



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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Sacramento, California 95825-1846

In Reply Refer To:
81420-2009-TA-0228-1

Mark R. D'Avignon
Chief, South Branch
San Francisco District
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, California 94103-1398

JAN 27 2009

DOCKET
07-AFC-8

DATE	JAN 27 2009
RECD.	JAN 28 2009

Subject: Response to Initiation of Formal Consultation for the Ausra CA II, LLC Carrizo Energy Solar Farm Project in California Valley, San Luis Obispo County, California (U.S. Army Corps of Engineers File Number 07-00798S)

Dear Mr. D'Avignon:

This letter responds to your September 22, 2008, request, for formal consultation on the Ausra CA II, LLC Solar Energy Project (proposed project) in the California Valley area of San Luis Obispo County. The applicant proposes to build a 640-acre solar farm with ancillary facilities, and disturb a 320-acre lay down area for approximately three years during construction. The total footprint of the project is 1,020 acres. Your request was received by the Service on September 25, 2008. Our comments are provided pursuant to section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act).

Your letter and the accompanying *Biological Assessment and Wetland Delineation* (BA/WD) prepared by URS, dated September 24, 2007, updated September 10, 2008, identify the San Joaquin kit fox (*Vulpes macrotis mutica*), federally-listed as endangered, as a species that may be affected by the proposed project. Your initiation letter does not mention any other species. The BA/WD mentions the following species as potentially present in the region, but not present on the site due to lack of habitat:

California condor (*Gymnogyps californianus*), endangered,
Blunt-nosed leopard lizard (*Gambelia sila*), endangered,
Giant kangaroo rat (*Dipodomys ingens*), endangered,
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), endangered.

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The BA/WD and submittals to the California Energy Commission to date as part of the California Environmental Quality Act (CEQA) do not have sufficient information to adequately assess the effects of the project on any of the species mentioned. Two additional species not mentioned in the BA/WD need to be analyzed – vernal pool fairy shrimp (*Branchinecta lynchii*) listed as threatened; and longhorn fairy shrimp, (*Branchinecta longiantenni*) listed as endangered. Our understanding of the potential effects and additional information needed are addressed below. In addition we have suggestions on the permitting and environmental review process that would best fit this project.

Effects on the San Joaquin Kit Fox

The 1998 *Recovery Plan for Upland Species of the San Joaquin Valley* identifies the conservation core populations of kit fox in the Carrizo National Monument and in Western Kern County, and linkages between them and with the satellite population in the Salinas Valley. This project is located directly north of the Carrizo National Monument, and in the existing linkage between the two core populations and the Salinas Valley. Effects of the project include habitat loss, habitat fragmentation, increased road mortality risks, and species wide effects posed by narrowing or blockage of a north-south corridor to the Carrizo kit fox population.

Ausra characterizes the proposed project site as low quality kit fox habitat. As CDFG points out in their December 31, 2008 comment letter to CEC on this project, “accurate habitat characterization is crucial for establishing an adequate baseline, for informing impact assessment, and for formulating mitigation that is proportionate to the extent of the impacts.” While Ausra describes the sections as agricultural land, and states that agricultural activities were stopped at the request of the CEC, CDFG shows through review of aerial photographs over time that the two sections have been dry farmed only intermittently. Other nearby parcels are and have been range land, and adjacent sections to the east have not been cultivated for many years. Pronghorn, tule elk, burrowing owls, and kit foxes use the site, indicating a higher value to habitat than Ausra states in their BA/WD.

Habitat loss from the project is substantial. The proposed project would use fencing to exclude kit foxes from 640 acres of existing habitat, and displace foxes from an additional 380 acres in the laydown area for three years. San Joaquin kit fox home ranges have been estimated from 1.7 to 4.5 square miles (Cypher 2000, Koopman et al 2001). This home range would support a pair, their offspring during spring and summer, and occasionally one adult offspring. The habitat lost from this project would displace four or more foxes if one home range is affected, and more foxes would lose foraging and denning opportunities if several home ranges are affected. Displacement of the foxes using the area now would expose them to greater risk of mortality, from unfamiliarity with new territory, and competition from other foxes and canids already occupying neighboring habitat.

The number of kit foxes likely to be killed by increased traffic is significant. As described in the Ausra submittal to the CEC, the traffic on State Route (SR) 58 and Bitterwater Road will

increase significantly during construction and operation of this project, with workers moving to and from the site in the morning and in the evening when kit foxes are most active. CDFG did an analysis of the expected traffic volumes through kit fox habitat and using conservative modeling, estimated that for every 100 kit fox road crossing events on Bitterwater Road during peak hours, the project traffic could cause four additional vehicle strikes compared to baseline conditions. Increased traffic on SR 58, 41 and 46 would also increase the probability that kit foxes will be struck and killed by vehicles.

Ausra's CEC submittal reveals that 84 bus trips per day are expected. The increased traffic on SR 58, 41, 46, and Bitterwater Road will also fragment the linkage between the Carrizo core population and the Western Kern and Salinas Valley populations, making kit fox movement between the three areas less frequent due to deaths on the road. Baseline conditions at this site provide for high landscape connectivity. This allows animals to disperse, and to move into unoccupied or underutilized habitat, and to repopulate or rejuvenate localized subpopulations. The potential effects from the project, as proposed, could appreciably reduce the likelihood of survival and recovery of the kit fox.

Effects on the California condor

Based on the limited amount of information provided, we do not agree that the California condor (condor) will not be affected by the project, as they travel and forage over wide areas in and adjacent to the coastal mountains on either side of California Valley, flying up to 150 miles in one day (Service 2009). Condors have been released at several sites, including the Pinnacles National Monument in San Benito and Monterey Counties, and in the Ventana Wilderness in Monterey County to the west of the project site. As of August 2008 there were 153 birds living in the wild, with 79 of them in California. Birds have been released at sites in San Luis Obispo, Ventura, and Monterey Counties now freely intermingle across those counties, north, west and south of the project site (Service 2008). The Ausra BA/WD submitted to us states that condors are absent from the project site, but it also states that they "may fly over CESF site as part of foraging flights; however, availability of carrion for scavenging is minimal due to active management of lands."

The 1996 *Recovery Plan for the California Condor* states:

The principal foraging regions used by California condors from the late 1970s to 1987 were the foothills bordering the southern San Joaquin Valley and axillary valleys in San Luis Obispo, Santa Barbara, Kern, and Tulare Counties. After 1982, most observations of feeding by the small remaining wild population of California condors occurred in the Elkhorn Hills-Cuyama Valley-Carrizo Plain complex, and in the southern San Joaquin Valley (Meretsky and Snyder 1992)."

According to the Ausra submittal to the California Energy Commission (Ausra 2007), this project will have numerous guy wires and tall structures as part of the power generation facility, and there will be a new 90-foot long overhead transmission line to connect the project to the

PG&E Morro Bay-Midway Transmission Line 1. The solar receiver structures are 56 feet tall, As of 2001 five condors had died by colliding with power poles and/or lines (Service 2001). Without adequate design considerations to reduce or prevent collisions, these facilities pose a potential threat to condors.

Effects on the Blunt-nosed Leopard Lizard, Giant Kangaroo Rat, and Tipton Kangaroo Rat

Results of small animal surveys requested by the California Energy Commission (CEC) were submitted by URS for Ausra to us, the CEC, and the California Department of Fish and Game (CDFG). We have not had time to fully review that document to determine our opinion of the potential for the project to affect the blunt-nosed leopard lizard, giant kangaroo rat, or Tipton kangaroo rat.

Effects on Longhorn Fairy Shrimp and Vernal Pool Fairy Shrimp

Neither vernal pool fairy shrimp nor longhorn fairy shrimp were addressed in the BA/WD or in your initiation letter. While there is not habitat on the proposed project site for these two species, Ausra proposes to significantly alter surface hydrology on their site and downstream from their site, including Soda Lake. Submittals by Ausra to the CEC detail retention of water entering the proposed project site, resulting in a 22% reduction in flows from Carrissa Creek into Soda Lake in the Carrizo National Monument (CEC 2008). Carrissa Creek is the biggest source of water for Soda Lake. One of the occurrences of the extremely rare longhorn fairy shrimp is in a roadside ditch along Soda Lake Road that only fills with water in the wettest years (BLM 2008). The proposed reduction in flows to Soda Lake will reduce longhorn fairy shrimp habitat in that ditch. Several occurrences of longhorn fairy shrimp have been identified in the area north of Soda Lake, roughly between the Ausra site and Soda Lake. The reduction in flows will have an as yet uncharacterized effect on these occurrences, shown in the Vernal Pool Recovery Plan (Service 2005) and the BLM Draft Resource Management Plan (2008). Changes in hydrology starting on Ausra's proposed site, and affecting areas downstream to Soda Lake, and including Soda Lake, may also affect vernal pool fairy shrimp. There is one known occurrence of this species in the general area of the proposed project.

Critical habitat for longhorn fairy shrimp and vernal pool fairy shrimp has been designated between the north boundary of the Carrizo Plan National Monument and the Ausra proposed project site, and this critical habitat, based on the information we have at this time, could be affected by the proposed project.

Cumulative Effects Analysis

Two other large solar projects are now being proposed for flat lands to the east and west of the Ausra proposed project site. Total proposed cumulative effects from the addition of two photovoltaic solar projects in close proximity to the Ausra project must also be a part of our analysis under the Act. We are actively participating in a CEC-led wildlife spatial analysis that is moving promptly to assess effects from these three projects, individually and together, on kit fox,

pronghorn, and tule elk. The full cooperation of Ausra is needed to bring this process to a successful conclusion, and to allow us to analyze the effects of the project on kit fox habitat.

Process Comments

The Service is interested in understanding the Corps' willingness to use your authority to initiate section 7 consultation under the Act when such a small and easily avoided part of the project footprint is under your jurisdiction. We are concerned that the impacts to listed species not dependent on aquatic habitats are significant. We are concerned that your responsibilities to implement conservation conditions over this large project well outside jurisdictional waters would be limited.

We are also concerned that the level of analysis required under the National Environmental Policy Act will require an Environmental Impact Statement, due to the significance of the effects on endangered species and the level of controversy about this project as presently described. Our U.S. Fish and Wildlife Service NEPA guidance states that Categorical Exclusions (CX) do not require NEPA documentation if they do not trigger 'extraordinary circumstances.' Extraordinary circumstances (from 516 DM 2, Appendix 2) preclude categorically excluding that action from NEPA documentation requirements. Therefore an EA or EIS must be developed prior to implementation of the proposed action. Extraordinary circumstances that apply to this project for which we have expertise include:

2. "Have significant impacts on such natural resources and unique geographic characteristics as . . . national monuments; migratory birds; and other ecologically significant or critical areas.
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)]
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.
5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.
8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species."

Thus, either an EA or an EIS will be required. An EIS will be needed if the Federal action may constitute a major Federal action significantly affecting the quality of the human environment. The definition of 'significantly' requires consideration of both context and intensity. Intensity refers to the severity of the impact. The factors that should be considered in evaluating intensity include:

- (3) "Unique characteristics of the geographic area, such as . . . ecologically critical areas.
- (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

- (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.”

Criteria to assist in determining the need to prepare an EIS (550 FW 3.3 B.) include:

“(a) controversy over environmental effects (e.g., major scientific or technical disputes or inconsistencies over one or more environmental effects); and (g) adverse effects on . . . threatened and endangered species . . . “

The Service thinks that a more regional approach is needed to provide consistent requirements under the Act to the three solar projects being proposed. Therefore we suggest that a Habitat Conservation Plan, led by the County of San Luis Obispo, provides the appropriate permitting process under the Act for all three projects.

Conclusion

If you wish to proceed with possible consultation under section 7 of the Act, further information is needed. The Service has reviewed your letter and accompanying documents and has determined that we have not received all of the information necessary to initiate formal consultation as outlined in the regulations governing interagency consultations (50 CFR § 402.14). We are requesting additional information that will allow us to assess and analyze project effects. We are requesting the following:

1. An analysis of the effects of the project and the effectiveness of proposed conservation measures to enhance or preserve the San Joaquin kit fox , California condor, longhorn fairy shrimp, vernal pool fairy shrimp;
2. A description of proposed avoidance and minimization measures to off-set the adverse effects to the San Joaquin kit fox , California condor, longhorn fairy shrimp, and vernal pool fairy shrimp.

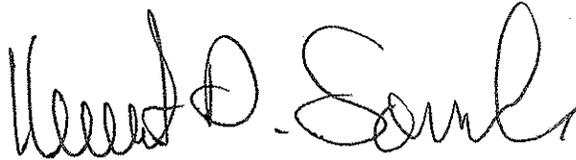
Until we receive the information requested and required by 50 CFR 402.14(c) and 50 CFR 402.14 (d), the Service will not begin the formal consultation process for the project. We will notify your office when we receive this additional information. If we have not received this information within 60 days of the date of this letter, we no longer track this action as an active endangered species consultation. Reinitiation of consultation will require a letter from you that includes the requested information. We would prefer to pursue a Habitat Conservation Plan, under section 10 of the Act, for these three projects, and would like to talk to about this project in the near future.

Mr. Mark D'Avignon

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We appreciate your efforts to conserve federally listed species and your efforts to reduce the potential effects to listed species that may result from the Ausra project. If you have any questions or concerns about this consultation, please contact Susan Jones, Branch Chief, at (916) 414-6600.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth D. Sanchez". The signature is fluid and cursive, with the first name "Kenneth" written in a larger, more prominent script than the last name "Sanchez".

Kenneth D. Sanchez
Assistant Field Supervisor

cc:

California Department of Fish and Game, Fresno, California (David Hacker)
California Energy Commission, Sacramento, California (Brian McCollough)
Ausra, Palo Alto, California (Perry Fontana)
URS, San Diego, California (Angela Leiba)
Bureau of Land Management, Bakersfield, California

Literature Cited

- Ausra, 2007. Application for Certification (AFC), Submitted to the California Energy Commission, October 2007.
- Bureau of Land Management, 2008. Carrizo Plain National Monument Draft Resource Management Plan and Draft Environmental Impact Statement, Volumes I-III. December.
- California Department of Fish and Game, 2008. Review of Carrizo Energy Soar Farm Preliminary Staff Assessment (PSA), to California Energy Commission. December 31, 2008.
- California Energy Commission, 2008. Preliminary Staff Assessment on the Carrizo Energy Solar Farm Application for Certification (07-AFC-8), San Luis Obispo County November 21, 2008.
- U.S. Fish and Wildlife Service, Recovery Plan for the California Condor, April 1996.
- _____, 1998. Recovery Plan for Upland Species of the San Joaquin Valley, California.
- _____, 2001. Personal communication by Susan Jones, U.S. Fish and Wildlife Service biologist, Sacramento, California, with R. Mesta, Chief, Condor Recovery Program, U. S. Fish and Wildlife Service, Ventura, California.
- _____, 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon.
- _____, 2008. NEPA Documentation Requirements: CX versus EA versus EIS. April 2008.
- _____, California Condor Recovery Program, "Population Size and Distribution," August 31, 2008.
- _____, Hopper Mountain National Wildlife Refuge Complex website. Accessed January 2009.



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
 COMMISSION OF THE STATE OF CALIFORNIA
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APPLICATION FOR CERTIFICATION
 FOR THE *CARRIZO ENERGY*
SOLAR FARM PROJECT

Docket No. 07-AFC-8
PROOF OF SERVICE
 (Revised 11/25/2008)

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

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 Attn: Docket No. 07-AFC-8
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DECLARATION OF SERVICE

I, Hilarie Anderson, declare that on January 28, 2009, I deposited copies of the attached USFWS' Response to the USACOE Requesting Initiation of Consultation Under Section 7 of the ESA in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Original Signature in Dockets
Hilarie Anderson