



<b>DOCKET</b>	
<b>07-AFC-8</b>	
DATE	<u>April 01 2009</u>
RECD.	<u>April 01 2009</u>

April 1, 2009

Mr. John Kessler  
Project Manager  
Attn: Docket No. 07-AFC-8  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814-5512

Subject: Carrizo Energy Solar Farm (07-AFC-8)  
Ponding on CESF Project Site, Fairy Shrimp Reconnaissance Survey  
URS Project No. 27658060.02100

Dear Mr. Kessler:

On behalf of Ausra CA II, LLC (dba Carrizo Energy, LLC), URS Corporation Americas (URS) hereby submits the Applicant's letter to FWS and CDFG on the subject of Ponding on CESF Project Site, Fairy Shrimp Reconnaissance Survey.

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to submit the Applicant's letter to FWS and CDFG on the subject of Ponding on CESF Project Site, Fairy Shrimp Reconnaissance Survey on behalf of Carrizo Energy, LLC.

Sincerely,

Angela Leiba  
Project Manager



March 31, 2009

Ms. Susan Jones, USFWS  
Mr. David Hacker, CDFG

Subject: Ponding on CESF Project Site, Fairy Shrimp Reconnaissance Survey  
URS Project No. 27658060-02100

Dear Ms. Jones and Mr. Hacker:

We received Ms. Jones' e-mail dated March 5, 2009: (1) reporting that Mr. Stafford flew over the CESF project site the week of February 23, 2009 and observed standing water on the CESF site; and (2) providing URS permission to sample the area containing the standing water for crustaceans. This letter provides an update on the site conditions based upon subsequent field observations and explains why site-specific analysis indicates that there is no evidence that either vernal pool fairy shrimp (*Branchinecta lynchi*) or longhorn fairy shrimp (*Branchinecta longiantennae*) could reach maturity on site. As a result, there is no data to change the pre-existing conclusion that protocol surveys for these species are not necessary for the CESF project.

I. Updated site observations and data regarding the most recent precipitation event indicate that the CESF site held standing water for less than 16 days

On March 11, 2009 a URS biologist visited the CESF site to observe any standing/ponding water. Although the URS biologist investigated the entire site, the biologist also specifically investigated the location identified by Mr. Stafford as containing standing water. The biologist observed no standing or ponding water. In fact, the soil at the location identified by Mr. Stafford was nearly dry to the touch. Photographs are attached to document the lack of water anywhere on the CESF site.

The most recent recorded substantial precipitation (>0.25") in the project area occurred on March 4, 2009. As stated above, when URS visited the CESF site on March 11, 2009 (7 days subsequent to the prior rain event), the location containing the pool identified by Mr. Stafford had no standing water. Moreover, the soil was nearly dry to the touch when URS visited the site, suggesting that water had been absent for some time. Thus, it appears that any ponding/standing water lasted for less than 7 days. The brevity of that ponding is consistent with the nature of the soils on-site, which are highly permeable, well-drained alluvial soils that would not support longer periods of ponding.

This is also consistent with the on-site infiltration analysis in Section 2.2.3.4 of the revised Hydrology/Hydrogeology Report, which indicates that the site's hydrology would limit ponding. Section 2.2.3.4 estimates that the saturated infiltration rate of the soils on the project site are 0.05 inch/hour. A review of precipitation records for February and March indicates that a total of 1.77" of precipitation occurred at the site between February 16, 2009 and March 5, 2009, with 1.01" (or approximately 57%) of that precipitation occurring on February 16, 2009. With a saturation rate of .05 inch/hour, the entirety of the 1.77" of precipitation would infiltrate within less than 36 hours;

Ms. Susan Jones, USFWS  
Mr. David Hacker, CDFG  
March 31, 2009  
Page 2

individual precipitation events, many of which are extremely limited (e.g., .01" per day during the period February 18, 2009 through February 21, 2009) would infiltrate the soils within a matter of hours.

## II. Background on vernal pool fairy shrimp and longhorn fairy shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) and longhorn fairy shrimp (*Branchinecta longiantennae*) are listed pursuant to the federal Endangered Species Act. Neither species has been observed on the CESF site, although they have been observed approximately 6 miles southeast of the CESF project in ditches that flow parallel to, and are located upstream of, Carissa Creek. However, because those individuals were observed upstream of Carissa Creek, they would not be affected by any potential projected-related changes to Carissa Creek's flows.

Vernal pool fairy shrimp are found in Alameda, Amador, Butte, Contra Costa, Fresno, Kings, Madera, Mariposa, Merced, Monterey, Napa, Placer, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Tehama, Tulare, Ventura, and Yuba Counties in California, as well as in Oregon. In the central valley (including the CESF site), vernal pool fairy shrimp may be found in small swales or vernal pools (often resulting from underlying restrictive soil layers in unplowed grasslands or in disturbed areas) that become inundated during winter rains and that continuously hold water for a minimum of 18 days. Vernal pool fairy shrimp require a minimum of 18 days of inundation to complete their life cycle (Gallagher 1996 and Helm 1998).

Within San Luis Obispo County, longhorn fairy shrimp are found within a matrix of alkali sink and alkali scrub plant communities north and northwest of Soda Lake and at the southern end of the Carrizo Plain National Monument in the Carrizo Vernal Pool Region. The closest known population of longhorn fairy shrimp occurs within and adjacent to the Carrizo Plain National Monument in San Luis Obispo County (USFWS 2007). Of the 12 vernal pools within the Carrizo Plain National Monument where this species has been detected, six are located within the southern portion of the Monument and six are within the northern portion of the Monument near Soda Lake (USFWS 2007). Eight localities of this species are located on private land outside of the Monument. Longhorn fairy shrimp hatch soon after water fills their pools and require a minimum of 23 days of inundation to complete their life cycle.

## III. Analysis of potential for vernal pool or longhorn fairy shrimp to occupy the CESF site

Any ponding that occurs on the site is too brief to support vernal pool or longhorn fairy shrimp. As set forth above, water must be present for a minimum of 18 or 23 days for the subject fairy shrimp species to complete their life cycle. The ponding observed by Mr. Stafford lasted for less than 7 days. Moreover, the site hydrology indicates that the total precipitation that occurred between February 16, 2009 and March 5, 2009 would infiltrate the soil within less than 36 hours; any of the individual precipitation events would infiltrate the soil in a matter of hours. The brevity of any ponding is predictable given that the soils found on the project site are well-drained alluvial soils that would not support extended ponding. Thus, ponding does not occur on the site for the 18-23

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days necessary to support fairy shrimp. Moreover, given the site's drainage, it is unlikely that the water pools are deep enough to achieve the required temperatures to support fairy shrimp. For these reasons, and based on descriptions of typical habitat and known locations of these species described above, the CESF project site does not provide suitable habitat for either species. Thus, there is no data that would change the pre-existing conclusion that protocol surveys for this species are not necessary for this project site.

#### REFERENCES:

- Eriksen, C. and D. Belk. 1999. Fairy shrimps of California's puddles, pools, and playas. Mad River Press, Inc.; Eureka, California. 196 pp.
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Sincerely,

URS CORPORATION

A handwritten signature in black ink that reads "Theresa Miller". The signature is written in a cursive, flowing style.

Theresa Miller  
Senior Biologist

TM:ml



April 1, 2009

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Angela Leiba  
Project Manager



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Sincerely,

URS CORPORATION



Theresa Miller  
Senior Biologist

TM:ml



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
1516 NINTH STREET, SACRAMENTO, CA 95814  
1-800-822-6228 – [WWW.ENERGY.CA.GOV](http://WWW.ENERGY.CA.GOV)**

**APPLICATION FOR CERTIFICATION  
FOR THE CARRIZO ENERGY  
SOLAR FARM PROJECT**

**Docket No. 07-AFC-8  
PROOF OF SERVICE  
(Revised 2/18/2009)**

**APPLICANT**

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**APPLICANT CONSULTANT**

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**COUNSEL FOR APPLICANT**

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Sacramento, CA 95814  
[jluckhardt@downeybrand.com](mailto:jluckhardt@downeybrand.com)

**INTERESTED AGENCIES**

California ISO  
[e-recipient@caiso.com](mailto:e-recipient@caiso.com)

**INTERVENORS**

\*Mr. John A. Ruskovich  
13084 Soda Lake Road  
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[agarnett@tcsn.com](mailto:agarnett@tcsn.com)

\*Mr. Michael Strobridge  
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Santa Margarita, California 93453  
[mike\\_76@live.com](mailto:mike_76@live.com)

California Unions for Reliable Energy  
(CURE)  
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Adams Broadwell Joseph & Cardozo  
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South San Francisco, CA 94080  
[tgulesserian@adamsbroadwell.com](mailto:tgulesserian@adamsbroadwell.com)

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Atascadero, California 93422  
[salinantribe@aol.com](mailto:salinantribe@aol.com)

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San Luis Obispo (ECOSLO)  
c/o Babak Naficy  
P.O. Box 13728  
San Luis Obispo, California 93406  
[babaknaficy@sbcglobal.net](mailto:babaknaficy@sbcglobal.net)  
**ENERGY COMMISSION**

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John Kessler  
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Caryn Holmes  
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Michael Doughton  
Staff Counsel  
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Elena Miller  
Public Adviser  
[publicadviser@energy.state.ca.us](mailto:publicadviser@energy.state.ca.us)

**DECLARATION OF SERVICE**

I, Theresa Miller, declare that on April 1, 2009, I served and filed copies of the attached letter to FWS and CDFG regarding fairy shrimp on the CESF Project site. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[<http://www.energy.ca.gov/sitingcases/carrizo/index.html>]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

**(Check all that Apply)**

**For service to all other parties:**

X sent electronically to all email addresses on the Proof of Service list;

X by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

**AND**

**For filing with the Energy Commission:**

X sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (**preferred method**);

**OR**

\_\_\_\_\_ depositing in the mail an original and 12 paper copies, as follows:

**CALIFORNIA ENERGY COMMISSION**

Attn: Docket No. 07-AFC-8  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512  
[docket@energy.state.ca.us](mailto:docket@energy.state.ca.us)

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

  
\_\_\_\_\_