



DEPARTMENT OF FISH AND GAME

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January 31, 2008

Mr. Jack **Caswell**
 Project Manager
 California Energy Commission
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Mr. George R. **Meckfessel**
 Planning and Environmental **Coordinator**
 Bureau of Land Management
 Needles Field Office
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DOCKET	
07-AFC-5	
DATE	JAN 31 2008
RECD.	FEB 01 2008

Subject Application for Certification for the Ivanpah Solar Electric Generating System

Dear **Mr. Caswell**:

The Department of Fish and Game (Department) has **reviewed** the Application for **Certification** (AFC) for the Ivanpah Solar Electric Generating System (project), Docket #07-AFC-05. The proposed **project** is for construction of the **three** solar concentrating thermal power plants, based on a **distributed** power **tower** and heliostat mirror technology, in which heliostat (mirror) fields **focus solar** energy on power tower receivers near the center **of** each heliostat array. Each **100-MW site would** require approximately 850-acres (or 1.3 square miles) and would have three **tower receivers** and arrays; the 200-MW site would require approximately 1,600-acres (or 2.5 square miles) and would have 4 tower **receivers** and arrays. The total area required for all three phases would including the administration **building/operations** and maintenance **building** and substation and **be approximately** 3,400-acres (or 5.3 square miles). Given that the **three plants** would be **developed in** concert, the **proposed** solar plant projects **would** share the **common** facilities mentioned above to include access roads, and the **reconducted** transmission lines for all three phases. **Construction** of the **entire** project **is** anticipated to begin in the first **quarter** of 2009, with construction being completed in the **last** quarter of 2012. The project is **located** on the north side of Interstate 15, **3.1** miles west of the California-Nevada border in **San** Bernardino County. The proposed project will require an amendment to the **California Desert Conservation Area** Plan and a Right-of-way Authorization **from the** Bureau **of** Land Management (BLM).

Department staff also attended the Public Site Visit and **Informational Hearing** and BLM **Scoping** Hearing in **Primm, NV**, on January 4, 2008, and provided these comments **verbally** at that time.

The Department is providing **comments** on the AFC as the State agency which has the statutory and **common** law responsibilities with regard to fish and **wildlife** resources and habitats. **California's fish** and wildlife **resources, including** their habitats, are held in trust for the people of the State by the **Department** (Fish and Game Code 711.7). The **Department** has jurisdiction over the **conservation**, protection, and management of **fish, wildlife**, native plants, and the habitats necessary for biologically sustainable populations of **those** species (Fish and Game Code **§1802**). The **Department's** Fish and wildlife management **functions** are implemented through its administration and enforcement of Fish and Game Code (Fish and Game Code **§702**). The Department is a **trustee** agency for fish and **wildlife** under the California Environmental **Quality** Act (see CEQA Guidelines, 14 Cal. Code Regs. **§15386(a)**). The **Department** is providing these **comments** in furtherance of these statutory responsibilities, as well as its **common** law role as trustee for the public's **fish** and wildlife.

The Department has **serious** concerns with the potential impacts of this project on desert tortoise, a State and **federally-listed** Threatened species, bighorn sheep, banded Gila monster, burrowing owl, fairy shrimp, migratory birds and **native** desert vegetation.

The **Department's** responsibilities in regard to the biological resources **potentially impacted** by the proposed **project** fall into **two** categories. First, as Trustee agency for the state's fish and wildlife resources, **the** Department's role is to provide **the** California Energy **Commission** (CEC) and BLM with biological information and **recommendations** that the **CEC/BLM** can use to comply with its responsibilities, as CEQA and NEPA Lead Agencies, to disclose the impacts of the proposed project, and adopt mitigation measures which **will** reduce the impacts to those resources to below significance. Our second role, as a state Responsible Agency, is to issue permits, consistent with our authority, for **the** Incidental Take **of** state listed species; for the handling of wildlife species pursuant to research projects; and as appropriate, issue agreements for the alteration of state waters. (Lake and Streambed Alteration Agreements). As a Responsible Agency, we must also rely on the Lead Agency's CEQA document on which to base our permits. Our **comments** on this project will address both **of** these roles.

General comments:

The California Endangered Species Act (CESA) **requirements** for minimizing and fully mitigating impacts from a project **are more** stringent than the requirements under **Section 7 of** the Federal Endangered Species Act (FESA). CESA requires that **the** impact **of the** taking be minimized and "**fully** mitigated", whereas FESA requires that **the** impacts **be** mitigated to the maximum extent **practicable.** **The** Department recommends we be **included** into **mitigation** discussions at **the** earliest possible **time** to avoid unnecessary delays in **the** project.

The AFC states there will be approximately 3,400 acres needed for all three phases, including the Administration/Operations and Maintenance building and substation. There will be about another 4.7 acres of impact from the gas and water pipeline needed for the project, but any additional disturbance which may occur with widening/paving of any existing dirt roads has not been addressed. The project description should therefore be revised to include impacts from widening and paving existing dirt roads, and these impacts should also be mitigated. The Department believes the loss of 3,400 acres of desert tortoise habitat is a significant impact. The document recommends a 1:1 mitigation ratio. The Department believes that this would not meet our requirement to "fully mitigate" the take of desert tortoise due to the proposed project. This is based on the habitat and population characteristics present at the site. In addition, as part of our Incidental Take Permit, the Department requires enhancement and endowment fees along with the habitat mitigation lands.

The Desert Tortoise Recovery Plan is currently under revision. It appears there may be some changes in recovery unit boundaries due to new genetic information. It is uncertain if this might change the significance of this area for tortoises. In addition, prior to the approval of the Northern and Eastern Mojave Plan (NEMO), this area had been categorized by the Bureau of Land Management (BLM) as Category II desert tortoise habitat. The goal for this category is to maintain stable, viable populations and halt further declines in tortoise habitat values. As a result of NEMO, this area has been reclassified as Category III habitat. The goal for Category III is to limit habitat and population declines to the extent possible by mitigating impacts. The BLM mitigation ratio for Category III is lower than that for Category II. The Department does not believe that adequate biological justification for changing the category of this habitat was provided, and we submitted comments to BLM during our review of NEMO. We continue to believe this land should still be Category II habitat and should be mitigated for as such. In our preparation of our Incidental Take Permit, the Department will make an independent assessment of the mitigation ratio required to meet our full mitigation standard.

The document fails to discuss impacts to native desert vegetation. The AFC does discuss offering barrel cactus and Mojave yucca up for public salvage, but does not address the remaining native desert vegetation. A preconstruction survey for sensitive annual plants is proposed. If a rare plant species is detected, there is no mitigation proposed. With an impact area of over 5 square miles there could be a significant impact to a sensitive plant species if present. Rare plant surveys should be conducted before preconstruction surveys, in order to assess the impact to these species.

The alternatives analysis should discuss potential for achieving project objectives through other means, such as siting this facility in a previously disturbed location rather than in the proposed, currently undisturbed site.

Specific comments

Page 5.2-11 states there are no species of fish or amphibians that are expected

to be found within or in the vicinity of the project area. There are known springs in the Clark Mountains which could be impacted by pumping from the proposed wells. As such it is not know if there are amphibians at these springs which may be impacted by the project. This potential impact should be evaluated in the DEIS/Staff Report.

Page 5.2-14 states that pre-construction surveys for special status annual plants in 2008 would be proposed since 2007 was such a dry year. A survey needs to be conducted this spring for special status annual plants for two reasons 1) so impacts to these species can be assessed and 2) so mitigation can be incorporated into the document.

Page 5.2-19: The Department disagrees that the banded Gila monster should be removed from the special status wildlife species list. This species is known from the Clark Mountains. There is also new information regarding habits of Gila monsters. They appear to use two distinct overwintering sites (rocky hills and surrounding bajadas). Gila monsters seem to maintain relatively small home ranges on the rocky hillsides, and then utilize a greatly expanded home range on the surrounding bajada during the summer (*D. F. DeNardo, et al., 2007 Desert tortoise Council Symposium Abstract*). The project could be in prime habitat for this species. This potential impact should be addressed in the DEIS/Staff Report

Page 5.2-26: Fish and Game Code Section 4700 states that Bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*) as provided by subdivision (b) of Section 4902, are fully protected. This means that bighorn sheep may not be taken at any time, unless authorized as part of a limited hunting season in specifically defined areas.

Page 5.2.39: According to this section, the last record CNDDDB has received of bighorn sheep in this area was in 1986. It is important to remember that CNDDDB is a positive sighting database, meaning that only records submitted can be included, but that absence of submittals is not an indication of absence of the species. Monitoring conducted by the Department and Society for Conservation of Bighorn Sheep has been conducted and has indicated the presence of wildlife corridors through and adjacent to the proposed project site. Movement patterns of this species and other species through the Ivanpah Valley need to be addressed and impacts must be mitigated. We are also concerned that pumping from new wells to be established could have an impact on the springs used by the sheep. This issue also needs to be addressed in the DEIS/Staff Report.

Page 5.2-46: The Department has concerns about the proposed project removing approximately 1/3 of the known Creosote Bush-White Bursage-Barrel Cactus Community Type. The AFC states there are approximately 10,000 acres of this plant community in less than 20 to 30 locations. The Department considers the removal of this quantity of this habitat type a significant impact. The DEIS/Staff Report should propose mitigation to reduce this impact to less than significant.

The altering, rerouting and filling of the existing ephemeral washes could have an impact to flows going to Ivanpah Dry Lake which could impact the fairy shrimp. This has not been addressed in the current document. The DEIS/Staff Report should discuss this impact and propose mitigation. In addition, this project feature may require notification to the Department pursuant to Section 1602 of the Fish and Game Code.

Page 5.2-51: There may be additional impacts to migratory birds that have not been addressed. Uncovered evaporation ponds, even in the desert, can and do attract large numbers of migratory birds. Chemicals, heavy metals, and high concentrations of salinity can cause mortality when migrating birds land on ponds. There is also the possibility of birds drowning in the ponds. These potential impacts need to be addressed and mitigated. A method of covering the pond in the future may be one way to mitigate impacts.

Page 5.2-52: The Department disagrees with the statement that trees do not exist on site and therefore, impacts are not expected. Catclaws are trees and are listed in the plant list as being on site.

Page 5.2-56: Cumulative impact assessment should include the two other solar projects proposed for the Ivanpah Valley, any planned growth around Primm, the Caltrans/Highway Patrol/CA Food and Agriculture Joint Port of Entry, and the proposed Ivanpah Airport and proposed sports facility. The DEIS/Staff Report should include a section on growth inducing impacts. The AFC is assuming workers will commute from the Las Vegas area, but with the new housing in Primm, employees may choose to live there increasing the need for more new housing in the area. In addition, extra electricity will allow for more growth at its final destination.

Page 5.2-59: A site rehabilitation plan should be submitted for review and approval prior to onset of construction and not 50 years from now. We agree there may be some changes in conditions at that time, but the plan can be amended if needed. Assurance the site will be rehabilitated must be provided. The project should set up an area for a nursery and transplant cacti to be removed there for rehabilitation later on.

Page 5.2-63: The Department is concerned there is no mention of fencing the roads especially during construction. According to page 5.2-48 there will be 39 transport buses, 192 personal vehicles and 145 construction trucks daily. The road must be fenced to minimize impact to tortoises and there must be personnel to monitor the fence regularly.

Page 5.2-65: As mentioned above, the Department does not agree with the 1:1 mitigation ratio. In addition enhancement and endowment fees will be required. The tortoise salvage protocols have also been updated and there is now a 2007 version. In addition, as part of our Incidental Take Permit, the Department will require a monthly compliance report, a desert tortoise translocation plan developed in cooperation with resource agencies, and a raven management plan.

Page 5.2-65 : Burrowing owl surveys must be completed as part of the impact assessment. Complete burrowing owl surveys must be completed by using survey protocol found on the Department's website, which includes four site visits during different seasons of the year. If burrowing owls are found on site the follow mitigation measure needs to be included:

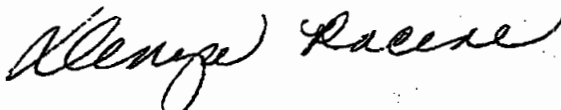
1) As compensation for the direct loss of burrowing owl nesting and foraging habitat, the project proponent shall mitigate by acquiring and permanently protecting known burrowing owl nesting and foraging habitat at the following ratio:

- (a) Replacement of occupied habitat with occupied habitat at 1.5 times 6.5 acres per pair or single bird;
- (b) Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 times 6.5 acres per pair or single bird; and/or
- (c) Replacement of occupied habitat with suitable unoccupied habitat at 3 times 6.5 acres per pair or single bird.

2) A Burrowing Owl Mitigation and Monitoring Plan shall be submitted to the Department for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The Plan shall also describe proposed off-site areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site as required under Condition 1.

Questions regarding this letter and further coordination on these issues should be directed to Ms. Denyse Racine, Senior Environmental Scientist, at (760) 872-1158, or Ms. Rebecca Jones, Environmental Scientist, at (661)285-5867.

Sincerely,



Denyse Racine
Senior Environmental Scientist

cc: Mr. Ray Bransfield
United States Fish and Wildlife Service
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Ms. Rebecca Jones, CDFG

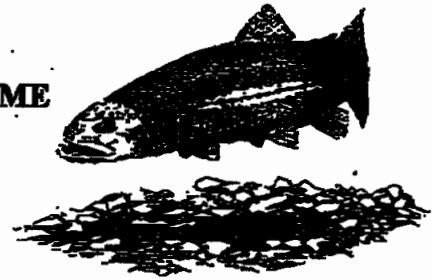
Ms. Tonya Moore, CDFG

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Chron



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Date: 1/31/08

TO: George Meekfessel

FAX NUMBER: (760) 326-7099

FROM: DFG

THIS MESSAGE CONSISTS OF 8 PAGES (Including Cover Sheet)

MESSAGE:

*Scoping Comments on Swansub
Spear Project*