

APPENDIX 6.6-3

UPDATED BIOLOGICAL RESOURCES REPORT: JUNE 2007

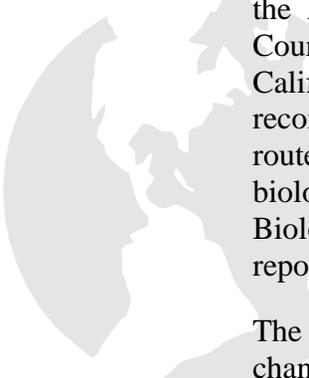


# Bumgardner Biological Consulting

June 11, 2007

Joe Stenger  
TRC Solutions  
2666 Rodman Drive  
Los Osos, CA 93402

Dear Mr. Stenger:



As per a request received from TRC Solutions, Bumgardner Biological Consulting (BBC) has completed an updated evaluation of biological resources in the vicinity of the Avenal Energy project (i.e., proposed project) in Kings County and Fresno County, California (Figure 1 and 2). The evaluation includes review of the current California Natural Diversity Data Base (CNDDDB) for the project vicinity and a field reconnaissance of the project vicinity (including the proposed transmission line route to the Gates Substation). The evaluation was conducted to update the biological resources information in the September 2001 Avenal Energy Project Biological Resources Technical Report prepared by EIP Associates (technical report) and September 2006 biological resources update prepared by BBC.

The overall conclusion of the updated evaluation is that there are no substantive changes with regard to biological resources in the project vicinity and as addressed in the September 2001 technical report and September 2006 biological resources update (with one exception addressed below). The only substantive difference identified during the updated evaluation is that nesting tricolored blackbirds (*Agelaius tricolor*) and yellow-headed blackbirds (*Xanthocephalus xanthocephalus*), species identified as California Department of Fish and Game (DFG) Special Animals, were recorded nesting immediately adjacent to the project site at the City of Avenal Water Treatment Plant ponds. Consequently, mitigation is recommended to address potential impacts that may occur to these species from nearby construction while they are actively nesting.

The remainder of this letter report is organized as follows:

- 1.0 Review Methodology
- 2.0 CNDDDB Query
- 3.0 Site Assessment

- 4.0 Summary of Updates

### ***1.0 Review Methodology***

BBC conducted the following tasks for the updated evaluation:

- query of the CNDDDB for the U.S. Geological Survey (USGS) 7.5-minute quadrangle within which the proposed project is located and the immediate eight surrounding 7.5-minute quadrangles (i.e., standard CNDDDB query) to determine if new records of taxa previously addressed or taxa that were not previously addressed have been recorded in the vicinity of the proposed project (i.e., since August 2006);
- field reconnaissance of the project site and surrounding lands within one mile of the site on May 2, 2007 to assess the existing land cover types and identify special-status biological resources (if any); and
- field reconnaissance of the preferred electric transmission line corridor from the project site to the Gates Substation and surrounding lands within 1,000 feet on May 2, 2007 to assess the existing land cover types and identify special-status biological resources (if any).

### ***2.0 CNDDDB Query***

The CNDDDB query addressed special-status species occurrences that have been documented within the Avenal, Gujarral Hills, Kettleman City, La Cima, Westhaven, Garza Peak, Huron, Kettleman Plain, and Los Viejos USGS 7.5-minute topographic quadrangles. All special-status species occurrences within these quadrangles were cross-referenced with the occurrences in the September 2001 technical report and information in the 2006 biological resources update to identify new occurrences located within the 10-mile regional buffer of the project site. Furthermore, the query was conducted to determine the date of all occurrences submitted to the CNDDDB (to identify submittals that have occurred since August 2006).

The 2007 CNDDDB query found no records of special-status species that had not been previously identified during queries in 2001 or 2006. Furthermore, the most recent submittals to the CNDDDB are from June 2005. Therefore, there are no new occurrences of special-status species within the 10-mile regional buffer that have not been previously addressed relative to the project.

### ***3.0 Site Assessment***

#### ***3.1 Project Site and Vicinity***

The field reconnaissance conducted during May 2007 resulted in the determination that the project site and adjacent lands within a one mile radius of the site continue to be in active agricultural use (as depicted in Figure 3 of the September 2006

biological resources update). However, a few parcels now support a crop that is different from what was observed in August 2006 (Figure 3). These changes (mostly conversion to new orchard) reflect changing agricultural economics in the area. However, there have been no changes that would substantively affect the analysis of impacts to biological resources.

The land cover types within one mile of the project site during the May 2007 reconnaissance consisted of orchards (almonds), vineyards, and row/grain crops (onions, tomatoes, and wheat). Though no natural lands occur within one mile of the project site, maintained grasslands occur within the U.S. Bureau of Reclamation (BOR) right-of-way (ROW) for the San Luis Canal. These grasslands, which occur adjacent to the canal, were described in detail in the September 2001 technical report. Furthermore, no substantive changes within the ROW were observed.

### ***3.2 Electrical Transmission Line Corridor***

The land cover types within 1,000 feet of the preferred electrical transmission line alignment between the project site and Gates Substation consisted of orchards (almonds, pistachios, and oranges) and row/grain crops (tomatoes, onions, and wheat) during the May 2007 assessment. Furthermore, no natural lands or aquatic habitats (either natural or man-made) occur within 1,000 feet of the preferred electrical transmission line alignment.

### ***3.3 Special-Status Species***

A primary focus of the field reconnaissance conducted during May 2007 was to assess for the presence of special-status species. The only special-status species that were observed during the field reconnaissance were tricolored blackbird and yellow-headed blackbird (see the attached CNDDDB form that has been submitted to the DFG). A nesting colony of approximately 50+ pairs of tricolored blackbirds and smaller numbers of yellow-headed blackbirds were observed at the City of Arenal Water Treatment Plant ponds near the northeast corner of the project site. These species were not previously addressed in the September 2001 technical report. Nor, were these species addressed in the September 2006 biological resources update. Both species nest from mid-April to late July. Therefore, these species were either missed during the previous reconnaissance-level surveys (due to the survey times [i.e. March and August]) or have recently colonized the water treatment plant ponds. The recent sighting of these species within the project vicinity is new information. Abandonment of nests or the site by both species could occur if construction activities are conducted too close (i.e., within less than approximately 200 feet) to active nests and disrupt normal nesting behavior. However, a temporary construction exclusion zone within 250 feet of the nearest nests would avoid the potential for impacts to the birds (from noise, dust, and human activities). Consequently, this additional mitigation is recommended.

#### **4.0 Summary of Updates**

The purpose of the review addressed in this letter report was to confirm that the biological resources information section of the September 2001 technical report and September 2006 biological resources update adequately reflect current conditions in the vicinity of the proposed project. Furthermore, it was the purpose of the review to identify specific information that is new and should be reflected in the AFC. Thus, the following portion of the letter report provides a recap of the substantive and new information that should be reflected in the AFC.

Tricolored blackbirds and yellow-headed blackbirds were found nesting at the City of Avenal Water Treatment Plant ponds near the northeast corner of the project site. Abandonment of nests or the site by both species could occur if construction activities are conducted too close (i.e., within less than approximately 200 feet) to active nests and disrupt normal nesting behavior. A temporary construction exclusion zone within 250 feet of the nearest nests would avoid the potential for impacts to the birds from noise, dust, and human activities.

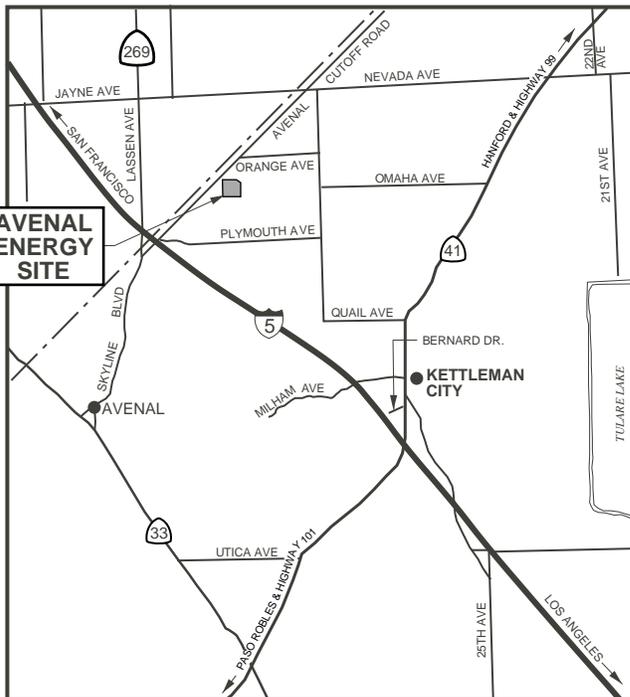
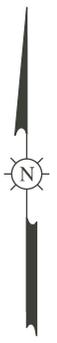
No other substantive issues associated with biological resources, not previously addressed in the September 2001 technical report and September 14, 2006 biological resources update, were identified during the May 2007 biological resources update. This finding is supported due to the absence of natural lands that could provide suitable habitat for special-status taxa within the proposed project's area of influence.

Should you have any questions in regards to the surveys or information presented in this letter report please do not hesitate to contact me (916-638-7368).

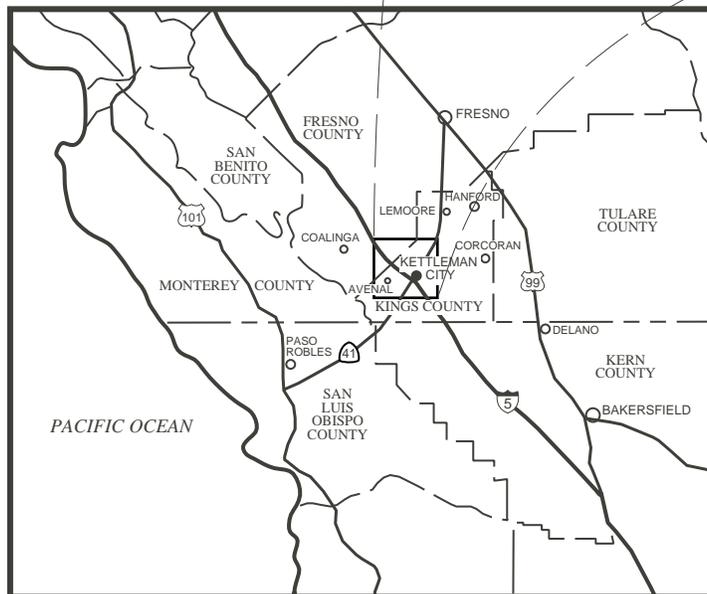
Sincerely,

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

Michael Bumgardner  
Bumgardner Biological Consulting



**VICINITY MAP**  
NOT TO SCALE



**REGIONAL MAP**

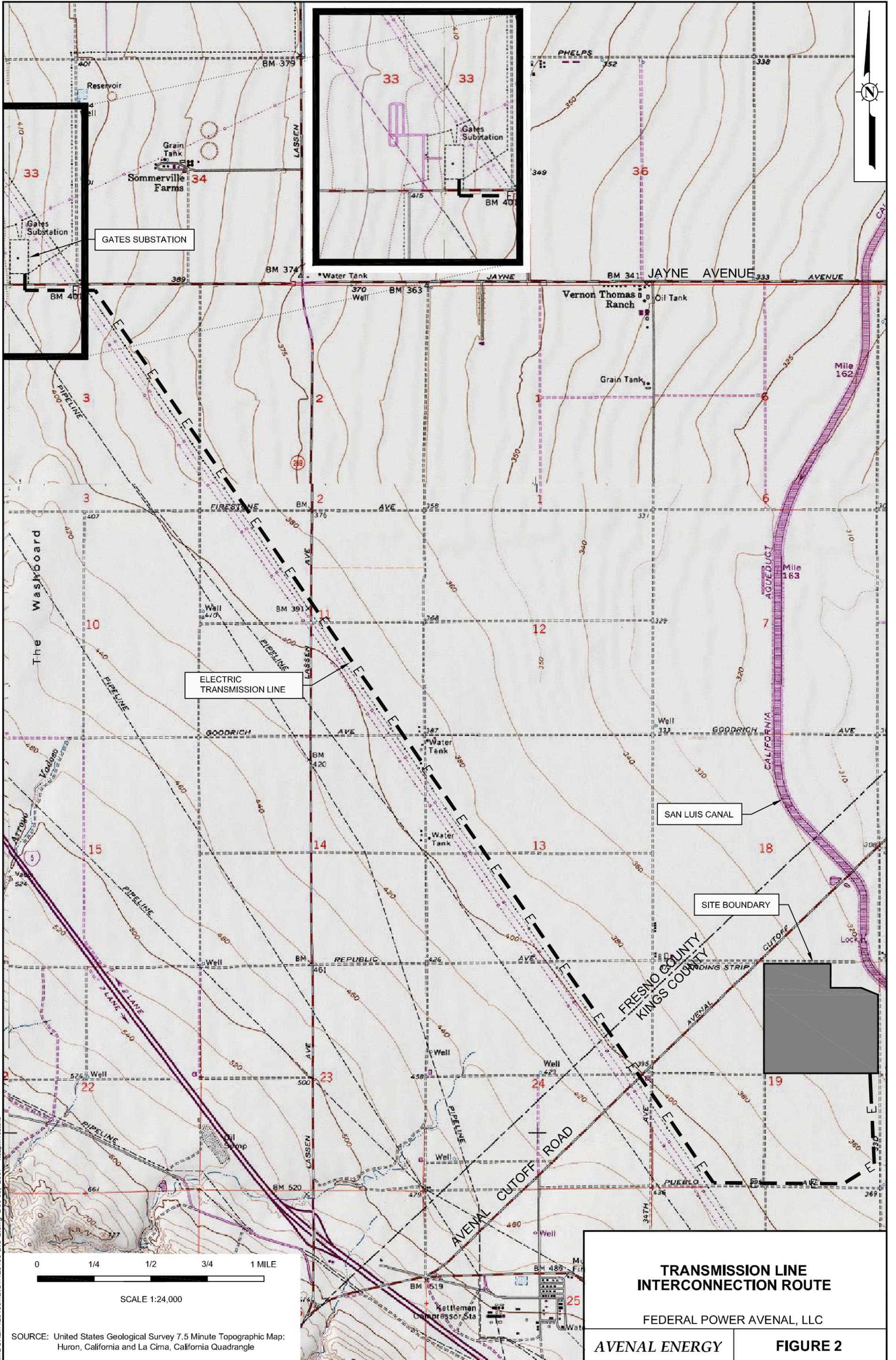


**REGIONAL LOCATION MAP**

**FEDERAL POWER AVENAL, LLC**

**AVENAL ENERGY**

**FIGURE 1**



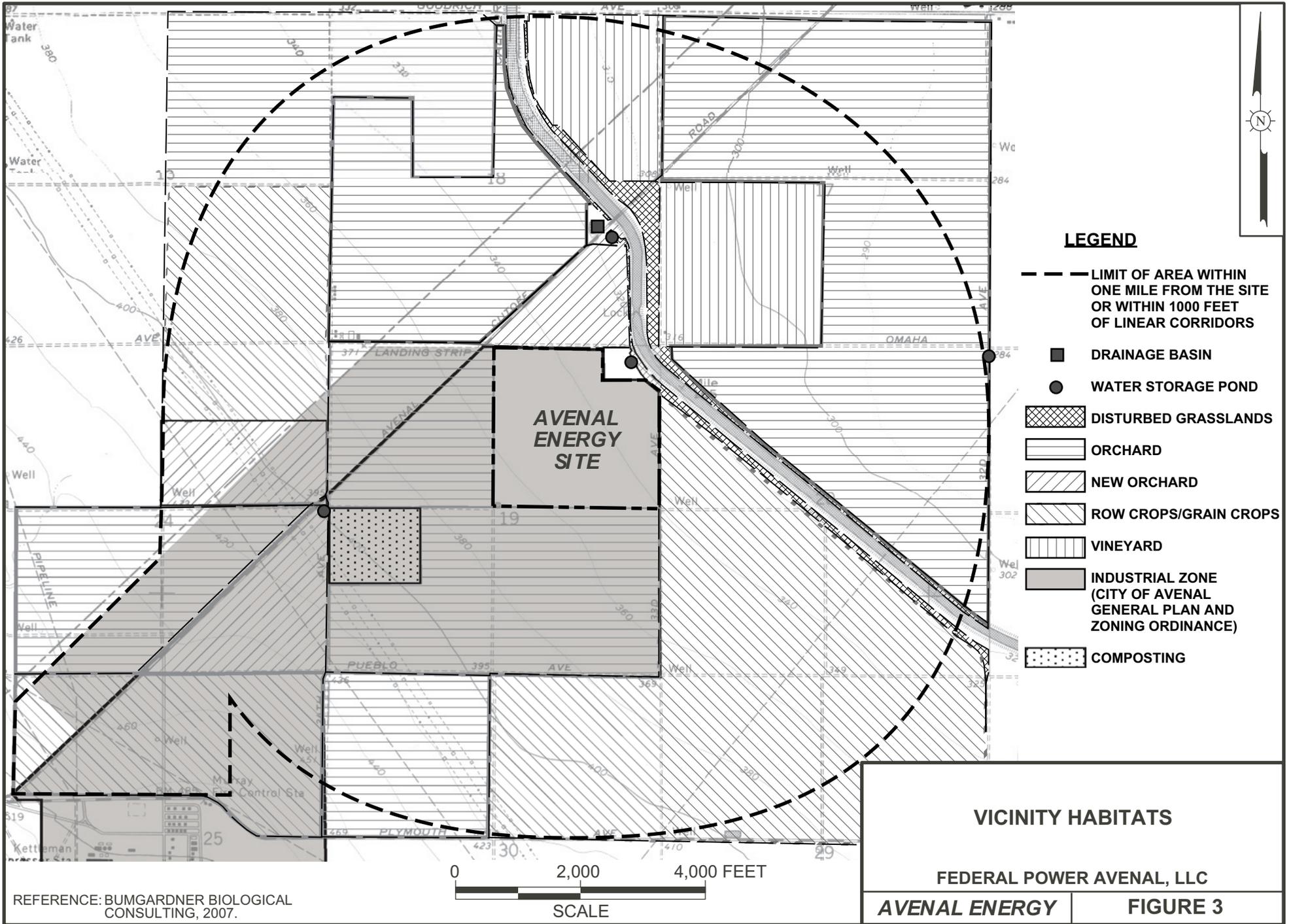
**TRANSMISSION LINE  
INTERCONNECTION ROUTE**

FEDERAL POWER AVENAL, LLC

<b>AVENAL ENERGY</b>	<b>FIGURE 2</b>
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SOURCE: United States Geological Survey 7.5 Minute Topographic Map:  
Huron, California and La Cima, California Quadrangle



**LEGEND**

- LIMIT OF AREA WITHIN ONE MILE FROM THE SITE OR WITHIN 1000 FEET OF LINEAR CORRIDORS
- DRAINAGE BASIN
- WATER STORAGE POND
- DISTURBED GRASSLANDS
- ORCHARD
- NEW ORCHARD
- ROW CROPS/GRAIN CROPS
- VINEYARD
- INDUSTRIAL ZONE (CITY OF AVENAL GENERAL PLAN AND ZONING ORDINANCE)
- COMPOSTING

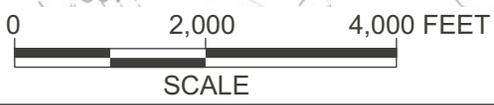
**VICINITY HABITATS**

FEDERAL POWER AVENAL, LLC

**AVENAL ENERGY**

**FIGURE 3**

REFERENCE: BUMGARDNER BIOLOGICAL CONSULTING, 2007.



Mail to:  
California Natural Diversity Database  
Department of Fish and Game  
1807 13<sup>th</sup> Street, Suite 202  
Sacramento, CA 95814  
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

*For Office Use Only*

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mmldd/yyyy): 05/02/2007

## California Native Species Field Survey Form

**Scientific Name:** *Agelaius tricolor*

**Common Name:** tricolored blackbird

**Species Found?**  Yes  No \_\_\_\_\_ If not, why? \_\_\_\_\_

Total No. Individuals 100+ Subsequent Visit?  yes  no

Is this an existing NDDDB occurrence? \_\_\_\_\_  no  unk.  
Yes, Occ. # \_\_\_\_\_

Collection? If yes: \_\_\_\_\_  
Number \_\_\_\_\_ Museum / Herbarium \_\_\_\_\_

**Reporter:** Bumgardner Biological Consulting

**Address:** 11571 Prospect Hill Drive, Gold River, CA  
95670

**E-mail Address:** MBumgardner4@comcast.net

**Phone:** (916) 638-7368

### Plant Information

Phenology: \_\_\_\_\_% vegetative \_\_\_\_\_% flowering \_\_\_\_\_% fruiting

### Animal Information

100  
# adults # juveniles # larvae # egg masses # unknown  
 breeding  wintering  burrow site  rookery  nesting  other

### Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Kings County Landowner / Mgr.: City of Avenal

Quad Name: La Cima Elevation: 330 ft

T 21S R 17E Sec 19, NE ¼ of NE ¼, Meridian:  H  M  S Source of Coordinates (GPS, topo. map & type): topo

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ ¼ of \_\_\_\_\_ ¼, Meridian:  H  M  S GPS Make & Model \_\_\_\_\_

**DATUM:** NAD27  NAD83  WGS84  Horizontal Accuracy \_\_\_\_\_ meters/feet

**Coordinate System:** UTM Zone 10  UTM Zone 11  OR Geographic (Latitude & Longitude)

**Coordinates:** 36.0936 N; 120.0584 W

### Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

cattail and tule stands within ponds at the City of Avenal Water Treatment Plant

Other rare taxa seen at THIS site on THIS date: small number of nesting yellow-headed blackbirds (*Xanthocephalus xanthocephalus*) (separate form preferred)

**Site Information** Overall site/occurrence quality/viability (site + population):  Excellent  Good  Fair  Poor

Immediate AND surrounding land use: ponds surrounded by orchards, row and field crops, and US Bureau of Reclamation ROW for Aqueduct

Visible disturbances: none

Threats: potential for disturbance during nesting season from construction of proposed power plant adjacent to ponds

Comments:

### Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): \_\_\_\_\_
- Compared with specimen housed at: \_\_\_\_\_
- Compared with photo / drawing in: \_\_\_\_\_
- By another person (name): \_\_\_\_\_
- Other: Michael Bumgardner

### Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes  no