact to Project-created surface waters. PDF GW-2 is a water treatment facility which will remove contaminants from the reservoir waters. MM GW-6 is a water quality monitoring program. The Project has been designed to include a reverse osmosis water treatment facility and includes specific water quality mitigation measures to maintain water quality equivalent to source groundwater quality.

CCV #23: 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.

Response to CCV #23: This ongoing activity, including a discussion of military activities in the Project area is addressed in Section 3.16 of the Final EIR.

CCV #24: 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. One would think there is no mining happening at the **defunct** Kaiser Eagle Mountain mine, but not so. Clearly, Kaiser along with the County of Riverside will tell whatever story fits the occasion. Again this is no fault of ECE, but they DO have to conduct a cumulative analysis of the Project, mining, the dump, and solar projects.

Response to CCV #24: A cumulative project refers to a project [potential or planned] in various phases of planning, entitlement, construction or operation and which may affect the same resources and geographic area as the Project.

Cumulative impacts are discussed in Section 5.0 of the Final EIR. Impact 3.1-3 in Section 3.1 of the Final EIR was modified as follows (new text shown in red):

Impact 3.1-3. Active and Inactive Mines. There are no current permitted plans to resume iron mining at the Project site. The owners of the mine site property intend to develop the mine site as a regional landfill and have not filed an application to re-open the mine site as an iron mine, although some small scale rock quarrying is ongoing. Ore reserves within the Project boundary, including a portion of CSLC [California State Lands Commission] mineral reserves, which constitutes a small percentage of the available iron ore on the site, will not be accessible for the life of the Project. Iron ore and other rock resources in the mine site outside the Project boundary will remain accessible for mining. This impact would be *less than significant* and no mitigation is required.

CCV #25: 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?

Response to CCV #25: The CEQA Guidelines do not provide any time limit relating to the availability and use of data. Rather, the CEQA Guidelines (§15148) require that the “Preparation of EIRs be dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features.”

Because the Project is subject to state and federal environmental review and permitting, FERC and California DSOD approvals of the design of the Project will also be required before the Applicant can initiate construction. Before projects are constructed, FERC staff reviews and approves the designs, plans, and specifications of dams, powerhouses, and other structures. During construction, FERC staff engineers regularly inspect a project, and once construction is complete, FERC engineers continue to inspect it on a regular basis. In addition to FERC dam safety oversight, the state of California will also review and approve plans and specifications for the design of dams and oversee their construction to ensure compliance with the approved plans and specifications. Reviews include site geology, seismic setting, site investigations, construction material evaluation, dam stability, hydrology, hydraulics, and structural review of appurtenant structures. In addition, California DSOD engineers inspect dams on a yearly schedule to ensure they are performing and being maintained in a safe manner. To obtain these approvals will require that very detailed seismicity studies be performed based on historic and recent data to establish potential ground movements during seismic events and to provide seismic design loadings for all project structures. This will include analysis of the response of reservoir side slopes and determination of safe slopes and treatment measures (if any) to prevent slope failure and water displacement during the design seismic loading conditions approved by FERC and California DSOD.

The site seismic response was calculated and included in the Final License Application submitted to FERC by the Applicant (June 2009). The calculation was performed using methods, data and attenuation formulas, consistent with industry standards. The Draft EIR provides details of the rationale for the seismic analysis (see pages 3.1-15 and 3.1-16) and both deterministic and probabilistic ground motions for the site using the most recent available data (2002 and 2007) on faults and seismicity in the area. As stated, the Maximum Credible Earthquake (MCE) of the Blue Cut fault was lowered from the GeoSyntec estimate of M7.5 to M6.9 based on lack of Holocene (10,000 years to present) activity.

The Draft EIR describes the existing pit slopes as being unstable (see page 3.1-23). Pit slopes will be stabilized in accordance with industry-accepted means and methods during the final engineering design phase of the Project. The text notes that programs to characterize the slope stability will be initiated once site access is achieved (PDF GEO-2). The process of pit slope stabilization is addressed in the Draft EIR for the Upper Reservoir on page 2-12 and for the Lower Reservoir on pages 2-13 and 2-14, including evaluations for normal and seismic loading conditions.

Part 12, Subpart C of the FERC regulations provides general requirements for EAPs at hydropower projects under FERC's jurisdiction. Section 12.20 (a) of the FERC's regulations requires every licensee to develop and file an EAP with the Regional Engineer unless granted a written exemption in accordance with Section 12.21 (a) of the regulations. The EAP must be filed with FERC no later than 60 days prior to the filling of the reservoirs. A comprehensive review of the EAP must be prepared by the licensee annually. An EAP is a formal document that identifies potential emergency conditions at a dam and specifies preplanned actions to be followed to minimize property damage and loss of life. The EAP specifies actions the licensee should take to minimize or alleviate the problems at the dam. It contains procedures and information to assist the licensee in issuing early warning and notification messages to responsible downstream emergency management authorities of the emergency situation. It also

contains inundation maps to show the emergency management authorities the critical areas that require action in case of an emergency. The EAP will address the concerns expressed in the comment letter regarding the handling of emergencies.

CCV #26: 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 perches being erected for the Project. Why not place the transmission lines under ground?

The scenery around this area is pristine desert. 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!

Response to CCV #26: The alternative transmission line route recommended in Section 4.10 of the Draft EIR as the environmentally superior alternative was selected in large part to avoid intrusion on high quality desert tortoise habitat found within the Desert Wildlife Management Area (DWMA), which is crossed by the originally proposed route along Eagle Mountain Road. Tortoise habitat values are recognized for the preferred route, and the mitigation requires that the Applicant acquire suitable lands as compensation for habitat impacted by construction of both the transmission line and water pipeline. The preferred route also parallels an existing transmission line corridor for most of its length with a goal to minimize new visual and land use effects.

Due to high heat issues, safety concerns and access for maintenance, it is not feasible to bury long segments of high voltage transmission lines of the size (500 kilovolts) needed to serve the Project.

Sulfur hexafluoride (SF_6) is a greenhouse gas (GHG) commonly used in the utility industry as an insulating gas in circuit breakers. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 23,900 times the global warming potential as carbon dioxide (CO_2). The proposed substation associated with the Project would likely require SF_6-insulating circuit breakers that could unintentionally leak SF_6. Although it is not yet known how many SF_6-containing circuit breakers would be required at the proposed substation or how much SF_6 would be contained within each circuit breaker, a general estimate

of Project-related SF_6 emissions can be made relative to other similar electric infrastructure projects.

The California Public Utilities Commission (CPUC) has recently indicated that for an electric transmission line project in Coachella Valley, new circuit breakers would each contain approximately 50 to 150 pounds of SF_6 (CPUC, 2010). Circuit breakers manufactured in 1999 or later tend to emit less than one percent of its nameplate capacity (USEPA, 2006), so it can be assumed that each SF_6-containing circuit breaker that would be installed under the Project would leak up to 1.5 pounds SF_6 per year. Given that SF_6 has a global warming potential 23,900 times that of CO_2, operation of each SF_6-containing circuit breaker would result in an increase of approximately 18 tons of CO_2e equivalent (CO_2e) per year. Therefore, depending on the exact number of circuit breakers that would be associated with the proposed substation, Project SF_6 emissions would likely be less than 360 tons CO_2e per year (if 20 new circuit breakers were installed). Section 3.15 of the Final EIR was revised to include regulations to reduce SF_6 emission rates and include the estimated impact of the Project's circuit breakers in total GHG emissions.

As described in the Air Quality section of the Draft EIR (Section 3.13), the Project will be constructed and operated in conformance with all applicable federal, state, and local laws, ordinances, regulations and standards (LORS). The proposed Project's circuit breakers will meet the emission requirements of the California Air Resources Board, including regulations that became effective on February 2, 2010, and requires owners of gas insulated switchgear (GIS) to establish an initial, maximum emission rate of 10 percent of their nameplate capacity of SF_6 by January 1, 2012. GIS owners will be required to annually reduce SF_6 emission rates by one percent over the following nine year period. The maximum emission rate in 2020 is expected to be set at one percent.

Southern California Edison (SCE), who would operate and maintain the proposed Project substation, is an existing member of the SF_6 Reduction Partnership for Electric Power Systems (Partnership). The Partnership is a collaborative effort that was formed between the USEPA and the electric power industry to help identify and reduce fugitive emissions of SF_6. Utilities that join the Partnership agree to: estimate current annual SF_6 emissions and annually inventory emissions of SF_6 using an emissions inventory protocol; establish a strategy for replacing older, leakier pieces of equipment; implement SF_6 recycling; ensure that only knowledgeable personnel handle SF_6; and submit annual progress reports to USEPA. In 2006, USEPA recognized SCE for its accomplishments in reducing SF_6 emissions. Since SCE joined the Partnership in 2001, the company has reduced its SF_6 emissions by 41 percent. Therefore, SCE operations, including those that will be associated with the Project are considered consistent with California's goals to reduce overall emissions of SF_6.

To ensure that proposed Project-related SF_6 emissions are reduced to the extent most feasible, Section 3.15 of the Final EIR was modified to include discussion of this specific regulation, and PDF GHG-1, has been added which will ensure that any SF_6-containing circuit breakers are cataloged and monitored pursuant to California state law and the requirements of the Partnership (new text in red).

PDF GHG-1. SF6 Monitoring. All SF_6-containing circuit breakers that are installed under the proposed Project shall be cataloged and monitored pursuant to California state law and the recommendations of the SF_6 Reduction Partnership for Electric Power Systems.

CCV #27: 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."

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.

Response to CCV #27: Section 3.2.3.3.1 of the Final EIR was revised to include a discussion of the potential for waste deposited at the proposed Landfill to cause eutrophication of the reservoirs. Because the Landfill would be designed to prevent water from becoming contaminated, this is an unlikely scenario. In addition, the Project's water treatment facility will remove nutrients as well as salts from reservoir waters, preventing eutrophication.

CCV #28: The Affected Environment: Joshua Tree National Park is considered one of the finest examples of Mojave Desert and Colorado Desert in existence today. 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.

Response to CCV #28: Potential impacts to JTNP are discussed in the Draft EIR in Sections 3 and 5. Resources within the JTNP that could potentially be affected include surface water, groundwater, wildlife, threatened and endangered species, recreation, air quality, visual resources, and noise.

Section 3.3.2.2 of the Draft EIR has a description of the springs in the Eagle Mountains. These springs are hydrologically disconnected from the Chuckwalla Aquifer, therefore there will be no potential Project impact to these springs. Section 3.3.3.3.5 of the Draft EIR describes local groundwater level effects in the Pinto Basin. JTNP resources in the Pinto Basin will be unaffected by the Project. Potential Project impacts to wildlife and threatened and endangered species are described in Sections 3.5 and 3.6 of the Draft EIR. There is the potential to impact species that use JTNP for some of their life cycle, such as golden eagle. An extensive mitigation program (Sections 3.5.4 and 3.6.4 of the Draft EIR) is proposed which will reduce these impacts to a level less than significant. Section 3.7.3.3 assesses the potential impact to visual resources within JTNP, including potential impacts to night skies. The Project includes a mitigation program which will reduce these impacts to less than significant, including funding a night sky monitoring program to be conducted in collaboration with NPS. No ground disturbing activities will take place within JTNP, therefore there will be no impact to cultural resources or land use within JTNP.

Potential impacts to recreational uses within JTNP are discussed in Section 3.10.3. These impacts are identified to be less than significant, as the Project site is an open pit mine, which is only visible from a few, very remote, vantage points within the JTNP. Therefore the Project impacts to the visual character of JTNP will be less than significant.

Potential impacts to air quality within JTNP are discussed in Section 3.13.3 of the Draft EIR. The Project will result in a significant construction related impact to NOx in two of the construction years. MM AQ-1 through MM AQ-13 are proposed to minimize air quality impacts, but NOx levels will be in excess of the thresholds of significance with the application of mitigation measures. MM AQ-13 requires that the Applicant work collaboratively with the NPS to establish an air quality study. If the Project is found to have a significant impact on ozone levels within JTNP the Applicant will develop a transmission management plan to reduce ozone emissions.

Potential noise impacts on JTNP are discussed in Section 3.14.3 of the Draft EIR. Rock drilling activities may be audible at the boundary of JTNP; however these noise levels will be temporary, resulting in less than significant impacts. As soon as the rock drilling moves underground, it will no longer be audible. No operational noise will be detectable in JTNP.

CCV #29: 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.

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. There is a deficiency in reliable data and observations on the existing springs in the area.

Colonization of the reservoirs by fish is likely. 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.

Response to CCV #29: Draft EIR Section 3.5.4.1.1 includes specific mitigation measures that will be implemented to avoid or minimize potential adverse effects on wildlife habitat.

Groundwater will be the only source of water used for reservoir water, therefore, there is not potential for exotic and/or invasive species to be imported by the Project’s water supply. The Project does not include plans to establish fisheries in the reservoirs. The reservoirs will not be open to the public, therefore stocking of the reservoirs by the public would not be allowed to occur. If fish enter the reservoirs through illegal stocking, repeated cycling of the water through the pump turbines will result in high mortality rates. In the unlikely event that some fish do survive, it is impossible for them to escape and cause ecosystem impacts to JTNP as the reservoirs are a closed system, surrounded by desert habitats, which are unsuitable for all species of fish. Fish and invertebrates associated with freshwater would not be able to persist in a dry environment outside the reservoirs, including in JTNP or Wilderness Areas as described in Section 3.5.2.3 of the Draft EIR.

Section 3.3.2.2 of the Draft EIR addressed potential Project impacts on springs, and Section 12.4 of the Draft EIR addressed potential groundwater level effects. The springs in the mountainous areas surrounding the Project site are hydrologically disconnected from the Pinto and Chuckwalla aquifers and so will not be affected by the Project.

For clarification, Section 3.2.2 of the Final EIR was modified as follows (new text shown in red):

> Springs that are fed by groundwater in the Eagle Mountains (*see* Figure 3.3-1) are hydrologically disconnected to the Pinto or Chuckwalla basin aquifers (NPS, 1994). The springs are located in the bedrock above the Pinto and Chuckwalla basins and the water is derived from fractures in the rock in the local area. Seasonal precipitation likely fills the fractures. None of the springs are documented as permanent, year round springs, (SCS Engineers, 1990) (Table 3.2-1). It is unlikely the fractures are connected to the sediments in the Pinto or Chuckwalla groundwater basins because if so, water would drain from the fractures into the sediments, leaving the springs dry. If the fractures did extend to the valley, it is unlikely that it would be refilled by the limited precipitation in the area. The difference of the spring elevations to groundwater in the adjacent valleys is 200 to 1,000 feet, which supports the conclusion that the fractures are not hydraulically connected to the valley sediments. None of these springs are identified by RWQCB Region 7 [Colorado River Basin Regional Water Quality Control Board] as having site-specific use classifications. Therefore, the default use classifications for these springs are the uses for miscellaneous unnamed tributaries (e.g., groundwater recharge; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; and preservation of rare, threatened, or endangered species).

CCV #30: 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. FERC has lent sufficient authority to include a section in the Draft EIR 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.

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), and industry person, and a government entity (preferably Joshua Tree National Park).

Response to CCV #30: Portions of the Project description have been classified by FERC as Critical Energy Infrastructure Information (CEII), meaning that the public is not authorized to view the conceptual designs, drawings, and backup materials developed for FERC licensing activities. This information can be released by FERC, with its approval. FERC provides an electronic CEII request form, which is available online at: http://www.ferc.gov/help/filing-guide/ceii-request.asp.

FERC regulates both the construction and operational phase of a hydropower project. Dam safety is a critical part of FERC's hydropower program and receives top priority. Before projects are constructed, FERC staff reviews and approves the designs, plans, and specifications of dams, powerhouses, and other structures. During construction, FERC staff engineers frequently inspect a project, and once construction is complete, FERC engineers continue to inspect it on a regular basis. Therefore, FERC will actively oversee the security of the Project from design through construction and operation. For more information see http://www.ferc.gov/industries/hydropower/safety.asp

The Mitigation Monitoring and Reporting Plan (MMRP) in Section 6.0, Table 6-2 of the Final EIR contains information on responsible parties for implementing mitigation measures. The parties specified in the MMRP will have oversight for the mitigation program. In addition, FERC is the licensing authority for the Project, and will have oversight over the implementation of the mitigation program. The State Water Board will monitor the implementation of and compliance with the water quality certification conditions. USFWS will monitor the implementation of the Terms and Conditions of the Biological Opinion. BLM will monitor any mitigation measures required under by the Record of Decision for issuance of a right-of-way across Federal lands, should such a right-of-way be granted.

CCV #31: Light Pollution. In the desert there should be no net addition. Mitigation is to get some reduction somewhere. 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.

Response to CCV #31: The Project will have limited lighting with the exception of security lighting. MM AES-1 is included in the Draft EIR to address light pollution concerns and to minimize the potential for off-site lighting impacts. Mitigation additionally includes an on-going monitoring effort with the NPS to continue assessing and reducing cumulative and long-term effects after Project construction. With mitigation, the Project is expected to have a less than significant effect on ambient light levels, and would only be noticeable within the immediate area of the site due to intervening topography.

The cumulative aesthetic effects of the Project are discussed in Section 5.5.6 of the Draft EIR. The analysis concludes that the Project's transmission line from Eagle Mountain Road to the interconnection substation would create a significant adverse aesthetic and visual resources impact. Section 5.5.6 of the Final EIR was revised to clarify that this significant adverse effect is not related to a cumulative impact on night lighting, but rather is a result of a visual change in the character of the natural landscape.

CCV #32: 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 CO2.

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. 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. Given the possibility of a pumping power mix it might end up attempting to sell all of its generation as renewable power.

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!

Response to CCV #32: The Draft EIR does not describe the Project as a renewable power generator, but as an energy storage Project which will facilitate integration of renewable energy into the transmission grid. California Public Utilities Code Section 2805 defines hydroelectric power generators that produce in excess of 30 megawatts (MW) to be conventional power. The Project does not meet the definition of a renewable energy project under California law.

The GHG emission analysis in Section 3.15 of the Draft EIR concluded that the Project would not contribute to an increase in GHG emissions for California. This conclusion is based upon the analyses presented in Table 3.15-2 of the Draft EIR. The most likely future scenario would be that power generation from the Project would displace simple cycle power plants (natural gas-fired peaker plants) and that pump-back power would result in the dispatch of power from natural gas-fired combined cycle power plants. Under this scenario there would be a beneficial effect from each cycle of water through the Project. Table 3.15-2 in the Draft EIR uses CO_2 emission factors for simple cycle and combined cycle power plants recommended by the California Energy Commission (CEC) (CEC, 2010).

This analysis is based upon existing generation sources and conditions in California, and does not assume that cleaner generation sources would be available for the Project's pump-back power in the future. Although it is not possible to accurately predict the energy generation mix in California over the next 50 years, it can be reasonably assumed that sources of generation will become cleaner (i.e., lower GHG emissions) over decades to come, and the total emissions associated with pump-back power would likely decrease over the proposed 50-year life of the

Project, potentially resulting in a greater level of emissions offset than the amounts presented in Table 3.15.2 of the Draft EIR. The assumption that California's energy generation will become cleaner in the future is reasonable given the April 12, 2011, passage of Senate Bill (SB) X1-2 (Statutes 2011, Chapter 1, Simitian), which increases the state's renewable portfolio standard (RPS) by requiring California's public and private utilities to produce 33 percent of their energy from renewable sources, such as solar, wind, biogas and small hydroelectric plants, by 2020[1].

Although the Project does not quality as a renewable source of energy, the Project would help maximize and integrate existing and future renewable energy sources into the transmission grid.

According to the CEC, the California Independent System Operator (CAISO), and major electric utilities in the state, large scale energy storage projects, such as the Project, are essential for: successful integration of wind and solar renewable power generation; maintaining reliable transmission grid operations; and California to meet its GHG reduction goals (CEC, 2009). CEC staff has estimated that California will need a minimum of 4,000 MW of energy storage by 2020 (CEC, 2009) in order to meet its GHG reduction goals.

In order to "encourage the cost effective deployment of energy storage systems[2]" the State of California enacted the Energy Storage Act (also known as AB 2514). This law requires the CPUC to open a proceeding by March 1, 2012, to consider establishing investor owned utility procurement targets for viable and cost-effective ESS to be achieved by December 31, 2015, and an additional target to be achieved by December 31, 2020. Publicly owned utilities will be required to develop plans to maximize shifting of electricity use from peak demand periods to off-peak periods.

On December 16, 2010, the CPUC opened Rulemaking (R.) 10-12-007 to implement the provisions of AB 2514. Although AB 2514 directs the CPUC to open such a proceeding by March 1, 2012 (§ 2836(a)), the CPUC chose to open it sooner, explaining that it "see[s] the enactment of AB 2514 as an important opportunity for this CPUC to continue its rational implementation of advanced sustainable energy technologies and the integration of intermittent resources in our electricity grid." (CPUC Order Instituting Rulemaking, December 21, 2010). In a Scoping Memo and Ruling issued on May 31, 2011, the assigned Commissioner and Administrative Law Judge (ALJ) determined that the proceeding should be resolved in two phases. The first phase would develop the overall policies and guidelines for ESS, including where and how ESS could be deployed to provide maximum benefits to the electric system. The second phase would develop the costs and benefits for ESS and establish how they should be allocated.

On August 6, 2012, the CPUC issued Decision 12-08-016 (D. 12-08-016) which adopted the Energy Storage Framework Staff Proposal and initiated the second phase of the proceeding. The Staff Proposal contained a framework to analyze energy storage and identified 20 "end

[1] Section 399.11 of the Public Utilities Code: The Legislature finds and declares all of the following: (a) In order to attain a target of generating 20 percent of total retail sales of electricity in California from eligible renewable energy resources by December 31, 2013, and 33 percent by December 31, 2020, it is the intent of the Legislature that the commission and the Energy Commission implement the California Renewables Portfolio Standard Program described in this article.
[2] Part 2 of Division 1 of the Public Utilities Code, Chapter 7.7, Section 2836. (a) (1).

uses." These end uses were then combined into four basic "scenarios" for further analysis. These basic scenarios are: generator-sited storage, bulk "generation," distributed storage and demand-side management. D. 12-08-016 included the following Findings of Fact:

1. AB 2514 directs the Commission [CPUC] to open a proceeding to determine appropriate targets, if any, for each load-serving entity to procure viable and cost-effective ESS.

2. Energy storage is multi-functional and can be used at the transmission, generation, and distribution levels.

3. The multi-functional nature of energy storage means that it is subject to regulation from various state and federal agencies.

4. It is not possible to adopt a single, comprehensive energy storage policy that would apply across all storage functions and regulatory agencies.

5. Parties generally agree that any adopted energy storage policy should be technology neutral.

6. Parties identified nine perceived barriers to the more widespread deployment of ESS.

7. The Final Proposal includes a proposed framework to analyze energy storage based on "end uses" for storage and where in the value chain storage is being used.

8. The Final Proposal's analysis approach would consist of four major categories – regulatory framework, cost effectiveness, procurement objectives and energy storage roadmap.

9. The Final Proposal recommends four basic "scenarios" for analysing energy storage based on existing state and Commission [CPUC] policy objectives.

On October 1, 2012 the CPUC issued a scoping memo and ruling, which identifies the issues to be considered in Phase 2 of the proceeding and sets a procedural schedule for the CPUC to issue a final decision in October 2013.

The analyses in the Draft EIR (Sections 2.1, 2.2 and 4.7.3) indicate that the Project should have environmental benefits related to the successful integration of renewable energy projects in California. Within AB 2514 the California Legislature made the following declarations, which support the Draft EIR's analysis:

- Expanding the use of energy storage systems can assist electrical corporations, electric service providers, community choice aggregators, and local publicly owned electric utilities in integrating increased amounts of renewable energy resources into the electrical transmission and distribution grid in a manner that minimizes emissions of GHGs.

- Additional energy storage systems can optimize the use of the significant additional amounts of variable, intermittent, and offpeak electrical generation from wind and solar energy that will be entering the California power mix on an accelerated basis.
- Expanded use of energy storage systems will reduce the use of electricity generated from fossil fuels to meet peak load requirements on days with high electricity demand and can avoid or reduce the use of electricity generated by high carbon-emitting electrical generating facilities during those high electricity demand periods. This will have substantial cobenefits from reduced emissions of criteria pollutants.

Use of ESS to provide the ancillary services otherwise provided by fossil-fueled generating facilities will allow for the overall reduction in emissions of carbon dioxide and criteria pollutants.

CCV #33: We support the No Project Alternative.

Response to CCV #33: The comment is noted, and does not pertain to the adequacy of the Draft EIR.

CCV #34: Distributed Generation: Is an important local resource that can enhance reliability and provide high quality power, without compromising environmental quality. 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. 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. 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. 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.

We could find only one reference to LEAPS in the thousands of pages in the Draft EIR (it is as if the LEAPS project doesn't exist) and that was a recorded statement from a scoping meeting. The Draft EIR 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.

Response to CCV #34: The term “cumulative project” refers to land development projects that are in various phases of planning, entitlement, construction or operation and that may affect the same resources and geographic area as the proposed project. As defined in CEQA Guidelines §15130(b), the following elements are necessary to provide an adequate discussion of potential cumulative impacts:

1. Either:

(a) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(b) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2. When utilizing a list, factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project, and its type;

3. Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limits used;

4. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and,

5. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects.

The Draft EIR uses the list approach to define the past, present, and probable future projects (see Table 5-2 Existing Projects along the I-10 Corridor and Table 5-3 Future Foreseeable Projects along the I-10 Corridor).

The geographic area of cumulative effect varies by resource. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. For this reason, the geographic scope for the analysis of cumulative impacts must be identified for each resource area (see Table 5-1 Geographic Scope of Cumulative Effects Analysis). The analysis of cumulative effects considers a number of variables including geographic (spatial) limits, time

(temporal) limits, and the characteristics of the resource evaluated. The geographic scope of each analysis is based on topography and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects often extends beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the proposed action and alternatives. The geographic area encompassed by the listed projects covers an approximate 15 to 20 mile radius around the Project site.

The Lake Elsinore Advance Pumped Storage (LEAPS) Project was not included in the cumulative project list of past, present, and probable future projects because it is not in the geographic area of the proposed Project for any resource that could potentially be impacted. The LEAPS Project is located 150 miles from the Project, in western Riverside County, California. It is in a different ecosystem, watershed, airshed, community, and groundwater basin. The LEAPS Project is proposed to interconnect to SCE's existing 500-kV Valley Serrano transmission line to the north, and to San Diego Gas and Electric's 230-kV Talega-Escondido transmission line to the south. The Project would interconnect with the Devers-Palo Verde 500-kV transmission line. Therefore, these two projects are not on the same segment of the Southern California 500-kV transmission grid.

As stated in Section 2.2 Draft EIR, Goal and Objective #3 (Provide Energy Storage for Integration of Renewable Energy Generation), and according to the CEC, CAISO, and major electric utilities in the state, large scale energy storage is essential for successful integration of wind and solar renewable power generation and to maintain reliable transmission grid operations (CEC, 2009). The Project has specifically been designed to complement the existing wind power generation in the San Gorgonio Pass, Tehachapi, and Salton Sea areas, as well as thousands of MWs of proposed wind and solar power generation in the Mohave Desert, Chuckwalla Basin and Palo Verde Valley.

Jojoba is an agricultural crop which has the potential to be used in the manufacture of biodiesel. However, we could find no reference to the use of jojoba in the generation of electricity. The Project will have no significant adverse impact on agricultural production of jojoba or any other crop. Section 3.4 of the Draft EIR discusses the potential impacts of the Project on agriculture.

Potential impacts to desert woodland are discussed in Section 3.5.2.5 of the Draft EIR. The environmentally preferred transmission line alternative does not pass through any desert dry wash woodland habitat (Figure 3.5-1 of the Draft EIR). Therefore, potential impacts of the proposed Project on desert woodland habitat are less than significant.

Please see Response to CCV #26 regarding potential generation of SF_6.

CCV #35: 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. 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.

Response to CCV #35: CEQA Statute and Guidelines specify procedures for a Lead Agency to ensure implementation of mitigation measures that have been adopted as conditions of approval. Please see Section 1.3.7 of the Draft EIR. Public Resources Code §21081.6(a)(1) states:

> The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

The mitigation program in the Final EIR will be adopted by the State Water Board. The MMRP is designed to reduce or avoid potentially significant effects on the environment (CEQA Guidelines §15097). The MMRP ensures the mitigation program is carried out during Project implementation. The MMRP includes information about the mitigation program, responsible party, and timing of the mitigation measure. Please refer to Section 6.0 of the Final EIR for the MMRP.

CCV #36: 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

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

Response to CCV #36: The National Park Service (NPS) comments submitted to FERC pertained to another proceeding and were directed to FERC, not to address the adequacy of the Draft EIR for the Project. NPS did submit timely comments on the Draft EIR and can be found in Package #1 of the Responses to Comments.

The Center for Biological Diversity did not submit comment on the Draft EIR for the Project.

CCV #37: The Citizens for the Chuckwalla Valley strongly encourage the State Water Board to choose the No Action alternative.

Response to CCV #37: Comment noted. Please see Response to CCV #33.