

PASTORIA ENERGY FACILITY 160 MW EXPANSION PROJECT
SUPPLEMENT TO APPLICATION FOR CERTIFICATION
Responses to CEC Staff Data Requests
Dated June 9, 2005
05-AFC-1

EXHIBIT 2
BIOLOGICAL RESOURCES MATERIALS

- Memorandum from Russell Kokx to Jennifer Scholl dated May 13, 2005

MEMORANDUM

TO: Jennifer Scholl, URS Corporation
PEF Expansion AFC Project Manager

FROM: Russell Kokx, Pastoria Energy Facility
CEC-approved Designated Biologist for Construction Compliance

DATE: May 13, 2005

RE: Biological Resources Survey Results for the Pastoria Energy Facility 160 MW
Expansion Area

Please accept the following memorandum as a brief report summarizing the results of a biological survey conducted on May 4, 2005 for the proposed site of the Pastoria Energy Facility 160 MW Expansion (PEF Expansion).

This memorandum includes the following sections intended to address CEC technical reviewers with the information necessary to address Data Adequacy Requests regarding biological resources:

- 1.0 Overview
- 2.0 Observations from the May 4, 2005 Site Visit
- 3.0 Summary of Project Area Biological Resources Prior to Construction of the Existing PEF
- 4.0 Discussion of Potential Occurrence of Sensitive Animal Species
- 5.0 Discussion of Significant Changes to the Project Area During Construction of the Existing PEF

1.0 OVERVIEW

The area of proposed PEF Expansion is shown on the following figures included in the PEF Expansion AFC (05-AFC-1):

- **Figure 3.1-1, PEF Expansion General Arrangement** shows the location of the PEF Expansion within the existing PEF arrangement on a line drawing.
- **Figure 3.1-2, Photograph Showing Locations of PEF Expansion Facilities** shows the PEF Expansion from two perspectives.

As shown on these figures and discussed in additional detail below, the PEF Expansion site is within an area currently permitted for permanent disturbance and not proposed for reclamation. The Expansion site is located between the western cooling tower and Unit One within the fenced plant site area and is currently covered with gravel and actively disturbed for construction-related activities associated with the existing PEF.

2.0 OBSERVATIONS FROM THE MAY 4, 2005 SITE VISIT

During the May 4, 2005 site visit, the only animal species observed were, California ground squirrels, Audubon cottontail rabbits, House finches, European starling, and House sparrows. Other species that have been occasionally observed in the area of the PEF Expansion include: Long-tailed weasels, Raccoons, Deer mice, Western rattlesnakes, and Side-blotched lizards. No plant species were observed, because no plants currently exist within the proposed PEF Expansion area.

3.0 SUMMARY OF PROJECT AREA BIOLOGICAL RESOURCES PRIOR TO CONSTRUCTION OF THE EXISTING PEF

This section includes a summary of project area biological resources observed prior to construction of the existing PEF. Table 1 includes a wildlife target list and Table 2 includes a target plant list.

Prior to construction of the existing PEF, previous disturbances in the project area included cattle ranching, and evidence of pipeline construction. Other land uses in the vicinity of the existing PEF site are active agriculture (grape vineyards) north of site and active gravel mining operations south west of the site.

Prior to the construction of the existing PEF, the area vegetation was described as Non-native Grassland (42.000 Keeler-Wolf), dominants included Soft chess brome (*Bromus hordeaceus*), Wild oats (*Avena fatua*), Ripgut brome (*Bromus hordeaceus*), annual wildflower displays included Miniature lupines (*Lupinus bicolor*), Popcorn flower (*Plagiobothrys canascens*), Birds eye gillia (*Gillia tricolor*)r and Red stem filaree (*Erodium cicutarium*).

Common wildlife observed within the project area included the following: Mammals; Coyote (*Canis latrans*), Raccoons (*Procyon lotor*), California ground squirrels (*Spermophilus beechyi*), and Audubon cottontail rabbit (*Sylvilagus auduboni*.); Birds; Common raven, Loggerhead shrike, Say's phoebe, Western kingbird and Lark sparrow; Reptiles; Western

TABLE 1
WILDLIFE TARGET SPECIES LIST

Common Name	Scientific Name	Listing Status ¹		Survey ² Methods
		Federal	State	
Mammals				
San Joaquin Antelope Squirrel	<i>Ammospermophilus nelsoni</i>	none	T	HC, DS, TR
Giant Kangaroo Rat	<i>Dipodomys ingens</i>	E	E	HC, DS, TR, NS
Tipton Kangaroo Rat	<i>Dipodomys nitratoides nitratoides</i>	E	E	HC, DS, TR
San Joaquin Pocket Mouse	<i>Perognathus inornatus inornatus</i>	none	SC	HC, TR
Tehachapi Pocket Mouse	<i>Perognathus alticolus inexpectatus</i>	SC	SC	HC, TR
American Badger	<i>Taxidea taxus</i>	none	SC	HC, TR, DS
San Joaquin Myotis	<i>Myotis yumanensis oxalis</i>	SC	SC	HC, NS
Townsend's Big-eared Bat	<i>Plecotus townsendii townsendii</i>	SC	SC	HC, NS
Western Mastiff Bat	<i>Eumops perotis</i>	SC	SC	HC, NS
Tulare grasshopper mouse	<i>Onychomys torridus tularensis</i>	SC	SC	HC, TR
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	E	T	HC, TR, DS
Birds				
California Condor	<i>Gymnogyps californianus</i>	E	E	Preconst.
Cooper's Hawk (Nesting)	<i>Accipiter cooperi</i>	none	SC	Preconst.
Sharp-shinned Hawk (nesting)	<i>Accipiter striatus</i>	none	SC	Preconst.
Golden Eagle	<i>Aquila chrysaetos</i>	none	SC	Preconst.
Ferruginous hawk	<i>Buteo regalis</i>	SC	SC	Preconst.
Swainson's Hawk (nesting)	<i>Buteo swainsoni</i>	none	T	Preconst.
White-tailed Kite	<i>Elanus leucurus</i>	none	P	Preconst.
Northern Harrier (nesting)	<i>Circus cyaneus</i>	none	SC	Preconst.
Burrowing Owl	<i>Athene cunicularia</i>	none	SC	Preconst.
Merlin (wintering)	<i>Falco columbarius</i>	none	SC	Preconst.
Prairie Falcon (nesting)	<i>Falco mexicanus</i>	none	SC	Preconst.
Peregrine Falcon	<i>Falco peregrinus anatum</i>	none	E	Preconst.
Long-eared Owl (nesting)	<i>Asio otus</i>	none	SC	Preconst.
Short-eared Owl	<i>Asio flammeus</i>	none	SC	Preconst.
California Horned Lark	<i>Eremophila alpestris actia</i>	none	SC	Preconst.
Purple Martin (nesting)	<i>Progne subis</i>	none	SC	Preconst.
Loggerhead Shrike	<i>Lanius ludovicianus</i>	SC	SC	Preconst.
Tricolored Blackbird	<i>Agelaius tricolor</i>	SC	SC	Preconst.
Long-billed Curlew	<i>Numenius americanus</i>	SC	SC	Preconst.
San Joaquin LeConte's Thrasher	<i>Toxostoma lecontei macmillanorum</i>		SC	Preconst.
Vaux's Swift	<i>Chaetura vauxi</i>	SC	SC	Preconst.

**TABLE 1 (CONTINUED)
 WILDLIFE TARGET SPECIES LIST**

Common Name	Scientific Name	Listing Status ¹		Survey ² Methods
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E	E	Preconst.
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T	E	Preconst.
Amphibians				
Tehachapi Slender Salamander	<i>Batrachoseps stebbinsi</i>	SC	T	HC, SO
Yellow-blotched Salamander	<i>Ensatina eschscholtzii croceator</i>	none	SC	HC, SO
Western Spadefoot	<i>Scaphiopus hammondi</i>	SC	SC	HC, SO
California Red-legged Frog	<i>Rana aurora draytonii</i>	T	SC	HC
Reptiles				
Blunt-nosed Leopard Lizard	<i>Gambelia sila</i>	E	E	HC, TR
Southern Rubber Boa	<i>Charina bottae umbratica</i>	SC	T	HC, NS, SO
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	SC	SC	HC, TR
Southwestern Pond Turtle	<i>Clemmys marmorata pallida</i>	SC	SC	HC
San Diego Horned Lizard	<i>Phrynosoma coronarum blainvillei</i>	SC	SC	HC, TR
California Legless Lizard	<i>Anniella pulchra pulchra</i>	SC	SC	HC,TR, SO
Invertebrates				
Valley Elderberry Longhorn Beetle	<i>Desmocerus californicus dimorphus</i>	T	none	HC, Preconst.

¹ Listing Status: E= Endangered, T= Threatened, SC= Species of concern, P= Proposed 1B CNPS listed plants rare, threatened, or endangered.

² Survey Method: HC= Habitat classification, TR= Line transects, DS= Den or burrow surveys, NS= night spotlighting surveys, TR= Live trapping for rodents, Preconst.= Initial surveys & Pre-construction surveys

rattle snake, (*Crotalus viridis*), Long-nosed snake (*Rheinocheilus lecontei*) and Side-blotched lizard (*Uta stansburiana*.)

4.0 DISCUSSION OF POTENTIAL OCCURRENCE OF SENSITIVE ANIMAL SPECIES

The following discussions summarize the potential occurrence of sensitive animal species in the area of the existing PEF.

Blunt-nosed Leopard Lizards: Results of Blunt-nosed leopard lizard surveys conducted for the construction of the existing fuel gas supply pipeline, determined that a population of Blunt-nosed leopard lizards was located within a mile (west) of the existing PEF plant site. While the habitat is not as suitable to the Blunt-nosed leopard lizard due to the relative abundance of non-native grasses, it is considered potential habitat due to its proximity to

TABLE 2
TARGET PLANT SPECIES LIST

Common Name	Scientific Name	Listing Status			Survey Methods	Flowering Period	Potential Occurrence
		Federal	State	Other			
Plants							
Bakersfield Cactus	<i>Opuntia basilaris</i> var. <i>treleasei</i>	E	E	1B	HC, TR	May	None
Piute Mountains Navarretia	<i>Navarretia setiloba</i>	PT	0	1B	HC, TR	April – June	Low
Palmer's Mariposa Lily	<i>Calochortus palmeri</i> var. <i>palmeri</i>	SC	0	1B	HC, TR	May – July	None
Kern Buckwheat	<i>Eriogonum kennedyi</i> var. <i>pinicola</i>	SC	0	1B	HC, TR	May – June	None
Coulter's Goldfields	<i>Lasthenia glabrata</i> ssp. <i>Coulteri</i>	SC	0	1B	HC, TR	February - June	Low
Comanche Point Layia	<i>Layia leucopappa</i>	SC	0	1B	HC, TR	April - May	Low
Flax-like Monardella	<i>Monardella linoides</i> ssp. <i>Oblonga</i>	SC	0	1B	HC, TR	June - August	Low
Gypsum loving Delphinium	<i>Delphinium gypsophilum</i> ssp. <i>Gypsophilum</i>	CEQA	0	1B	HC, TR	February - June	High
Tejon Poppy	<i>Eschscholtzia lemmonii</i> ssp. <i>Kernensis</i>	CEQA	0	List 4	HC, TR	March - April	Low

other areas of habitat. This observation coupled with the dynamic nature of the lizard population suggests that additional monitoring or surveys may be necessary if construction-related activities for the PEF Expansion require disturbance or activity west of the plant site.

San Joaquin Valley Kit Fox: To date no San Joaquin Valley Kit fox have been observed in the project area despite numerous surveys conducted in the project area for both the plant site and linear components. Previous documentation of San Joaquin Valley Kit foxes in reports are based on survey protocol that requires documentation of all burrows that fall into the appropriate size categories, no verifications have been made of their presence either through direct observation, or sign (i.e. scat, tracks, hair). No impact to San Joaquin Kit Fox habitat is expected from the PEF Expansion.

Western Spadefoot Toad: During weekly inspections in April 2005, several amphibian larvae were observed at the mouth of the culvert in the water retention pond, north of the PEF Expansion area. These larvae were determined to be Western Spadefoot Toad (*Scaphiopus hammondi*) a species of special concern. By April 27, 2005, all of the toads had completed metamorphosis and left the pond.

San Joaquin Coachwhip: No observations of San Joaquin Coachwhips have been made within 2 miles of the existing PEF site.

Burrowing Owl: In Spring 2004, an active burrowing owl was observed, the burrowing owl location was over a mile east of the existing PEF site and was observed to have hatched 5 chicks. No burrowing owls were observed during the May 4, 2005 survey.

Golden Eagle: As many as 12 individual Golden Eagle have been observed during surveys and construction monitoring of the existing PEF. No suitable nesting sites are available in the vicinity of any of the project components, the Eagles that remain in the vicinity are likely to nest at higher elevation than the PEF site, therefore, no direct impacts are expected.

Loggerhead Shrike: Loggerhead shrikes have been observed along the perimeter fencing around the existing PEF plant site. The Shrikes appear to be indifferent to most human activity and actively hunt from fence perches. Loggerhead Shrikes preferred nesting is thick shrubs and trees which only exist on Pastoria Creek and around the orchards, no nests were detected within the project area during the May 4, 2005 site visit.

Ferruginous Hawk: Several Ferruginous Hawks were observed along the fuel gas supply pipeline and surrounding habitat during construction monitoring of the existing PEF, during winter months.

Northern Harrier: Northern Harrier are occasionally observed hunting north of the PEF plant site. No nesting activity was observed during any of the pre-activity surveys or monitoring of the existing PEF.

Prairie Falcon: Prairie falcons have been observed in the fall and spring months during construction monitoring of the existing PEF in that area of the Access Road and north of the Plant site. Although Prairie falcons have been known to nest on transmission towers, no nests have been observed and no other suitable habitat for nesting exists in the area of the PEF site.

Coopers Hawk: No Coopers hawks have been observed around the existing PEF plant site.

Sharp-shinned Hawk: Sharp-shinned hawks have been observed, during construction monitoring of the existing PEF, in the fall, winter and early spring along the heavily vegetated creeks, and around the orchards in the vicinity of the fuel gas supply pipeline. While Sharp-shinned hawks have historically nested lower in the hills and valleys, they are known to nest only at higher elevations.

Tri-colored Blackbirds: Tri-colored blackbirds, were observed during construction monitoring of the existing PEF, in flocks of up to 30 individuals foraging southwest of the existing PEF plant site, along the existing transmission line and in small numbers along the fuel gas supply pipeline route from April through early May. The birds preferred nesting location is large cattail or tule stands and no suitable habitat exists near the existing PEF facilities.

Short-eared Owl: Several Short-eared owls were observed in the non-native grassland around the northern terminus of the fuel gas supply pipeline during construction monitoring in the winter months. Short-eared owls typically nest from the central Valley North of California to North Western Alaska. None have been observed around the existing PEF plant site.

Bald Eagle: Bald eagles are commonly observed wintering (December through March) around the existing PEF project area. No direct impacts are expected from additional construction within the existing PEF site from the PEF Expansion.

Long-billed Curlew: Long-billed curlews were observed in flocks of up to over 100 individuals in the grasslands around the northern portion of the fuel gas supply pipeline from late December until early March, during construction monitoring of the existing PEF. Long-billed curlews nest in North Eastern California and are winter visitors in Southern California. No Long-billed curlews have been observed around the existing PEF plant site.

5.0 DISCUSSION OF SIGNIFICANT CHANGES TO THE PROJECT AREA DURING CONSTRUCTION OF THE EXISTING PEF

The following discussion describes the occurrence of Blunt-nosed leopard lizards encountered during project description and how biological resources compliance materials were amended to address the mitigation measures implemented during construction activities of the existing PEF.

Prior to the proposed construction of the fuel gas supply pipeline for the existing PEF, a population of Blunt-nosed leopard lizards (*Gambelia sila*) was discovered during the

required pre-activity surveys conducted in October 2003. The population was previously undiscovered along the pipeline route and the species was considered unlikely to occur. Because the species was determined unlikely to occur, Blunt-nosed leopard lizards were not included in the original Biological Opinion and no mitigation measures were included in the Biological Resource Mitigation Implementation and Monitoring Plan (BRMIMP).

The initial observation of Blunt-nosed leopard lizards was on October 16, 2003. Temperatures during the month of October were in the eighties and many juveniles were observed along the pipeline right-of way, approximately 1.5 miles east/northeast of the PEF plant site.

As required under the Biological Opinion, the USFWS, CDFG, and CEC were notified of the discovery of a population of Blunt-nosed leopard lizard and standard mitigation measures were immediately implemented and Blunt-nosed leopard lizards were added to the Worker Awareness Environmental Training Program.

A request for reinitiating Section 7 consultation was also filed with the Environmental Protection Agency on November 7, 2003. An Amendment to the Biological Assessment was submitted to add Blunt-nose Leopard Lizards (*Gambelia sila*) and suggest additional mitigation measures, including re-routing the pipeline route to avoid the lizards, to be implemented in order to avoid take of the species. Copies of the draft amendment were distributed to the U.S. Environmental Protection Agency, CEC, CDFG, USFWS. The amendment was approved by the agencies and construction of the re-routed pipeline has been completed.

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CULTURAL RESOURCES

Appendix B (g) (2) (D): A summary of contacts and communications with, and responses from, Native American representatives who may have an interest in heritage lands and/or resources potentially affected by the proposed project (CEC Staff Note: Provide a summary of contacts and communication (copies of correspondence sent to Native Americans) with and responses from Native Americans who may have heritage concerns regarding the proposed project. Although the proposed changes are within the project footprint, the project has changed).

Response: Following the submittal of the AFC on April 29, 2005, the applicant confirmed that a small area of native soil (within the existing PEF plant site, as shown on Figure 3.1-3 of 05-AFC-1) would be impacted as part of the construction activities of the PEF Expansion. Subsequent to this confirmation, Native American notifications were initiated on May 19, 2005. Please refer to Exhibit 3 Cultural Resources Materials for an example of the letters that were sent as part of the Native American coordination on June 2, 2005. These letters were sent to the following addressees:

Clarence Atwell, Chairperson
Santa Rosa Rancheria
P.O. Box 8
Lemoore, CA 93245

Carol A. Pulido
15011 Lockwood Valley Road
Frazier Park, CA 93225

Neil Peyron, Chairperson
Tule River Indian Tribe
P.O. Box 589
Porterville, CA 93258

Kathy Morgan, Chairperson
Tejon Indian Tribe
2234 4th Street
Wasco, CA 93280

Puilulaw Khus
2001 San Bernardo Creek
Morro Bay, CA 93442

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Ernie Garcia
Tejon Indian Tribe
23437 Via Gayo
Valencia, CA 91355

Ron Wermuth, Chairperson
Kern Valley Indian Council
P.O. Box 1010
Lake Isabella, CA 93240

Robert L. Gomez Jr.
2619 Driller Avenue
Bakersfield, CA 93306

Delia Dominguez
Kitanemuk & Yowlumne Tejon Indians
981 N. Virginia
Covina, CA 91722

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; (CEC Staff Note: Include SB 18 (Chap. 905, Statutes of 2004) Amends the Government Code. See Governor's Office of Planning and Research web site www.opr.ca.gov/SB182004 for additional information.)

Response: The applicant has reviewed this statute and has determined that it does not apply to the PEF Expansion project. The statute is applicable to those projects that require an underlying land use designation or zoning change in order to be implemented. No land use changes were required for the existing PEF and no additional land use changes will be required for the PEF Expansion.

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

Response: See response to Appendix B (h) (1) (A) above.

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.

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Response: The proposed PEF Expansion will use the existing linear components of the existing PEF and therefore no new construction outside of the existing PEF plant site boundaries is anticipated. Therefore, no permits triggering State Historical Preservation Office requirements will be triggered (i.e., Army Corps of Engineers or California Department of Fish and Game).