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## **1.0 INTRODUCTION**

## 1.0 INTRODUCTION

GWF Energy LLC (GWF) submitted an Application for Certification (AFC) to the California Energy Commission (CEC) for the construction and operation of the Tracy Peaker Project (TPP) on August 3, 2001. GWF proposes to build and operate the TPP, a nominal 169-megawatt (MW), simple-cycle power plant, on a nine-acre fenced site within a 40-acre parcel in an unincorporated portion of San Joaquin County.

This AFC Supplement provides updated information related to the project description in light of the recent change in the proposed electric transmission connection. After the submission of the AFC, Pacific Gas & Electric Company (PG&E) completed a system impact study that identifies an onsite transmission interconnection as the preferred alternative. The potential for such an onsite connection was one of the features that initially suggested the proposed plant location as suitable (see Section 5.0, Project Alternatives). This onsite interconnection had originally been ruled out by PG&E; for this reason, the AFC as submitted described an approximately five-mile-long transmission route. This AFC Supplement describes the onsite transmission interconnection.

This AFC Supplement also provides responses to the data inadequacies identified by the CEC staff in Attachment B of the CEC's August 27, 2001, Tracy Peaker Project Data Adequacy Recommendation, as approved by the CEC on August 29, 2001.

To facilitate review by the CEC, this AFC Supplement includes the following material:

- **2.0 AFC REPLACEMENT SECTIONS:** Sections intended to replace the more significantly altered sections of the AFC, namely, Sections 1.0 (Executive Summary), 2.0 (Project Description), 5.0 (Project Alternatives), 6.0 (Electric Transmission), 8.2 (Biological Resources), 8.4 (Land Use) and 8.14 (Water Resources). The original sections may be discarded in their entirety and these replacement sections inserted.

The elimination of an offsite transmission interconnection will reduce environmental impacts as previously described in the AFC and no changes to the remaining technical sections are required since the analysis and findings are not significantly altered. Note that in some original AFC sections, reference is made to an offsite transmission line that is no longer a part of the project.

- **3.0 SUPPLEMENTAL INFORMATION AND DATA ADEQUACY RESPONSES:** Discussion of the changes in technical analysis, laws, ordinances, regulations, and standards (LORS), impacts, and/or mitigation that result from the change in proposed electric transmission interconnection. After this discussion, the issues identified in the Data Adequacy Worksheets for that technical area and the responses are given. If one figure in a section pertaining to a technical area has been modified, replacement figures all the figures in that section are provided in this AFC Supplement. Please discard

the figures in the AFC for these sections and replace them with the figures provided in this AFC Supplement.

- **4.0 REVISED APPENDICES:** Revised Appendices A (Electrical Transmission) and D (Land Use) are included at the end of this AFC Supplement. The original AFC appendices may be discarded in their entirety and these replacements inserted.

## **2.0 AFC REPLACEMENT SECTIONS**

**2.0 AFC REPLACEMENT SECTIONS**

Please replace the following sections in the Tracy Peaker Project AFC in their entirety with the sections provided in this AFC Supplement:

- Section 1.0, Executive Summary
- Section 2.0, Project Description
- Section 5.0, Project Alternatives
- Section 6.0, Electric Transmission
- Section 8.2, Biological Resources
- Section 8.4, Land Use
- Section 8.14, Water Resources

**Section 1.0**  
**Executive Summary**

**Section 2.0**  
**Project Description**

**Section 5.0**  
**Project Alternatives**

**Section 6.0**  
**Electric Transmission**

**Section 8.2**  
**Biological Resources**

## **Section 8.4**

### **Land Use**

## **Section 8.14**

### **Water Resources**

**3.0 SUPPLEMENTAL INFORMATION  
AND  
DATA ADEQUACY RESPONSES**

**3.0 SUPPLEMENTAL INFORMATION AND DATA ADEQUACY  
RESPONSES**

Please note that the supplemental information and data adequacy responses provided in this section are arranged in the order and by the topics contained in Attachment B, as supplemented by subsequent e-mail, of the CEC's August 27, 2001, Tracy Peaker Project Data Adequacy Recommendation.

## **Air Quality**

Technical Staff: William Walters  
Technical Senior: K. Golden/M. Ringer  
Project Manager: Cheri Davis

### 3.1 Air Quality

#### 3.1.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from the Elimination of the Five-Mile Transmission Line

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115 kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the air quality analysis and it is still expected that the TPP will not cause significant impacts to air quality.

In response to data adequacy issues concerning the potential health impacts from diesel exhaust construction emissions, Section 3.6 (Public Health) describes proposed mitigation that results in lower overall PM<sub>10</sub> concentrations. Attachments 3.1-1, 3.1-2, and 3.1-3 present the revised PM<sub>10</sub> concentrations for construction that result from this mitigation. Specifically, these attachments are as follows:

- Attachment 3.1-1, Revised Table 8.1-18
- Attachment 3.1-2, Revised Appendix B Construction Emission Calculations (replace entire section)
- Attachment 3.1-3, Revised Appendix B Construction Impacts Modeling Files (replace only first table, plus 24-hour PM<sub>10</sub> and Annual PM<sub>10</sub> modeling files)

#### 3.1.2 Data Adequacy Issues

##### Siting Regulations and Information

Appendix B (g) (8) (A): The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.

##### Information Required to Make AFC Conform with Regulations

*The District has received the permit application and is currently performing their completeness determination. The District plans on completing this analysis by August 30, 2001.*

##### RESPONSE 1

The District deemed the application complete on August 23, 2001, and issued a Preliminary Determination of compliance (PDOC) in September 5, 2001. A copy of the PDOC is provided as Attachment 3.1-4.

**Siting Regulations and Information**

Appendix B (g) (8) (E): The emission rates of criteria pollutants from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all secondary emission sources.

**Information Required to Make AFC Conform with Regulations**

*Please provide secondary emission estimates from all deliveries, including deliveries of ammonia.*

**RESPONSE 2**

Exhaust emissions were calculated for delivery trucks transporting construction materials, aqueous ammonia, and other operational materials to the site. The number of truck trips per day or per month and the materials being transported are described in Section 8.10 (Traffic and Transportation) in the Tracy Peaker Project AFC.

Emission factors were obtained from EMFAC2000, the latest California Air Resources Board mobile source emission factor model, assuming a vehicle class of light-heavy duty trucks (8,500–14,000 pounds gross vehicle weight). Emissions were calculated for the area within 10 kilometers (six miles) of the project site. As discussed in Section 8.10, trucks from the south would travel north via I-5 and west I-580, and trucks from Contra Costa and Alameda Counties would travel east via I-580. The average trip distance considering these origination directions is estimated at 10.4 miles within the 10-kilometer radius. Estimated emissions for construction materials and operational materials are summarized in the table in Attachment 3.1-5 titled “Estimates of Secondary Emission Estimates from Deliveries.”

**Siting Regulations and Information**

Appendix B (h) (4): A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.

**Information Required to Make AFC Conform with Regulations**

*Please provide a schedule for when permits will be obtained.*

**RESPONSE 3**

The PDOC was issued on September 5, 2001. It is anticipated that the Final Determination of compliance will be issued on October 5, 2001, after the close of public comments. No other air quality permits are required.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*Please provide specific conditions of certification (such as emission limits, source testing, continuous monitoring, etc.) as would be generally required by the Commission and District to mitigate impacts.*

**RESPONSE 4**

Please refer to the PDOC (Attachment 3.1-4) for these conditions. See also revised condition of certification AQ-C3 (Attachment 3.1-6).

**SB 28 Sher Requirements and Information**

§25552(e)(2) (All): [a]ssure protection of public health and safety;

**Information Required to Make AFC Conform with Regulations**

*Please provide specific conditions of certification (such as emission limits, source testing, continuous monitoring, etc.) as would be generally required by the Commission and District to ensure public health and safety.*

**RESPONSE 5**

Please refer to the PDOC (Attachment 3.1-4) for these conditions.

**SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*Please provide specific conditions of certification (such as emission limits, source testing, continuous monitoring, etc.) as would be generally required by the Commission and District to comply with LORS.*

**RESPONSE 6**

Please refer to the PDOC (Attachment 3.1-4) for these conditions.

**SB 28 Sher Requirements and Information**

§25552(e)(5)(B) (Air Quality): [t]hat the thermal powerplant will be recertified, modified, replaced, or removed within a period of three years with a cogeneration or combined-cycle thermal powerplant that uses best available control technology and obtains necessary offsets, as determined at the time the combine-cycle thermal powerplant is constructed, and that complies with all other applicable laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*Please provide assurances that the thermal powerplant will be recertified, modified, replaced, or removed within a period of three years with a cogeneration or combined-cycle thermal powerplant that uses best available control technology and obtains necessary offsets.*

**RESPONSE 7**

GWF Energy LLC has entered into a contract with California Department of Water Resources to meet the State's critical electricity needs. That contract requires that the power from the project be supplied for a 10-year period. Accordingly, GWF Energy LLC has requested that the three-year limitation be waived. Such a waiver would be consistent with both the spirit and the intent of the Governor's executive orders.

**Attachment 3.1-1**

**Revised Table 8.1-18**

**(TPP ISCST3 Modeling Results—Construction Activities)**

**Table 8.1-18**  
**TPP ISCST3 Modeling Results – Construction Activities**

Pollutant	Averaging Period	Maximum Modeled	Background	Total Predicted	Lowest AAQS	UTM Coordinates	
		Impact ( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	Concentration ( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	East (m)	North (m)
CO	1-hour	2,884	12,941	15,825	23,000	633,050	4,174,475
	8-hour	1,552	9,047	10,599	10,000	633,050	4,174,450
NO <sub>2</sub>	1-hour	224 <sup>a</sup>	224	448	470	632,918	4,174,605
	Annual	29.1	45	74.1	100	633,112	4,174,483
PM <sub>10</sub>	24-hour	26.1	150	184	50	632,863	4,174,646
	Annual	1.63	36.4	39.3	30	633,112	4,174,482
SO <sub>2</sub>	1-hour	218	128	346	655	633,050	4,174,475
	3-hour	136.2	--	136.2	1,300	633,075	4,174,475
	24-hour	35.9	31	67	105	633,111	4,174,482
	Annual	2.77	5.2	8	80	633,112	4,174,482

<sup>a</sup> Results based on OLM applied with maximum ambient ozone concentration of 287.5  $\mu\text{g}/\text{m}^3$ .

AAQS = most stringent ambient air quality standard for the averaging period  
 OLM = ozone limiting method  
 m = meters  
 $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter  
 CO = carbon monoxide  
 NO<sub>2</sub> = nitrogen dioxide  
 PM<sub>10</sub> = particulate matter less than or equal to 10 micrometers in diameter  
 SO<sub>2</sub> = sulfur dioxide  
 UTM = Universal Transverse Mercator

**Attachment 3.1-2**

**Revised Appendix B Construction**

**Emission Calculations**

**(Replace Entire Section)**

**Attachment 3.1-3**  
**Revised Appendix B Construction**  
**Impacts Modeling Files**  
**(Replace Only First Table, 24-Hour**  
**PM<sub>10</sub> Modeling Files, and Annual PM<sub>10</sub> Modeling Files)**

**Attachment 3.1-4**

**Notice of Preliminary Determination of Compliance (PDOC)**

**Project Number: N1011254–Tracy Peaker Project (01-AFC-16)**

**Attachment 3.1-5**

**Estimates of Secondary Emission Estimates from Deliveries**

**Attachment 3.1-5. Estimates of Secondary  
Emission Estimates from Deliveries**

EMISSION FACTORS				ONE-WAY TRUCK DISTANCES WITHIN 10 KILOMETERS (6MI) OF THE TRACY PEAKER PROJECT SITE			
ROG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	PM <sub>10</sub> (g/mi)	From the W. via I-580 (mi)	From the E. via I-205 (mi)	From the S. via I-5/I-580 (mi)	Average One- Way Trip Distance (mi/trip)
2.43	26.87	2.76	0.02	7.5	12	11.8	<b>10.4</b>

*from EMFAC2000, vehicle class of light heavy-duty trucks (8,5000 - 14,000 pounds gross vehicle weight)*

**CONSTRUCTION MATERIALS DELIVERY TRUCKS EMISSIONS**

	One-Way Trips/Day	ROG Emissions (lb/day)	CO Emissions (lb/day)	NO <sub>x</sub> Emissions (lb/day)	PM <sub>10</sub> Emissions (lb/day)
Months 2 & 3 of Construction Period	27	1.509	16.687	1.714	0.012
Months 1, 4, 5, & 6 of Construction Period	18	1.006	11.125	1.143	0.008

**OPERATIONAL MATERIALS DELIVERY TRUCKS EMISSIONS**

	Round Trips/Mo.	ROG Emissions (lb/mo)	CO Emissions (lb/mo)	NO <sub>x</sub> Emissions (lb/mo)	PM <sub>10</sub> Emissions (lb/mo)
Aqueous Ammonia Delivery Trucks	8	0.894	9.889	1.016	0.007
Wastewater Trucks	8	0.894	9.889	1.016	0.007

	Round Trips/Year	ROG Emissions (lb/yr)	CO Emissions (lb/yr)	NO <sub>x</sub> Emissions (lb/yr)	PM <sub>10</sub> Emissions (lb/yr)
Nitric oxide & CO	5	0.559	6.180	0.635	0.005
Reverse Osmosis Anti-Scalant	12	1.341	14.833	1.524	0.011
Sodium Hydroxide and Aluminum Sulfate	2	0.224	2.472	0.254	0.002
Liquid CO, Diesel Fuel, CTG wash soap	1	0.112	1.236	0.127	0.001

**Attachment 3.1-6**

**Revised Condition of Certification AQ-C3**

Directions: Replace existing condition of certification AQ-C3 in Appendix K-5 with the following:

**AQ-C3** Construction equipment rated greater than 100 horsepower output shall have diesel exhaust controlled by use of a catalyzed diesel particulate filter.

## **Biological Resources**

Technical Staff: Natasha Nelson and Nick Kautzman  
Technical Senior: Jim Brownell  
Project Manager: Cheri Davis

## **3.2 Biological Resources**

### **3.2.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from the Elimination of the Five-Mile Transmission Line**

The changes resulting from the elimination of the five-mile transmission line are described in the revised Section 8.2 (Biological Resources) provided in this AFC Supplement.

### **3.2.2 Data Adequacy Issues**

#### **Siting Regulations and Information**

Appendix B (g) (13) (A): A regional overview and discussion of biological resources, with particular attention to sensitive biological resources near the project, and a map at a scale of 1:100,000 (or some other suitable scale) showing their location in relation to the project.

#### **Information Required to Make AFC Conform with Regulations**

*Provide a general description of the biological resources, especially sensitive species, on a regional scale. A map at a scale of 1:100,000 should be provided. The map should show the location of the power plant, the one-mile radius from the power plant, and the location of the transmission corridor. Any sensitive resources that are in the vicinity should be marked as either points or polygons and labeled.*

#### **RESPONSE 8**

A revised map has been included as Figure 8.2-2 in the replacement Section 8.2 (biological Resources) provided in this AFC Supplement.

#### **Siting Regulations and Information**

Appendix B (g) (13) (C): A description of all studies and surveys used to provide biological information about the project site, including seasonal surveys and copies of the California Department of Fish and Game's Natural Diversity Data Base Survey Forms, "California Native Species Field Survey Forms", and "California Natural Community Field Survey Forms", completed by the applicant. Include the dates and duration of the studies, methods used to complete the studies, and the names and qualifications of individuals conducting the studies.

#### **Information Required to Make AFC Conform with Regulations**

*Section 8.2.3.2 indicates CNDDDB field survey forms were completed, but they were not part of the submitted AFC. In addition, the CNDDDB database forms were not provided. Please submit these forms.*

*Resumes or qualifications of Barbara Leitner and the wildlife crew were not included in the submitted AFC. Please submit the resumes.*

### **RESPONSE 9**

CNDDDB field survey forms provided as Attachment 3.2-1. The resume of Barbara Leitner and the other crew members are provided as Attachment 3.2-2.

### **Siting Regulations and Information**

Appendix B (g) (13) (D): A discussion of all permanent and temporary impacts to biological resources from site preparation, construction activities, and plant operation. Discussion of impacts must consider impacts from cooling tower drift, and from the use and discharge of water during construction and operation. For facilities which use once-through cooling or take or discharge water directly from or to natural sources, discuss impacts resulting from entrainment, impingement, thermal discharge, effluent chemicals, type of pump (if applicable), temperature, volume and rate of flow at intake and discharge location, and plume configuration in receiving water.

### **Information Required to Make AFC Conform with Regulations**

*Provide a discussion of the biological resources within the turnout on the Delta-Mendota Canal. Also, discuss if the intake of water could cause the loss of fish or invertebrates or other impacts.*

### **RESPONSE 10**

We are unaware of any studies conducted to determine the extent of biological resources within the turnout of the Delta-Mendota Canal (DMC). Attachment 3.2-3 is an excerpt from a recent Environmental Assessment prepared by the Bureau of Reclamation prior to renewal of the DMC contract. This assessment discusses the species expected within the DMC project area.

The TPP will be withdrawing an average of approximately 20 gallons per minute (or approximately 30 acre-feet per year) of water from the turnout on the DMC. This is a very small total flow of water. It is well below 1% of the total flow of water historically withdrawn from the DMC by the Plainview Water District. The water will be used by the TPP for evaporative cooling of the combustion turbine inlets, a practice that will only be necessary during periods when ambient temperature is above approximately 59 °F. As a consequence, the periods when water will be withdrawn from the turnout is expected to coincide roughly with the same period when water has historically been withdrawn from the turnout for prior irrigation of the GWF parcel (i.e., during periods of higher ambient temperatures). Therefore, differences in the flow patterns from the turnout are expected to be minor as a result of the operation of the TPP. Furthermore, the intake on the pipe from the turnout will be equipped with a screen to minimize loss of fish or other invertebrates.

**Siting Regulations and Information**

Appendix B (g) (13) (E) (iii): Any educational programs proposed to enhance employee awareness in order to protect biological resources.

**Information Required to Make AFC Conform with Regulations**

*If employee training is part of your mitigation package, as indicated in Section 8.3 in Appendix K-6, then a draft script and handouts would be required as part of the BRMIMP. Please indicate if a worker education program is part of your mitigation effort; and, if applicable, provide information on the program in Appendix K-6.*

**RESPONSE 11**

A description of the Sensitive Species Awareness Education Program is provided as Attachment 3.2-4.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*The cumulative impacts of this power plant in conjunction with East Altamont power plant and Florida Power and Light Tesla Combined Cycle (both are within 8 miles of the project) on SJ kit foxes (and their travel corridors) were not considered. Provide a discussion of the potential for cumulative impacts with these pending projects and how they may be mitigated.*

*If an individual USFWS consultation is required (see below), the application materials must request a “no effect” or “may affect, not likely to adversely affect” determination.*

**RESPONSE 12**

In light of the elimination of the TPP offsite 230-kV transmission line, which would have crossed an area designated as a travel corridor for the San Joaquin kit fox, the TPP development will now occur entirely east of the Delta-Mendota Canal (DMC). (As described in the revised project description, the TPP interconnection will now occur entirely within the GWF 40-acre parcel, using an existing 115-kV transmission line that crosses the GWF parcel.) The DMC creates a physical barrier to kit fox movement to the east. Therefore, the TPP development east of the DMC is expected to have no cumulative effect on the kit fox when considered in conjunction with the other power projects, which are located further to the west and within the kit fox travel corridor.

Consultation with USFWS will occur during approval of GWF’s coverage under the San Joaquin Multi-Species Conservation Plan (hereinafter referred to as the HCP). GWF coverage is being reviewed by a Technical Advisory Committee (TAC), which will make a final

recommendation for coverage under the HCP. USFWS has a representative on the TAC that will participate in the final recommendation. There is no federal permit required for TPP that would create a nexus for a formal USFWS consultation.

### **SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

### **Information Required to Make AFC Conform with Regulations**

*In most cases, it is not possible for the project applicant to be authorized under an existing HCP because the CEC process does not require a discretionary action by the local agencies and because the local agencies have not anticipated permitting power plants >50 MW as part of their "future actions/uses" section of their HCP. Therefore, any permitting required for potential effects of power plants >50 MW on state- and federally-listed species is required to use either an ESA Section 7 or Section 10(a) process. Prepare and submit documentation which proves one of the following:*

*1) That San Joaquin County, The SJVMSHCP Joint Powers Authority, USFWS, and CDFG have reviewed the project as proposed in the AFC and agrees that a power plant >50 MW and transmission lines (in contrast to distribution lines) were anticipated as future land uses during development of the HCP. To document this, all parties listed above shall submit letters to the CEC Project Manager (Cheri Davis) stating their support for the project to gain state and federal endangered species "take" permits through the HCP process. Because part of the project takes place in Alameda county, these same agencies must also agree that potential impacts in Alameda County will be covered if the applicant applies through this permitting process.*

*2) That an application for a Section 7 or Section 10(a) permit has been accepted as complete with the USFWS. The application must request a "no effect" or "may affect, not likely to adversely affect" for all listed species (see above). Include the name and phone number of any agency contacts, the cover letter sent to the USFWS, a copy of the Biological Assessment, and the cover letter sent from the USFWS deeming the application complete.*

### **RESPONSE 13**

GWF has been in consultation with representatives of all the key responsible agencies involved in administration of the HCP, including Jerry Park and Julia Greene (209-468-3913) of the San Joaquin Council of Governments (SJCOG), Dan Gifford (916-358-2877) of the California Department of Fish and Game (CDFG), and Nancy Pau (916-414-6655) of the U.S. Fish and Wildlife Service (USFWS). Attachment 3.2-5 includes letters from GWF to all three agencies and a response letter from SJCOG that describes the applicability of the HCP to the TPP and the process for approval. From our discussions with the above-referenced representatives of SJCOG, it is anticipated that approval for TPP coverage under the HCP will be finalized in October 2001.

**Attachment 3.2-1**  
**CNDDDB Field Survey Forms**

**Attachment 3.2-2**

**Resume of Barbara Leitner and  
Other Team Members**

## **BARBARA MALLOCH LEITNER**

2 Parkway Court  
Orinda, CA 94563  
925-253-8300  
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### **RESUME**

#### **SUMMARY OF SKILLS**

Barbara M. Leitner has over 20 years' experience in the environmental field. She has experience in the identification of sensitive plant resources, vegetation habitat mapping, impact assessment, environmental documentation, monitoring of project impacts on vegetation, vegetation management and restoration, wetland delineations and associated permitting, Biological Assessments, Habitat Conservation Plans, and wildlife habitat studies. Areas of particular strength are resource inventories, impact assessment, permitting, monitoring, revegetation, and the management and restoration of natural lands.

#### **EDUCATION**

A.B., Botany, University of California, Berkeley, 1974  
M.S., Ecology, University of California, Davis, 1982

#### **EMPLOYMENT HISTORY**

**Consultant:** 1985-present. Conducted botanical and ecological inventories and impact assessments, vegetation monitoring, vegetation and land management restoration projects, and environmental permitting, and resource planning projects.

**California Land Steward:** The Nature Conservancy, 1980-1986. Managed nature preserves throughout California, especially habitat management and monitoring for rare species and natural communities.

**Biologist:** Pacific Gas and Electric Company, 1975-1980. Conducted biological inventory and impact assessment studies for generating and transmission facilities.

#### **PROFESSIONAL EXPERIENCE**

##### **Ecological Studies**

Conducted and managed rare plant surveys and vegetation mapping in 40 California counties, resulting in substantial additions to known abundance and distribution of rare plants.

Chief botanist and co-investigator of a nine-year habitat and ecological study of the threatened Mohave ground squirrel.

## **Transportation Planning and Permitting**

Carried out botanical resource surveys and valley oak tree surveys for Highway 168 east of Clovis, Fresno County

Prepared biological resource descriptions for a transportation planning EIR for the six-county Southern California Association of Governments

Prepared wetland delineation, rare plant surveys, and multi-species Biological Assessment for the State Route 4 Bypass project, Contra Costa County

Prepared revegetation plan and carried out construction monitoring for the new Coalinga Airport.

Carried out sensitive botanical species resource surveys, developed management recommendations and draft Biological Assessment for Monterey Airport Roadway Circulation Improvement Projects

## **Resource Management and Planning**

Developed and managed the biological monitoring program for The California Nature Conservancy preserves for five years.

Participated in preparation of five Habitat Conservation Plans, two county general plan geothermal resource elements, and an overview of geothermal resource permitting for the U.S. Navy.

## **Impact Assessments**

Prepared technical sections for over 40 CEQA and NEPA impact assessments

## **Wetland Delineation and Permitting**

Completed U.S. Army Corps of Engineers wetland delineation course, 1998.

Prepared eight wetland delineations and completed permitting procedures with the U.S. Army Corps of Engineers, California Department of Fish and Game, and Regional Quality Control Board for wetland and stream impacts and mitigation.

## **Vegetation Management and Restoration**

Managed The California Nature Conservancy's prescribed burning, livestock grazing and weed control programs for five years.

Prepared seven revegetation plans, with primary responsibility for implementing four of these.

Developed guidelines for vegetation management for fire hazard reduction for the East Bay Hills following the 1991 fire.

## **Energy Projects**

Carried out resource inventories and impact assessment for nuclear, geothermal, fuel oil, natural gas, cogeneration and hydroelectric generating facilities and related pipelines and transmission lines.

Developed the first detailed assessment of operational impacts of geothermal energy on vegetation in The Geysers power plant, and carried out operational impacts assessments for six geothermal, natural gas and cogeneration power plants.

Prepared testimony on the effects of cooling tower operation on agricultural crops for the 2000-megawatt Harquahala power plant, Arizona

## **PROFESSIONAL AFFILIATIONS**

Association of Environmental Professionals  
California Botanical Society  
California Native Plant Society  
Society for Ecological Restoration, California Chapter  
California Exotic Pest Plant Council

## **SELECTED PAPERS AND TECHNICAL REPORTS**

Environmental Science Associates. In prep. Draft Biological Assessment, Monterey Airport Roadway Circulation Improvement Projects. Prepared for Monterey Airport District for submittal to the Federal Aviation Authority for its formal consultation with the U.S. Fish and Wildlife Service.

Environmental Science Associates. 2001. Preconstruction notification, Hetch Hetchy Water Treatment Project, Chloramine Conversion. Prepared for the San Francisco Public Utilities Commission for submittal to the U.S. Army Corps of Engineers, San Francisco District. 45 pages plus appendices.

Environmental Science Associates. 2001. Draft Biological Assessment, Hetch Hetchy Water Treatment Project, Chloramine Conversion. Prepared for the San Francisco Public Utilities Commission for submittal to the U.S. Army Corps of Engineers, San Francisco District, for its formal consultation with the U.S. Fish and Wildlife Service. 50 pages plus appendices.

Leitner, Barbara M. 2000. Letter report to MHA Environmental Consulting on the botanical resources, especially rare and endangered plants, of the Pacific Gas and Electric Company San Jose hydrotest project, Santa Clara County.

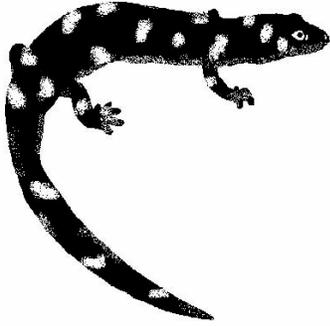
Leitner, Barbara M. 2000. Assessment of the impact of stack emissions, especially NOx, on the endangered Quino checkerspot, San Diego County. Prepared for Toyon Environmental Consulting, Fairfield, CA for U.S. Generating Company.

Leitner, Barbara M. 1999. Botanical resources of Cunningham Lake Regional Park, San Jose. Letter report to Albion Environmental Consulting, Santa Cruz, CA. 4 pages.

Environmental Science Associates. 2000. Sensitive species habitat assessment, Pajaro Valley Water Management Agency, Watsonville, CA. 76 pages.

Environmental Science Associates. 1998. State Route 4 Bypass wetland delineation. Prepared for the State Route 4 Bypass Authority, Martinez, CA. 33 pp. plus appendices.

Environmental Science Associates. 1998. San Francisco Bay Area Ridge Trail Biological Assessment. Prepared for the San Francisco Water Department, San Bruno, CA. Prepared with Brian Pittman, Yolanda Molette, and Tom Roberts.



**WILDLIFE RESEARCH ASSOCIATES**  
**Trish Tatarian – Wildlife Ecologist/Consultant**

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## **STATEMENT OF QUALIFICATIONS**

Co-founder of Wildlife Research Associates, Trish is a seasoned biologist. With ten years of experience in the environmental consulting field as project manager and a technical biologist, she has built consensus with agency personnel and a variety of clients ranging from federal agencies to independent developers. Trish, a widely-experienced general ecologist, is a *California Red-legged frog specialist with a USFWS permit*, with a focus on conducting surveys for special-status amphibians, birds, and mammals, conducting vegetation community and wildlife habitat characterization, and aerial photograph interpretation.

## **PROFESSIONAL EXPERIENCE**

### **Project Management**

Ten years' experience conducting due diligence reports, constraints analyses, habitat assessments, Site Assessments (SA), and Environmental Impact Reports (EIR). Coordinated staff and sub-consultants conducting habitat assessments and focused surveys for special-status plant and animal species. Prepared formal consultations with state and federal agency personnel. Identified mitigation areas and prepared mitigation and monitoring plans to agency specifications.

Project manager for two U.S. Coast Guard projects, managing sub-consultants and staff performing focused surveys for a federally-listed Threatened amphibian species and identification of seasonal wetland, delineations and construction monitoring.

Project manager for private development project in Calistoga. Prepared Biological Section of the EIR, identifying impacts and mitigation measures for special-status amphibian, reptile, bird and mammal species. Conducted focused surveys for federally-listed Threatened amphibian species.

Assistant project manager for a de-silting project with a public agency in Livermore Valley. Mitigated impacts to a federally-listed amphibian species, conducted a suitability analysis of several off-site mitigation areas. Achieved consensus between the USFWS and the public agency for the off site mitigation area.

Project manager for a road-widening project in Fresno County. Preparation of Biological Study (BS) that will include a Biological Assessment, a Biological Evaluation and an analysis for the potential for occurrence of the U.S. Forest Service's management indicator species. The BS will be prepared according to the format described by the U.S. Department of Transportation (DOT) and the Federal Highway Administration (FHWA). Special-status plants, animals and communities will be mapped, and avoidance areas and suitable mitigation areas will be identified.

## **SPECIES SURVEYS**

### **Amphibians/Reptiles**

Conduct numerous studies using current California Department of Fish and Game and U.S. Fish and Wildlife Service survey protocol to determine presence or absence of special status amphibian and reptile species, such as California tiger salamander (CTS) (*Ambystoma californiense*), California

red-legged frog (CRF) (*Rana aurora draytonii*), and northwestern pond turtle (*Clemmys marmorata marmorata*) in Alameda, Contra Costa, Marin, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, and Sonoma counties. Added new sightings of CRF for Contra Costa County and new sightings in Sonoma County for CTS.

Regularly conduct numerous CRF Site Assessments according to the USFWS 1997 *Interim Guidance on Site Assessment and Field Surveys for California Red-Legged Frog* (USFWS 1997) throughout the Bay Area. Prepared several mitigation and monitoring plans for CRF.

Prepared Habitat Improvement Plan for San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) and CRF. Plan included a description of the autecology of both species, redesign of an existing sedimentation basin into ponds and upland habitat that provided foraging and refuge areas. Construction guidelines created were accepted by the agencies.

Routinely prepare Alameda whipsnake (*Masticophis lateralis euryxanthus*) SA throughout the Bay Area. Prepared several mitigation and monitoring plans for impacts to Alameda whipsnake habitat.

### **Mammals**

Conducted presence/absence survey of San Joaquin kit fox (*Vulpes macrotis mutica*) using California Department of Fish and Game Region 4 survey protocol, including the use of track stations, camera stations and spotlighting while night driving. Assisted in surveys in the Northern Range of the species.

Assisted in live trapping, data collection and telemetry surveys of Mojave ground squirrel (*Spermophilus mojavensis*) and live trapping of Panamint kangaroo rat (*Dipodomys panaminitus panaminitus*) within the northern portions of the Mojave Desert.

Assisted biologists from the National Biological Survey in mist-netting and voice recording sensitive bat species, including pallid bat (*Antrozous pallidus*), fringed bat (*Myotis thysanodes*), and long-legged bat (*Myotis volans*) within County and State Parks of Marin and Sonoma.

Conducted habitat characterization and bat survey on a closed copper mine site on the foothills of the Sierra Nevada. A habitat reclamation study was also conducted, evaluating the benefits to existing wildlife species in the area by re-vegetating with different habitats, from native upland to creation and enhancement of creeks and streams.

Assisted with two year trapping survey and data collection of salt marsh harvest mouse (*Reithrodontomys raviventris*) in 90-acre habitat in San Leandro, California. Success of trapping nights was compared to previous years to determine population parameters.

### **Raptors and Other Avian Species**

Assisted with monitoring California peregrine falcon (*Falco peregrinus anatum*) nesting populations in Sonoma County. Banded with raptor banding study in Marin Headlands. Performed statistical analysis on data regarding timing of migrating raptors along the Pacific Flyway.

Conducted marbled murrelet (*Brachyramphus marmoratus*) protocol-level surveys within designated critical habitat in San Mateo County. Conducted associated passerine surveys using point count method of vocalizations. Conducted numerous nest surveys of Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), Swainson's hawk (*Buteo swainsonii*), burrowing owl (*Speotyto cunicularia*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), and loggerhead shrike (*Lanius ludovicianus*). Also conducted a habitat characterization for California spotted owl (*Strix occidentalis occidentalis*) in El Dorado County.

Designed and implemented a relocation plan for burrowing owls for NUMMI in Fremont and successfully negotiated mitigation. Worked on several Habitat Conservation Plans that identify impacts to and mitigation areas for burrowing owls. Worked closely with the CDFG on several projects involving burrowing owl.

Technical wildlife biologist for Habitat Conservation Plan for San Joaquin County. Conducted nesting surveys for special status avian species, including yellow warbler (*Dendroica petechia*

*brewsteri*), yellow breasted chat (*Icteria virens*) and bank swallow (*Riparia riparia*), mapping known locations of these and other sensitive species, and mapping vegetation communities present within the County on 37+ USGS 7.5-minute topographic quadrangle maps.

### **General**

Surveyed 87-acre site in the Imperial Valley to determine the potential presence of flat tailed horned lizard (*Phrynosoma mcalli*), burrowing owl, and other special status species. Report included in EIR.

Assisted with fish surveys within the watershed of the Geysers Geothermal Power Plants. Surveys included electroshocking, identification of various fish species and water quality analysis.

Assisted in surveys for vernal pool fairy shrimp (*Branchinecta lynchi*), in Livermore, Modesto, and Vacaville, California, according to the *Draft Interim Survey Guidelines for Scientific Take Permit under Section 10(A)(1)(a) of the Endangered Species Act for the endangered conservancy fairy shrimp, longhorn fairy shrimp, Riverside fairy shrimp, vernal pool tadpole shrimp and the threatened vernal pool fairy shrimp*, issued by U.S. Fish and Wildlife Service.

Participated in a comprehensive field study of a 30-mile, 500-foot corridor in El Dorado County proposed for pipeline construction. During the study, natural communities were mapped and habitats assessed for possible presence of species of concern, such as California spotted owl (*Strix occidentalis occidentalis*), and sensitivity to potential impacts.

Participated in floristic surveys and rare plant studies in a number of San Francisco Bay Area and California Central Valley locations. Plant species of concern addressed in the study include Valley sparscale (*Atriplex patula* spp *spicata*), Gaviota tarplant (*Hemizonia incressens* sp. *incressens*), San Francisco popcorn flower (*Plagiobothrys diffusus*), common dudleya (*Dudleya lanceolata*) and Contra Costa goldfields (*Lasthenia conjugens*).

### **Monitoring and Restoration**

Conducted CRF monitoring for all phases of construction for a \$115 million project in San Mateo County. Monitoring included pre-construction surveys, establishment of a frog exclusion fence, and early morning surveys prior to daily construction activities.

Five-year monitor study of 270 acres of restored tidal wetlands in San Leandro. Monitoring included bi-monthly bird surveys, vegetation composition and density measurements, invasive species control, and small mammal trapping. Analysis included trend analysis and hydrologic manipulations.

Five-year monitoring study on shorebird use of 9 acres of restored wetlands within San Leandro. Species abundance and diversity with temporal and spatial parameters were analyzed.

Monitored effectiveness of a bird deterrence program at a working landfill. Gull species, specifically California (*Larus californicus*), herring (*Larus argentatus*), and ring-billed (*Larus delawarensis*), and abundance were noted. Alternative methods were analyzed for appropriateness to the site.

Assisted in monitoring an 8.5-acre wetland restoration site in San Leandro. Monitoring examined percent cover of wetland species along transects, comparing the restoration site to three control plots, and included bird monitoring survey.

Assisted in monitoring construction of a dredge disposal site and managed shoreline habitat within ca. 250 acres of baylands in San Leandro. Monitoring included delineating and staking-off sensitive wetland communities prior to excavation, evaluating dust accumulation on nearby wetland vegetation, and specifying frequency of watering along the haul route.

### **Other**

Conducted a wildlife constraints analysis and mapping for a 220-acre site in the city of Santa Cruz containing sensitive wildlife habitats. Sensitive wildlife species included Ohlone tiger beetle

(*Cincindela ohlone*), monarch butterfly (*Danaus plexippus*), California horned lizard (*Phrynosoma coronatum frontale*), sensitive amphibian species, and nesting raptor species.

Constraints analysis for a water conveyance pipeline in San Joaquin County. Analysis included evaluating impacts from increased flows in the Stanislaus River, pipeline crossing of the San Joaquin River and adjacent sloughs, to local state-listed threatened species, such as Swainson's hawk (*Buteo swainsonii*), tricolored blackbird, California tiger salamander, and aquatic organisms.

Conducted sensitive reptile surveys, wrote FCC and NEPA compliance documents, and prepared company environmental training document for a southern California cellular telephone provider.

### **Vernal Pool Surveys and Wetland Delineations**

Conducted a vernal pool evaluation based on several attributes, including presence of vernal pool complexes, soils, sensitive species, small mammals, and within or nearby a riparian corridor. This basic scoring provided general biodiversity and further classification for a conservation program within the area.

5-year monitoring study of created vernal pools in Vacaville, analyzing plant species composition, percent cover, water chemistry, and presence of midvalley fairy shrimp (*Branchinecta mesovalliensis*). Results from created pools were statistically analyzed in relation to established natural pools. Grazing recommendations were reviewed and accepted by the various agencies involved.

Participated in wetland determinations, including those conducted in freshwater marshes, alkali sinks and riparian streams, applying the current Corps of Engineers' Wetland Delineation methodology. Participation included analysis and interpretation of historic and current aerial photographs, field survey to sample soil conditions and identify vegetation, and mapping.

### **Watershed Management Plans**

Conducted a comprehensive field study on 63,000 acres within two divergent watersheds in San Mateo, Alameda, and Santa Clara counties for a major municipal water district. Study included assessing vegetation communities and wildlife habitats, mapping presence of special status wildlife species and their habitats, and providing recommendations for management of wildlife habitats.

Assisted with literature review of approximately 120-acre watershed in lower Lake County. Special status species and their habitats were evaluated, and recommendations for management were provided.

### **Habitat Improvement Plans**

Conducted a stream habitat restoration plan for CRF in Santa Clara County. The restoration plan was part of a biological assessment that was adopted by the U.S. Fish and Wildlife Service.

Prepared a Habitat Improvement Plan for San Francisco garter snake and CRF. The plan included a description of the autecology of both species, redesign of an existing sedimentation basin into ponds and upland habitat that provided foraging and refuge areas. Construction guidelines were created and accepted by the federal agencies.

### **EIR/EIS**

*Prepared over 30 EIR Biological Sections, for a wide range of clients:*

EIR sections for Private developers in Napa and Alameda counties, analyzing the cumulative, indirect and direct impacts of the proposed development on special-status species and communities. Identified mitigation for potential impacts and provided plans for monitoring of mitigation areas to reduce these impacts to less than significant.

Participated in a comprehensive field study for an EIR/EIS of a 170-mile, 200-foot pipeline corridor in Ventura, Los Angeles, and Santa Barbara counties, assessing nesting and foraging habitat

for raptors and passerines.

Literature review for an EIR/EIS of relationships between waterfowl and wildlife use of agricultural lands and potential impacts to both common and special status species due to increased water conservation in the Sacramento and San Joaquin valleys. Potential impacts to both common and special status species due to increased water conservation were evaluated.

Sonoma State University Specific Plan EIR—Biological Section. Sensitive resources included wetlands and sensitive amphibian species were analyzed.

San Bruno Specific Plan EIR, the San Bruno Redevelopment Project Area Plan EIR, the San Bruno General Plan Update EIR Biological Sections, and the San Bruno Master Environmental Assessment. Sensitive habitats and species, such as wetlands, CRF and San Francisco garter snake, were identified and provided with mitigations that eliminated take.

Biological Section for a supplemental EIR for proposed golf course in Fremont. Conducted sensitive amphibian site surveys, wetland delineation, data analysis, and mitigation planning. Concerns included mitigation for the CTS, discovered during site surveys.

### **Papers Presented**

- ◇ *Measuring Ecological Change in a 'Restored' Tidal Marsh on San Francisco Bay: Avoiding The Wrong Yardstick.* 1997. The Wildlife Society Western Section Conference.
- ◇ *Improving Habitat for Beneficials.* 1997. Ecological Farming Conference.

### **Professional Affiliations**

- ◇ The Wildlife Society (TWS) (since 1994)
- ◇ Past Secretary/Treasurer, Bay Area Chapter, Western Section, TWS
- ◇ Society for the Study of Amphibians and Reptiles (since 1994)
- ◇ American Society of Mammalogists (since 1992)
- ◇ California Native Plant Society (since 1999)
- ◇ Past Secretary/Treasurer, California Burrowing Owl Consortium.

### **Education**

- ◇ M.A. Program, Biology, Sonoma State University, in progress (Fall of 2001)
- ◇ B.S., Ecology, San Francisco State University (1992)
- ◇ Completed 40-hour Health & Safety OSHA Training for Hazardous Waste Sites (1995)
- ◇ Inland Invertebrate Training Course (1997)

### **Licenses and Permits**

- ◇ CDFG Scientific Collecting Permit 2419 (1992 – renewal in 2001)
- ◇ USFWS 10(A)1 Permit (1998—renewal in 2003)

# CHRISTINE K. O'ROURKE

*Associate Biologist*

Ms. O'Rourke is an ecologist with extensive experience in field and laboratory techniques. She has performed research at field sites throughout the deserts of California and Arizona. Her responsibilities on ESA projects include conducting threatened and endangered species surveys and habitat assessments, evaluating the impacts of biological resources at individual sites where development has been proposed, writing CEQA/NEPA documents, and monitoring biological resources during project construction.

## EDUCATION

B.S., Evolution and Ecology with English Minor, University of California-Davis  
Biology / English and American Studies coursework, University of East Anglia,  
Norwich, England  
Wetland Delineation Certification Training, U.S. Army Corps of Engineers

## PROFESSIONAL EXPERIENCE

- Performed preliminary analysis of regulatory and other environmental issues associated with construction of a power line through Humboldt, Trinity, and Shasta Counties, identified potential special status species occurring in project area and at proposed power plant location at Humboldt Bay, identified potential regulatory (Section 316 of the Clean Water Act, National Pollutant Discharge Elimination System requirements, and state and regional water quality plans) and biological issues with thermal and stormwater discharge into adjacent waters.
- Surveyed Monterey Airport property and surrounding areas for *Piperia yadonii*.
- Performed USFWS protocol level surveys for California red-legged frog (*Rana aurora draytonii*) within multiple flood control channels for Alameda County Flood Control District Zone 7.
- Conducted surveys and habitat assessments throughout the San Joaquin Valley for pipeline and power line expansion projects. Species studied include San Joaquin kit fox (*Vulpes macrotis mutica*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), American badger (*Taxidea taxus*), Loggerhead shrike (*Lanius ludovicianus*), and Burrowing owl (*Athene cunicularia*).
- Conducted rare plant surveys along power lines in Bakersfield. Species surveyed include *Eriastrum hooveri*, *Stylocline citroleum*, *Delphinium gypsophilum ssp. parviflorum*, and *Eschscholzia lemmonii ssp. kernensis*.
- Performed biological assessment and impact analysis for construction of two fiber optic network projects: Metromedia Fiber Network Services (San Francisco Bay Area, Los Angeles Basin Region, Sacramento and San Diego), and Sigma Networks (San Francisco Bay Area, Los Angeles Basin Region). Responsibilities also include writing Biology section of CEQA documents and supplemental requests to the CPUC for variances from the original documents.

## PROFESSIONAL EXPERIENCE (CONTINUED)

- Biological monitor for fiber optic cable installation on three large-scale projects: Level (3) Communications (Central Valley); AT&T Fiber Optic Replacement

Project (Dunnigan to Manchester [Mendocino County]); Metromedia Fiber Network Services (San Francisco Bay Area). Responsible for crew supervision and training, worker education, construction monitoring, resolving compliance and non-compliance issues, and conducting pre-construction biological surveys.

- Research Assistant, Leitner Biological Consulting. Performed field studies of Mohave ground squirrel (*Spermophilus mojavensis*), set and checked live traps, handled small mammals, assisted with passive integrated transponder (PIT) tag marking, identified and sampled woody shrubs and herbaceous vegetation on study site.
- Laboratory/Research Assistant, Chesson Lab, UC Davis. Participated in field sampling at Chihuahuan Desert research site, designed and executed lab experiments on desert winter annual plant species, identified plant seedlings, collected and compiled data, performed independent research tasks and prepared reports, and organized and maintained lab facility.

**PROFESSIONAL  
AFFILIATIONS**

The Wildlife Society  
California Native Plant Society – East Bay Chapter

**Attachment 3.2-3**

**Section 4.10 (Biological Resources)  
from  
Environmental Assessment  
Prepared by U.S. Bureau of Reclamation Before  
Renewal of Delta-Mendota Canal Contract**

**Attachment 3.2-4**

**Sensitive Species Awareness Education Program**

## **TRACY PEAKER PROJECT'S SENSITIVE SPECIES AWARENESS EDUCATION PROGRAM**

The Tracy Peaker Project's Sensitive Species Awareness Education Program will consist of tail-gate sessions designed to inform personnel about applicable laws and regulations, worker responsibilities during construction and operation, and summaries of the natural histories of the sensitive species that will be impacted by the Tracy Peaker Project. The specific content of the sessions are describe below.

### **INTRODUCTION**

The Tracy Peaker Project is committed to build and operate this facility in compliance with federal and state environmental laws and regulations. We have been issued federal and state permits that mandate mitigation measures designed to minimize our project's impacts on sensitive species and their habitats. Following these measures is everyone's responsibility.

The following federal and state laws will be discussed:

- **Migratory Bird Treaty Act**
- **Federal Endangered Species Act**
- **California Endangered Species Act**
- **California Department of Fish and Game Code**

The Tracy Peaker Project was designed to avoid impacts that would be in violation of these laws, which is the case with the Migratory Bird Treaty Act, or seek permits to lawfully allow take when impacts cannot be avoided. The Tracy Peaker Project has agreed to compensate for sensitive habitats that will be permanently or temporarily disturbed and minimize impacts to individual animals that inhabit the project area. The minimization measures listed below are the most important elements of our program and everyone working on the Tracy Peaker Project must comply with those measures for our project to be successful.

### **WORKER RESPONSIBILITIES**

- Travel on designated roads: Do not travel cross-country in your vehicle at any time. Stay on marked project roads and access routes.
- Obey posted speed limits: This will help to maintain air quality and protect sensitive plants and wildlife.
- Stay in the designated work area: The boundaries of the construction area will be clearly marked. Do not go outside this area or disturb anything located beyond the boundaries.
- Do not enter avoidance areas: Avoidance areas are marked by metal stakes and flagging. Protection of sensitive resources is often as simple as avoiding them. For example, we protect sensitive plants and wildlife near the work area by setting up

avoidance areas around them. No one may enter avoidance areas: doing so will be grounds for disciplinary action which can include immediate dismissal and may result in civil and/or criminal penalties.

- Keep a trash container in every vehicle used in the work area and empty it daily at the recycling bins.
- Do not feed wildlife: Feeding wildlife can be harmful to you and the animals.
- If you encounter wildlife that you feel may be harmful, back away slowly and call your supervisor and the Designated Biologist who will determine the appropriate action.
- Report any injured or dead animals to your supervisor or the Designated Biologist.
- Do not pick wildflowers.
- Do not bring pets to the work area: For the safety of your pets and wildlife, leave your pets at home.
- Do not bring firearms to the work area and do not hunt: Firearms and hunting are prohibited.
- Smoke only in designated areas: Designated smoking areas will be identified, well away from flammable materials. Be sure to completely extinguish all smoking materials and dispose of cigarette butts in the receptacles provided.
- Do not build fires.
- Never park a vehicle where a catalytic converter could ignite dry vegetation.
- Keep your construction vehicles and equipment in good operating condition and make sure that emissions control systems are not disabled.
- Do not use or transfer hazardous materials near open water or drainage channels, only in designated areas.
- Never allow dirt or debris to block stream flows or drainage channels.

## **SENSITIVE SPECIES**

The following species occur or have a potential to occur in the project area:

### **Listed Animals**

San Joaquin kit fox

### **Other Sensitive Species**

Loggerhead shrike

White-tailed kite

Great-horned owl

Barn owl

Burrowing owl

The training session will include photographs and other important information about the sensitive animals that workers may encounter while working on the Tracy Peaker Project and they will be told that it is important that they report sightings of these animals to their supervisors or the Designated Biologist.

The attached form will be signed by each employee to verify that he or she has received the awareness training.

## Certificate of Completion

I certify that I have received training at the educational session prior to beginning work on this project. During that session, I was provided information about the biology, habitat needs, status under the federal and state Endangered Species Acts, and measures being taken for the protection of the threatened and endangered species that occur in the project area. I also received instruction about the need to protect other sensitive plant and animal resources in the project area.

I, the undersigned individual, have read and understand the measures and agree to comply with all provisions of the program. I am aware that I may incur civil and/or criminal penalties if I do not conform to the required measures.

Furthermore, I agree to participate in the Endangered Species Monitoring Program and will record all personal sightings of the species of concern in the project area.

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Name (Please print)

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Signature

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Date of Session

**Instructions:** Fill out this form and give to the class instructor.

### **Tracy Peaker Cogeneration Project Emergency Contact**

If you see an emergency involving wildlife or habitats in the project area, please contact your supervisor.

**Attachment 3.2-5**

**Letters Regarding TPP Coverage  
Under the SJCMSCP**

**Attachment 3.2-6**

**Natural History Descriptions  
of Listed Species**

## **Cultural Resources**

Technical Staff: Kip Harper/Gary Reinoehl  
Technical Senior: Dale Edwards  
Project Manager: Cheri Davis

### 3.3 Cultural Resources

#### 3.3.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115-kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the cultural resources analysis and it is still expected that the TPP will not cause significant impacts to cultural resources.

#### 3.3.2 Data Adequacy Issues

##### Siting Regulations and Information

Appendix B (g) (2) (B): A description of all literature searches and field surveys used to provide information about known cultural resources in the project vicinity. If survey records of the area potentially physically affected by the project are not available, and the area has the potential for containing significant cultural resources, the applicant shall submit a new or revised survey for any portion of the area lacking comprehensive survey data. A discussion of the dates of the surveys, methods used in completing the surveys, and the identification and qualification of the individuals conducting the surveys shall be included.

##### Information Required to Make AFC Conform with Regulations

*Please provide the results of a cultural resources survey of the project area and linears conducted by an architectural historian or an historian with a background in industrial or architectural history. Identify and include descriptions of historic cultural resources (buildings, structures, objects, sites, and districts) adjacent to the project site and linears (one property deep that appear to be 45 or more years old).*

*Please provide the qualifications of the individuals conducting the architectural surveys.*

*Please provide cultural resource surveys for all ancillary areas (pull sites, laydown areas, access roads) outside the previously surveyed area along the transmission lines and the substation.*

#### RESPONSE 14

A significant portion of the proposed project originally presented in the AFC has now been dropped. The dropped component is the proposed transmission line that would connect the power plant with Tesla Substation, approximately five miles to the west. The built environment properties that appear to be 45 or more years old and are one-property deep adjacent to the project site and the plant site are the Tesla-Kasson electrical transmission line, the Tesla-Manteca electrical transmission line, the Union (Southern) Pacific Railroad Crossing, the

Delta-Mendota Canal, a fence line along the north side of the plant site, and a segment of telegraph line along the Union (Southern) Pacific Railroad line. The fence line, the Delta-Mendota Canal, and the telegraph line were previously documented in the AFC and Appendix C to the AFC.

In a conversation between CEC staff member Gary Reinoehl and Brian W. Hatoff, URS Corporation, on August 31, 2001, it was determined that the features that required further study and recordation and/or augmented recordation in compliance with CEC requests were the Tesla-Kasson and Tesla-Manteca electrical transmission lines and the access road crossing point of the Union (Southern) Pacific railroad crossing. Mr. Reinoehl indicated that current URS cultural resources staff could conduct this augmented data gathering, particularly in light of the reduced scope of the proposed project. However, historian Dr. Laurence Shoup was subsequently retained by URS to assist URS in gathering data held by PG&E (see below).

The supplemental data gathering was conducted by Brian W. Hatoff and Rachael Eggherman. Their resumes were previously submitted to the CEC as part of the original AFC submittal. The resume of Dr. Shoup is included as Attachment 3.3-1 in this supplemental data submission.

The results of the supplemental data gathering efforts are presented in Attachment 3.3-2.

At this time all project components of the proposed project have been subject to intensive pedestrian survey by cultural resources personnel. Unsurveyed areas were located on a project component that has been dropped. The results of the cultural resource surveys are presented in the AFC, Appendix C of the AFC, and the supplemental data provided herein.

### **Siting Regulations and Information**

Appendix B (g) (2) (C): A discussion of the sensitivity of the project area described in subsection (g)(2)(A) and the presence and significance of any known archeological sites and other cultural resources that may be affected by the project. Information on the specific location of archeological resources shall be included in a separate appendix to the application and submitted to the Commission under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq.

### **Information Required to Make AFC Conform with Regulations**

*Please provide DPR Forms 523A, 523B, and 523J for the Tesla Substation, the Tesla-Manteca transmission line, the Tesla-Kasson transmission line, Tesla-Stockton transmission line, Tesla-Wesley transmission line, Tesla-Newark transmission line, and the Union (Southern) Pacific Railroad crossing.*

**RESPONSE 15**

A significant portion of the proposed project originally presented in the AFC has now been dropped. The dropped component is the proposed transmission line that would connect the power plant with the Tesla Substation, approximately five miles to the west. The built environment properties that appear to be 45 or more years old and are one-property deep adjacent to the project site and the plant site are the Tesla-Kasson electrical transmission line, the Tesla-Manteca electrical transmission line, the Union (Southern) Pacific Railroad Crossing, the Delta-Mendota Canal, a fence line along the north side of the plant site, and a segment of telegraph line along the Union (Southern) Pacific Railroad line. The fence line, Delta-Mendota Canal, and telegraph line were previously documented in the AFC and Appendix C to the AFC. The CEC has requested that additional documentation be conducted on the Tesla-Kasson and Tesla-Manteca transmission lines and the Union (Southern) Pacific Railroad. Supplemental data to address the data adequacy issues raised by the CEC concerning these features are provided below.

***Tesla-Kasson and Tesla-Manteca Transmission Lines***

A significant portion of the proposed project originally presented in the AFC has now been dropped. The dropped component is the proposed transmission line that would have connected the power plant with Tesla Substation to the west. This deleted component would have entailed both new construction and reconductoring of existing towers. The connection of the power plant to the electrical grid will now take place at the plant site by connection to the existing Tesla-Kasson line. No modification will be made to the line other than the physical connection of transmission lines from the power plant to the existing Tesla-Kasson line. The Tesla-Kasson line is paralleled by the Tesla-Manteca line and a wood pole line that appears to be less than 25 years old (based on the new appearance of the poles and the fact that it is not depicted on either the Tracy, CA USGS 7.5' topographic map (photorevised 1981) or the Midway, CA USGS 7.5' topographic map (photorevised 1980).

In conformance with the request by CEC that DPR forms be prepared for these facilities, URS cultural resources personnel (Brian Hatoff and Rachael Egherman) revisited the project site on September 5, 2001, to prepare DPR 523A, 523B, and 523J forms for the portion of the Tesla-Kasson and Tesla-Manteca lines that traverses the power plant site. Mr. Hatoff's and Ms. Egherman's resumes were previously included in Attachment C-1 of Appendix C to the AFC. The DPR forms have been included with this Data Adequacy submittal as Attachment 3.3-3. As described and depicted with photographs in the DPR forms, the Tesla-Kasson and Tesla-Manteca transmission lines have both been modified within the proposed plant site area. The modification was required to accommodate a north-south transmission line from a small connector facility/substation associated with the Tracy Biomass plant and Owens-Brockway glass container plant (as noted in Appendix C to the AFC, these facilities were built within the last 35 years). The towers for both the Tesla-Kasson and the Tesla-Manteca lines were replaced with taller towers to accommodate this connector line (built with single wooden poles and one steel pole adjacent to the connection point), which runs under these two lines. It is assumed these two taller towers are coeval with the construction of the biomass and/or glass container plant or are of more recent construction.

Historian Dr. Laurence Shoup was retained by URS Corporation on September 5, 2001, to help URS obtain historical data from PG&E regarding the Tesla-Kasson and Tesla-Manteca lines (see Attachment 3.3-1 for the resume of Dr. Shoup). These data were reviewed, synthesized, and incorporated into the DPR forms as appropriate by URS cultural resources personnel under the direction of Brian W. Hatoff. The results of the supplemental data gathering efforts are presented in Attachment 3.3-2. The DPR forms are provided in Attachment 3.3-3.

Based on field observations it is clear that both the Tesla-Kasson and the Tesla-Manteca transmission lines have been altered from their original configuration in the vicinity of the proposed power plant site by construction of a newer and taller tower on each line to accommodate the electrical transmission line connecting the wood tower line that parallels the Tesla-Kasson and Tesla-Manteca lines. Three towers for each line are located within the power plant site parcel. The newer towers are located at the approximate mid-point of the line as it crosses the power plant site parcel bracketed on each side by the older towers. Electrical transmission lines are by their nature dynamic components of infrastructure. It is generally assumed that through time future development will be accommodated by connecting to the grid, as exemplified by the proposed power plant. Our assessment is that even in the unlikely event that the Tesla-Kasson or Tesla-Manteca lines were to rise to the status of a "historical resource" as defined in Section 15064.6 of CEQA, the significance of the historical resource would not be materially impaired by the act of connecting to the existing line. No material alteration to the existing line is proposed as part of the connection process.

#### ***Union (Southern) Pacific Railroad Crossing***

As noted in the Appendix C of the AFC, a segment of the Union (Southern) Pacific Railroad was previously recorded and evaluated by JRP in 1994. A portion of the previously recorded and evaluated segment is in close proximity (less than 700 feet east) to the segment that would be crossed by the proposed access road. An updated DPR 523A form for this segment was prepared on June 8, 2001, and included as part of Attachment C-3 of Appendix C of the AFC. The June 8, 2001, recordation focused on what is now the alternate access road crossing. The site was revisited by URS cultural resources personnel (Brian Hatoff and Rachael Eggherman) on September 5, 2001, to document the proposed access road crossing. Comparative photographs were taken at the JRP and URS recorded locations to demonstrate the identical nature of the two segments. The updated DPR 523A form has now been further updated to include these photographs and to demonstrate the high degree of similarity of the segment analyzed by JRP and the segments addressed by URS. A DPR 523J form has also been prepared to identify the JRP and URS-recorded segments. The updated and augmented site record (DPR 523A and J forms) has been included with this submittal as Attachment 3.3-4. A DPR 523B form has not been prepared, as the exhaustive recordation and evaluation statement prepared by JRP in its 1994 site form applies to the updated form as well. As noted in Appendix C of the AFC, JRP previously recommended that the segment of the railroad it analyzed was not eligible for listing on the National Register of Historic Places (NRHP). Likewise, URS recommends that the potentially affected segments located just west and east of the JRP-evaluated segment also be considered ineligible for listing on either the NRHP or the California Register of Historic Resources for the same reasons cited by JRP.

#### **Siting Regulations and Information**

Appendix B (h) (1) (A): Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;

#### **Information Required to Make AFC Conform with Regulations**

*All maps show the access road adjacent to the western boundary of the Nutting Rice property and the description indicates that the road is on the eastern portion of the Nutting Rice property.*

*The property adjacent to the dirt access road on the west side is owned by the United States of America. Please indicate if a permit from a federal agency is needed to improve roadway for the project.*

#### **RESPONSE 16**

Improvement of the access road, which is adjacent to, but not on, lands owned by the United States of America, will not require a permit from a federal agency. All construction activity and improvements will be confined to private (nonfederal) lands.

#### **Siting Regulations and Information**

Appendix B (h) (1) (B): Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.

#### **Information Required to Make AFC Conform with Regulations**

*Please indicate if a permit from a federal agency is needed to improve roadway for the project.*

*If a permit is needed from a federal agency to improve the access road, please specify which agency and the applicable federal laws.*

#### **RESPONSE 17**

Improvement of the access road, which is adjacent to, but not on, lands owned by the United States of America, will not require a permit from a federal agency. All construction activity and improvements will be confined to private (nonfederal) lands.

**Siting Regulations and Information**

Appendix B (h) (3): The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.

**Information Required to Make AFC Conform with Regulations**

*If a permit is needed from a federal agency to improve the access road, please provide the name, title, phone number, and address of the agency's contact.*

**RESPONSE 18**

Improvement of the access road, which is adjacent to, but not on, lands owned by the United States of America, will not require a permit from a federal agency. All construction activity and improvements will be confined to private (nonfederal) lands.

**Siting Regulations and Information**

Appendix B (h) (4): A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.

**Information Required to Make AFC Conform with Regulations**

*If a permit is needed from a federal agency to improve the access road, please provide the schedule to acquire the permit.*

**RESPONSE 19**

Improvement of the access road, which is adjacent to, but not on, lands owned by the United States of America, will not require a permit from a federal agency. All construction activity and improvements will be confined to private (nonfederal) lands.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*Please provide the results of a cultural resources survey of the project area and linears conducted by an architectural historian or an historian with a background in industrial or architectural history. Identify and include descriptions of historic cultural resources (buildings, structures, objects, sites, and districts) adjacent to the project site and linears (one property deep that appear to be 45 or more years old).*

*Please provide the qualifications of the individuals conducting the architectural surveys.*

*Please provide cultural resource surveys for all ancillary areas (pull sites, laydown areas, access roads) outside the previously surveyed area along the transmission lines and the substation.*

## **RESPONSE 20**

The built environment properties that appear to be 45 or more years old and are one property deep adjacent to the project site and the plant site are the Tesla-Kasson electrical transmission line, the Tesla-Manteca electrical transmission line, the Union (Southern) Pacific Railroad Crossing, the Delta-Mendota Canal, a fence line along the north side of the plant site, and a segment of telegraph line along the Union (Southern) Pacific Railroad line. The fence line, the Delta-Mendota Canal, and the telegraph line were previously documented in the AFC and Appendix C to the AFC.

Pursuant to a conversation between CEC staff member Gary Reinoehl and Brian W. Hatoff, URS Corporation, on August 31, 2001, it was determined the features that would require further study and recordation and/or augmented recordation in compliance with CEC requests were the Tesla-Kasson and the Tesla-Manteca electrical transmission lines and the access road crossing point of the Union (Southern) Pacific railroad crossing. Mr. Reinoehl indicated that current URS cultural resources staff could conduct this augmented data gathering, particularly in light of the reduced scope of the proposed project. However, historian Dr. Laurence Shoup was subsequently retained by URS to assist in gathering data held by PG&E. Supplemental data to address the data adequacy issues raised by the CEC concerning these features are provided below.

The supplemental data gathering was conducted by Brian W. Hatoff and Rachael Eggherman. Their resumes were previously submitted to the CEC as Attachment C-1 of Appendix C of the AFC. The resume of Dr. Shoup is provided as Attachment 3.3-1.

### ***Tesla-Kasson and Tesla-Manteca Transmission Lines***

Although not specifically called for in the "4 Month Data Adequacy" request, URS cultural resources personnel (Brian Hatoff and Rachael Eggherman) revisited the project site on September 5, 2001, to prepare DPR 523A, 523B, 523E, and 523J forms for the portion of the Tesla-Kasson and Tesla-Manteca lines that traverses the power plant site. The Tesla-Kasson and Tesla-Manteca transmission lines have been modified within the proposed plant site area. To accommodate a north-south transmission line from a small connector facility associated with the Tracy Biomass plant and Owens-Brockway glass container plant (as noted in Appendix C, these facilities were built within the last 35 years), the towers for both the Tesla-Kasson and the Tesla-Manteca lines were replaced with taller towers to accommodate this connector line (built with single wooden poles and one steel pole adjacent to the connection point), which runs under these two lines. It is assumed these two taller towers are coeval with the construction of the glass container plant or are of more recent construction.

Historian Dr. Laurence Shoup was retained by URS Corporation on September 5, 2001, to obtain historical data from PG&E regarding the Tesla-Kasson and Tesla-Manteca lines. These data were reviewed, synthesized, and incorporated into the DPR forms as appropriate by URS cultural resources personnel under the direction of Brian W. Hatoff. The results of the

supplemental data gathering efforts are presented in Attachment 3.3-2. The DPR forms are provided in Attachment 3.3-3.

Based on field observations it is clear both the Tesla-Kasson and the Tesla-Manteca transmission lines have been altered from their original configuration by construction of a newer and taller tower on each line to accommodate the electrical transmission line connecting the wood tower line that parallels the Tesla-Kasson and Tesla-Manteca lines. Three towers for each line are located within the power plant site. The newer towers are located at the approximate mid-point of the line as it crosses the power plant site parcel bracketed on each side by the older towers. Electrical transmission lines by their nature are dynamic components of infrastructure. It is generally assumed that through time future development will be accommodated by connecting to the grid, as exemplified by the proposed power plant. Our assessment is that even in the unlikely event the Tesla-Kasson or Tesla-Manteca lines were to rise to the status of a “historical resource” as defined in Section 15064.6 of CEQA, the significance of the historical resource would not be materially impaired by the act of connecting to the existing line. No material alteration to the existing line is proposed as part of the connection process.

#### ***Union (Southern) Pacific Railroad***

As noted in the Appendix C of the AFC, a segment of the Union (Southern) Pacific Railroad was previously recorded and evaluated by JRP in 1994. A portion of the previously recorded and evaluated segment is in close proximity (less than 700 feet east) to the segment that would be crossed by the proposed access road. An updated DPR 523A form for this segment was prepared on June 8, 2001, and included as part of Attachment C-3 of Appendix C of the AFC. The June 8, 2001, recordation focused on what is now the alternate access road crossing. The site was revisited by URS cultural resources personnel (Brian Hatoff and Rachael Egberman) on September 5, 2001, to document the proposed access road crossing. Comparative photographs were taken at the JRP and URS recorded locations to demonstrate the identical nature of the two segments. The updated DPR 523A form has now been further updated to include these photographs and to demonstrate the high degree of similarity of the segment analyzed by JRP and the segments addressed by URS. A DPR 523J form has also been prepared to identify the JRP and URS-recorded segments. The updated and augmented site record (DPR 523A and J forms) has been included with this submittal as Attachment 3.3-4. A DPR 523B form has not been prepared, as the exhaustive recordation and evaluation statement prepared by JRP in its 1994 site form applies to the updated form as well. As noted in Appendix C of the AFC, JRP previously recommended that the segment of the railroad they analyzed was not eligible for listing on the National Register of Historic Places (NRHP). Likewise, URS recommends that the potentially affected segments located just west and east of the JRP evaluated segment also be considered ineligible for listing on either the NRHP or the California Register of Historic Resources for the same reasons cited by JRP.

#### ***Cultural Resource Survey Status***

At this time all project components of the proposed project have been subject to intensive pedestrian survey by cultural resources personnel. Unsurveyed areas were located on a project component that has been dropped. The results of the cultural resource surveys are

presented in the AFC, Appendix C of the AFC, and augmented by the supplemental data provided herein.

**Cultural Resources (Section 8.3 in AFC)**

**Revised Figures 8.3-1 through 8.3-4**

**Attachment 3.3-1**

**Resume of Dr. Laurence H. Shoup**

**Attachment 3.3-2**

**Results of Supplemental Historical Data Gathering  
for the Tesla-Kasson and the Tesla-Manteca  
Transmission Lines**

**Attachment 3.3-3**

**DPR Forms for Portions of the Tesla-Kasson and Tesla-Manteca  
Transmission Lines That Traverse TPP Site**

**Attachment 3.3-4**

**DPR Forms for the Union (Southern) Pacific Railroad Crossing**

## **Facility Design**

Technical Staff: Shahab Khoshmashrab  
Technical Senior: Steve Baker  
Project Manager: Cheri Davis

### **3.4 Facility Design**

#### **3.4.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The changes resulting from the elimination of the five-mile transmission line are described in the revised Section 2.0 (Project Description) provided in this AFC Supplement.

#### **3.4.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (g) (14) (B) (iii): Water inundation zones, such as the 100-year flood plain and tsunami run-up zones.

##### **Information Required to Make AFC Conform with Regulations**

[No text provided for this column in the data adequacy response table for this technical area.]

##### **RESPONSE 21**

Water inundation zones for the TPP vicinity are addressed in the revised Section 8.14.2 (Water Resources), page 8.14-6. The TPP site is not within a 100-year flood plain or tsunami hazard zone.

##### **Siting Regulations and Information**

Appendix B (g) (14) (D) (i): Precipitation and storm runoff patterns; and

##### **Information Required to Make AFC Conform with Regulations**

[No text provided for this column in the data adequacy response table for this technical area.]

##### **RESPONSE 22**

See Response 74 in Water Resources (Section 3.12).

##### **Siting Regulations and Information**

Appendix B (g) (14) (D) (ii): Drainage facilities and design criteria.

##### **Information Required to Make AFC Conform with Regulations**

[No text provided for this column in the data adequacy response table for this technical area.]

**RESPONSE 23**

See Response 75 in Water Resources (Section 3.12).

**Siting Regulations and Information**

Appendix B (g) (14) (E) (ii): The effects of construction activities and plant operation on water quality; and

**Information Required to Make AFC Conform with Regulations**

[No text provided for this column in the data adequacy response table for this technical area.]

**RESPONSE 24**

The water quality effects of the TPP are described in the revised Section 8.14.2 (Water Resources).

**Siting Regulations and Information**

Appendix B (g) (14) (iii): The effects of the project on the 100-year flood plain or other water inundation zones.

**Information Required to Make AFC Conform with Regulations**

[No text provided for this column in the data adequacy response table for this technical area.]

**RESPONSE 25**

The TPP will not have any effect on the 100-year flood plain or other water inundation zones. The site is located well away from flood-prone areas, as described in the revised Section 8.14.2 (Water Resources), page 8.14-6.

## **Land Use**

Technical Staff: Negar Vahidi  
 Technical Senior: Eileen Allen  
 Project Manager: Cheri Davis

### 3.5 Land Use

#### 3.5.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line

The changes resulting from the elimination of the five-mile transmission line are described in the revised Section 8.4 (Land Use) provided in this AFC Supplement.

#### 3.5.2 Data Adequacy Issues

##### Siting Regulations and Information

Appendix B (g) (1): ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.

##### Information Required to Make AFC Conform with Regulations

*Discuss the direct and cumulative impacts of the loss of prime farmland, including the potential for this project to induce agricultural land conversion, and overall urban growth on surrounding parcels. We suggest using the California Department of Conservation's Agricultural Land and Site Assessment Model (LESA) to characterize the loss of prime farmland. Contact Molly Penberth at the Dept. of Conservation at (916) 324-0859.*

*Discuss measures for mitigating the loss of prime farmland.*

##### RESPONSE 26

San Joaquin County has adopted findings that indicate that the TPP conversion of agricultural property is consistent with the County's General Plan and Zoning Ordinance (see Attachment 3.5-1). GWF proposes to contribute funds to the American Farmland Trust for the procurement of conservation lands on a 1:1 basis within San Joaquin County, if possible, or alternatively within areas that are in close proximity to the County. With this mitigation there are no direct or cumulative impacts from TPP.

##### Siting Regulations and Information

Appendix B (g) (3) (A): A discussion of existing land uses and current zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:

##### Information Required to Make AFC Conform with Regulations

*Provide a copy of the Williamson Act contract for this property, and the 1992 non-renewal notice.*

*Given that the contract is due to expire in March 2002, we are concerned that construction is planned before that point.*

*Discuss how an electric power plant is permitted under the provisions of the Williamson Act.*

#### **RESPONSE 27**

Attachment 3.5-2 is a copy of the Williamson Act Contract for the property. Attachment 3.5-3 is a copy of the Williamson Act Notice of Nonrenewal. See Attachment 3.5-1 for a copy of the San Joaquin County Planning Department findings regarding the Williamson Act.

#### **Siting Regulations and Information**

Appendix B (g) (15) (B) (i): Crop types, irrigation systems, and any special cultivation practices; and

#### **Information Required to Make AFC Conform with Regulations**

*Provide a list of crop types historically and currently grown on the proposed TPP site and a list of crop types grown on surrounding agricultural land.*

#### **RESPONSE 28**

The TPP is currently not being used for agricultural production, but has been previously used for agricultural purposes, for an approximate 30-year time period. Historically, crops grown in the vicinity of the site included grain, flax, and alfalfa. It is unknown whether these crops were grown onsite (Harding ESE, 2001). Attachment 3.5-4 provides a ten-year crop history for the proposed TPP site.

#### **Siting Regulations and Information**

Appendix B (g) (15) (C): An assessment of the effects of the proposed project on soil resources and agricultural land uses. This decision shall include:

#### **Information Required to Make AFC Conform with Regulations**

*The AFC Executive Summary states that “The TPP site is on a previously disturbed parcel within an intensive agricultural area.” Clarify, whether or not there is current agricultural activity occurring on site. If so, state when these activities are expected to cease.*

#### **RESPONSE 29**

See Response 28.

**Siting Regulations and Information**

Appendix B (g) (15) (C) (ii): Direct and indirect effects on agricultural land uses; and

**Information Required to Make AFC Conform with Regulations**

*Responding to item (g)(1) will meet this requirement.*

**RESPONSE 30**

See Response 26.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*Discuss the direct and cumulative impacts of the loss of prime farmland, including the potential for this project to induce agricultural land conversion, and overall urban growth on surrounding parcels. We suggest using the California Department of Conservation's Agricultural Land and Site Assessment Model (LESA) to characterize the loss of prime farmland. Contact Molly Penberth at the Dept. of Conservation at (916) 324-0859.*

*Discuss measures for mitigating the impact of the loss of prime farmland.*

*The response to App.B item (g)(1) will meet this requirement.*

**RESPONSE 31**

See Response 26.

**SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*Provide a letter from San Joaquin County describing how this project would qualify for a conditional use permit, or a related project approval process. While this project is in the Energy Commission's jurisdiction, we still need to document and incorporate the findings of the local jurisdiction regarding compliance with their laws, ordinances, regulations, and standards.*

*Provide a copy of the Williamson Act contract for this property, and the 1992 non-renewal notice.*

*Given that the contract is due to expire in March 2002, staff is concerned about the fact that construction is planned before this point.*

*Discuss the San Joaquin County process for removing the site from the Williamson Act agricultural land preserve. Provide a corresponding timeline for this process. Provide a letter from San Joaquin County supporting the early removal of the site from the Williamson Act. This letter must also state when the County will submit the required Williamson Act contract cancellation findings.*

**RESPONSE 32**

See Attachment 3.5-1 for a copy of the findings of the San Joaquin County Planning Department regarding removal of the Williamson Act contract.

**Attachment 3.5-1**

**San Joaquin County Planning Department Findings**

**Regarding**

**Williamson Act Status**

**Attachment 3.5-2**  
**Williamson Act Contract**  
**for the Property**

**Attachment 3.5-3**  
**Williamson Act Notice**  
**of Nonrenewal**

**Attachment 3.5-4**  
**Ten-Year Crop History**  
**of the Proposed TPP Site**

## **Public Health**

Technical Staff: Alvin Greenberg  
Technical Senior: Mike Ringer  
Project Manager: Cheri Davis

### **3.6 Public Health**

#### **3.6.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115 kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the public health analysis and it is still expected that the TPP will not cause significant impacts to public health.

#### **3.6.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (g) (1): ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.

##### **Information Required to Make AFC Conform with Regulations**

*Please provide public health impacts due to pre-construction site preparation and construction equipment diesel exhaust as well as proposed mitigation measures.*

##### **RESPONSE 33**

An analysis of the long-term health risks associated with particulate matter from diesel-fueled construction equipment was performed. This analysis included additional mitigation for construction equipment beyond that described in Condition of Certification AQ-C3 in Appendix K-5 of the AFC. Revised Condition of Certification AQ-C3 (see Attachment 3.1-6) involves the use of catalyzed diesel particulate (soot) filters on construction equipment rated at 100 brake-horsepower (bhp) or greater. Documentation from the U.S. Environmental Protection Agency (June 2, 2000, 65 Federal Register, 35429) and the California Air Resources Board ([www.arb.gov/diesel/ss/Eval\\_Index.htm](http://www.arb.gov/diesel/ss/Eval_Index.htm)) indicates that the 90% control that results from these diesel particulate filters is a typical level of particulate control.

The estimated particulate matter (PM) emissions from the construction equipment described in the AFC were reduced by 90% for equipment rated at 100 bhp or greater. Revised condition of certification AQ-C3 under air quality has been added to provide this for mitigation. The resulting diesel PM emissions were incorporated into the ISCST3 dispersion modeling source files used in the AFC for the estimation of construction equipment PM impacts. The average of the three meteorological data years used in the ISCST3 modeling (1997, 1998, and 1999) resulted in a maximum construction equipment PM impact of 0.82  $\mu\text{g}/\text{m}^3$  at the south

fence line. The nearest residence (which is closer than the nearest nonresidential sensitive receptor) is located approximately 0.4 miles to the west. This residence had an estimated construction equipment PM impact of  $0.099 \mu\text{g}/\text{m}^3$  averaged over the three meteorological years (UTM 2075459 east, 13696522 north). Documentation for these calculations can be found in Attachments 3.1-2 and 3.1-3.

Increased lifetime cancer risk and chronic noncancer health impacts were estimated using the California Office of Environmental Health Hazard Assessment (OEHHA) diesel exhaust particulate matter cancer unit risk factor of  $3.0 \times 10^{-4} [\mu\text{g}/\text{m}^3]^{-1}$  and chronic reference exposure level of  $5 \mu\text{g}/\text{m}^3$ . The cancer unit risk factor assumes a 70-year exposure period. Construction is scheduled to occur over an 8-month period (two 10-hour shifts per day). Therefore, for the purposes of assessing a worst-case lifetime cancer risk, the exposure period was adjusted to a continuous 8-month period. The resulting estimated cancer risk is 2.34 in one million at the south fence line location, and 0.28 in one million at the nearest residence. The estimated chronic noncancer hazard index was calculated as 0.16 at the south fence line location and 0.02 at the nearest residence, assuming no adjustment to the exposure period. Although the construction period will be only 8 months, as chronic RELs are established from procedures that assume less than 70-year exposures, no exposure adjustment was made for the chronic HI calculation. This procedure is expected to result in a conservative chronic HI estimate.

#### **SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

#### **Information Required to Make AFC Conform with Regulations**

*Please discuss public health impacts due to pre-construction site preparation and construction equipment diesel exhaust as well as proposed mitigation measures.*

#### **RESPONSE 34**

See Response 33.

#### **SB 28 Sher Requirements and Information**

§25552(e)(2) (All): [a]ssure protection of public health and safety;

#### **Information Required to Make AFC Conform with Regulations**

*Please discuss public health impacts due to pre-construction site preparation and construction equipment diesel exhaust as well as proposed mitigation measures.*

#### **RESPONSE 35**

See Response 33.

**SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*Please discuss public health impacts due to pre-construction site preparation and construction equipment diesel exhaust as well as proposed mitigation measures.*

**RESPONSE 36**

See Response 33.

## **Reliability**

Technical Staff: Steve Baker  
Technical Senior: Steve Baker  
Project Manager: Cheri Davis

### **3.7 Reliability**

#### **3.7.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The changes resulting from the elimination of the five-mile transmission line are described in the revised Section 2.0 (Project Description) provided in this AFC Supplement.

#### **3.7.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (i) (3) (B) (v): The expected power plant maturation period.

##### **Information Required to Make AFC Conform with Regulations**

*Describe debugging period of systems and equipment during plant startup and testing*

##### **RESPONSE 37**

As each system in the plant is commissioned, the individual electrical and mechanical components will be tested and certified as fit for service (this includes pumps, fans, valves, piping, wiring, breakers, relays, and instruments). The devices for each system will be checked out individually and as a working system controlled remotely by an operator in the control room. Data will be taken at this time that will prove motors will not overheat at design maximum load and pumps are performing on their design pump curves. The systems will be started and stopped by remote and automatic control, and all permissives and interlocks will be checked out. Many problems will be found and corrected in this several-day process. When all of the necessary systems have been commissioned and all of the trips, permissives, and alarms for the main turbine control system have been verified, each unit will be cranked, started, and rolled to full speed. At this time the over-speed and other vital trips will be checked out and the generator will be excited and functionally tested. The machine will then be synchronized to the system and loaded. As load is increased in steps to full load, the fuel and air systems will be tuned to maximize performance and minimize air emissions. The machines will then be stopped and water washed before final performance tuning and the hot SCRs will be commissioned. During the final unit tuning, emissions will be minimized and performance will be maximized in a several-day tuning and reliability run. By this time the machines will have had many starts and several days of running at various loads and all modes of operation will have been checked and verified. Any malfunctioning equipment will have been replaced and the units will be capable of running for years with normal routine maintenance.

## **Socioeconomics**

Technical Staff: James Adams  
Technical Senior: Dale Edwards  
Project Manager: Cheri Davis

### **3.8 Socioeconomics**

#### **3.8.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115 kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the socioeconomics analysis and it is still expected that the TPP will not cause significant impacts to socioeconomics.

#### **3.8.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (g) (7) (A) (i): The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;

##### **Information Required to Make AFC Conform with Regulations**

*Please provide a list of the applicable local agencies other than San Joaquin County with taxing powers and their most recent and projected revenues.*

##### **RESPONSE 38**

San Joaquin County is the only agency with taxing powers on the parcel where the project site is located (Siojo, 2001a).

##### **Siting Regulations and Information**

Appendix B (g) (7) (A) (iii): Existing and projected unemployment rates;

##### **Information Required to Make AFC Conform with Regulations**

*Please provide projected unemployment rates.*

##### **RESPONSE 39**

Projected unemployment rates for San Joaquin County are not available from the California Employment Development Department, the San Joaquin Council of Governments, or the California Department of Finance (Funakoshi, 2001; Lee, 2001; Palada, 2001); however, the unemployment rate for the State of California as a whole is expected to increase to 5.0 percent in 2001, and 5.7 percent in 2002 (CDF, 2001a).

**Siting Regulations and Information**

Appendix B (h) (1) (B): Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.

**Information Required to Make AFC Conform with Regulations**

*Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.*

**RESPONSE 40**

Table 8.8-16 lists agencies with jurisdiction to enforce laws, regulations, standards and adopted local, regional, state and federal land use plans pertaining to socioeconomic values, and agencies that would have enforcement authority but for the authority of the CEC to certify this site.

***References***

California Department of Finance (CDF), 2001a. Latest Economic Data: California Forecasts. [http://www.dof.ca.gov/HTML/FS\\_DATA/LatestEconData/Forecasts/California.xls](http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/Forecasts/California.xls). September 6, 2001.

Funakoshi, Tad, 2001. Telephone communication between Tad Funakoshi, California Employment Development Department, and Katie McKinstry, URS Corporation. August 31, 2001.

Lee, Kai, 2001. Telephone communication between Kai Lee, San Joaquin Council of Governments, and Katie McKinstry, URS Corporation. July 18, 2001.

Palada, Cecilia, 2001. Telephone communication between Cecilia Palada, California Department of Finance, and Katie McKinstry, URS Corporation. September 6, 2001.

Siojo, Ed, 2001a. Email communication between Ed Siojo, San Joaquin County Auditor's Office, and Katie McKinstry, URS Corporation. September 6, 2001.

**New Tables for  
Section 8.8 (Socioeconomics)**

**Table 8.8-16**  
**Agencies with Jurisdiction and Enforcement Authority**

<b>Agency</b>	<b>Law or Regulation</b>
Office of Planning and Research, San Joaquin County	CEQA
San Joaquin County	San Joaquin County General Plan, school impact fees

## **Soil Resources**

Technical Staff: Lorraine White  
Technical Senior: Dick Anderson  
Project Manager: Cheri Davis

### **3.9 Soil Resources**

#### **3.9.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115 kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the soil resources analysis and it is still expected that the TPP will not cause significant impacts to soil resources.

#### **3.9.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (g) (1): ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.

##### **Information Required to Make AFC Conform with Regulations**

*Please provide information on proposed monitoring efforts to ensure success of mitigation measures, if any.*

*Please discuss any direct, indirect or cumulative impacts to soil quality associated with the conversion of agricultural land to industrial uses.*

##### **RESPONSE 41**

The provided mitigation measures address the reduction of soil erosion during construction of the TPP. All mitigation measures and verification/monitoring procedures should be described in SWPPP for the TPP construction, which the construction manager should have on-site. The mitigation measures can be monitored by visual observation and documentation of observations. During construction, and particularly after a rain event, the site and drainages should be inspected for signs of erosion (e.g., excess sediment accumulation in drainage areas). Observations should be recorded and evaluated. See also Response 42.

##### **Siting Regulations and Information**

Appendix B (g) (15) (C): An assessment of the effects of the proposed project on soil resources and agricultural land uses. This discussion shall include:

**Information Required to Make AFC Conform with Regulations**

*Please provide an assessment of the effects of the proposed site preparation and construction activities (grading, excavation, grubbing, revegetation, cut, fill, trenching, etc..) on soil uses and agricultural lands. Specify extent of grading, excavation, grubbing, cut, fill, trenching activities associated with this proposed project. Include information that would be required to obtain a grading permit for this project.*

**RESPONSE 42**

The total number of acres that will be affected by the TPP is 15. Of those 15 affected acres, only nine acres of the land will be permanently affected by the TPP. For soil uses, the TPP will be located on land covered by Stomar clay loam and Capay clay loam. Approximately 30 percent of the area is covered by Stomar clay loam (approximately 2.7 acres of the 9 acres) and 70 % of the area is covered by Capay clay loam (approximately 6.3 acres of the 9 acres). In San Joaquin County, there are a total of 10,960 acres of Stomar clay loam and a total of 25,015 acres of Capay clay loam (McElhiney, 1992). Therefore, the TPP will be permanently affecting only 2.7 acres out of 10,960 acres of Stomar clay loam, or 0.025 percent of the total amount of Stomar clay loam in San Joaquin County. The TPP will be permanently affecting only 6.3 acres out of the 25,015 acres of Capay clay loam, or 0.025 percent of the total amount of Capay clay loam in San Joaquin County.

Similarly, there are 494,000 acres of prime farmland in San Joaquin County (McElhiney, 1992). Only 9 acres out of 494,000 acres, or 0.0018 percent, will be permanently converted to industrial use. Therefore, a very small percentage of the total amounts of the soil types will be permanently affected and a very small percentage of prime farmland will be permanently converted to industrial use by the TPP.

Elevations on the TPP site range from 182 feet along the road to the south that parallels the Delta-Mendota Canal to 172 feet along the gas pipeline easement. The terrain is basically flat with a gradual slope of approximately 1.6% from the south to the north. Current drainage follows this existing slope.

The post-construction site grading and drainage will be achieved through a balanced cut-and-fill approach, requiring approximately 56,000 cubic yards of cut and approximately 56,000 cubic yards of fill. The cut is associated primarily with the excavation needed for the onsite stormwater percolation/evaporation basin. The final site grading and drainage will be designed to contain all runoff or drainage within the plant fence line. Runoff and noncontact stormwater will be directed by grading to drains or to a culvert system that will drain into the stormwater percolation/evaporation basin. The natural drainage outside of the plant fence line will not be altered. Appendix J1-1 of the AFC, Section 3.3.4, provides additional information regarding site drainage design criteria. Appendix J1-2 in the AFC provides preliminary site grading and drainage drawings. These drawings are now superseded by the drawings in Attachment 3.9-1, which detail the pre- and post-construction grading and drainage, including applicable soil and erosion control measures.

### Siting Regulations and Information

Appendix B (g) (15) (C) (iii): The effect of power plant emissions on surrounding soil-vegetation systems.

### Information Required to Make AFC Conform with Regulations

*Please provide an assessment of the plant's emissions on surrounding soil-vegetation systems.*

### RESPONSE 43

To assess the project's potential impacts on soils and vegetation in the immediate project area, maximum modeled NO<sub>2</sub> and SO<sub>2</sub> concentrations from the proposed combustion sources, as well as estimates of total nitrogen and sulfur deposition from these modeled concentrations, were compared against thresholds for significant impacts to vegetation and ecosystems published by the US Forest Service (USFS, 1992) for Class I Wilderness Areas. The soils and vegetation in the project area are not as sensitive as the ecosystems being protected by these sensitive USFS threshold levels.

For SO<sub>2</sub>, the USFS guidance states that maximum SO<sub>2</sub> concentrations below 40 parts per billion by volume (ppbv) and annual average SO<sub>2</sub> concentrations below eight ppbv will maximize protection of all California plant species. The results of the air dispersion modeling presented in Section 8.1 of the AFC (Table 8.1-24) were 3.55 µg/m<sup>3</sup> (1.4 ppbv) for a one-hour concentration and 0.03 µg/m<sup>3</sup> (0.01 ppbv) on an annual average at maximum impact locations, both values well below the USFS significance levels. As for NO<sub>2</sub>, the guidance recommends that annual NO<sub>2</sub> concentrations below 15 ppbv are protective of California plant species. The dispersion modeling results presented in Table 8.1-24 of the AFC show the maximum annual NO<sub>2</sub> concentration due to the project to be 0.34 µg/m<sup>3</sup> (0.18 ppbv), again well below the USFS significance level.

The USFS guidance also presents significance thresholds for impacts to soils due to total nitrogen and sulfur deposition. For the purposes of this assessment, it was assumed that at the locations of maximum modeled NO<sub>2</sub> and SO<sub>2</sub>, all of the nitrogen and sulfur in these gases convert to elemental nitrogen and sulfur in the particulate phase, and deposit on the ground at these locations. This, of course, is extremely conservative, as this would not physically occur. This calculation was performed by multiplying the maximum modeled airborne concentrations by a deposition velocity factor of 0.02 meters per second, which is consistent with the methodology used by the California Air Pollution Control Officers Association (CAPCOA) for estimating potential health risks due to deposition from sources of toxic PM<sub>10</sub> emissions (CAPCOA, 1993).

For total sulfur deposition, the USFS guidance states that an annual value of five kilograms per hectare per year (kg/ha-yr) is protective from potential toxic effects. (A hectare is an area of 10,000 square meters.) For total nitrogen deposition, the USFS guidance gives a no-injury value of three kg/ha-yr. The modeled annual SO<sub>2</sub> concentration of 0.03 µg/m<sup>3</sup> and annual NO<sub>2</sub> concentration of 0.34 µg/m<sup>3</sup> yields total sulfur and nitrogen deposition estimates of 0.09 kg/ha-yr and 0.65 kg/ha-yr, respectively, at the maximum impact locations:

**S deposition:**

$$0.03 \mu\text{g}/\text{m}^3 \times (32 \text{ g S}/64 \text{ g SO}_2) \times 0.02 \text{ m/s} \times (3.1536 \times 10^7 \text{ s/yr}) \times 10^{-5} (\text{kg/ha})/(\mu\text{g}/\text{m}^2) = 0.09 \text{ kg/ha-yr}$$

**N deposition:**

$$0.34 \mu\text{g}/\text{m}^3 \times (14 \text{ g N}/46 \text{ g NO}_2) \times 0.02 \text{ m/s} \times (3.1536 \times 10^7 \text{ s/yr}) \times 10^{-5} (\text{kg/ha})/(\mu\text{g}/\text{m}^2) = 0.65 \text{ kg/ha-yr}$$

With the extremely conservative assumptions employed, both values are below the applicable USFS thresholds. In summary, the maximum modeled airborne concentrations of NO<sub>2</sub> and SO<sub>2</sub> from the combustion sources at the proposed Tracy Peaker Project results in potential gaseous concentrations and total nitrogen and sulfur deposition values well below levels of concern for California plants and soils in Class I Wilderness Areas, as published by the USFS. The soils and vegetation in the project area are not as sensitive as the ecosystems being protected by these sensitive USFS threshold levels. Thus, the plant's emissions will have an insignificant impact on surrounding soil-vegetation systems.

**References:**

California Air Pollution Control Offices Association. 1993. Air Toxics "Hot Spots" Program, Revised 1992 Risk Assessment Guidelines.

U.S. Forest Service (USFS). 1992. *Guidelines for evaluating air pollution impacts on Class I wilderness areas in California*. General Technical Report PSW-GTR-136.

**Siting Regulations and Information**

Appendix B (h) (1) (A): Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;

**Information Required to Make AFC Conform with Regulations**

*Please include any local requirements for grading, stormwater management, and/or drainage that would apply if not for the Commission's jurisdiction.*

**RESPONSE 44**

The soils in the TPP area have a high shrink-swell potential. Therefore, according to the San Joaquin County Community Development Department, Building Inspection Division, footings for building foundations should be located at least 18 inches below the ground surface.

Chapter 9-1405 of the San Joaquin County Community Development Department regulations sets forth the development standards for grading and excavation. These regulations are included in Attachment 3.9-2. The development standards incorporate the requirements of Chapter 70 of the Uniform Building Code (UBC) by reference and generally require that grading not obstruct, impede, or interfere with the natural flow of stormwaters, cause flooding or accelerated erosion. Stormwater drainage must generally be managed onsite (Personal communication with Chandler Martin, San Joaquin County Community Development

Department, October 1, 2001.) The County will also require a Stormwater Pollution Prevention Plan (SWPPP) that implements Best Management Practices (BMPs) during construction.

The site grading will conform with the requirements of the UBC and the California Building Code. In addition, as described in revised Section 8.14.2 in this Supplement, all drainage will be maintained onsite (directed to an onsite stormwater evaporation/percolation basin) and will not interfere with the historical drainage patterns of adjoining properties. An SWPPP that is specific to the Tracy Peaker Project will be developed and submitted to the CEC within 30 days of CEC determination of data adequacy for the AFC for the TPP.

**Siting Regulations and Information**

Appendix B (h) (1) (B): Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.

**Information Required to Make AFC Conform with Regulations**

*Please include any local agencies with jurisdiction regarding grading, soil conservation, Williamson Act cancellation, stormwater management, and or drainage.*

**RESPONSE 45**

San Joaquin County has already approved the non-renewal of the Williamson Act contract. The following list provides local contacts that will review the stormwater, drainage, and grading plans for the TPP.

Agency	Contact/Title	Telephone
County of San Joaquin Community Development Department 1810 E. Hazelton Ave. Stockton, CA 95205	Chandler Martin Senior Planner	(209) 468-3144
City of Tracy Department of Development and Engineering Services 520 N. Tracy Blvd. Tracy, CA 95376	Mr. William Reeds Director of Development and Engineering Services Mr. Bill Dean Associate Planner	(209) 831-4600
San Joaquin County Community Development Department, Building Inspection Division 1810 E. Hazelton Ave. Stockton, CA 95205	Dennis Rock Plan Check Engineer	(209) 468-3121

**Siting Regulations and Information**

Appendix B (h) (2): A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).

**Information Required to Make AFC Conform with Regulations**

*Please include any local requirements for grading, stormwater management, and or drainage. Include in this information grading and excavation requirements related to the development within the unincorporated area of San Joaquin County.*

**RESPONSE 46**

The soils in the TPP area have a high shrink-swell potential. Therefore, according to the San Joaquin County Community Development Department, Building Inspection Division, footings for building foundations should be located at least 18 inches below the ground surface.

Please also see Response 44.

**Siting Regulations and Information**

Appendix B (h) (3): The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.

**Information Required to Make AFC Conform with Regulations**

*Please include any local agencies with jurisdiction regarding grading, soil conservation, Williamson Act cancellation, stormwater management, and or drainage.*

**RESPONSE 47**

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Agency	Contact/Title	Telephone
County of San Joaquin Community Development Department 1810 E. Hazelton Ave. Stockton, CA 95205	Chandler Martin Senior Planner	(209) 468-3144
City of Tracy Department of Development and Engineering Services 520 N. Tracy Blvd. Tracy, CA 95376	Mr. William Reeds Director of Development and Engineering Services Mr. Bill Dean Associate Planner	(209) 831-4600
San Joaquin County Community Development Department, Building Inspection Division 1810 E. Hazelton Ave. Stockton, CA 95205	Dennis Rock Plan Check Engineer	(209) 468-3121

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**Siting Regulations and Information**

Appendix B (h) (4): A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.

**Information Required to Make AFC Conform with Regulations**

*Please include any local requirements for grading, Williamson Act cancellation, stormwater management, and or drainage.*

**RESPONSE 48**

The soils in the TPP area have a high shrink-swell potential. Therefore, according to the San Joaquin County Community Development Department, Building Inspection Division, footings for building foundations should be located at least 18 inches below the ground surface.

Please see Responses 44 and 45.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All) : [a]ssure that the thermal power plant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*For mitigation measures stated, please provide proposed verification measures to ensure that the power plant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation.*

*If creeks, sloughs or drainages are crossed, please provide a description of the proposed conditions of certification that will ensure the construction of linear facilities will not have a significant adverse effect on the environment.*

**RESPONSE 49**

See Response 41 for proposed verification measures. Creeks, sloughs, or drainages will not be crossed by linear facilities.

**SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*If creeks, sloughs or drainages are crossed, please provide information on laws, regulations, ordinances, standards or permits that may be required.*

**RESPONSE 50**

Creeks, sloughs, or drainages will not be crossed.

**Agriculture and Soils (Section 8.9 in AFC)**

**Revised Figures 8.9-1 and 8.9-2**

**Attachment 3.9-1**

**Preliminary Site Grading and Drainage Drawings**

**Attachment 3.9-2**

**San Joaquin County Community Development Department**

**Grading and Excavating Regulations**

## **Traffic and Transportation**

Technical Staff: David Young  
Technical Senior: Eileen Allen  
Project Manager: Cheri Davis

### **3.10 Traffic and Transportation**

#### **3.10.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The Tracy Peaker Project (TPP) has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115 kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the traffic analysis and it is still expected that the TPP will not cause significant impacts to traffic.

#### **3.10.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (g) (5) (B): An identification, on topographic maps at a scale of 1:24,000 and a description of existing and planned roads, rail lines, including light rail, bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:

##### **Information Required to Make AFC Conform with Regulations**

*Provide a topographic map at a 1:24,000 scale with all requirements listed in Appendix B (g) (5) (A)*

##### **RESPONSE 51**

Figure 8.10-2 displays most of the required items at the required scale of 1:24,000, while some items are displayed on Figure 8.10-1, as follows:

- Existing roads: Figures 8.10-1 & 2 (no new public roads are planned).
- Planned TPP site access road easement: Figure 8.10-2.
- Existing rail lines: Figures 8.10-1 and 8.10-2 (no new rail lines are planned).
- Airports: Figure 8.10-1 (none occur near enough to the TPP site to be displayed on Figure 8.10-2).
- Pipelines: Figure 8.10-2.
- Canals: Figures 8.10-1 and 8.10-2.

Note: There are no bus routes or bike trails directly serving the TPP site or surrounding vicinity. Consequently, they are not displayed on figures submitted with the AFC.

**Siting Regulations and Information**

Appendix B (g) (5) (B) (i): Road classification and design capacity;

**Information Required to Make AFC Conform with Regulations**

*Need to include classification for all roadways listed in tables 8.10-2 and 8.10-4*

**RESPONSE 52**

Roadway design capacity information is provided in Tables 8.10-2 and 8.10-4. See also list of roadways and corresponding classifications by segment.

**Siting Regulations and Information**

Appendix B (g) (5) (B) (iii): Current and projected levels of service before project development, during construction, and during project operation;

**Information Required to Make AFC Conform with Regulations**

[No text provided in data adequacy table.]

**RESPONSE 53**

Levels of service before project development are provided in Table 8.10-2. Levels of service during construction of the TPP are shown in Table 8.10-7. Because the operation of the TPP will only generate eight vehicle trips per day, the impact will be insignificant. Therefore, levels of service during TPP operation are shown in Table 8.10-2.

**Siting Regulations and Information**

Appendix B (g) (5) (B) (vi): An identification of any road features affecting public safety.

**Information Required to Make AFC Conform with Regulations**

*Identify and discuss any road features that affect or could potentially affect public safety.*

**RESPONSE 54**

There are no existing or planned road features affecting public safety in the TPP vicinity. Consequently, no information about such features was provided in the AFC.

**Siting Regulations and Information**

Appendix B (g) (5) (C): A description of any new, planned, or programmed transportation facilities in the project vicinity, including those necessary for construction and operation of the proposed project. Specify the location of such facilities on topographic maps at a scale of 1:24,000.

**Information Required to Make AFC Conform with Regulations**

*Provide topographical map with a scale of 1:24,000 of any planned transportation facilities in the project vicinity or planned project-related facilities.*

**RESPONSE 55**

The planned TPP site access road easement is displayed on Figure 8.10-2 at the required scale of 1:24,000.

There are no new public transportation facilities planned that would serve the TPP vicinity. Improvements to existing public roadways serving regional and local traffic associated with the TPP site are outlined in the AFC on pages 8.10-7 and 8.10-8 under Section 8.10.2.1.

See the following additional information:

- List of the above-mentioned roadway improvements that occur in the immediate TPP vicinity (7 in total)
- Faxed map displaying the approximate locations of these 7 roadway improvements

**Siting Regulations and Information**

Appendix B (h) (1) (A): Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;

**Information Required to Make AFC Conform with Regulations**

*Table needs to explicitly reference sections or pages within the application wherein conformance with each law and standard during construction and operation of the facility is discussed.*

**RESPONSE 56**

See revised Table 8.10-8.

**Revised and New Tables and Figures for  
Section 8.10 (Traffic and Transportation)**

## **TABLES**

**Table 8.10-8. Compliance With Laws, Ordinances, Regulations, and Standards**

Authority	Administering Agency	Requirements	Compliance	AFC Section & Pages
49 CFR, Chapter II, Subchapter C and Chapter III, Subchapter B	U.S. Department of Transportation and California Department of Transportation (Caltrans)	Requires proper handling and storage of hazardous materials during transportation.	Project and transportation will comply with all standards for the transportation of hazardous materials.	Section 8.10.3.2: pages 8.10-15 & 16 Section 8.10.3.3: pages 8.10-17 & 18
CA Vehicle Code Section 35780; CA Streets & Highways Code Sections 660-711; 21 CCR 1411.1-1411.6	Caltrans	Requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.	Transportation permits will be obtained by transporters for all overloads, as required.	Section 8.10.2.2: pages 8.10-9 & 10 Section 8.10.3.2: page 8.10-14
CA Streets & Highways Code Sections 117, 660-711	Caltrans	Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery.	Encroachment permits will be obtained by transporters, as required.	Section 8.10.2.2: pages 8.10-9 & 10
CA Vehicle Code Section 31300 et seq.	Caltrans	Requires transporters to meet proper storage and handling standards for transporting hazardous materials on public roads.	Transporters will comply with standards for transportation of hazardous materials on state highways during construction and operations.	Section 8.10.3.2: pages 8.10-15 & 16 Section 8.10.3.3: page 8.10-17
San Joaquin County General Plan Circulation Element	San Joaquin County Community Development Department	Specifies long-term planning goals and procedures for transportation infrastructure system quality in San Joaquin County.	Project will comply with goals and policies for county transportation system.	Section 8.10.3.2: pages 8.10-13 & 14
San Joaquin County Hazardous Waste Management Plan	San Joaquin County Community Development Department	Specifies goals for the safe and effective transfer of hazardous wastes through the county.	Transporters will comply with standards for transportation of hazardous materials on county-maintained local roadways and state highways during construction and operations.	Section 8.10.3.2: page 8.10-16 Section 8.10.3.3: pages 8.10-17 & 18

CCR = California Code of Regulations  
CFR = Code of Federal Regulations

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**Table 8.10-9**  
**Planned Roadway Improvements in the TPP Vicinity**

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- (1) **I-205 from Patterson Pass Road westbound:** Add 2-lane auto/truck separator. Estimated date of construction completion: by year 2005.
  - (2) **I-205 at Patterson Pass Road:** New overcrossing and ramp widening. Estimated date of construction completion: by year 2015.
  - (3) **I-580 from Patterson Pass Road to Alameda County line (post miles 13.4 to 15.3):** Widen from four to six lanes. Estimated date of construction completion: by year 2021.
  - (4) **Patterson Pass Road from Schulte Rd. to I-580:** Widen to four lanes. Estimated date of construction completion: by year 2010.
  - (5) **Patterson Pass Road from I-205 to Schulte Rd. 1.4 miles:** Widen to six lanes. Estimated date of construction completion: by year 2010.
  - (6) **Schulte Road from Patterson Pass Rd. to Safeway (Hansen Rd., near I-580) 0.8 miles:** Widen. Estimated date of construction completion: by year 2010.
  - (7) **Schulte Road from Hansen Rd. to Lammers Rd. 2 miles:** Widen to 4 lanes. Estimated date of construction completion: by year 2010.
-

**Table 8.10-10**  
**Classifications of Highways and Roadways in the TPP Vicinity**

<b>Milepost (County) / Location</b>	<b># of Lanes</b>	<b>Highway Classification</b>
<b>Interstate 580</b>		
8.27 - 5.98 (ALA) Livermore, Greenville Rd. to North Flynn Rd.	8	Freeway, 8 lanes
5.98 - 1.48 (ALA) North Flynn Rd. to Grant Line Rd.	8	Freeway, 8 lanes
1.48 - 0.39 (ALA) Grant Line Rd. to I-205	8	Freeway, 8 lanes
0.39 - 0.09 (ALA) I-205 to Alameda/San Joaquin Co. Line	4	Freeway, 4 lanes
15.34 - approx. 13.5 (SJ) Alameda/San Joaquin Co. Line to Patterson Pass Rd.	4	Freeway, 4 lanes
8.15 - 4.34 (SJ) Corral Hollow Rd. to SR-132	4	Freeway, 4 lanes
4.34 - 0.0 (SJ) SR-132 to I-5 (begin Freeway)	4	Freeway, 4 lanes
<b>Interstate 205</b>		
0.21 - 0.0 (ALA) I-580 to Alameda/San Joaquin Co. Line	5	Freeway, 5 lanes
0.0 - 1.38 (SJ) Alameda/San Joaquin Co. Line to Patterson Pass Rd.	4	Freeway, 4 lanes
1.38 - 3.37 (SJ) Patterson Pass Rd. to Old Route 50	4	Freeway, 4 lanes
3.37 - 8.13 (SJ) Old Route 50 to MacArthur Dr.	4	Freeway, 4 lanes
8.13 - 12.69 (SJ) MacArthur Dr. to I-5	4	Freeway, 4 lanes
<b>Interstate 5</b>		
22.99 - 0.0 (STA) Ingram Creek (Howard Rd.) to Stanislaus/San Joaquin Co. Line	4	Freeway, 4 lanes
0.0 - 0.63 (SJ) Stanislaus/San Joaquin Co. Line to I-580	4	Freeway, 4 lanes
12.62 - 14.83 (SJ) I-205 to SR-120	6	Freeway, 6 lanes
<b>State Route 132</b>		
0.0 - 3.24 (SJ) I-580 to I-5	4	Freeway, 4 lanes

Source: 1997 Route Segment Report. California Department of Transportation. Sacramento, CA

**Table 8.10-10 (continued)**  
**Classifications of Highways and Roadways in the TPP Vicinity**

<b>Roadway / Location</b>	<b># of Lanes</b>	<b>Roadway Classification</b>
<b>Patterson Pass Road</b>		
I-580 to Schulte Rd.	2 lane	Collector
Schulte Rd. to I-205	2 lane	Collector
<b>Schulte Road</b>		
Patterson Pass Rd. to Delta Mendota Canal/Hansen Rd.	4 lane	Minor Arterial
Delta Mendota Canal/Hansen Rd. to TPP access road	2 lane	Collector
TPP access road to Lammers Rd.	2 lane	Collector
<b>Lammers Road</b>		
Schulte Rd. to Valpico Rd.	2 lane	Collector
<b>Valpico Road</b>		
Lammers Rd. to Corral Hollow Rd.	2 lane	Collector
<b>Corral Hollow Road</b>		
Valpico Rd. to I-580	2 lane	Collector

Source: San Joaquin County Community Development Department, 2001. *San Joaquin County General Plan 2010 Circulation Element*. As amended, originally adopted July 29, 1992.

## **FIGURES**

## **Visual Resources**

Technical Staff: Gary Walker  
Technical Senior: Dale Edwards  
Project Manager: Cheri Davis

### **3.11 Visual Resources**

#### **3.11.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line**

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115 kV transmission line that crosses the GWF parcel. Because there will be no new overhead transmission lines beyond the GWF parcel, the simulated transmission crossing shown in KOP-6 is no longer accurate (i.e., before and after views would be identical, since there is no new construction in this view) and KOP-6 should be ignored. Beyond this change, there are no substantive modifications required for the visual resources analysis and it is still expected that the TPP will not cause significant impacts to visual resources.

#### **3.11.2 Data Adequacy Issues**

##### **Siting Regulations and Information**

Appendix B (g) (1): ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.

##### **Information Required to Make AFC Conform with Regulations**

*Submittal of the information requested below will satisfy this requirement.*

##### **RESPONSE 57**

See Responses 59 through 65.

##### **Siting Regulations and Information**

Appendix B (g) (6) (A): Descriptions of the existing visual setting of the vicinity of the project, the region that can be seen from the vicinity of the project, and the proposed project site. Include:

##### **Information Required to Make AFC Conform with Regulations**

*Submittal of the information requested below will satisfy this requirement.*

##### **RESPONSE 58**

See Responses 59 through 65.

**Siting Regulations and Information**

Appendix B (g) (6) (A) (i): Topographic maps at a scale of 1:24,000 of the areas from which the project may be seen, identification of the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(E);

**Information Required to Make AFC Conform with Regulations**

*Figure 8.11.1 does not show the areas from which the project may be seen and does not show Key Observation Point 1. Please revise Figure 8.11-1 to show these features.*

**RESPONSE 59**

Figure 8.11-1 has been modified to reflect these changes. KOP-1 had been included on the original figure but was inadvertently obstructed by a label placed in the figure for the water supply line.

**Siting Regulations and Information**

Appendix B (g) (6) (B): An assessment of the visual quality of those areas that will be impacted by the proposed project.

**Information Required to Make AFC Conform with Regulations**

*The AFC provides an assessment of the factors (vividness, intactness, and unity) that, according to the methodology used, contribute to visual quality. However, the AFC does not derive from those factors an assessment of the visual quality of those areas that will be impacted by the proposed project, including KOPs 1 through 6. Please provide such an assessment.*

**RESPONSE 60**

The visual resources section addresses the parameters of vividness, intactness and unity for each of the selected key observation points (KOPs). Based on FHWA guidelines, the rating system shown in new Table 8.11-2 (tables located at end of Section) can be employed to determine overall visual quality. Overall visual quality is determined by averaging the numerical score of the three parameters to obtain the corresponding overall visual quality rating. New Tables 8.11-3 and 8.11-4 apply the methodology to rate the overall visual quality at each of the KOPs before and after construction of the TPP. Note that the rating for KOP-6 is no longer relevant. As shown in these tables, there are no significant changes to visual quality.

**Siting Regulations and Information**

Appendix B (g) (6) (C): After discussions with staff and community residents who live in close proximity to the proposed project, identify the scenic corridors and any visually sensitive areas potentially affected by the proposed project, including recreational and residential areas. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. For purposes of this section, a scenic corridor is that area of land with scenic natural beauty, adjacent to and visible from a linear feature, such as a road, or river.

**Information Required to Make AFC Conform with Regulations**

*Please indicate the approximate number of people using each of the sensitive areas identified in the AFC, including KOPs 1 through 6. For KOPs representing residences, please specify the number of residences. For KOPs representing roadways, please provide the average daily traffic (ADT).*

*The AFC does not indicate that the applicant consulted with CEC staff or community residents to identify the scenic corridors and any visually sensitive areas potentially affected by the project. CEC staff may request the establishment of additional KOPs in the discovery phase after conducting a field reconnaissance.*

**RESPONSE 61**

New Table 8.11-5 provides the requested information. The applicant notes that the CEC may request the establishment of additional KOPs in the discovery phase after conducting a field reconnaissance.

**Siting Regulations and Information**

Appendix B (h) (1) (A): Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;

**Information Required to Make AFC Conform with Regulations**

*The AFC states that scenic resources are addressed in the open space element of the San Joaquin County General Plan, but does not specify the policies, objectives, standards, or guidelines in the plan or discuss the applicability of each to the proposed project. Please identify those items in the plan and provide a discussion of their applicability to the project.*

**RESPONSE 62**

The only specific policy potentially applicable to visual resources related to designated scenic route within the Open Space portion of the plan. Interstate 580 between Alameda and Stanislaus County lines is identified in Figure VI-2 of the plan as a scenic route. Open Space Policy 12 states “The County should recognize the roads shown in Figure VI-2 as scenic routes and as valuable in enhancing the recreational experience for County residents and non-residents.” Item 7 under the implementation portion of this element specifies that “The County shall ... (b) require landscape plans for development along scenic routes; (Planning)... Although no significant impacts are expected from viewers on Interstate 580, in accordance with this policy it is recommended that TPP submit a landscaping plan for the facility that will serve to buffer the visual appearance of the facility from Interstate 580. Appendix K includes a suggested condition to conform with this policy.

**Siting Regulations and Information**

Appendix B (h) (2): A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).

**Information Required to Make AFC Conform with Regulations**

*The AFC states that the project will comply with applicable laws, ordinances, regulations, and standards, but does not specify the visual resources policies, objectives, standards, or guidelines of the San Joaquin County General Plan applicable to the project and does not discuss the conformity of the project with them. Please provide such a discussion.*

**RESPONSE 63**

See Response 62.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*Until all of the data required to fulfill the 12-month data adequacy requirements regarding visual resources is provided, it is not possible to determine whether the proposed conditions will assure that the project will not have a significant adverse effect on the environment. Please discuss mitigation measure that may be necessary.*

**RESPONSE 64**

See Response 62. No significant impacts to visual resources are expected.

However, to conform with County policy, a landscaping plan is proposed to ensure that views of the facility from Interstate 580 are appropriately buffered.

**SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*The AFC states that scenic resources are addressed in the open space element of the San Joaquin County General Plan, but does not a) specify the policies, objectives, standards, or guidelines in the plan, b) discuss the applicability of each to the proposed project, or c) discuss the project's conformity with them. Therefore, it is unclear what conditions are required for the project to comply with those policies, objectives, standards, or guidelines. Please a) identify those policies, objectives, standards, and guidelines in the San Joaquin County General Plan that are applicable to the project, b) provide a discussion of the applicability of each item to the project, c) provide a discussion of the project's compliance*

*with each item and d) identify any conditions needed to result in compliance with all items.*

**RESPONSE 65**

See Responses 62 through 64. GWF is proposing to landscape the facility to buffer views from Interstate 580 in accordance with the County's Open Space policy.

**Revised Tables and Figures for Section 8.11 (Visual Resources)**

## **Revised Tables**

**Table 8.11-2**  
**Visual Quality Rating System**

<b>Rating</b>	<b>Vividness</b>	<b>Intactness</b>	<b>Unity</b>	<b>Visual Quality</b>
Very high	7	7	7	7
High	6	6	6	6
Moderately high	5	5	5	5
Average	4	4	4	4
Moderately low	3	3	3	3
Low	2	2	2	2
Very low	1	1	1	1

**Table 8.11-3**  
**Baseline Visual Quality at Selected Key Observation Points**

<b>Base Case</b>	<b>Vividness</b>	<b>Intactness</b>	<b>Unity</b>	<b>Visual Quality</b>	<b>Visual Quality</b>
KOP 1	3	3	3	3.0	Moderately low
KOP 2	2	3	3	2.7	Moderately low
KOP 3	5	3	3	3.7	Average
KOP 4	4	2	2	2.7	Moderately low
KOP 5	2	2	2	2.0	Low
KOP 6	Eliminated from consideration based on change in transmission interconnection				
KOP 7	3	4	5	4.0	Average

**Table 8.11-4  
Visual Quality at Selected Key Observation Points Following TPP Construction**

Future Case	Vividness	Intactness	Unity	Visual Quality	Visual Quality
KOP 1	3	3	3	3.0	Moderately low
KOP 2	3	3	3	3.0	Moderately low
KOP 3	5	3	3	3.7	Average
KOP 4	4	2	2	2.7	Moderately low
KOP 5	2	2	2	2.0	Low
KOP 6	Eliminated from consideration based on change in transmission interconnection				
KOP 7	2	2	2	2.0	Low

**Table 8.11-5  
Characteristics of Key Observation Points**

	Approximate Number of Residences	AADT <sup>1</sup>	Comments
KOP 1	6	2500	Lammers Rd between Schulte Rd. and Valpico Rd.
KOP 2	1	7500	Schulte Rd between Patterson Rd. & Hansen Rd
KOP 3	1	NA <sup>3</sup>	NA
KOP 4	1	NA	NA
KOP 5	1	NA	NA
KOP 6	NA	28500	I-580 to county line
KOP 7	none <sup>2</sup>	NA	NA

<sup>1</sup> AADT = Annual average daily traffic (see Tables 8.10-2 and 8.10-4)

<sup>2</sup> There are no residences at KOP-7. This view is from the Delta Mendota Canal access road operated by the US Government

<sup>3</sup> NA = not applicable

**Figures**

## **Water Resources**

Technical Staff: Lorraine White  
 Technical Senior: Dick Anderson  
 Project Manager: Cheri Davis

### 3.12 Water Resources

#### 3.12.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line

No major changes; one mitigation measure is now unnecessary and has been removed from the section. Other minor revisions made to the technical analysis to remove reference to the line.

#### 3.12.2 Data Adequacy Issues

##### Siting Regulations and Information

Appendix B (g) (1): ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.

##### Information Required to Make AFC Conform with Regulations

- (1) *Please provide more information on the disposal of the project wastewater and any mitigation measures or monitoring activities to be undertaken to ensure no adverse environmental impacts.*
- (2) *Please provide an analysis of the potential direct, indirect and cumulative impacts to the McKittrick Waste Treatment (Class II) facility to which the waste sludge will be disposed. Include information on the expected frequency of trucking the wastewater from the site.*
- (3) *Additional projects are proposed in the Tracy and Mountain House area, including power generation. Please discuss indirect and cumulative impacts due to this project in relationship with these other projects.*
- (4) *Please provide information on any monitoring activities needed to ensure that the project will not have adverse impacts on surface and groundwater resources, the Tracy Biomass facility, and potential resolution in the event impacts are discovered.*

#### RESPONSE 66

(1) Additional detail on wastewater disposal has been added to Section 8.14.2 under “Impacts on Surface Water Use and Storage.” Mitigation measure WR-5 has been expanded to address the performance of the waste hauler. Additional mitigation measures and monitoring programs addressing the disposal site are not necessary since the project wastewater will be hauled to a licensed Class II facility. The facility is responsible for performing these duties consistent with its existing permits and licenses.

(2) Wastewater from the TPP facility would be generated at an average rate of approximately 1,300 gallons per day. This wastewater would be stored in an onsite tank. Approximately twice each week, the contents (approximately 4,600 gallons) of the onsite wastewater storage tank would be removed and trucked to the McKittrick Class II facility. Attachment 3.12-1 provides a copy of a letter from Waste Management indicating that the McKittrick facility has the capacity to receive up to 100,000 gallons/day of liquid waste. The letter in Attachment 3.12-1 also indicates that the operator of the facility has reviewed the anticipated wastewater quality and quantity from the TPP and has concluded that the wastewater appears to be acceptable for disposal at the facility. The McKittrick facility has historically operated at 65% of its capacity and is designed for an operational life in excess of 30-years (Personal conversation with Darron Stankey, Waste Management, October 5, 2001). Based on historical practices, in excess of approximately 30 years of life remain at the facility (assuming operation at maximum capacity). The TPP wastewater discharge volume (4,600-gallon transfer volume) represents an extremely small fraction of the total capacity of the McKittrick facility (less than 0.00046%). Because the facility is operating well below its rated capacity, the TPP will have no significant direct effect on the facility. Furthermore, the small quantity of TPP wastewater flowing to the McKittrick facility is well within the facility's current capacity, and no expansion of the landfill is therefore necessary to accommodate the TPP flow for the project's life. Accordingly, no indirect effects are associated with the TPP wastewater flow to the McKittrick facility. Finally, the McKittrick facility does not anticipate that the receipt of TPP wastewater would jeopardize the facility's ability to accommodate future unidentified projects that may seek to dispose of wastewater at the facility in any significant way (Personal conversation with Darron Stankey, Waste Management, October 5, 2001).

(3) Section 8.14.3 has been expanded to address cumulative impacts from other known development proposals in the project vicinity. Since little information concerning the proposed source of water supply for these projects is available, it is not possible to provide a detailed assessment of potential regional impact. However, since the impacts of the TPP will be fully mitigated, no cumulative impacts (TPP plus other developments) are expected to occur. Two other power generation projects are being planned for the area: the East Altamont power plant and the Florida Power and Light Tesla Combined Cycle project. The former is addressed in an expanded Section 8.14.3; no details on the latter are yet available, so no determination on possible cumulative impact is possible.

(4) New mitigation measures WR-7 and WR-8 address monitoring activities pertaining to TPP construction and operation. Specific monitoring for construction will be addressed in more detail in the construction SWPPP/spill prevention plan. No adverse impacts to the Tracy Biomass facility are expected to occur.

### **Siting Regulations and Information**

Appendix B (g) (14) (A) (i) Waste Discharge Requirements; and (ii): a National Pollutant Discharge Elimination System Permit.

### **Information Required to Make AFC Conform with Regulations**

*Please provide information on any requirements that must be met in order for the McKittrick (or any other) treatment facility to accept the wastewater discharge from the power plant. Please provide all information required by the regional*

*board to apply for an NPDES permit, or explain why this information is not needed. Please provide information that would be required to accompany a Form 200 (NOI) for this project to apply for a construction related NPDES permit.*

**RESPONSE 67**

(i) See Response 66.

(ii) A Notice of Intent (NOI) has been filed with the Regional Water Quality Control Board (RWQCB) for coverage under the general permit for stormwater discharges associated with construction activities. The required vicinity map is also included in the AFC. All other information will be included in the stormwater pollution prevention plan (SWPPP), which will include spill prevention, erosion control, and revegetation components. The SWPPP will be completed prior to the commencement of construction activity on the site. Specific details concerning the location and design of best management practices are not yet known and will thus be addressed in the SWPPP. No NPDES permit for industrial operation will be needed. The NOI is provided as Attachment 3.12-2.

The information accompanying the Form 200 included the general site location map from the AFC (Figure 1-2) and the original site grading and drainage drawings in Appendix J1-2 (now superseded by the grading and drainage drawings in Attachment 3.9-1).

**Siting Regulations and Information**

Appendix B (g) (14) (B) (i) : Ground water bodies and related geologic structures;

**Information Required to Make AFC Conform with Regulations**

*Please provide a hydrostratigraphic map at appropriate scale and the chemical characteristics of ground water bodies and related geologic structures. Revised Figure 8.15-5 not included in supplemental material.*

**RESPONSE 68**

The original version of the AFC incorrectly referred to Figure 8.15-5 in Section 8.14 (Water Resources). This reference has been corrected in the revised Section 8.14 (Water Resources) provided in this Supplement to refer to new Figure 8.14-3. A map showing the depths to groundwater within the project vicinity has been added as new Figure 8.14-2. Data concerning the chemical and physical characteristics of local groundwater have been added in Table 8.14-2. These data should be reviewed in conjunction with the geotechnical report in Appendix J3 of the AFC and new Figure 8.14-2 (Regional Groundwater Levels).

**Siting Regulations and Information**

Appendix B (g) (14) (B) (ii): Surface water bodies; and

**Information Required to Make AFC Conform with Regulations**

*(1) It appears in Figure 2-2 that proposed linear facilities will cross surface water bodies. Please clarify and provide required chemical and physical characteristics for the surface water bodies crossed by proposed linear facilities.*

*(2) Please provide required chemical and physical characteristics for the surface water bodies that will either receive stormwater runoff from the site and or any wastewater (as disposed of by the third party hauler) from the project.*

**RESPONSE 69**

(1) The electric transmission line has been eliminated from the project. Neither the access road nor the water supply pipeline will cross any surface water drainages or other water bodies.

(2) Noncontact stormwater from the TPP site, including the access road south of the railroad track crossing will be directed to the onsite evaporation/percolation basin and will not be discharged to any surface water body. Contact stormwater from the TPP site (from maintenance and plant component and equipment areas) will be collected within bermed or otherwise confined drainage areas and directed to an onsite holding tank, from which it will be transported offsite by EnVectra along with plant wastewater (the nonrecyclable portion). EnVectra will dispose of this liquid and solid material at the McKittrick Waste Treatment Site in Kern County, a licensed Class II disposal facility. Thus, no contact stormwater or project wastewater will be discharged to any surface water body.

**Siting Regulations and Information**

Appendix B (g) (14) (C) (i): Source of the water and the rationale for its selection, and if fresh water is to be used for power plant cooling purposes, a discussion of all other potential sources and an explanation why these sources were not feasible;

**Information Required to Make AFC Conform with Regulations**

*Please provide information on the source of water for construction-related activities and the rationale for its use.*

**RESPONSE 70**

Information has been added to Section 8.14.1.2.

**Siting Regulations and Information**

Appendix B (g) (14) (C) (ii): The physical and chemical characteristics of the source and discharge water;

**Information Required to Make AFC Conform with Regulations**

*Please provide the physical and chemical characteristics of the discharge water.*

**RESPONSE 71**

Information has been added in Table 8.14-5.

**Siting Regulations and Information**

Appendix B (g) (14) (C) (iii): Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project; and

**Information Required to Make AFC Conform with Regulations**

*Please provide information on the average and maximum daily water demand and waste water discharge for construction phases of the project.*

**RESPONSE 72**

Information added to Section 8.14.1.2.

**Siting Regulations and Information**

Appendix B (g) (14) (C) (iv): A description of all facilities to be used in water conveyance, treatment, and discharge. Include a water mass balance diagram.

**Information Required to Make AFC Conform with Regulations**

*(1) Please provide information on the proposed disposal of the project's effluent. More information is required about the ultimate disposal method and possible impacts associated with this method once the waste is removed.*

*(2) Please provide information on any conveyance and treatment facilities required for the transfer of water from the Tracy Biomass facility source to the proposed power plant. If no facilities are required, please provide a clearer explanation of the actual transfer and conveyance of the CVP water to the canal turnout.*

**RESPONSE 73**

(1) Information added to Section 8.14.2.

(2) Information added to Section 8.14.2.

**Siting Regulations and Information**

Appendix B (g) (14) (D) (i): Precipitation and storm runoff patterns; and

**Information Required to Make AFC Conform with Regulations**

*Please provide a description of pre- and post-construction runoff and drainage patterns. Include in this information a depiction of changes in topography resulting from grading activities, changes in surface flows, differentiation of disturbed versus undisturbed areas of the site, and paved versus unpaved surfaces of the site.*

**RESPONSE 74**

Information added to Section 8.14.2. The details of the proposed drainage and grading plan and erosion control plan are identified in the drawings in Attachment 3.9-1 and are described below.

**Drainage Plan**

The runoff from the project would be managed with the use of trench drains, shallow ditches, culverts, and storm piping systems. All of the stormwater runoff would be collected into a retention pond to the west of the power block and would rely on percolation and evaporation for drainage of the pond. Natural drainage outside of the plant fence line would not be altered.

The power block area within the loop road would be divided into four sections (see Figure 1 in Attachment 3.9-1). The northeastern portion would drain north to catch basin CB-05, then to the pond via a system of CHDPE pipes. The northwestern quadrant would drain to the northwest to culvert C-5, which would directly discharge into the pond. Runoff from the southeastern and the southwestern quadrants would flow south as sheet flow to catch basins CB-01 and CB-02, respectively. Stormwater collected from CB-01 and CB-02 would eventually flow into the retention pond through a system of CHDPE pipes.

The PG&E substation east of the power block would be sloped north to a trench drain. The runoff from this area would be collected in a trench drain and then carried to the retention pond by the system collecting stormwater from CB-05.

The GWF switchyard south of the power block would be sloped to drain to the north, where runoff would be collected in swales and emptied into catch basins CB-03 and CB-04. A portion of the area surrounding the administration building would also be collected in CB-04. Stormwater collected from CB-03 and CB-04 would be carried to the pond by the same system of CHDPE pipes that would collect runoff from CB-01 and CB-02.

Stormwater from the remainder of the area surrounding the administration building would flow to the north and would be collected in a ditch that would drain west to a culvert (C-4) on the outside of the fenced area. Culvert C-4 would also collect a portion of the drainage from the entrance road and the area south of the entrance road that would not be disturbed (see Figure 1 in Attachment 3.9-1). Culvert C-4 would empty into a ditch that would drain north into the retention pond.

Most of the drainage from the entrance road would be controlled using culverts (see Figure 2 in Attachment 3.9-1). A culvert would be placed on either side of the Union Pacific Railroad (C-2 and C-3) and at a low point offsite (C-1).

### **Erosion Control**

Sediment erosion would be controlled by mulching and seeding exposed areas. Sediment fencing would be placed along the northern limits of the disturbed area and along other areas shown on the Erosion and the Sediment Control Plans (see drawing 069516-CSTF-S3100 in Attachment 3.9-1). Each catch basin and culvert would have inlet protection to minimize the amount of sediment let into the storm pipes, and each culvert and storm system outlet would have outlet protection (riprap apron) to minimize scouring.

Stormwater from the laydown areas to the west and north of the power block would flow as sheet flow to the north. Temporary diversion ditches would be constructed to flow into two separate temporary sediment traps (one for the western laydown area and one for the northern area) that would control erosion for those areas. The diversion ditches and the sediment traps would be filled in and seeded once construction is complete.

### **Siting Regulations and Information**

Appendix B (g) (14) (D) (ii): Drainage facilities and design criteria.

### **Information Required to Make AFC Conform with Regulations**

*Please describe the stormwater collection system including capacity, construction and operation. Please include design criteria for the various facilities.*

### **RESPONSE 75**

Information has been added to Section 8.14.2. Specific design criteria for collection and discharge points, drains, and culverts will be included in the SWPPP to be prepared prior to the start of construction. The general sizing criteria are the 25-year, 24-hour design storm for the TPP site. Other general information that is currently known has been added to the section. Please see prior responses in Section 3.9 (Soil Resources) and this section.

### **Siting Regulations and Information**

Appendix B (g) (14) (E): An assessment of the effects of the proposed project on water resources. This discussion shall include:

### **Information Required to Make AFC Conform with Regulations**

*Please provide information on the potential impacts to groundwater resources from the proposed septic system.*

### **RESPONSE 76**

Information has been added to Section 8.14.2.

**Siting Regulations and Information**

Appendix B (g) (14) (E) (i): The effects of project demand on the water supply and other users of this source;

**Information Required to Make AFC Conform with Regulations**

*Please provide an assessment of impacts from this project's demand to other users of the overdrafted canal and the CVP when water is transferred from the Tracy Biomass facility. Please discuss how the water transfers will impact the operation of the Tracy Biomass facility (include in this information the Biomass facilities current demand).*

**RESPONSE 77**

Information has been added to Section 8.14.2.

**Siting Regulations and Information**

Appendix B (g) (14) (E) (ii): The effects of construction activities and plant operation on water quality; and

**Information Required to Make AFC Conform with Regulations**

*(1) Please provide an assessment of the potential direct, indirect and cumulative impacts associated with the construction of the linear facilities on surface water bodies.*

*(2) Please provide information on the criteria to be used in the selection of the wastewater hauler and the ultimate disposal facility. Please provide information on the potential effects on the ultimate disposal facility of the project's effluent.*

*(3) Please provide information on the potential effects on the ultimate disposal facility of the project's effluent.*

**RESPONSE 78**

(1) The electric transmission line has been eliminated from the project description. Information regarding the water line and access road has been added to Section 8.14.2 and to Section 8.14.3.

(2) A mitigation measure (WR-9) has been added to Section 8.14.4 to address criteria for selecting the wastewater hauler. The expected impact of TPP wastewater on the disposal facility is now addressed in Section 8.14.2.

(3) Please see previous Responses 66 and 67, which discuss the potential impacts of TPP wastewater disposal on the McKittrick facility.

**SB 28 Sher Requirements and Information**

§25552(e)(1) (All): [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*(1) For mitigation measures stated, please provide proposed verification measures to ensure that the powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation.*

*(2) If creeks, sloughs or drainages are crossed, please provide a description of the proposed conditions of certification that will ensure the construction of linear facilities will not have a significant adverse effect on the environment.*

**RESPONSE 79**

(1) Proposed methods of verifying mitigation measure implementation have been added to Section 8.14.4.

(2) No surface water features are to be crossed by either the water supply line or the new access road; therefore, no conditions of certification pertaining to this issue are necessary.

**SB 28 Sher Requirements and Information**

§25552(e)(3) (All): [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*If creeks, sloughs or drainages are crossed, please provide information on laws, regulations, ordinances, standards or permits that may be required.*

**RESPONSE 80**

No surface water features are to be crossed by any components of the TPP project.

**Attachment 3.12-1**

**Letter Regarding Acceptance of Process Wastewater for Disposal**

**Attachment 3.12-2**

**Notice of Intent**

## **Project Overview**

Technical Staff: Cheri Davis  
 Technical Senior: Paul Richins  
 Project Manager: Cheri Davis

### 3.13 Project Overview

#### 3.13.1 Changes in Technical Analysis, LORS, Impacts, or Mitigation Resulting from Elimination of the Five-Mile Transmission Line

The changes resulting from the elimination of the five-mile transmission line are described in the revised Section 2.0 (Project Description) provided in this AFC Supplement.

#### 3.13.2 Data Adequacy Issues

##### Siting Regulations and Information

Appendix B (a)(2):...Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.

##### Information Required to Make AFC Conform with Regulations

*Please provide dates for initial startup versus full scale operation*

##### RESPONSE 81

See Table 2-3 (page 2-48 of AFC).

##### Siting Regulations and Information

Appendix B (a)(3)(A):... A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.

##### Information Required to Make AFC Conform with Regulations

*AFC currently lists only the owners of the project, but not the current owners of the site or linears. Please provide a list of all owners and operators of the site and linears.*

##### RESPONSE 82

GWF has executed a binding option to purchase the site from the current owner Jepsen Webb Ranch, LLC. PG&E owns and operates the Tesla-Kasson line that will be the point of transmission interconnection and the natural gas pipeline that passes beneath the TPP site that will be the source of natural gas. Jepsen Webb Ranch, LLC, the current owner of the TPP site, also owns the land beneath which the water supply pipeline would run and has granted an easement for the water supply pipeline.

**Siting Regulations and Information**

Appendix B (a)(3)(C):... A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B).

**Information Required to Make AFC Conform with Regulations**

*Please describe the relationship between GWF Energy and the owners of the site and linears.*

**RESPONSE 83**

GWF has executed a binding option to purchase the site from Jepsen Webb Ranch, LLC and will enter into a contract with PG&E for interconnection.

**SB 28 Sher Requirements and Information**

§25552(e)(1)(All):... [a]ssure that the thermal powerplant and related facilities will not have a significant adverse effect on the environment as a result of construction or operation;

**Information Required to Make AFC Conform with Regulations**

*See other worksheets.*

**RESPONSE 84**

See AFC and AFC Supplement.

**SB 28 Sher Requirements and Information**

§25552(e)(2)(All):... [a]ssure protection of public health and safety;

**Information Required to Make AFC Conform with Regulations**

*See other worksheets.*

**RESPONSE 85**

See AFC and AFC Supplement.

**SB 28 Sher Requirements and Information**

§25552(e)(2)(All):... [r]esult in compliance with all applicable federal, state, and local laws, ordinances, and standards;

**Information Required to Make AFC Conform with Regulations**

*See other worksheets.*

**RESPONSE 86**

See AFC and AFC Supplement.

**AFC Sections for Which Only Supplemental  
Information Is Being Provided**

### 3.14 AFC Sections for Which Only Supplemental Information Is Being Provided

The TPP has been modified to eliminate the construction of offsite transmission facilities. GWF now proposes that the TPP tie into an existing 115-kV transmission line that crosses the GWF parcel. Beyond ignoring references to the five-mile offsite transmission line, there are no substantive modifications required for the sections listed below and it is still expected that the TPP will not cause significant impacts in these technical areas. In addition, no data adequacy issues were raised for these technical areas. Some figures have been revised in these sections as noted below:

- Noise
- Worker Health and Safety
- Hazardous Materials Handling
- Waste Management
- Geologic Resources and Hazards (Please replace Figure 8.15-5 in the AFC with the revised figure provided in this section.)
- Paleontological Resources (Please replace Figures 8.16-1 through 8.16-3 with the revised figures provided in this section.)

**Geologic Resources and Hazards (Section 8.15 in AFC)**

**Revised Figure 8.15-5**

**Paleontological Resources (Section 8.16 in AFC)**

**Revised Figures 8.16-1 through 8.16-3**

## **4.0 REVISED APPENDICES**

**4.0 REVISED APPENDICES**

The following appendices in the Tracy Peaker Project AFC should be replaced in their entirety with the appendices provided at the end of this AFC Supplement:

- Appendix A, Electrical Transmission
- Appendix D, Land Use

*Appendix A (Revised)*  
*Electrical Transmission*

*Appendix D (Revised)*  
*Land Use*

*Appendix D1*  
*Special Use Regulations for Agricultural Zones*

*Appendix D2*  
*Property Owners within 1,000 Feet of the GWF Tracy*  
*Peaker Project and within 500 Feet of Associated Linear*  
*Facilities*

## Appendix D2

### Property Owners within 1,000 Feet of the GWF Tracy Peaker Project and within 500 Feet of Associated Linear Facilities

Assessor's Parcel No.	Property Owner	Address
209-230-03	United States of America	Re: 15178 W. Schulte Road Tracy, CA 95377 P.O. Box 92007, Los Angeles CA 90009
209-230-05	Frederick G Orlando	Re: 26722 S. Hansen Road 3535 Lariat Loop Road Cameron Park, CA 95682
209-230-16	Union Pacific Railroad Company	Attn: Barbara Holder Re: 997877 S. Hansen Road, Tracy, CA, T2S R4E Sec 35 1416 Dodge Street, Room 830 Omaha, NE 68179
209-230-17	Union Pacific Railroad Company	Attn: Barbara Holder Re: 997878 S. Hansen Road, Tracy, CA, T2S R4E Sec 35 1416 Dodge Street, Room 830 Omaha, NE 68179
209-230-18	Union Pacific Railroad Company	Attn: Barbara Holder Re: 997879 S. Hansen Road, Tracy, CA, T2S R4E Sec 35 1416 Dodge Street, Room 830 Omaha, NE 68179
209-230-20	Harold & P H Timmins	Re: 26666 S. Hansen Road 27001 S. Hansen Road Tracy, CA 95377
209-230-23	David J Pombo	Re: 997108 S. Hansen Road 25726 S Hansen Road Tracy, CA 95377
209-240-03	George Cheng	Re: 14250 W. Schulte Road 44908 Winding Lane Fremont, CA 94539
209-240-10	Cheun Hee Lee	Re: 26788 S. Hansen Road 414 33 <sup>rd</sup> Avenue San Francisco, CA 94121
209-240-11 APN for Project Site TBD	Jepsen Webb Ranch LLC	Re: 26977 S. Lammers Road 7200 W. 11 <sup>th</sup> Street Tracy, CA 95377

Assessor's Parcel No.	Property Owner	Address
209-240-21	Union Pacific Railroad Company	Attn: Barbara Holder Re: 997883 S. Lammers Road, Tracy, CA, T2S R4E Sec 35 1416 Dodge Street, Room 830 Omaha, NE 68179
209-240-24	Owens Illinois Glass Container Inc. Owens-Brockway Glass Container Inc.	Re: 14700 W. Schulte Road Ernst & Young / Jim Beckman One Seagate, Suite 1200 Toledo, OH 43604
209-240-25	Nutting-Rice Tracy LLC	Re: 15000 W. Schulte Road Attn: Charles C. Wallace, Jr. One Websters Landing Syracuse, NY 13202
240-140-01	John & A Zambetti	Re: 13350 W. Valpico Road 13203 W. Valpico Road Tracy, CA 95377
240-140-02	Roger Traina, Anthony Traina et al.	Re: 13100 W. Valpico Road 27320 Fair Oaks Road Tracy, CA 95377
251-040-01	Gene Panella	Re: 27004 S. Hansen Road, Tracy 2025 E. Cliff Drive Santa Cruz, CA 95062
251-040-06	Frederick G. Orlando	Re: 27009 S. Lammers Road 3535 Lariat Loop Road Cameron Park, CA 95682
251-040-08	Valley Land Co Corp	Re: 28321 S. Lammers Road Attn: John A Christie 7700 College Town Drive, Suite 101 Sacramento, CA 95826
251-040-09	James A & Mary Stokley	27550 S. Lammers Road Tracy, CA 95377
251-040-10	F A & C K Robertson	Re: 26900 S. Hansen Road 704 Wimbledon Lane Livermore, CA 94550
251-040-13	Paul & Barbara Swartzle	27150 S. Hansen Road Tracy, CA 95377
251-040-14	Laurel Eckert	27240 S. Hansen Road Tracy, CA 95377
251-040-15	Robert & Emily Richardson	Re: 27380 S. Hansen Road PO Box 10871 Fort Mojave, AZ 86427
251-040-16	Harold & P H Timmins	27001 S. Hansen Road Tracy, CA 95377

Assessor's Parcel No.	Property Owner	Address
251-040-17	Frederick G. Orlando	Re: 999756 S. Lammers Road 3535 Lariat Loop Road Cameron Park, CA 95682
251-050-01	Charles J & Marilyn Tuso et al.	Re: 27191 S. Lammers Road Steve S & Kandi L Tuso 27210 S. Lammers Road Tracy, CA 95377
251-050-03	Sam & Marie Tuso	Charles Tuso 27249 S. Lammers Road Tracy, CA 95377