

December 19, 2007

Dockets Unit  
California Energy Commission  
1516 Ninth Street, MS 4  
Sacramento, CA 95814

RE: Colusa Generating Station (CGS) AFC  
CEC Docket No. 06-AFC-9

On behalf of E&L Westcoast, LLC, (E&L) a limited liability company and the applicant for the above-referenced Colusa Generating Station, we are pleased to submit three copies of the enclosed document:

- Supplemental Information for the 1600 Lake and Streambed Alteration Agreement Application for Colusa Generating Station

Please include this document in the AFC record.

URS Corporation

Dale Shileikis  
Vice President

Enclosure

Cc: Andy Welch, CPV, with enclosure  
Jack Caswell, without enclosure



December 19, 2007

Ms. Amy Kennedy  
North Central Region  
California Department of Fish and Game  
1701 Nimbus Road  
Rancho Cordova, California 95670

**Subject: Colusa Generating Station Project - Supplemental Information for the 1600 Lake and Streambed Alteration Agreement Application**

Dear Ms. Kennedy:

On behalf of our client E&L Westcoast, LLC, URS is providing supplemental information to the Colusa Generating Station Notification of Lake or Streambed Alteration Agreement (NLSAA) application, which was submitted to the California Department of Fish and Game on October 12, 2007. The revised NLSAA application incorporates additional information that you requested at the November 27, 2007 meeting and site visit. The following information has been added to the NLSAA application:

- Construction activities associated with the Glenn-Colusa Canal Bridge replacement; and
- Location and configuration of cofferdams that would be used during the removal of the existing Teresa Creek Bridge abutments to prevent degradation of water quality.

Please contact Steve Leach at 510.874.3205 or Melissa Newman at 510.874.1747 if you have any questions regarding this submittal.

Sincerely,

**URS CORPORATION**

Steve Leach  
Senior Project Biologist

Enclosures    Revised Notification for Lake and Streambed Alteration Agreement  
                  Revised Additional Pages  
                  Figures 1-4  
                  Copy of \$4,000 Check for Filing Fee, which was Enclosed with the October 12, 2007  
                  NLSAA Application Submittal



cc: Andrew Welch, E&L Westcoast  
Dale Shileikis, URS  
Jenny Marr, CDFG  
Brian Vierria, ACOE  
Michelle Tovar, USFWS  
Rick York, CEC  
Misa Ward, CEC  
Shaheerah Kelly, EPA  
Patrick Gillum, RWQCB  
Kim McCormick, CPV Consultant  
Andrea Grenier, PG&E Consultant  
Steve Leach, URS  
Melissa Newman, URS

FOR DEPARTMENT USE ONLY				
Date Received	Amount Received	Amount Due	Date Complete	Notification No.
	\$	\$		



STATE OF CALIFORNIA  
DEPARTMENT OF FISH AND GAME  
**NOTIFICATION OF LAKE OR STREAMBED ALTERATION**



Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

**1. APPLICANT PROPOSING PROJECT**

Name	E&L Westcoast, LLC (Andrew Welch)			
Business/Agency				
Street Address	8403 Colesville, Suite 915			
City, State, Zip	Silver Springs, Maryland 20910			
Telephone	(240) 723-2304	Fax	(240) 723-2339	
Email				

**2. CONTACT PERSON (Complete only if different from applicant)**

Name	Steve Leach			
Street Address	1333 Broadway Avenue, Suite 800			
City, State, Zip	Oakland, CA 94612			
Telephone	(510) 874-3205	Fax	(510) 874-3268	
Email	steve_leach@urscorp.com			

**3. PROPERTY OWNER (Complete only if different from applicant)**

Name	For a complete list, please see attached CDFG 1603 NLSA Additional Pages, Box 3.			
Street Address				
City, State, Zip				
Telephone		Fax		
Email				

**4. PROJECT NAME AND AGREEMENT TERM**

A. Project Name		Colusa Generating Station-Teresa Creek and Glenn-Colusa Canal Bridge Replacements		
B. Agreement Term Requested		<input checked="" type="checkbox"/> Regular (5 years or less) <input type="checkbox"/> Long-term (greater than 5 years)		
C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (year)	Ending (year)	Start Date (month/day)	End Date (month/day)	
2008	2010	05/01	10/01	760.00

## NOTIFICATION OF LAKE OR STREAMBED ALTERATION

### 5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, or E is checked, complete the specified attachment.

A.	<input checked="" type="checkbox"/> Standard (Most construction projects, excluding the categories listed below)
B.	<input type="checkbox"/> Gravel/Sand/Rock Extraction (Attachment A) <span style="float: right;">Mine I.D. Number: _____</span>
C.	<input type="checkbox"/> Timber Harvesting (Attachment B) <span style="float: right;">THP Number: _____</span>
D.	<input type="checkbox"/> Water Diversion/Extraction/Impoundment (Attachment C) <span style="float: right;">SWRCB Number: _____</span>
E.	<input type="checkbox"/> Routine Maintenance (Attachment D)
F.	<input type="checkbox"/> DFG Fisheries Restoration Grant Program (FRGP) <span style="float: right;">FRGP Contract Number: _____</span>
G.	<input type="checkbox"/> Master
H.	<input type="checkbox"/> Master Timber Harvesting

### 6. FEES

Please see the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. *Note: The Department may not process this notification until the correct fee has been received.*

	A. Project	B. Project Cost	C. Project Fee
1	Colusa Generating Station Project	\$450,000,000.00	\$4,000.00
2			
3			
4			
5			
		D. Base Fee (if applicable)	
		<b>E. TOTAL FEE ENCLOSED</b>	<b>\$4,000.00</b>

### 7. PRIOR NOTIFICATION OR ORDER

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

Yes (Provide the information below)       No

Applicant: \_\_\_\_\_ Notification Number: \_\_\_\_\_ Date: \_\_\_\_\_

B. Is this notification being submitted in response to an order, notice, or other directive ("order") by a court or administrative agency (including the Department)?

No       Yes (Enclose a copy of the order, notice, or other directive. If the directive is not in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.)

Continued on additional page(s)

## NOTIFICATION OF LAKE OR STREAMBED ALTERATION

### 8. PROJECT LOCATION

<b>A. Address or description of project location.</b> <i>(Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway)</i>				
The proposed Colusa Generating Station Project is located approximately 72 miles north of Sacramento, 4 miles west of Interstate 5 (I-5), north of the town of Maxwell (Figure 1, Project Vicinity Map).  Driving Directions to the Teresa Creek Bridge Replacement: From Sacramento, take I-5 north. Approximately 5 miles north of Maxwell, take the Delevan Road exit and make a left onto Delevan Road. Turn right onto McDermott Road. The existing Teresa Creek Bridge is approximately 0.7 mile from this turn (Figure 2).  Driving Directions to the Glenn-Colusa Canal Bridge Replacement: Continue on McDermott Road for approximately 0.3 mile and make a left onto Dirks Road. The existing Glenn-Colusa Canal Bridge is approximately 1.4 miles from this turn (Figure 2).  To reach the proposed Colusa Generating Station project site, continue on Dirks Road across the Glenn-Colusa Canal Bridge. The proposed power plant site is located approximately 0.75 mile west of the terminus of Dirks Road.				
<input type="checkbox"/> Continued on additional page(s)				
<b>B. River, stream, or lake affected by the project.</b>		Glenn-Colusa Canal and Southern fork of Hunters Creek (Teresa Creek)		
<b>C. What water body is the river, stream, or lake tributary to?</b>		Sacramento River		
<b>D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		
<b>E. County</b>	Colusa			
<b>F. USGS 7.5 Minute Quad Map Name</b>	<b>G. Township</b>	<b>H. Range</b>	<b>I. Section</b>	<b>J. ¼ Section</b>
Maxwell (Teresa Creek Bridge Replacement)	17N	3W	5	
Sites (Glenn-Colusa Canal Bridge Replacement)	17N	4W	1	
<input type="checkbox"/> Continued on additional page(s)				
<b>K. Meridian (check one)</b>	<input type="checkbox"/> Humboldt <input checked="" type="checkbox"/> Mt. Diablo <input type="checkbox"/> San Bernardino			
<b>L. Assessor's Parcel Number(s)</b> Please see attached CDFG 1603 NLSA Additional Pages, Box 8L.				
<input checked="" type="checkbox"/> Continued on additional page(s)				
<b>M. Coordinates (if available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)</b>				
<b>Latitude/Longitude</b>	Latitude: See CDFG 1603 NLSA Add. Pages		Longitude: See CDFG 1603 NLSA Add. Pages	
	<input checked="" type="checkbox"/> Degrees/Minutes/Seconds		<input type="checkbox"/> Decimal Degrees <input type="checkbox"/> Decimal Minutes	
<b>UTM</b>	Easting:	Northing:	<input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11	
<b>Datum used for Latitude/Longitude or UTM</b>		<input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 or WGS 84		

## NOTIFICATION OF LAKE OR STREAMBED ALTERATION

### 9. PROJECT CATEGORY AND WORK TYPE *(Check each box that applies)*

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank stabilization – rip-rap/retaining wall/gabion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat dock/pier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat ramp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bridge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channel clearing/vegetation management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Culvert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Debris basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diversion structure – weir or pump intake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filling of wetland, river, stream, or lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Habitat enhancement – revegetation/mitigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Levee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low water crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road/trail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment removal – pond, stream, or marina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain outfall structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary stream crossing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility crossing : Horizontal Directional Drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jack/bore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open trench	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other <i>(specify)</i> :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# NOTIFICATION OF LAKE OR STREAMBED ALTERATION

## 10. PROJECT DESCRIPTION

A. Describe the project in detail. Photographs of the project location and immediate surrounding area should be included.

- include any structures (e.g., rip-rap, culverts, or channel cleaning) that will be placed, built, or completed in or near the stream, river, or lake.
- Specify the type and volume of materials that will be used.
- If water will be diverted or drafted, specify the purpose or use.

Enclose diagrams, drawings, plans, and/or maps that provide all of the following: site specific construction details; the dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; an overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, and where the equipment/machinery will enter and exit the project area.

Please see attached CDFG 1603 NLSA Additional Pages, Box 10A.

Continued on additional page(s)

B. Specify the equipment and machinery that will be used to complete the project.

Please see attached CDFG 1603 NLSA Additional Pages, Box 10B.

Continued on additional page(s)

C. Will water be present during the proposed work activity (as specified in box 4 D) in the stream, river, or lake (specified in box 6A)?

Yes     No (Skip to box 11)

D. Will the proposed project require work in the wetted portion of the channel?

Yes (Enclose a plan to divert water around work site)  
 No

## NOTIFICATION OF LAKE OR STREAMBED ALTERATION

### 11. PROJECT IMPACTS

**A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.**

Please see attached CDFG 1603 NLSA Additional Pages, Box 11A.

*Continued on additional page(s)*

**B. Will the project affect any vegetation?**

*Yes (Complete the tables below)*     *No*

Vegetation Type	Temporary Impact	Permanent Impact
Please see attached CDFG 1603 NLSA Additional Pages, Box 11B.	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
None		

*Continued on additional page(s)*

**C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?**

*Yes (List each species and/or describe the habitat below)*     *No*     *Unknown*

Please see attached CDFG 1603 NLSA Additional Pages, Box 11C.

*Continued on additional page(s)*

**D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11 C.**

Please see attached CDFG 1603 NLSA Additional Pages, Box 11D.

*Continued on additional page(s)*

**E. Has a biological study been completed for the project site?**

*Yes (Enclose the biological study)*     *No*

*Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.*

**F. Has a hydrological study been completed for the project or project site?**

*Yes (Enclose the hydrological study)*     *No*

*Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.*

# NOTIFICATION OF LAKE OR STREAMBED ALTERATION

## 12. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

Please see attached CDFG 1603 NLSA Additional Pages, Box 12A.

Continued on additional page(s)

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

Please see attached CDFG 1603 NLSA Additional Pages, Box 12B.

Continued on additional page(s)

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

Please see attached CDFG 1603 NLSA Additional Pages, Box 12C.

Continued on additional page(s)

## 13. PERMITS

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

- A. Army Corps of Engineers 404 Individual Permit Application  Applied  Issued
- B. 401 Regional Water Quality Control Board Certification  Applied  Issued
- C. U.S. Fish and Wildlife Service Incidental Take Permit  Applied  Issued
- D. Unknown whether  local,  state, or  federal permit is needed for the project. (Check each box that applies)

Continued on additional page(s)

## NOTIFICATION OF LAKE OR STREAMBED ALTERATION

### 14. ENVIRONMENTAL REVIEW

<b>A. Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA), National Environmental Protection Act (NEPA), California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA)?</b>			
<input checked="" type="checkbox"/> <b>Yes</b> (Check the box for each CEQA, NEPA, CESA, and ESA document that has been prepared and enclose a copy of each) <input type="checkbox"/> <b>No</b> (Check the box for each CEQA, NEPA, CESA, and ESA document listed below that will be or is being prepared)			
<input type="checkbox"/> Notice of Exemption	<input type="checkbox"/> Mitigated Negative Declaration	<input checked="" type="checkbox"/> NEPA document (type): <u>ACOE, in process</u>	
<input type="checkbox"/> Initial Study	<input type="checkbox"/> Environmental Impact Report	<input checked="" type="checkbox"/> CESA document (type): <u>2080.1, in process</u>	
<input type="checkbox"/> Negative Declaration	<input type="checkbox"/> Notice of Determination (Enclose)	<input checked="" type="checkbox"/> ESA document (type): <u>BA enclosed</u>	
<input type="checkbox"/> THP/ NTMP	<input checked="" type="checkbox"/> Mitigation, Monitoring, Reporting Plan		
<b>B. State Clearinghouse Number (if applicable)</b>			
<b>C. Has a CEQA lead agency been determined?</b> <input checked="" type="checkbox"/> Yes (Complete boxes D, E, and F) <input type="checkbox"/> No (Skip to box 14.G)			
<b>D. CEQA Lead Agency</b>		California Energy Commission	
<b>E. Contact Person</b>		Misa Ward, Biologist	<b>F. Telephone Number</b> (916) 651-9010
<b>G. If the project described in this notification is part of a larger project or plan, briefly describe that larger project or plan.</b>			
Please see attached CDFG 1603 NLSA Additional Pages, Box 14G.			
<input checked="" type="checkbox"/> Continued on additional page(s)			
<b>H. Has an environmental filing fee (Fish and Game Code section 711.4) been paid?</b>			
<input checked="" type="checkbox"/> Yes (Enclose proof of payment) <input type="checkbox"/> No (Briefly explain below the reason a filing fee has not been paid)			
<p><i>Note: If a filing fee is required, the Department may not finalize a Lake or Streambed Alteration Agreement until the filing fee is paid.</i></p>			

### 15. SITE INSPECTION

<b>Check one box only.</b>
<input type="checkbox"/> In the event the Department determines that a site inspection is necessary, I hereby authorize a Department representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant the Department such entry.
<input checked="" type="checkbox"/> I request the Department to first contact (insert name) <u>Steve Leach</u> at (insert telephone number) <u>(510) 874-3205</u> to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay the Department's determination as to whether a Lake or Streambed Alteration Agreement is required and/or the Department's issuance of a draft agreement pursuant to this notification.

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

Yes (Please enclose the information via digital media with the completed notification form)

No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.



\_\_\_\_\_  
Signature of Applicant or Applicant's Authorized Representative

\_\_\_\_\_  
Date

Andrew Welch, Competitive Power Ventures, Inc.  
Print Name

**CDFG 1603 NLSA Additional Pages**

**Box 1 and Box 2** – Please see Notification.

**Box 3. Property Owner**

<b>Table 1            Property Owner Information for the Colusa Generating Station Project</b>		
<b>Parcel Number(s)</b>	<b>Landowner Name</b>	<b>Mailing Address</b>
011-040-024 011-140-014 011-040-026 011-140-004	Leo M. and Diane M. Holthouse	25039 Highway 395 South South Canyon City, OR 97820
011-140-021 011-040-029	Allan E. and Mary Anne Azevedo <sup>1</sup>	P.O. Box 629 Maxwell, CA 95955
011-040-011	William Dirks, Jr. <sup>1</sup>	P.O. Box 9 Maxwell, CA 95955
011-140-019	Jack L. Barrett, Jr. <sup>1</sup>	P.O. Box 99 Maxwell, CA 95955
011-220-003	Marlene J. Story <sup>2</sup>	P.O. Box 156 Maxwell, CA 95955
<sup>1</sup> Owner of land where the Glenn-Colusa Canal Bridge replacement and road alignment would be constructed. <sup>2</sup> Owner of land where the Teresa Creek Bridge temporary bypass would be constructed.		

**Box 4A through 4C** – Please see Notification.

**Box 4D. Seasonal Work Period**

Construction activities would be scheduled to avoid or minimize disturbance to biological resources. Construction at the Teresa Creek Bridge and Glenn-Colusa Canal Bridge would occur during the giant garter snake (*Thamnophis gigas*) active season, May 1 through October 1. Removal of the existing Teresa Creek Bridge and the existing deck of the Glenn-Colusa Canal Bridge would include measures to protect cliff swallows (*Hirundo pyrrhonota*). The exact dates of bridge removal have not yet been determined. If bridge removal occurs between May 1 and August 31, which is during the nesting season for cliff swallows, netting would be installed on the bridge prior to March 1, which is prior to the March 31 commencement date for nesting season, to prevent the occupation of existing nests or the construction of new nests. The netting would be maintained through the nesting season, or until the existing bridge has been demolished. If bridge removal occurs between September 1 and October 1, during the non-nesting period for cliff swallows (September 1 through March 31), no measures to protect cliff swallows are proposed.

For a complete description of the timing of construction activities, please refer to the Biological Resources Section of the November 2006 Application for Certification (AFC) and the Revised Biological Assessment.

Listed salmonids are not expected to be impacted by the proposed project. In a concurrence letter dated August 2, 2007, NMFS determined that listed salmonids and their designated critical habitat are not present in the Colusa Generating Station project's action area.

**Box 4E through Box 8K** – Please see Notification.

**Box 8L. Assessor's Parcel Number(s)**

Teresa Creek Bridge Replacement: 011-220-003

Glenn-Colusa Canal Bridge Replacement: 011-140-021, 011-040-029, 011-040-011, 011-140-019

Additional Glenn-Colusa Generating Station Project Components: 011-040-024, 011-140-014, 011-040-026, 011-140-004

**Box 8M. Coordinates, Latitude/Longitude**

	<u>Latitude</u>	<u>Longitude</u>
Teresa Creek Bridge Replacement	39°21'30.96"N	122°13'46.11"W
Glenn-Colusa Canal Bridge Replacement	39°21'47.36"N	122°15'19.53"W

**Box 9** – Please see Notification.

**Box 10. Project Description**

**Box 10A. Describe the project in detail**

As part of E&L Westcoast's proposed Colusa Generating Station Project (described in detail in Box 14G), the Glenn-Colusa Canal Bridge (Figure 3) and the Teresa Creek Bridge (Figure 4, View 1) and the Glenn-Colusa Canal Bridge (Figure 3) would need to be replaced to accommodate heavy equipment delivery to the site.

**Teresa Creek Bridge.** The existing Teresa Creek Bridge, 0.7 mile north of Delevan Road on McDermott Road (Figure 2), is an older structure with a wood deck. The new Teresa Creek Bridge would be a prefabricated bridge approximately 75 feet in length with no piers or abutments in waters of the United States (Figure 4, View 1). To accommodate local traffic during construction of the new bridge, a temporary 14-foot-wide culvert crossing and detour road would be installed immediately downstream of the existing bridge prior to construction of the new bridge. Construction of the new Teresa Creek Bridge would be divided into three components, as generally described below.

1. **Temporary bypass.** Pipe culverts would be laid in the creek, with sufficient capacity for the passage of creek flow during the allowable construction period for the new bridge. The construction period would occur during the dry season. Temporary impacts to water conveyance in Teresa Creek would be avoided by placement of temporary culverts that are adequately sized to convey the expected flows in Teresa Creek. At this time, the culvert is expected to be 16 feet wide and 11 feet high. This would be confirmed during final design. The applicant would coordinate construction activities with Colusa County and the Glenn-Colusa Irrigation District to determine the anticipated flow rate of discharges into Teresa Creek during the construction period. The pipe culverts would be laid on gravel placed on the creek bed, and overlain with gravel and backfill to form a

roadway embankment placed over the culverts, and a road graded and possibly paved (depending on the average daily traffic count) for the passage of traffic.

2. **Bridge Removal.** Bridge demolition equipment would be needed to remove the existing structure. The timber superstructure would be removed with a small crane, tractor, and truck. Abutments would be demolished using concrete demolition equipment. Cofferdams would be installed around each of the concrete bridge abutments to isolate the demolition work area from flowing water. The cofferdams would be installed as close as possible to the abutment construction area to minimize the impact to the flow of the stream. If necessary, water within the cofferdam would be pumped out and released into an upland area. All existing bridge structure and materials would be removed from site and disposed in an approved landfill. It is not known whether the existing bridge abutment is on piles. If there are existing piles, the top two feet would be removed in accordance with the Caltrans Standard Specifications.
3. **Permanent Structure.** The permanent replacement bridge would be constructed after the temporary bridge is installed and operational. The permanent structure would meet all applicable design standards for conveying expected flows to avoid changes in stream depth and flow rates in the project area. Culvert or abutment walls would use wood forms to accommodate cast-in-place construction. Wingwalls at the upstream and downstream sides of the structure would be constructed to prevent scouring of the creek walls.

After the permanent bridge has been constructed, the temporary bridge and detour road would be removed and all disturbed areas would be returned to pre-project conditions. During construction, adequate flows allowing for fish passage would be maintained at all times. The culverts installed for the temporary bridge would be large enough so as not to restrict peak expected flows. If dewatering of some areas is required during construction, a CDFG-approved biologist would be present during dewatering to ensure that fish are not injured. Fish that may be trapped behind the cofferdam will be netted and removed from the dewatering area. Additionally, a net or some other type of fish screen will be used on the end of the dewatering pump, to prevent any fish from being sucked into the pumping mechanism, providing the biologist with adequate opportunity to remove the fish from the area. All disturbed areas will be revegetated, including disturbed areas adjacent to the active channel. All disturbed areas would be revegetated with native species.

**Glenn-Colusa Canal Bridge.** The existing Glenn-Colusa Canal Bridge located at the end of Dirks Road was built in 1965 to provide access to, and support the construction of, the PG&E Delevan Gas Compressor Station. This bridge is a four-span concrete-decked structure that is 74 feet long by 20 feet wide. The bridge provides weight-limited one-way truck traffic and speed-limited two-way automobile traffic (due to the reduced lane width of 8 feet) with 2-foot shoulders. The bridge was originally designed for a 40-ton load, but is currently rated H 20, a 20-ton load, by the American Association of State Highway and Transportation Officials (AASHTO). A new Glenn-Colusa Canal Bridge is necessary because the heaviest equipment for the plant would exceed the HS-20 rating of the existing bridge. The new bridge cannot be constructed in the same location because the existing bridge would be required for initial construction mobilization site access while the new bridge is being installed.

The new Glenn-Colusa Canal Bridge (Figure 3) would be approximately 100 feet long by 30 feet wide and would be a three-span bridge. The east approach would be located approximately 75 feet south of the existing bridge, and the west approach would be located about 45 feet south. This would provide for two 12-foot lanes with 3-foot shoulders giving unimpeded two-way traffic

flow. The bridge deck would be replaced in time to accommodate the heavy haul equipment entering the site. The bridge would be fitted with side guard rails and would be striped to permit safe passage of traffic.

The replacement design includes a 1.09-acre temporary construction staging and parking area on the east side of the Glenn-Colusa Canal as well as an approximately 135-foot construction right-of-way along the alignment. The access road on both sides of the bridge would be realigned to straighten and widen the approaches to allow for unimpeded two-way traffic, re-aligning with the current Dirks Road right-of-way as soon as practical. A retainer wall would be placed along the northern side of Dirks Road, on the east side of the replacement bridge, to enable the continued use of the current irrigation canal. Two rows of five driven piers would be constructed in the canal to support the bridge. A cofferdam of corrugated steel sheet piles would be installed so that the work area for each bridge abutment can be dewatered. The cofferdams would be placed as close as possible to the abutment construction area to minimize the impact to the flow of the canal. If need be only one cofferdam would be installed at a time. The inside of the cofferdam would be dewatered using one or more pumps and the water would be released back into the canal downstream of the cofferdam. The bridge piers would be driven pre-cast concrete or drilled cast-in-place concrete; these would be installed by equipment located on the canal embankment, and can be installed even during high water levels without the use of cofferdams around the pier locations.

The removal of the existing bridge would occur after the new bridge is constructed. The concrete deck and the three sets of five piers associated with the existing bridge would be removed. The piers would be cut off at the mud line and removed during low or empty water conditions, which would allow the work to be done without placing heavy equipment into the canal. A temporary 2- to 4-foot-high preformed plastic cofferdam would be placed around each set of five piers one set at a time (Figure 3), and would be anchored to the canal bed using stakes or other temporary attachment methods with the necessary dewater being released back to the canal. Because this would be done during low or no water conditions, there would be no impact to canal operations. Removal of the existing bridge piers would offset potential impacts of the new piers on the flow of water in the canal. The two bridge abutments supporting the existing bridge would be left in place to eliminate construction impacts to the canal embankments. This would not affect the operation of the canal. The original bridge approaches would be final-graded to match the surrounding land contours and seeded with grass native to the region.

Upon completion of the bridge replacement, the road approaches would be final graded to match the surrounding land contours and seeded with grass native to the region. All disturbed areas would be returned to pre-project conditions after construction is complete.

**Box 10B. Specify the equipment and machinery that will be used to complete the project.**

**Teresa Creek Bridge.** Pipe culverts would be installed with truck and tractor equipment. Earthmoving equipment (tractor, dozer, and backhoe) would be used to place and remove a temporary embankment that would be in the stream channel above the culvert. Paving machines and rollers would be used if the temporary bypass is paved. It is anticipated that earthmoving equipment (tractor, dozer, and a backhoe) would be used to excavate the necessary soil for construction of the project.

**Glenn-Colusa Canal Bridge.** Pile driving equipment would be used to install the piers in the canal. Earthmoving equipment (tractor, dozer, trucks, and a backhoe) would be used to construct the road alignment. Paving machines and rollers would be used to pave the road.

**Box 10C. Will water be present during the proposed work period (specified in Box 4 D) in the stream, river, or lake (specified in Box 8. B)?**

Yes, it is likely. Construction would occur between May 1 and October 1.

**Box 10D. Will the proposed project require work in the wetted portion of the channel?**

Yes. Please See Section 10A above for additional information regarding plans for diversion of water around the work sites.

**Box 11. Project Impact Area**

**Box 11A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat.**

**Teresa Creek Bridge.** Construction of a temporary bridge and replacement of the existing bridge at Teresa Creek would affect seasonal wetlands and non-wetland waters of the United States.

Teresa Creek is the southernmost tributary of Hunters Creek, which drains into the Sacramento River approximately 60 miles downstream of the project area. The active channel of this stream is a jurisdictional water of the United States. During the replacement of the bridge, a retaining wall would be constructed to prevent erosion of the bank at the outfall of two drainage culverts on the north bank of Teresa Creek, immediately west of the existing bridge. (The action of the water draining from the culverts has eroded a wide section of bank below the outfall.) The culverts would extend through the wall and the stream bank behind the wall, which has been eroded, would be back-filled. The area where this wall would be constructed is primarily unvegetated but the site is located below the ordinary high water elevation of the stream. This area is a non-wetland water of the United States. The retaining wall, construction, and backfill would result in the permanent fill of approximately 600 square feet (0.014 acre) of jurisdictional non-wetland waters of the United States. Construction of the temporary culvert crossing would temporarily fill approximately 0.040 acre of jurisdictional non-wetland waters of the United States.

The channel is bordered on both sides by a narrow band of herbaceous seasonal wetlands, approximately 5 feet wide (Figure 4, View 1). Temporary disturbance to some of the seasonal wetland habitat at the Teresa Creek Bridge site would be unavoidable during the bridge replacement. Heavy equipment used to remove the existing bridge and construct the new bridge would require temporary access within the stream channel and the area surrounding the bridge that would disturb existing vegetation. A temporary bridge and detour would be constructed within 100 feet east of the existing bridge. This would require the placement of large culverts in the stream and piling rock and earth around them to form a temporary crossing. Approximately 1,000 square feet (0.023 acre) of jurisdictional seasonal wetland vegetation between the existing bridge and the temporary crossing would be disturbed during construction.

Replacement of the Teresa Creek Bridge would result in no permanent loss of seasonal wetland habitat, and could result in a small increase in the size of the stream channel. The new bridge would span the stream, and the abutments would be set back farther from the stream than those of the existing bridge. The existing Teresa Creek Bridge is approximately 31 feet long, while the new bridge would be 38 feet long. The longer bridge would widen the channel by an additional 3 feet.

The temporary road detour east of the existing Teresa Creek Bridge would temporarily impact 0.114 acre of cultivated rice fields north and south of Teresa Creek (Figure 4, View 1).

**Glenn-Colusa Canal Bridge.** The Glenn-Colusa Canal conveys water that is diverted from the Sacramento River near Hamilton City, approximately 32 miles north of the project site. The Glenn-Colusa Irrigation District maintains the canal. Construction of the Glenn-Colusa Canal Bridge would affect irrigation and drainage channels, cultivated rice fields, freshwater marsh, and seasonal wetlands.

The Glenn-Colusa Canal Bridge replacement would permanently impact the northern margins of two seasonal wetlands (direct impact = 0.018 acre) on the southwestern side of the Glenn-Colusa Canal, directly south of the existing PG&E access road (Figure 3). Construction activities associated with the bridge replacement would also temporarily impact 0.052 acre of these two seasonal wetlands (Figure 3).

Freshwater marsh wetlands are located in irrigation and drainage channels east and west of the Glenn-Colusa Canal and freshwater marsh is also located on the margins of rice fields east and west of the Glenn-Colusa Canal (Figure 3). The proposed road alignment and Glenn-Colusa Canal Bridge construction would permanently fill 0.279 acre of freshwater marsh and require temporary fill in 0.120 acre of freshwater marsh. During construction of the new Glenn-Colusa Canal Bridge, impacts to adjacent freshwater marsh wetlands would be minimized.

Rice fields are located northeast, southeast, and northwest of the Glenn-Colusa Canal (Figure 3). The proposed road alignment and Glenn-Colusa Canal Bridge construction would permanently impact 0.362 acre of cultivated rice fields and would temporarily impact 1.287 acre of cultivated rice fields.

Construction of the new Glenn-Colusa Canal Bridge would require placement of fill in potential non-wetland waters of the United States (Figure 3). The proposed road alignment would permanently fill 0.029 acre and temporarily impact 0.006 acre of the Glenn-Colusa Canal. The bridge replacement would also temporarily impact 0.214 acre of drainage channels and irrigation channels that are jurisdictional non-wetland waters of the United States.

**Box 11B. Will the project impact vegetation?**

Yes. Vegetation would be permanently and/or temporarily impacted by construction of new bridges at Teresa Creek and the Glenn-Colusa Canal. These activities would impact several vegetation types including seasonal wetlands, freshwater marsh, cultivated rice fields, and ruderal/disturbed habitat. Table 2 provides acreages for these impacts.

<b>Table 2</b>		
<b>Impacts to Jurisdictional Wetlands of the United States</b>		
<b>Habitat Impacted</b>	<b>Area of Impact (acre)</b>	
	<b>Permanent</b>	<b>Temporary</b>
<b>Jurisdictional Wetlands</b>		
Freshwater Marsh	0.279	0.120
Seasonal Wetland	0.018	0.075
Cultivated Rice Field	0.362	1.401 <sup>1</sup>
<b>TOTAL</b>	<b>0.659</b>	<b>0.195<sup>1</sup></b>

<sup>1</sup> Temporary impacts to cultivated rice field are not included in the calculation of total temporary impacts to wetlands. Per a previous conversation with the U.S. Army Corps of Engineers (ACOE) temporary impacts to cultivated rice fields are not considered impacts to jurisdictional waters of the United States.

### **Freshwater Marsh**

Freshwater marsh wetlands are located northwest, northeast, southwest, and southeast of the Glenn-Colusa Canal (Figure 3). Dominant species associated with this vegetation type include broad-leaf cattail (*Typha latifolia*), bulrush (*Scirpus acutus*), and smartweed (*Polygonum* spp.).

### **Seasonal Wetland**

A band of seasonal wetland vegetation is located along the margins of the channel of Teresa Creek (Figure 4, View 1). This band of seasonal wetland vegetation, approximately 5 feet wide on each side, is a jurisdictional wetland. Seasonal wetlands on the margins of Teresa Creek are dominated by purple vervain (*Verbena bonariensis*), Bermuda grass (*Cynodon dactylon*), dallies grass (*Paspalum dilatatum*), and wild rye (*Leymus triticoides*). Willow herb (*Epilobium brachycarpum*), western goldentop (*Euthamia occidentalis*), knotweed (*Polygonum* sp.), and tule (*Scirpus* sp.) are also present.

Two seasonal wetlands are located south of the existing PG&E access road (Figure 3). Vegetation present in these wetlands includes perennial ryegrass (*Lolium perenne*), seaside barley (*Hordeum marinum*), curly dock (*Rumex crispus*), and stalked popcornflower (*Plagiobothrys stipitatus* var. *micranthus*).

### **Cultivated Rice Field**

Cultivated rice fields are located north and south of Teresa Creek and northeast, southeast, and northwest of the Glenn-Colusa Canal. Per a previous conversation with the ACOE, temporary impacts to cultivated rice fields are not considered impacts to jurisdictional waters of the United States.

### **Ruderal/Disturbed**

Disturbed areas are lands that have been altered by human actions such that the natural communities no longer exist. Disturbed areas generally consist of ruderal species or are unvegetated. Ruderal/disturbed areas occur along the road shoulders of McDermott and Dirk Roads. Impact to ruderal/disturbed vegetation was not assessed. Ruderal/disturbed habitat along the shoulders of McDermott and Dirk Roads would be temporarily disturbed during construction of the Teresa Creek Bridge and associated road detour and permanently and temporarily disturbed by the construction the Glenn-Colusa Canal Bridge.

### **Box 11C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the site?**

Yes. The proposed Glenn-Colusa Canal Bridge and Teresa Creek Bridge replacement projects may affect several species listed as rare, threatened, or endangered species under the federal and/or state Endangered Species Acts, and/or as species of special concern by the California Department of Fish and Game (CDFG), and/or by the California Native Plant Society (CNPS). Special-status species with potential to occur in the CGS project site were determined based on the proximity of known occurrences, the historic range of these species, agency consultations, and habitat evaluations, jurisdictional delineations, and wildlife and plant field surveys conducted in 2001, 2006, and 2007. These species include:

- *Branchinecta lynchi*, vernal pool fairy shrimp (Federal Threatened)
- *Lepidurus packardi*, vernal pool tadpole shrimp (Federal Endangered)
- *Thamnophis gigas*, giant garter snake (Federal and State Threatened)

- *Ambystoma californiense*, California tiger salamander (dispersal/aestivation only) (Federal Threatened and State Species of Special Concern)
- *Buteo swainsoni*, Swainson's hawk (forage only) (State Threatened)
- *Hirundo pyrrhonota*, cliff swallow (Migratory Bird Treaty Act)
- *Agelaius tricolor*, tricolored blackbird (State Species of Special Concern, Migratory Bird Treaty Act)
- *Plegadis chihi*, white-faced ibis (State Species of Special Concern, Migratory Bird Treaty Act)
- *Elanus leucurus*, white-tailed kite (winter/forage only) (State Fully Protected, Migratory Bird Treaty Act)
- *Haliaeetus leucocephalus*, bald eagle (winter/forage only) (Federal Delisted, State Endangered, State Fully Protected, Migratory Bird Treaty Act)
- *Aquila chrysaetos*, golden eagle (winter/forage only) (State Species of Special Concern, Migratory Bird Treaty Act)
- *Antrozous pallidus*, pallid bat (State Species of Special Concern)
- *Corynorhinus townsendii*, Townsend's western big-eared bat (State Species of Special Concern)
- *Corynorhinus townsendii pallescens*, pale big-eared bat (State Species of Special Concern)
- *Circus cyaneus*, northern harrier (winter/forage only) (State Species of Special Concern, Migratory Bird Treaty Act)
- *Buteo regalis*, ferruginous hawk (winter/forage only) (State Species of Special Concern, Migratory Bird Treaty Act)
- *Eremophila alpestris*, California horned lark (winter/forage only) (State Species of Special Concern, Migratory Bird Treaty Act)
- *Athene cunicularia hypugea*, western burrowing owl (State Species of Special Concern, Migratory Bird Treaty Act)

The following special-status species have the potential to occur adjacent to the limits of the CGS project site:

- *Branchinecta conservatio*, conservancy fairy shrimp (Federal Endangered)
- *Atriplex depressa*, brittle scale, (CNPS List 1B.2)

Listed salmonid species including Central Valley spring Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley fall/late-fall run Chinook salmon (*Oncorhynchus tshawytscha*), Sacramento Valley winter run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley steelhead (*Oncorhynchus mykiss*), and green sturgeon (*Acipenser medirostris*) are not expected to be impacted by the proposed project. In a letter to the ACOE, dated August 2, 2007, NMFS determined that listed salmonids and their designated critical habitat are not present in the CGS project's action area.

For a complete discussion of special-status species that may be affected by the entire Colusa Generating Station project, please refer to the following reports: November 2006 AFC Section 8.2, Biological Resources, and the October 2007 Revised Biological Assessment.

After implementation of the proposed avoidance, minimization, and compensation measures in the November 2006 AFC and the October 2007 BA, the proposed Colusa Generating Station project is not likely to significantly impact special-status species.

**Box 11D. Identify the source(s) of information that supports a “yes” or “no” answer above in Box 11. C.**

Focused surveys and habitat assessments for special-status species and/or sensitive habitat species, and wetland delineations were conducted in the biological study area in 2001, 2006, and 2007. Results of these surveys are summarized in the November 2006 AFC, and the Biological Assessment and subsequent submittals.

**Box 11E. Has a biological study been completed for the project site?**

Yes. The following biological studies were included on the CDs enclosed with the Colusa Generating Station 1600 agreement application transmitted to the your office on October 12, 2007:

- AFC for the CEC (November 2006)
- BA for USFWS Section 7 Consultation (December 2006)
- ACOE 404 Standard Individual Permit Application (April 5, 2007)
- Jurisdictional Delineation Report (April 5, 2007)
- Amendment to the AFC (August 17, 2007)
- Supplements to the BA, 404 permit, and JD report

A copy of the Revised Biological Assessment was transmitted to your office on October 18, 2007.

**Box 11F. Has a hydrological study been completed for the project or project sites?**

Yes. Please refer to Section 8.14, Water Resources, of the November 2006 Application for Certification.

**Box 12. Measures to Protect Fish, Wildlife, and Plant Resources**

**Box 12A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.**

Water quality is not expected to be adversely affected by the proposed project with implementation of the Best Management Practices (BMPs) described in Section 8.14, Water Resources, Section 8.2, Biological Resources, and Section 8.9, Agriculture and Soils, from the November 2006 Application for Certification. These BMPs include:

- Proper implementation of BMPs during construction and throughout project operation (e.g., spill prevention and control, preventative maintenance, hazardous materials management), as well as adherence to all applicable codes and permits, will help minimize the potential for contamination of groundwater. No significant impacts to groundwater are anticipated.
- Erosion will be controlled in accordance with an approved Erosion Control Plan as discussed in Section 8.9.2.2, Agriculture and Soils; Construction of the November 2006 Application for Certification. In addition, all construction activities will be performed in accordance with the California National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with Construction Activities (SWRCB 1999), requiring the implementation of BMPs to control sediment and other pollutants mobilized from construction activities.

- A Construction Storm Water Pollution Prevention Plan (SWPPP) will be prepared before construction begins. With proper implementation of BMPs, no significant impacts to surface water quality are anticipated as a result of construction activities.
- In general, disturbance to existing grades and vegetation shall be limited to the actual site of the project and necessary access routes. Placement of all roads, staging areas, and other facilities shall avoid and limit disturbance to wetland habitat. Existing ingress or egress points shall be used. Parking of equipment, project access, supply logistics, equipment maintenance, and other project-related activities would occur at a designated staging area. Following completion of the work, the contours of the area shall be returned to preconstruction condition or better.
- Additional direct and indirect impacts to sensitive biological resources throughout the project site, including wetlands and jurisdictional waters, would be avoided or minimized by designating these features outside of the construction impact area as environmentally sensitive areas on project plans and in project specifications. Environmentally sensitive area information would be shown on contract plans and discussed in the Special Provisions. Environmentally sensitive area provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into environmentally sensitive area would be restricted (including the staging/operation of heavy equipment or casting of excavation materials). Environmentally sensitive area provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.
- Regional Water Quality Control Board (RWQCB)-approved physical barriers adequate to prevent the flow or discharge of sediment into the active channel of Teresa Creek shall be constructed and maintained between work areas and streams or wetlands.
- Erosion control and sediment detention devices (e.g., well-anchored sandbag cofferdams, straw bales, or silt fences) shall be incorporated into the project design and implemented at the time of construction. These devices shall be in place during construction activities, and after if necessary, for the purposes of minimizing sediment impact to the wetlands and input to waters of the United States. These devices would be placed at all locations where the likelihood of sediment input exists.
- A supply of erosion control materials would be kept on hand to cover small sites that may become bare and to respond to sediment emergencies.
- Temporary BMPs may include revegetation, slope stabilization, construction of berms and ditches, and sediment barriers such as straw bales or silt fences to prevent sediment discharges from the site.
- Oily or greasy substances originating from the contractor's operations would not be allowed to enter or be placed where they would later enter a live or dry stream, pond, or wetland. Asphalt concrete shall not be allowed to enter a live or dry stream, pond, or wetland.
- Public roadways adjacent to the project site that are used by construction and worker vehicles would be swept at least twice a day.
- Windbreaks would be installed at the windward sides on construction areas prior to soil being disturbed. The windbreaks would remain in place until the soil is stabilized or permanently covered.

- Ground cover would be replaced in disturbed areas as quickly as possible.
- Tire washing and gravel ramps would be employed prior to entering a public roadway to limit accumulated mud and dirt deposited on public roadways.
- All trucks hauling dirt, sand, soil, or other loose materials would be covered and would maintain a minimum of 6 inches of freeboard between the top of the load and the top of the trailer.
- Covers or dust suppressants would be applied to soil storage piles and disturbed areas that remain inactive for more than two weeks and during the rainy season.
- Construction activities would be scheduled to minimize disturbed soil area during the rainy season to the extent practicable.
- Temporary soil stabilization and erosion control measures would be implemented throughout the defined rainy season (October 15 through April 15). BMPs would be implemented prior to the start of the rainy season and be inspected prior to forecasted storm events, during extended rain events and after storm events that cause runoff from the construction site.
- During the rainy season, temporary erosion controls would be implemented at the draining perimeter of the disturbed soils areas, at the toe of slopes, at storm drain inlets and at outfall areas at all times.
- Creeks and canals would be protected to prevent discharge of sediments, debris, and wastes associated with construction activities from entering the watercourses. BMPs could include directing water away from work areas, using covers or platforms to collect debris if working over water, and placing stockpiles away from watercourses.
- Non-stormwater discharges into drainage systems or waterways would be prohibited. Examples of prohibited discharges common to construction activities include:
  - Vehicle and equipment wash water, including concrete washout water
  - Slurries from concrete cutting, asphalt grinding, and paving operations
  - Slurries from concrete or mortar mixing operations
  - Runoff from dust control applications of water
  - Sanitary and septic wastes
  - Chemical leaks and/or spills of any kind including but not limited to petroleum, paints, cure compounds, etc.
- For temporary stream crossings (e.g., at the Teresa Creek Bridge) construction roadways, adjacent work areas, and stream bottom would be stabilized against erosion.

**Box 12B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.**

E&L Westcoast would avoid or minimize impacts to fish, wildlife, and plant resources by implementing the proposed avoidance, minimization, and compensation measures in the AFC, Revised BA, 404 permit application, and supplemental reports.

Revegetation of the project sites at Teresa Creek and the Glenn-Colusa Canal would be implemented according to U.S. Fish and Wildlife Service (USFWS) guidelines for restoration and/or replacement of giant garter snake habitat (USFWS, 1997). Vegetation disturbed during

the bridge replacements would be replanted with appropriate native species, such as California bulrush (*Scirpus californicus*), cattail (*Typha* sp.), and water primrose (*Ludwigia peploides*) in the emergent wetland area. Native erosion control seed mix including creeping wild-rye (*Leymus triticoides*), meadow barley (*Hordeum brachyantherum*), tomcat clover (*Trifolium willdenovii*), annual fescue (*Vulpia* spp.), blue wildrye (*Elymus glaucus*), mugwort (*Artemisia vulgaris*), and California brome (*Bromus carinatus*) would be applied to upland areas and areas adjacent to streams. An erosion control mat would be laid down if stabilization of the bank is needed.

All temporary fill material would be removed from affected cultivated rice fields north and south of the temporary crossing and the rice fields would be returned to cultivation.

Areas where ruderal/disturbed vegetation must be removed would be revegetated with appropriate native species that fit the vegetative community of the area following construction.

The topography of the sites would be restored once proposed construction activities have been completed. New plantings would be monitored for one year until the banks are adequately revegetated to prevent erosion and sedimentation of these areas and the banks have similar total vegetation cover equal to or greater than adjacent areas. Additional plantings would be implemented if adequate vegetation cover is not attained after one year. A monitoring report of the Teresa Creek site would be submitted to the USFWS one year after restoration is implemented.

**Box 12C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.**

Please refer to the AFC, Amendment to the AFC, Revised BA, 404 permit application, and supplemental reports for the mitigation and compensation measures that would be implemented to protect fish, wildlife, and plant resources.

**Box 13. Permits** – Please see Notification.

**Box 14 A-I. Environmental Review** – Please see Notification.

**Box 14G. If the project described in this notification is part of a larger project or plan, briefly describe that larger project or plan.**

E&L Westcoast proposes to construct and commission a nominal 660-megawatt combined-cycle power plant on 31 acres of a 100-acre site leased by E&L Westcoast adjacent to Delevan Road in Colusa County, California. E&L Westcoast would then transfer ownership and operation of the power plant to PG&E after completion of commissioning. The power plant will be interconnected to PG&E's northern California transmission grid and power generated by the facility will be available to serve energy needs throughout California.

The project would include a 22.5-acre power generation facility and stormwater detention basin, a new 8.2-acre switchyard, a 43-acre construction area (including laydown, parking, and office), a new 1,800-foot-long electrical interconnection to PG&E's 230 kV Cottonwood to Vaca-Dixon lines adjacent to the site, a new 1,500-foot-long natural gas pipeline connecting to PG&E's existing natural gas lines (Line 400 and 401), a new 2,700-foot-long water supply pipeline from the Tehama-Colusa Canal, and a 2,500-foot-long access road extending from the existing road leading to the PG&E Compressor Station (Figure 2). In addition, a permanent 12-foot-wide dirt road would be constructed along the pipeline conveying water from the Tehama-Colusa Canal to

the power plant. The road would be used for maintenance and access to the water intake at the Tehama-Colusa Canal.

To allow for transportation of some of the heavier equipment components to the site, the following two bridges would be replaced: (1) a bridge on Dirks Road over the Glenn-Colusa Canal (Figure 3), and (2) a bridge on McDermott Road over Teresa Creek (Figure 4, View 1). In addition, the eastern side of the Delevan/McDermott intersection would be slightly widened (Figure 4, View 2). After construction is completed, local access roads would be repaved or resurfaced as necessary and appropriate.

Construction of the proposed Colusa Generating Station Project is expected to begin in early 2008 and continue for 24 months.

Potential impacts that the proposed project may have on the environment have been evaluated in detail. Please refer to the November 2006 Application for Certification for more information. The Colusa Generating Station Project will avoid or minimize potential environmental impacts through project siting and design, best management practices, and incorporation of mitigation measures. As a result, the Colusa Generating Station Project will have no significant environmental impacts.

**Box 14H. Has an environmental filling fee (Fish and Game Code section 711.4) been paid?**

Yes. Please see Notification.

**Box 15. Site Inspection**

Yes. Please see Notification.

**Box 16. Digital Format**

**Box 16A. Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc)?**

Yes. CDs were enclosed with the October 12, 2007 Colusa Generating Station 1600 agreement application with the following information:

**CD 1**

- 1603 NLSA Permit Application, Additional Pages, and Figures
- Biological Assessment (December 2006)
- U.S. Army Corps of Engineers 404 Standard Permit Application (April 5, 2007)
- Jurisdictional Delineation Report (April 5, 2007)
- Supplemental Information for the JD (May 24, 2007)
- ACOE letter initiating consultation with USFWS and NMFS (June 13, 2007)
- CEC Preliminary Staff Assessment (August 1, 2007)
- NMFS Concurrence Letter (August 2, 2007)
- ACOE letter verifying CGS JD (August 10, 2007)
- Amendment to the AFC - Proposed Modifications to Glenn-Colusa Canal Bridge Design and Comments on the CEC Preliminary Staff Assessment (August 17, 2007)
- Supplement to Biological Assessment (August 24, 2007)
- Update to the 404 application (August 28, 2007)

**CD 2**

- Application for Certification (November 2006)

A copy of the October 18, 2007 Revised Biological Assessment was transmitted to your office at the same time it was submitted to USFWS.

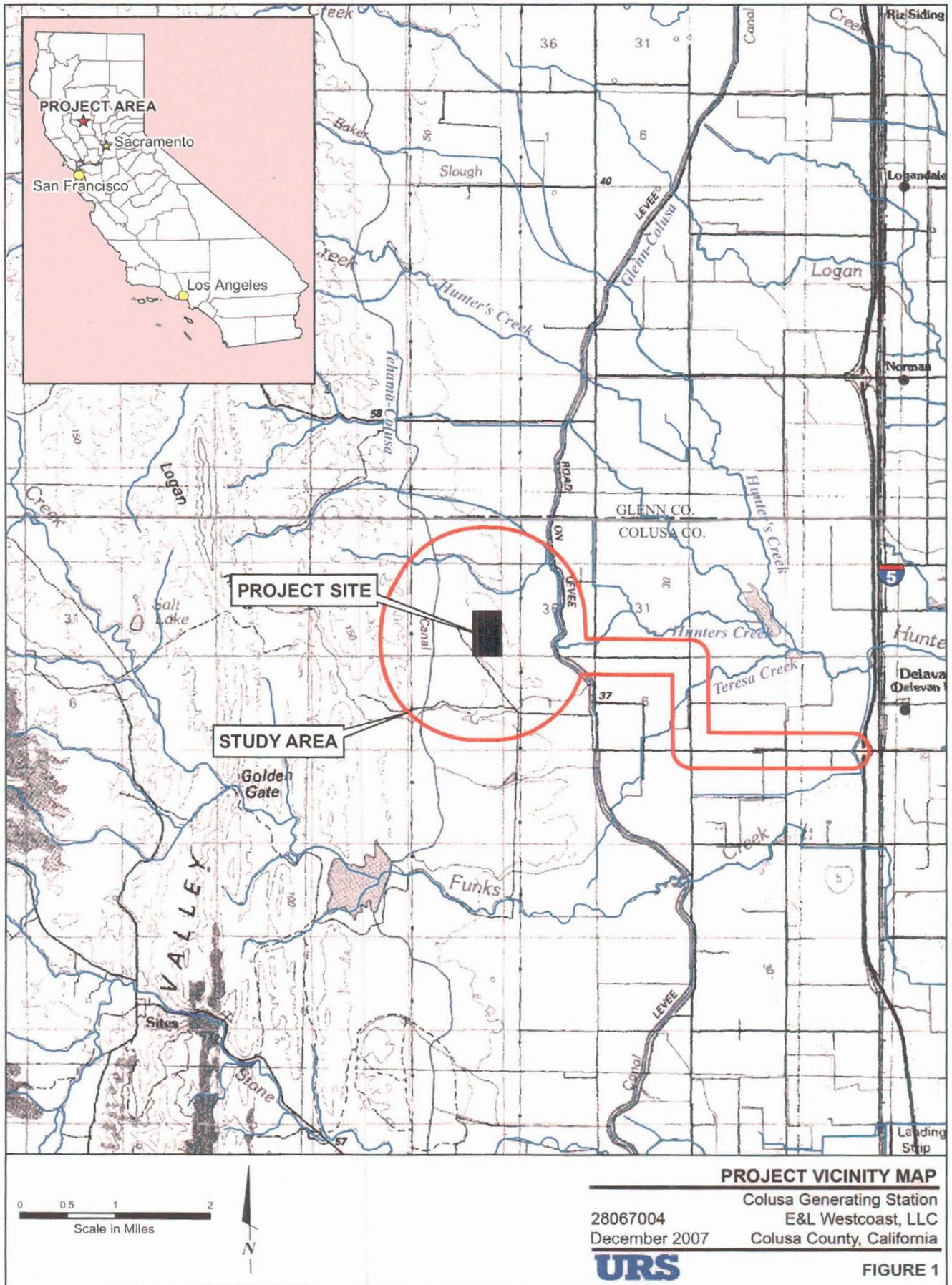
**Box 17. Signature**

• Signature of the applicant is provided on the Notification form.

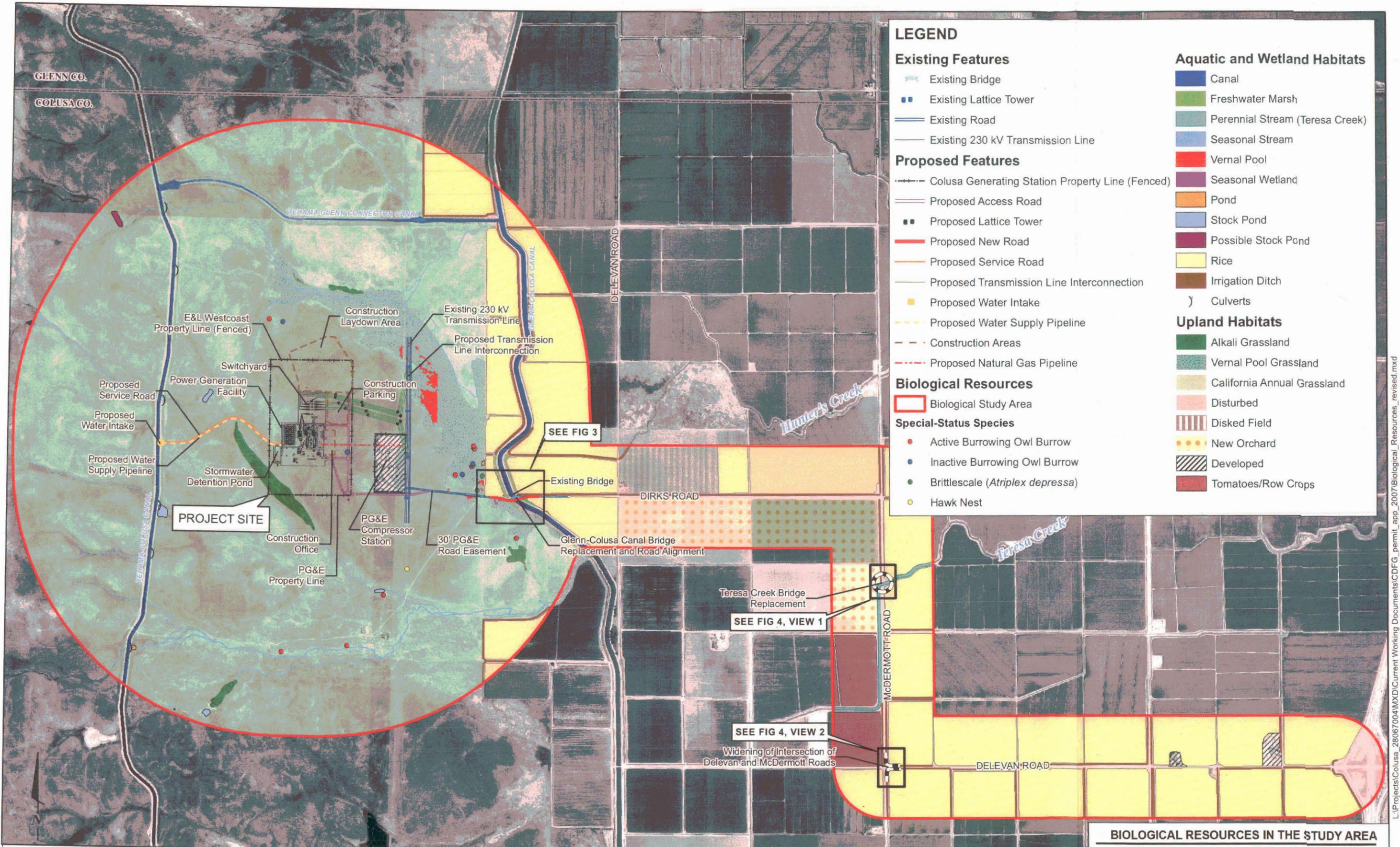
**References**

SWRCB (State Water Resources Control Board). 1999. *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) Water Quality Order 99-08-DWQ*.

USFWS (U.S. Fish and Wildlife Service). 1997. Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California. November 13, 1997.



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**LEGEND**

**Existing Features**

- Existing Bridge
- Existing Lattice Tower
- Existing Road
- Existing 230 kV Transmission Line

**Proposed Features**

- Colusa Generating Station Property Line (Fenced)
- Proposed Access Road
- Proposed Lattice Tower
- Proposed New Road
- Proposed Service Road
- Proposed Transmission Line Interconnection
- Proposed Water Intake
- Proposed Water Supply Pipeline
- Construction Areas
- Proposed Natural Gas Pipeline

**Biological Resources**

- Biological Study Area

**Special-Status Species**

- Active Burrowing Owl Burrow
- Inactive Burrowing Owl Burrow
- Brittscale (*Atriplex depressa*)
- Hawk Nest

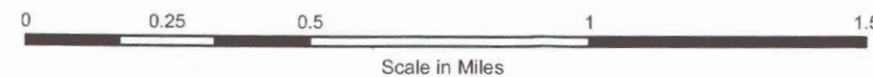
**Aquatic and Wetland Habitats**

- Canal
- Freshwater Marsh
- Perennial Stream (Teresa Creek)
- Seasonal Stream
- Vernal Pool
- Seasonal Wetland
- Pond
- Stock Pond
- Possible Stock Pond
- Rice
- Irrigation Ditch
- Culverts

**Upland Habitats**

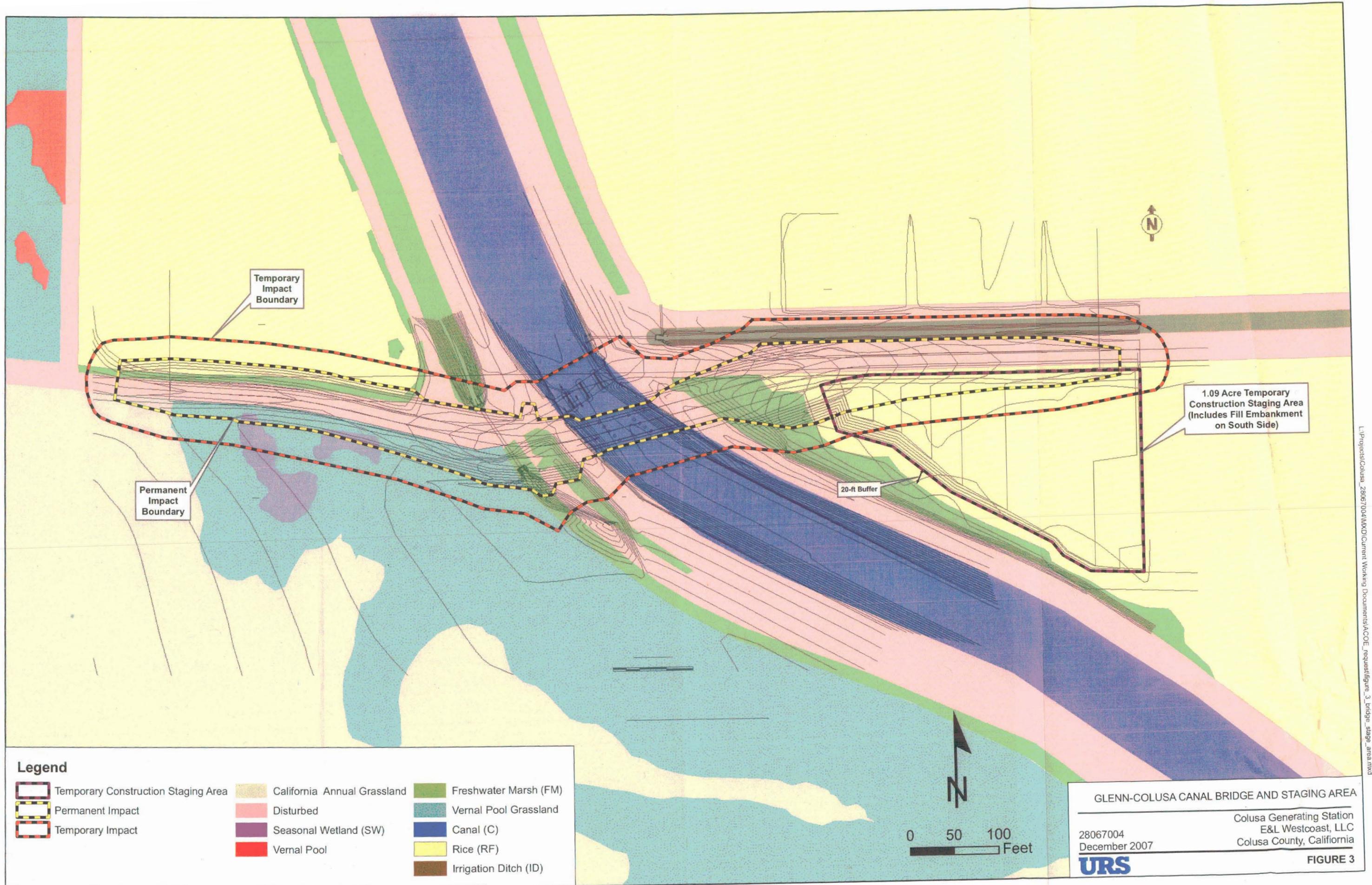
- Alkali Grassland
- Vernal Pool Grassland
- California Annual Grassland
- Disturbed
- Disked Field
- New Orchard
- Developed
- Tomatoes/Row Crops

Source: USGS Seamless Dataset, B/W DOQQ Photo, Aug. 25, 98; Sept. 13, 98; July 29, 99



**BIOLOGICAL RESOURCES IN THE STUDY AREA**  
 Colusa Generating Station  
 E&L Westcoast, LLC  
 Colusa County, California  
 28067004  
 December 2007  
  
**FIGURE 2**

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Temporary Impact Boundary

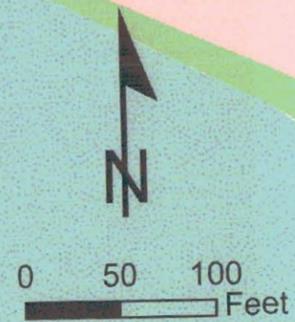
Permanent Impact Boundary

1.09 Acre Temporary Construction Staging Area (Includes Fill Embankment on South Side)

20-ft Buffer

**Legend**

- |                                     |                             |                       |
|-------------------------------------|-----------------------------|-----------------------|
| Temporary Construction Staging Area | California Annual Grassland | Freshwater Marsh (FM) |
| Permanent Impact                    | Disturbed                   | Vernal Pool Grassland |
| Temporary Impact                    | Seasonal Wetland (SW)       | Canal (C)             |
|                                     | Vernal Pool                 | Rice (RF)             |
|                                     |                             | Irrigation Ditch (ID) |



GLENN-COLUSA CANAL BRIDGE AND STAGING AREA

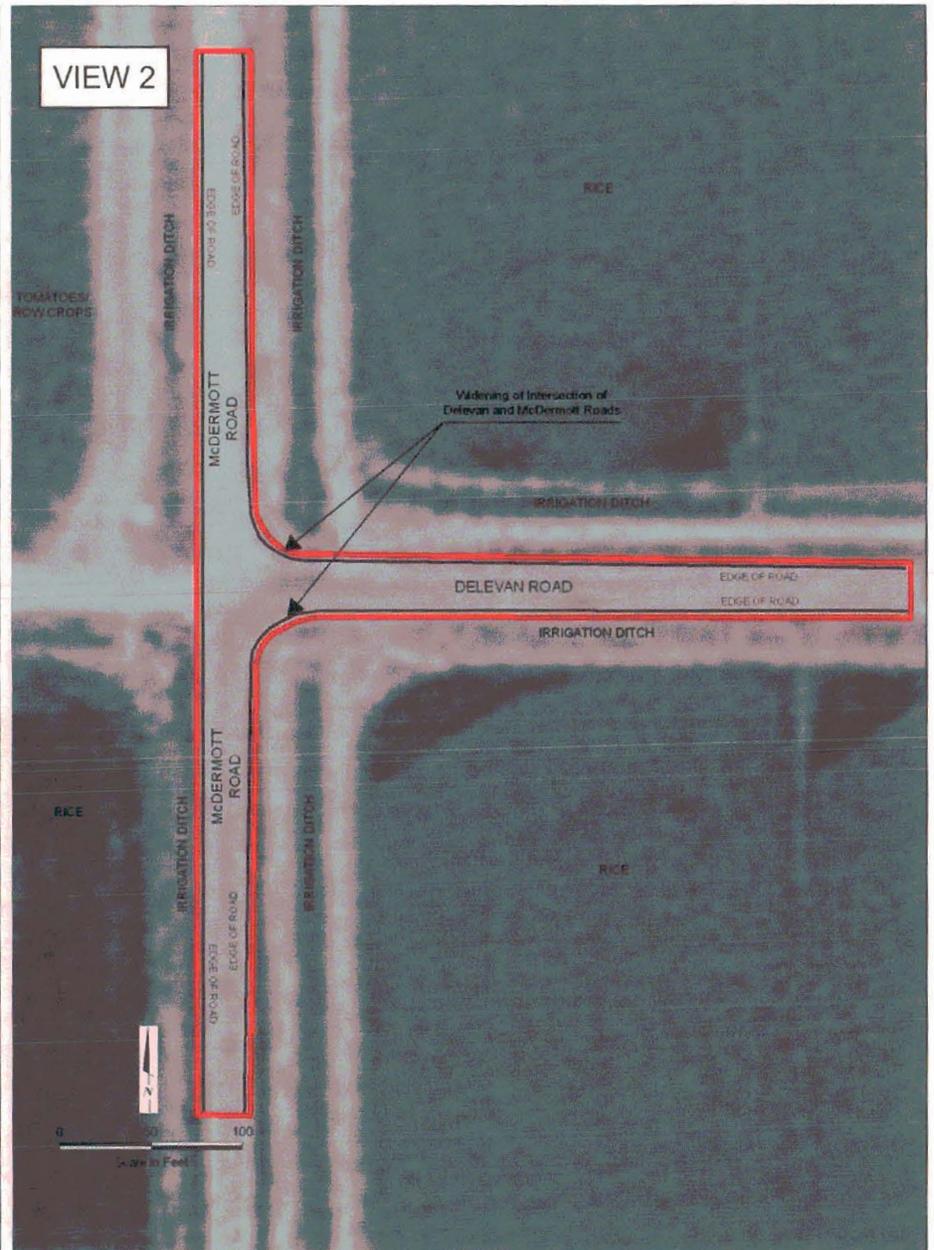
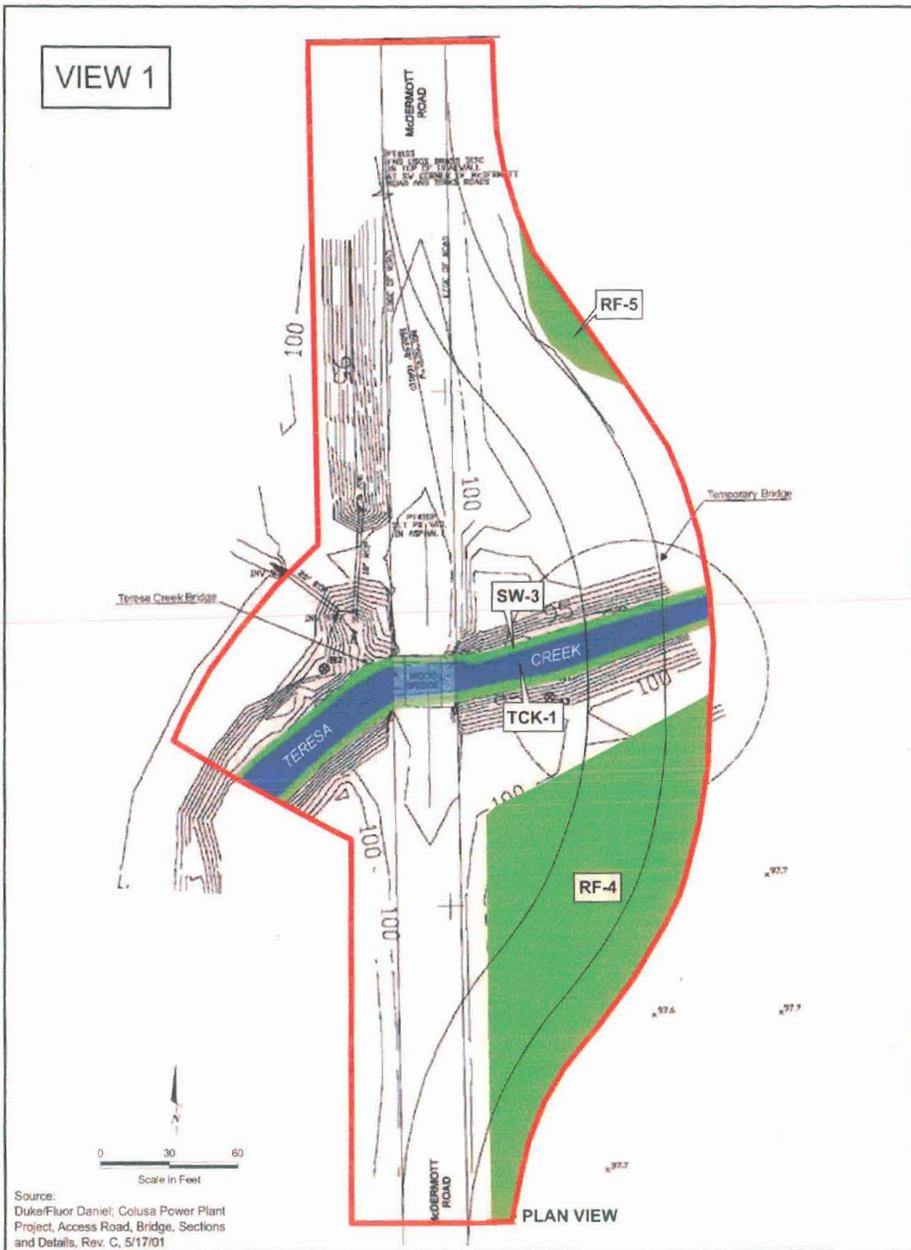
28067004  
December 2007

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E&L Westcoast, LLC  
Colusa County, California

**URS**

**FIGURE 3**

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**Legend**

- Jurisdictional Delineation Study Area
- A1 ⊗ Delineation Data Point
- Aquatic and Wetland Habitats**
- SW Seasonal Wetland
- RF Cultivated Rice Field
- TCK Teresa Creek (Non-Wetland Waters of the U.S.)

**HABITATS IN THE VICINITY OF THE TERESA CREEK BRIDGE REPLACEMENT AND DELEVAN/McDERMOTT INTERSECTION IMPROVEMENT**

28067004  
December 2007

Colusa Generating Station  
E&L Westcoast, LLC  
Colusa County, California



**FIGURE 4**

**Woodward-Clyde Consultants**

500 12th Street, Suite 100 • Oakland, CA 94607



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North America Division  
Corporate Service Center  
San Francisco, CA 94137

036162

11-0036  
1210

PAY\*\*\*\*\*FOUR THOUSAND & 00/100\*\*\*\*\*

DATE  
10-10-2007

AMOUNT  
\*\*\*\$4,000.00\*\*\*

TO THE  
ORDER  
OF

CALIFORNIA DEPT. OF FISH & GAME

Woodward-Clyde Consultants

*Bank mtd*

**Woodward-Clyde Consultants**

THE ABOVE CHECK IS IN FULL PAYMENT  
OF THE FOLLOWING

036162

DATE	VOUCHER NO.	INVOICE NO.	AMOUNT
10/10/07	FILING FEE - STREAMBED ALTERATION AGREE. <i>Calusa Generating Station</i>	28067004.54420.60300	\$4,000.00