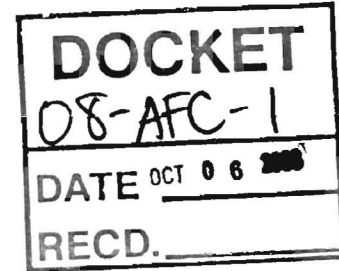


**Avenal Power Center, LLC  
500 Dallas Street, Level 31  
Houston, TX 77002**

October 6, 2008

Mr. Christopher Meyer  
Project Manager  
c/o Dockets Unit, 4<sup>th</sup> Floor  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5512



Ref: Supplemental Information Regarding a buffer along the San Luis Canal for Avenal Energy (08-AFC-1)

Dear Mr. Meyer:

Please find enclosed one original, twelve paper copies, and one CD of supplemental information regarding the proposed buffer along the San Luis Canal for Avenal Energy (08-AFC-1). Avenal Power Center, LLC ("Avenal") commissioned a study to assess the body of data available regarding buffers along the San Luis Canal and the enclosed data is the result of that study. The results of the study suggest that the width of the corridor is somewhat irrelevant to the successful use of the corridor by kit fox. Furthermore, there is no scientific, legal or policy evidence that a corridor beyond what Avenal proposes is necessary. Additionally, an existing approximately 170 feet of unobstructed land currently exists associated with the canal right of way.

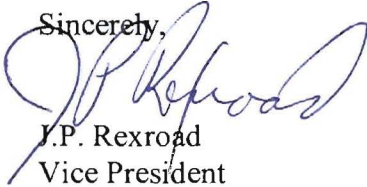
Notwithstanding the evidence that suggests that an additional buffer associated with the Avenal property may not be required, Avenal remains committed to the mitigation plan it has presented in the Application for Certification and clarified in Data Responses #7 & 9. More specifically, we remain committed to providing a 300-foot setback from the San Luis Canal measured from the inside top of the bank of the canal, to provide additional mitigation for project activities. Avenal also notes that there is an additional 40 feet between the security fence and the boundary fence that will be undeveloped farm land and provide additional distance between routine plant operations and potential species of interest.

Electronic copies, along with proof of service declaration, are being concurrently sent to each of the individuals on the attached proof of service list.

15

We look forward to working with CEC staff to answer any remaining questions for the licensing of this project. If you have questions regarding the enclosed information, please call Joe Stenger at (805) 528-6868, or Jim Rexroad at (713) 275-6147.

Sincerely,

A handwritten signature in blue ink, appearing to read "J.P. Rexroad", is written over the word "Sincerely,".

J.P. Rexroad  
Vice President  
Avenal Power Center, LLC

Enclosure:

San Joaquin Kit Fox Corridor Use Review (1 original, 12 paper copies, 1 CD)

Attachment:

Proof of Service

cc: Shirley Rivera, U.S. Environmental Protection Agency, Region 9  
Justin Sloan, California Department of Fish and Game  
Peter Cross, U.S. Fish and Wildlife Service







21 Technology Drive  
Irvine, CA 92618

949.727.9336 PHONE  
949.727.7399 FAX

[www.TRCSolutions.com](http://www.TRCSolutions.com)

October 6, 2008

Mr. Jim Rexroad  
Vice President  
Avenal Power Center, LLC  
500 Dallas Street, Level 31  
Houston, TX 77002

Ref: San Luis Canal Setback for the Avenal Energy Project

Dear Mr. Rexroad:

As requested by Avenal Power Center, LLC, TRC Solutions, Inc. (TRC) has evaluated the request by U.S. Fish and Wildlife Service (USFWS) to increase the width of the setback at the northeast corner of the Avenal Energy project site to provide a total distance of 500 feet between the project fence line and the San Luis Canal, instead of the 300-foot distance that is already committed in the project's Application for Certification (AFC) submitted to the California Energy Commission in February 2008. The committed 300-foot distance includes the existing U.S. Bureau of Reclamation right-of-way (ROW) for the canal, plus an approximately 130-foot setback on the Avenal Energy site. The committed setback is in response to previous requests from USFWS aimed at ensuring that the project will not hinder potential movement of San Joaquin kit fox (SJKF) (*Vulpes macrotis mutica*) along the canal, which may be used as a migration corridor. We evaluated the USFWS proposed increase in the setback distance in a site-specific context considering the setting of the site and adjacent lands, information on the use of the region by the SJKF, and available literature and other information sources relevant to SJKF use of migration corridors.

As you know, TRC is very familiar with the project site and surrounding lands, having performed or managed environmental studies for the Avenal Energy site and surrounding lands since 2000. Over these years, we managed biological surveys for the project in 2001, 2006 and 2007, and performed many site visits to study and evaluate various aspects of the site setting and surrounding lands. We also prepared the Avenal Energy AFC, which contains detailed information on the area biology, land uses, and other characteristics. TRC has been performing biological studies and designing sensitive species impact mitigation measures for government and private projects in California since the 1980s. For the evaluation addressed herein, we also commissioned the involvement of Mr. Mike Bumgardner, Principal of Bumgardner Biological Consulting (BBC) and an expert on SJKF and several other sensitive species. Mr. Bumgardner has over 20 years experience and a reputation for developing sound, pragmatic, science-based mitigation measures for potential impacts to sensitive species and their habitat. A letter report prepared by Mr. Bumgardner for this work is provided as Attachment 1, along with a copy of his resume.

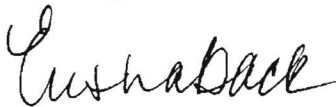


Neither TRC's natural resources team nor BBC has been able to identify any scientific, policy, or other basis to support increasing the width of the committed setback. On the contrary, the research performed by BBC as described in Attachment 1 indicates that width of a migration corridor may not even be an important factor for successful negotiation of migration corridors by SJKF. Considering the nature of the Avenal Energy project and existing characteristics of surrounding lands, it is our opinion that the project will not have any material impact on the potential movement of SJKF along the canal as long as there is no disturbance in the canal ROW. Because the site is not in the ROW, no setback at all is required to maintain the existing migration corridor. The ROW itself provides a migration corridor that is more than 170 feet wide where it occurs adjacent to the project site.

The setback committed in the AFC was included in the project design solely because USFWS previously requested this setback. USFWS first expressed the request for project facilities to be located 300 feet from the canal (including the existing ROW) in a letter dated March 21, 2002 (provided as Attachment 2) that was submitted to the U.S. Environmental Protection Agency (EPA) in conjunction with Section 7 consultation for a similar project at the same site. When project permitting for the site was renewed beginning in 2006, Avenal Energy's consulting team and legal counsel had a series of conference calls with USFWS to update them on the project and to determine what mitigation USFWS wanted to be included in the new AFC. During conference calls held with USFWS on November 20, 2006, January 31, 2007, March 5, 2007 and April 19, 2007, Avenal Energy's consulting team maintained that no setback was required while USFWS maintained that the project would need to provide a 300-foot distance between project facilities and the canal. During the April 19, 2007 call, USFWS indicated that they were finished providing input for Avenal Energy's filing of the AFC and desired not to participate in further discussions until after the AFC was filed. The setback providing 300 feet between project facilities and the canal, as committed in the AFC, was provided only to avoid belaboring this point following filing of the AFC. There does not appear to be any technical basis or evidence of need for any setback, since the site itself does not infringe on the ROW. We are not aware of any evidence that increasing the setback distance would provide any real benefit to the SJKF nor does it appear necessary to satisfy any legal or policy requirement.

If you have questions regarding this matter, please call Joe Stenger at (805) 528-6868.

Sincerely,



Elisha Back  
Principal, Natural Sciences and Permitting  
TRC Solutions, Inc.

Attachments:

- Attachment 1: September 22, 2008 Letter Report from Bumgardner Biological Consulting
- Attachment 2: March 21, 2002 Letter from USFWS to EPA
- Attachment 3: Elisha Back Resume





**ATTACHMENT 1**

**September 22, 2008 Letter Report from Bumgardner Biological  
Consulting**



.....

Michael Bumgardner  
Bumgardner Biological Consulting  
11571 Prospect Hill Drive  
Gold River, CA 95670-8216

# Bumgardner Biological Consulting

September 22, 2008

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

Dear Mr. Stenger:

Pursuant to your recent request, Bumgardner Biological Consulting has completed a review of published literature, resource agency documentation, biological resources databases, and other sources of available information and analyses related to habitat use and movement of the San Joaquin kit fox (*Vulpes macrotis mutica*) (SJKF) to determine if there is scientific data or established policy support for the U.S. Fish and Wildlife Service's (USFWS) prescription for a linear movement corridor of 500 feet between the proposed Avenal Energy project site and California Aqueduct. An extensive base of available information was reviewed, as reflected in the *Bibliography and Literature Cited* section at the end of this letter. Pertinent sources of information were obtained from the following:

- Recovery Plan for Upland Species of the San Joaquin Valley, California (USFWS 1998);
- San Joaquin kit fox references from the files of the USFWS's Sacramento Field Office;
- BIOSIS Previews®, Biological Abstracts®, and Zoological Record Online® data bases;
- Melvyl Catalogue – The Catalogue of the University of California Libraries;
- Google Scholar search engine; and
- Personal communication with Brian Cypher, Ph.D. (California State University-Stanislaus, Endangered Species Recovery Program [ESRP]).

## Background

Movement and dispersal corridors are considered critical to the population dynamics of SJKF, particularly since the taxon currently exists as a metapopulation consisting of multiple disjunct population centers. Movement and dispersal linkages are

.....

*Quality Biological Services Through Technical  
Proficiency and Experienced Management*



important for alleviating over-crowding and intraspecific competition during years when SJKF abundance is high and are essential for recolonization. Movement between population centers also maintains gene flow and reduces the probability of inbreeding, genetic drift, and founder effects (USFWS 1998, Bjurlin, and Cypher 2003).

Several studies of SJKF support that the taxon utilizes linear corridors such as roads (Cypher et al. 2005); urban parkways (Beedy et al. 1992); and road, railroad, and canal right-of-ways (ROW) (Cypher unpublished data, Frost 2005, Warrick et al. 2007) for movement. Furthermore, radio-telemetry studies in the Lost Hills area of northern Kern County and Santa Nella area of western Merced County have found that SJKF utilize these portions of the ROW of the California Aqueduct as a linear movement corridor (DFG 1995, Uptain et al. 2000, Clark et al. 2005, Warrick et al. 2007, DFG 2008).

## Review

Based on review of the current literature, no empirical data has been collected on the efficacy of linear corridor design (particularly corridor widths) in regards to the movement of SJKF. Studies that have addressed the use of corridors by SJKF have focused on other issues that include, but are not limited to:

- differential use of ROW habitats and adjacent agricultural lands;
- potential for movement between landscape features (i.e., connectivity);
- movement and use of crossing structures; and
- movement in urban environments.

The study by Warrick et al. (2007) found that radio-telemetered SJKF occurred in ROW habitats associated with the California Aqueduct (i.e., San Luis Canal) at a much higher frequency than would be expected by chance, while SJKF were found on adjacent agricultural lands at a much lower frequency than would be expected by chance. This demonstrated habitat preference by SJKF is believed to be associated with low prey availability and lack of den sites on the agricultural lands. However, other studies of SJKF and the closely related swift fox (*V. velox*) indicate that the most important habitat parameter for these species is escape habitat (i.e., dens) (Clark et al. 2005, Moehrenschrager 2007). Avoidance of predation and other adverse, interspecific interactions with other, larger canids such as coyote (*Canis latrans*) and red fox (*V. vulpes*) appear to be more important than other factors (including prey availability). Therefore, corridor width as a design parameter appears to be less important than the density of potential escape habitat in the corridor. Further support for this hypothesis is provided by the study on SJKF movement in urban Bakersfield (Frost 1995). This latter study found that linear corridors (including relatively narrow corridors) were frequently used by SJKF, but in proportion to the availability of den sites. In addition, travel through those corridors without den sites occurred much more rapidly than in other corridors.



In an e-mail communication with Brian Cypher (ESRP), a leading researcher of San Joaquin kit fox, Mr. Cypher states:

“There are just a small handful of observations of foxes using corridors. What we don't know is the success rate of corridor use. For example, for a corridor with a given set of attributes, do 90% of foxes entering the corridor successfully negotiate it, or only 10%? And there are corridors and then there are corridors! If the goal is genetic exchange between populations, then you only need a very small percentage of individuals to successfully negotiate the corridor (some geneticists estimate one individual per generation). But if the goal is to maintain demographic exchange between areas, then you really want most of the animals using a corridor to successfully negotiate it.

... Lately, there seem to be increasing calls for "corridors," but in many cases, the purpose of the corridor is poorly defined and usually ignores the fact that we don't know what constitutes a suitable corridor for the species.”

Thus, Mr. Cypher's statement supports the findings of this review (i.e., there are no current data or analyses regarding what is an appropriate linear corridor design for SJKF).

## Conclusions

Linear corridor widths that have been utilized in biological opinions issued by the USFWS appear to be arbitrary and not based on empirical studies, measureable habitat parameters, or measureable rates of successful movement by SJKF. Furthermore, the acceptable linear corridor widths in biological opinions for other projects on the California Aqueduct or Delta-Mendota Canal (e.g., Formal Section 7 Consultation on the Proposed Monte Dorado Project, Santa Nella, Merced County, California [199900272]) have been as low as 200 feet when measured from the edge of development to the “to [*sic*] of slope edge of canal”<sup>1</sup> (USFWS 2004). Therefore, there is no scientific basis on which to evaluate the merits of a 500-foot wide corridor versus a 300-foot wide corridor as it relates to the movement of SJKF between the proposed Avenal Energy project and California Aqueduct.

Notes: 1 Based on mapping of the corridor boundaries in Figure 6 in the *Environmental Assessment for the Issuance of an Incidental Take Permit for the San Joaquin Kit Fox at the Arnaudo Brothers, Wathen-Castanos and River East Holding Sites Within and Adjacent to, the Santa Nella Community Specific Plan Area Merced County, California*. (<http://www.harveyecology.com/PDF/EA%20Phase%20I.pdf>) the term “to of slope edge of canal” is assumed to refer to the in-board (i.e., canal side) toe-of-slope of the canal levee.

### **Bibliography and Literature Cited**

- Beedy, E. C., V. K. Getz, and D. A. Airola. 1992. Status of the San Joaquin kit fox (*Vulpes macrotis mutica*) in the urban Kern River Parkway, Bakersfield, California. Pages 47-54 in D. F. Williams, S. Byrne, and T. A. Rado, editors. Endangered and sensitive species of the San Joaquin Valley, California. California Energy Commission, Sacramento, California.
- Bjurlin, C. D. and B. L. Cypher. 2003. Effects of roads on San Joaquin kit foxes: a review and synthesis of existing data. Pages 397-406 in C. L. Irwin, P. Garrett, and K. P. McDermott, editors. 2003 Proceedings of the International Conference on Ecology and Transportation. Center for Transportation and the Environment, North Carolina State University, Raleigh, North Carolina.
- California Department of Fish and Game (DFG). 1995. San Joaquin kit fox crossing structure evaluation. Bay-Delta and Special Water Project Division. Stockton, California. 30 pp. +appendices.
- California Department of Fish and Game (DFG). 2008. California Natural Diversity Data Base.
- Cypher, B. L., S. E. Phillips, and P. A. Kelly. 2007. Habitat suitability and potential corridors for San Joaquin kit fox in the San Luis Unit - Fresno, Kings and Merced counties, California. California State University-Stanislaus, Endangered Species Recovery Program, Fresno, California.
- Frost, N. 2005. San Joaquin kit fox home range, habitat use, and movements in urban Bakersfield. Master's Thesis, Humboldt State University, California
- Grinder, M. I. and P. R. Krausman. 2001. Home range, habitat use, and nocturnal activity of coyotes in an urban environment. *Journal of Wildlife Management* 65:887-898.
- Hardenbrook, D. B. 1987. Habitat usage and den sites of kit foxes in west-central Nevada. Master's Thesis, Humboldt State University, California
- Kamler, J. F., W. B. Ballard, E. B. Fish, P. R. Lemons, K. Mote, and C. C. Perchellet. 2003. Habitat use, home ranges, and survival of swift foxes in a fragmented landscape: conservation implications. *Journal of Mammalogy* 84:989-995.
- Kintigh, K. M. and M. C. Andersen. 2005. A den-centered analysis of swift fox (*Vulpes velox*) habitat characteristics in northeastern New Mexico. *American Midland Naturalist* 154:229-239.

- Koopman, M. E. 1995. Food habits, space use, and movements of the San Joaquin kit fox on the Elk Hills Naval Petroleum Reserves in California. Master's Thesis. Department of Forestry and Resource Management, University of California, Berkeley, CA. 41 pp.
- Koopman, M. E., B.L. Cypher, and J. H. Scrivner. 2000. Dispersal patterns of San Joaquin kit foxes (*Vulpes macrotis mutica*). Journal of Mammalogy 81(1):213-222.
- Lucherini, M., S. Lovari, and G. Crema. 1995. Habitat use and ranging behaviour of the red fox (*Vulpes vulpes*) in a Mediterranean rural area: is shelter availability a key factor? Journal of Zoology 237:577-591.
- Matlack, R. S., P. S. Gipson, and D. W. Kaufman. 2000. The swift fox in rangeland and cropland in western Kansas: relative abundance, mortality, and body size. Southwestern Naturalist 45:221-225.
- Moehrensclager, A., R. List, and D. W. Macdonald. 2007. Escaping intraguild predation: Mexican kit foxes survive while coyotes and golden eagles kill Canadian swift foxes. Journal of Mammalogy, 88(4):1029-1039.
- Murphy, T. D. 1992. Kit fox distribution and activity in Bakersfield, California. Page 380 in D. F. Williams, S. Byrne, and T. A. Rado, editors. Endangered and sensitive species of the San Joaquin Valley, California. California Energy Commission, Sacramento, California. (abstract only).
- Nelson, J.L., B.L. Cypher, C.D. Bjurlin, and S. Creel. 2007. Effects of habitat on competition between kit foxes and coyotes. Journal of Wildlife Management 71:1467-1475.
- O'Neal, G. T., J. T. Flinders, and W. P. Clary. 1987. Behavioral ecology of the Nevada kit fox (*Vulpes macrotis nevadensis*) on a managed desert rangeland. Pages 443-481 in H. H. Genoways, editor. Current mammalogy. Volume 1. Plenum Press, New York, New York.
- Rosatte, R. C., M. J. Power, and C. D. MacInnes. 1991. Ecology of urban skunks, raccoons, and foxes in metropolitan Toronto. Pages 31-38 in L. W. Adams and D. L. Leedy, editors. Wildlife conservation in metropolitan environments. National Institute for Urban Wildlife, Symposium Series 2, Columbia, Maryland.
- Uptain, C.E., D.P. Newman, P. A. Kelly, D. F. Williams, and B. L. Cypher. 2000. Analysis of San Joaquin kit fox movements and their use of crossing structures near the State Route 152/33 interchange, Merced County, California. California State University-Stanislaus, Endangered Species Recovery Program. Fresno, California. 35 pp.

U.S. Fish and Wildlife Service (USFWS). 1998. Recovery plan for upland species of the San Joaquin Valley, California. United States Fish and Wildlife Service, California/Nevada Operations Office, Portland, Oregon. 319 pp.

U.S. Fish and Wildlife Service (USFWS). 2004. Formal Section 7 Consultation on the Proposed Monte Dorado Project, Santa Nella, Merced County, California (199900272). Sacramento Fish and Wildlife Office, Sacramento, California.

Warrick, G.D., H.O. Clark, Jr., P.A. Kelly, and D.F. Williams, and B.L. Cypher. 2007. Use of agricultural lands by San Joaquin kit foxes. *Western North American Naturalist* 67:270-277.

Zoellick, B.W., C. E. Harris, B. T. Kelly, T. P. O'Farrell, T. T. Kato, and M. E. Koopman. 2002. Movements and home ranges of San Joaquin kit foxes (*Vulpes macrotis mutica*) relative to oil-field development. *Western North American Naturalist* 62(2):152-159.

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

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

Michael Bumgardner  
Bumgardner Biological Consulting

## MICHAEL BUMGARDNER

Principal, Bumgardner Biological Consulting

Mr. Bumgardner has over 20 years of experience with the terrestrial vertebrates, invertebrates, and flora of North, Central, and South America; Asia; Africa; and western Europe. He also has over 18 years of experience in the management and preparation of environmental documents that comply with the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), Tahoe Regional Planning Agency (TRPA) Rules of Procedure, Federal Endangered Species Act (FESA), and California Endangered Species Act (CESA). He has extensive experience in the coordination and preparation of biological resource assessments, impact assessments, management plans, mitigation programs, and habitat conservation planning and permitting associated with special-status species.

### TECHNICAL CAPABILITIES

- Experienced with the statutory requirements and guidelines for federal Endangered Species Act Section 7 Consultations, Section 10(a)(1)(B) incidental take permits, Section 10(a)(1)(A) safe harbor agreements, and California Fish and Game Code Section 2081 management agreements and Section 2080.1 consistency determinations.
- Experienced in the preparation of biological assessments and conservation strategies for state and federal threatened and endangered species and other special-status species.
- Managed and conducted surveys for species including, but not limited to: *valley elderberry longhorn beetle*, *California tiger salamander*, *arroyo toad*, *western spadefoot*, *mountain yellow-legged frog*, *California red-legged frog*, *desert tortoise*, *western pond turtle*, *blunt-nosed leopard lizard*, *giant garter snake*, *San Joaquin kit fox*, *California clapper rail*, *spotted owl*, *northern goshawk*, *burrowing owl*, *Swainson's hawk*, *least Bell's vireo*, *southwestern willow flycatcher*, *California gnatcatcher*.
- Experienced in the management and preparation of environmental documents that comply with CEQA, NEPA, and the TRPA Rules of Procedure.
- Experienced with impact analyses involving sensitive habitats and special-status species, designing feasible mitigation measures to reduce significant impacts on biological resources, and resolving project conflicts with biological resources.
- Serves on the Science Subteam of the US Fish and Wildlife Service's Recovery Team for the Santa Barbara County DPS of *California tiger salamander*.
- Served as guest lecturer for course on Ecological Methods (Sierra Community College) and Conservation Biology (California State University - Sacramento).

### EDUCATION AND AFFILIATIONS

B.S., Zoology, June 1980, University of California at Davis, California

#### Registrations

Federal Scientific Take Permit No. TE-785564-6 for California Gnatcatcher (*Poliopitila californica californica*), Southwestern Willow Flycatcher (*Empidonax trailii extimus*), California Clapper Rail (*Rallus longirostris obsoletus*), and California Tiger Salamander (*Ambystoma californiense*)

California Department of Fish and Game Scientific Collector's Permit #801214-01 and Letter of Authorization for Yellow-billed Cuckoo (*Coccyzus americanus*), Willow Flycatcher (*Empidonax trailii*), California Gnatcatcher (*Poliopitila californica californica*), California Black Rail (*Laterallus jamaicensis coturniculus*), and California Clapper Rail (*Rallus longirostris obsoletus*)

### PROJECT EXPERIENCE

#### State and Federal Endangered Species Act Compliance

Sespe Oil Field Endangered Species Act/Permitting Assistance in Regards to *California Condor*, Seneca Resources  
Kettleman Hills North Dome Oil Field *Blunt-Nosed Leopard Lizard* Surveys, McCormick Biological and Chevron  
*California Red-legged Frog* Monitoring, Salvage, and Relocation for the Marsh Creek Bridge Repairs, Sycamore Environmental Consultants and Contra Costa County Planning Department  
*San Joaquin Kit Fox* Potential Den Surveys and Clearance for the Vernalis-Thoming 3 & 4 Aggregate Mining Sites, Teichert Aggregates  
*Least Bell's Vireo* and *Southwestern Willow Flycatcher* Surveys within Recreation Residence Tracts of the Angeles National Forest, Angeles National Forest  
*San Joaquin Kit Fox* Potential Den Surveys on 2,700+ Acres within The Villages at Laguna San Luis SUDP, Berryman Ecological LLC  
Review of Coachella Valley Multi-Species Habitat Conservation Plan and EIR/EIS (particularly for *Peninsular Bighorn Sheep*), Pacific Municipal Consults and City of Palm Springs  
Review and Comment on Proposed Critical Habitat for *Southwestern Willow Flycatcher*, Southern California Edison  
Soledad Canyon Sand and Gravel Mine Expert Witness Services, Jeffer, Mangels, Butler, and Marmaro LLP  
Angeles National Forest Fire and Vegetation Management Program Endangered Species Surveys and FESA Compliance, North State Resources, Inc.  
Northwest Casmalia Enhanced Oil Recovery Project *California Tiger Salamander* and *California Red-legged Frog* Habitat Assessment and Endangered Species Act Compliance, Santa Maria Pacific, LLC  
Kettleman Hills Waste Management Facility Class 1 Landfill Expansion *Blunt-nosed Leopard Lizard* Surveys and Endangered Species Act Compliance, TRC Solutions  
Zeneca Richmond Facility Saltmarsh Remediation Project *California Clapper Rail* Focused Survey and Habitat Evaluation/Impact Assessment, LFR Levine Fricke  
Los Flores Ranch Remediation Project *California Tiger Salamander* Habitat Evaluation, Impact Assessment, and Alternative Land Use Development Strategy, Chevron  
White Paper on the Known Historic and Current Distribution of the *San Joaquin Kit Fox* in Eastern Merced and Stanislaus Counties and Western Madera County, Merced County  
UC Merced/University Community Federally Listed *Vernal Pool Crustacean*, *California Tiger Salamander*, *Special-Status Plant*, and *San Joaquin Kit Fox/Fresno Kangaroo Rat* Survey Programs and Biological Assessment, University of California and Merced County  
Turk Anticline 3-D Seismic Exploration Project Endangered Species Impact Avoidance Program, Enron Oil and Gas Company  
Stewart Tract Section 2081 Habitat Management Plan for *Swainson's Hawk*, Califia Development  
Milpitas Recycled Water Pipeline Project Passive Relocation Program for *Burrowing Owl*, Santa Clara Valley Water District



### **Natural Resource Management Projects**

*California Tiger Salamander* Distribution Study in Southern San Luis Obispo County, U.S. Fish and Wildlife Service  
Tulare Basin Wildlife Management Area Planning Assistance, U.S. Fish and Wildlife Service  
Hansen Creek (Nevada) Biological Monitoring Program, Getchell Gold Mine  
Lawrence Berkeley National Laboratory Biological Baseline Database, U.S. Department of Energy  
Environmental Baseline Study for a 10-year comprehensive plan that addresses 280+ petroleum-related projects in eastern Venezuela, Petroleos de Venezuela, S.A.

### **Utility and Infrastructure Projects**

Biological Assessments and Monitoring for Various Projects on the U.S. Bureau of Reclamation's Delta-Mendota Canal, San Luis & Delta-Mendota Water Authority  
Avenal Energy Project Application for Certification and Endangered Species Act Compliance, TRC Solutions  
Elk Grove Routine Stormwater Channel Maintenance Program Biological Assessment for *Giant Garter Snake* and *Valley Elderberry Longhorn Beetle*, City of Elk Grove  
Habitat Assessments for *Southwestern Willow Flycatcher* at Southern California Edison Facilities in the Santa Ana River Watershed, Southern California Edison  
Alba Phase 3 LNG Plant Preliminary Impact Analysis, Alternatives Analysis, and Environmental Impact Assessment (EIA) (Equatorial Guinea), Marathon Oil Company  
Mill Creek 2/3 Hydroelectric Project FERC Relicensing *Southwestern Willow Flycatcher* Expert Witness Services, Downy, Brand, Seymour, and Rohwer  
Santa Rosa Subregional Long-Term Wastewater Project EIR and Biological Assessment, City of Santa Rosa  
Southern Nevada Water Authority Treatment and Transmission Facility EIS and Biological Assessment, Southern Nevada Water Authority (Nevada)  
Biological Evaluations for Several Wastewater Infrastructure Projects on National Forest lands in the Lake Tahoe Basin, South Tahoe Public Utility District  
Echo Lake Dam Stabilization Environmental Assessment, PG&E

### **Mining Projects**

*California Red-legged Frog* Survey and Endangered Species Act Compliance Strategy for the Gardner Ranch Mining and Processing Facility, Granite Construction Company  
*California Red-legged Frog* Survey for the Bee Rock Quarry and Adjacent Drainages, Granite Construction Company  
Day Creek-Inland Rock Mine Expansion *San Bernardino Kangaroo Rat* Trapping Study, West Coast Environmental & Engineering and Hanson Aggregates  
Los Alamos Sand Mine *California Tiger Salamander* and *California Red-legged Frog* Surveys, Biological Assessment, and Safe Harbor Agreement, Los Alamos Sand Company  
Williams Quarry Expansion Project Biological Resources Report, Resource Design Technology, Inc.  
Madera Ranch Quarry *California Tiger Salamander* Biological Assessment and Draft Biological Opinion, Pacific Municipal Consultants  
Ozena Valley Ranch Surface Mining Site Biological Resources Report, West Coast Environmental & Engineering  
Santa Maria River Surface Mining Site Biological Resources Report, West Coast Environmental & Engineering  
Diamond Rock Surface Mining Site Biological Resources Report and *Blunt-nosed Leopard Lizard* Impact Avoidance Program, West Coast Environmental & Engineering

### **Transportation Projects**

Analysis of Impacts to *Willow Flycatcher* Habitat from Emergency Washout Repairs on the Caliente Line along Meadow Valley Wash (Nevada), Union Pacific Railroad  
Analysis of Impacts to *Willow Flycatcher* Habitat from Emergency Washout Repairs on the Clifton Branch of the Lordsburg Line along the Gila River (Arizona), Union Pacific Railroad  
Biological Evaluations for 18 Union Pacific Railroad Bridge Replacement Projects in California, Olsson Consulting  
Grizzly Island Road Bridge Replacement Project *California Clapper Rail* Surveys, Sycamore Environmental Consultants  
Union Pacific Railroad Yolo Bypass North Track Project Biological Assessment, Parsons Corporation  
Kowloon-Canton Railway Corporation Lok Ma Chau Spurline (Hong Kong) Expert Witness Services, Denton Wilde Sapte (Legal Counsel, London)  
Kowloon-Canton Railway Corporation Lok Ma Chau Spurline Environmental Impact Assessment Defensibility Review and Response to Comments, California Environmental Consulting Associates  
US Highway 101 Auxiliary Lanes Project Wetlands Delineation, Natural Environment Study, and Biological Assessment, San Mateo County Department of Transportation

### **TRPA Projects**

Heavenly Ski Resort Master Plan EIR/EIS, Biological Resources Surveys, Biological Evaluation, and Annual Monitoring Programs, Heavenly Ski Resort and Tahoe Regional Planning Agency  
Golden Bear Park Master Plan EIR/EIS, Tahoe Regional Planning Agency and El Dorado County  
Harootunian Trust Land Transfer Biological Evaluation, Lake Tahoe Basin Management Unit, USDA Forest Service

### **Department of Defense Projects**

*California Gnatcatcher* Surveys for the Santa Margarita River Conjunctive Use Project within MCB Camp Pendleton, Fallbrook Naval Weapons Station, and City of Fallbrook, North State Resources, Inc.  
Brooks Air Force Base (Texas) Inventory of Avian Species, U.S. Air Force Center for Environmental Excellence (AFCEE)  
Hohenfels Combat Maneuver Training Center (Germany) Integrated Natural Resources Management Plan-Fish and Wildlife and Threatened and Endangered Species Management Programs, U.S. Army Europe (USAEUR)  
Andrews Air Force Base and Davidsonville and Brandywine Communication Sites (Maryland) Biological Inventory and Integrated Natural Resources Management Plan, AFCEE  
Fort Leonard Wood (Missouri) BRAC US Army Chemical School and Military Police School Relocation Mitigation Monitoring Framework and Adaptive Management Strategy, U.S. Army  
U.S. Fish and Wildlife Service World-listed, and Portuguese Government Listed Species Surveys and Integrated Natural Resources Management Plan (Azores), AFCEE and U.S. Air Force Air Combat Command (ACC)  
Dyess Air Force Base (Texas) Threatened and Endangered Species, Fish and Wildlife, and Outdoor Recreation Component Plans of the Integrated Natural Resources Management Plan, ACC  
Vandenberg Air Force Base (California) Fiber Optic Cable Route Biological Assessment, U.S. Air Force Space Missile Command  
Camp Pendleton Relocation of Baseline Road and Case Springs Access Road Habitat Suitability and Assessment for the *Stephen's Kangaroo Rat*, *California Gnatcatcher*, and *Least Bell's Vireo*, U.S. Marine Corps

**ATTACHMENT 2**

**March 21, 2002 Letter from USFWS to EPA**







# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W2605  
Sacramento, California 95825

IN REPLY REFER TO:  
1-1-01-I-2167

March 21, 2002

Mr. Mark Sims  
Permits Office  
Environmental Protection Agency  
Region IX  
75 Hawthorne Street  
San Francisco, CA 95819

Subject: Application for Avenal Cogeneration and Power Project, Kern County, California

Dear Mr. Sims:

This letter acknowledges the U.S. Fish and Wildlife Service's (Service) February 21, 2002, receipt of your February 13, 2002, letter requesting initiation of formal section 7 consultation under the Endangered Species Act of 1973, as amended. The consultation concerns the possible effects of the proposed Avenal Energy Project, Kings County, California. The project includes the construction and operation of 600 MW combined-cycle power generating plant and ancillary facilities. Natural gas for the project would be provided with an underground pipeline interconnection to an existing PG&E gas line at the Kettleman compressor station, which is located approximately 7,000 feet southwest from the site. Additionally, the project would deliver electric power to the PG&E transmission grid through a new, onsite 230-kV switchyard by constructing approximately 7,000 feet of new, double circuit 230-kV line to loop the existing PG&E Gates-ARCO 230-kV line into the site.

On page 25 of the Avenal Energy Biological Services Technical Report, it states that the eastern edge of the site boundary is approximately 200 feet from the edge of the maintained grasslands. The swaths vary in width from 20 to 400 feet, averaging 80 feet in most places. We request that Avenal provide at least 300 feet of buffer from their facilities (including parking lots and landscaping) to the edge of the San Luis Canal, to minimize disruption of kit fox foraging, breeding and resting behavior. This 300 foot buffer may include any easements already owned by the Bureau of Reclamation.

In order to consider this application complete we request information stating that creating the 300 feet of buffer between the facilities to the San Luis Canal can be accomplished to minimize impacts to kit fox. We have assigned log number 1-1-02- I-2167 to this consultation. Please refer to that number in future correspondence on this consultation. We are considering use of the Kern Water Bank Master Permit for incidental take authorization and compensation requirements for this project, in order to expedite our processing of this project.

Mr. Mark Sims

2

As a reminder, the Endangered Species Act requires that after initiation of formal consultation, the Federal action agency may not make any irreversible or irretrievable commitment of resources that limits future options. This practice insures agency actions do not preclude the formulation or implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered or threatened species or destroying their critical habitats. If you have any questions or concerns about this consultation or the consultation process in general, feel free to contact Brian Peterson or Susan Jones of this office at (916) 414-6600.

Sincerely,

   
Jan C. Knight  
Chief, Endangered Species Division

cc:

California Energy Commission, Sacramento, California (Attn: Julie Collier)  
Duke Energy, Oakland, California (Attn: Wayne Hoffman)  
TRC, Pismo Beach, California (Attn: Joseph Stenger)  
EIP Associates, Sacramento, California (Attn: Michael Bumgardner)  
EIP Associates, Sacramento, California (Attn: Mark C. Genaris)  
California Department of Fish and Game, Fresno, California (Attn: Annette Tenneboe)

**ATTACHMENT 3**  
**Elisha Back Resume**



## **ELISHA BACK**

---

### **EDUCATION**

California State University, Fullerton, B.S., Political Science

### **AREAS OF EXPERTISE**

- CEQA and NEPA
- Sec. 404 & 401, Clean Water Act
- Sec. 404(b)(1) Alternatives Analysis
- Sec. 1600, California Fish & Game Code
- Sec. 7, Federal Endangered Species Act
- California State Endangered Species Act
- Sec. 106, National Historic Preservation Act
- California Coastal Act
- Local Land Development permits
- NPDES
- Environmental policy development
- Construction support
- Wetland mitigation development, monitoring, and reporting

### **REPRESENTATIVE EXPERIENCE**

Ms. Elisha Back has more than 17 years of environmental project management experience related to environmental planning and permitting of projects in California, Arizona, Nevada, Texas, Oregon, and Washington. She has worked on many types of projects including land development, public works, energy, transportation, fiber optics, and pipelines at all levels from due diligence and planning through construction and all phases in-between. Ms. Back has worked with local, state and federal agencies on behalf of her clients to obtain approvals. She has experience with environmental reviews associated with CEQA and NEPA. Types of permits approvals have included but are not limited to Section 404 Permits, Section 401 Water Quality Certifications, Coastal Development Permits, and encroachment permits. She has interacted with federal and state agencies regarding threatened and endangered species issues and cultural resource issues associated with the issuance of environmental permits. In addition, Ms. Back has provided onsite assistance with environmental compliance for construction personnel, coordination of environmental monitors and daily coordination with resource agencies regarding ongoing construction activities.



### **Energy Projects**

#### **Kinder Morgan Energy Partners In-House Permitting Assistance (2003-2006)**

Project Manager for providing in-house permitting and planning assistance to Kinder Morgan Energy Partners for their west coast operations. Projects include routine pipeline maintenance, expansion projects, emergency maintenance projects, releases, etc. Projects have required compliance with CEQA, NEPA, Sections 404 and 401 of the Clean Water Act, Section 1600 of the Fish and Game Code, Section 7 of the Endangered Species Act, NPDES, as well as local requirements. Also included as part of these projects are biological and cultural surveys and construction monitoring.

#### **Tucson Pipeline Expansion Project - Tucson, Arizona (2004)**

Permitting Project Manager for the KMEP project which included development of 12 miles of pipeline through the City of Tucson and surrounding areas. Issues included Native American coordination, cultural resource surveys and permits, native plant plans and permits, water discharge permits, NPDES compliance, 404 Nationwide Permit compliance, and public outreach.

#### **Nellis Tank and Pipeline Expansion Project - Las Vegas, Arizona (2005)**

Permitting Project Manager for the KMEP project which includes development of two 80,000-barrel tanks and over 5 miles of new pipeline located on the Nellis Air Force Base. Issues included processing a NEPA document, 404 Nationwide Permit compliance, NPDES, Air Permits, Dust Permit, Endangered Species coordination, and processing a real estate documentation from the Army Corps of Engineers.

#### **Miramar Tank and Pipeline Expansion Project - Miramar, California (2005-2006)**

Environmental Project Manager for the KMEP project which includes development of four 80,000-barrel tanks and connection to the existing pipeline located on the Miramar Air Force Base. Issues included processing a NEPA document, NPDES, Dust Permit, Endangered Species coordination, and processing a real estate documentation.

#### **Eastline Expansion Project - Texas to Arizona (2005)**

Cultural Resource Project Manager for the proposed KMEP pipeline expansion project from El Paso, Texas to Phoenix, Arizona. Project involvement included development of a Programmatic Agreement with the Advisory Council and the BLM, oversight for the cultural surveys and data recovery, oversight for obtaining

the required permits and approvals from various agencies for the projects for cultural resource issues, management of the two cultural resource firms working on the project, and management of the \$4.0 million dollar budget for the project for cultural resource issues.

### **Fresno Tank Expansion Project - Fresno, California (2004)**

Project Manager for environmental permitting for the construction of a new tank in the existing KMEP tank farm in Fresno. Project included development and processing of a CEQA document and Conditional Use Permit through the City of Fresno.

### **Land Development Projects**

### **Panhandle Residential Development – Sacramento, California (2006-2007)**

Project Manager for the environmental permitting and entitlements for the Project on behalf of Dunmore Homes. Included an Environmental Impact Report with the City of Sacramento as the Lead Agency, processing Section 404 Individual Permit, Section 401 Certification, Section 1602 Agreement and Section 7 Consultation. Project included development of 600 acres and 3,000 homes. Issues included fairy shrimp, vernal pool impacts, wetlands, traffic, potential flood zones, air quality, adjacent land owners, aesthetics.

### **Wildhawk Residential Development Project – Sacramento, California (2006-2007)**

Project Manager for the environmental permitting and entitlements for the Project on behalf of Dunmore Homes. Included a Mitigated Negative Declaration with DERA as the lead agency, processing Section 404 Individual Permit, Section 401 Certification, Section 1602 Agreement and Section 7 Consultation. Also responsible for working with mitigation brokers to obtain the necessary wetland and vernal pool mitigation for the project. Project included development of 126 acres and over 800 homes. Issues included potential impacts to protected fairy shrimp, vernal pools, wetlands, traffic, air quality.

### **Whispering Oaks Residential Development Project – Lincoln, California (2006-2007)**

Project Manager for the environmental entitlements and permitting for the Project on behalf of Dunmore Homes. Included Environmental Impact Report, General Development Plan, Specific Plan, Section 404 NWP, Section 401 Certification, Section 1602 Agreement and Section 7 Consultation. Also responsible for working with mitigation brokers to obtain the necessary wetland and vernal pool mitigation for the project. Project included development of 20 acres and 114 homes.



**Spectrum 5 Development Project - Irvine, California (1999)**

Project Manager for the environmental permitting for the Project on behalf of The Irvine Company. Included processing Section 404 Individual Permit, Section 401 Certification, Section 1603 Agreement, and Section 7 Compliance; preparing Section 404(b)(1) Alternatives Analysis; completing the jurisdictional delineation; conducting construction monitoring; and developing mitigation plan. Project utilized the Natural River Management Concept, which allowed for natural growth within San Diego Creek. This concept consisted of widening and stabilization of the existing creek bottom, placement of soil cement lining on the side slopes and toe down, and construction of wetland habitat mitigation sites in the creek bottom while preserving the existing natural habitat.

**Otay Mesa Skeet and Trap Shooting Range Remediation Project - Chula Vista, California (2005-2006)**

Project Manager for the environmental permitting for the Project on behalf of Flat Rock Development. Project includes remediation of former shooting range near area utilized by protected species. Includes management of subconsultants, processing of technical studies, working with lead agency and development of documentation in support of the Initial Study and Mitigated Negative Declaration.

**Presidio in the Pines - Coconino County, Arizona (2005)**

Project Manager for the environmental permitting and review for the project. Included both biological and cultural surveys for a 250 acre property proposed for development near the city of Flagstaff. Permitting included Section 404 and 401 permitting as well as informal consultation with the USFWS on potential for occurrence of Mexican spotted owl (*Strix occidentalis lucida*).

**Georgia Pacific - Mendocino County, California (2004)**

Environmental Project Manager tasked with assessing biological resources, cultural resources and potential permitting issues on a 500-acre saw mill facility along the coast near Fort Bragg, California.

**Shady Canyon Golf Course and Residential Development Project - City of Irvine, California (1999)**

Project Manager for the environmental permitting on behalf of The Irvine Company. Included processing Section 404 Nationwide Permit, Section 401 Certification, Section 1603 Agreement, and Section 7 Compliance; Coordinating regarding NCCP compliance issues; conducting jurisdictional delineation; managing biological surveys; and developing mitigation plan.



**Sherwood Park Project, City of Huntington Beach, California (1997)**

Project Manager for the environmental permitting on behalf of PLC Land Company. Included processing Section 404 Nationwide Permit, Section 401 Certification, and Section 1603 Agreement; conducting jurisdictional delineation; developing the mitigation plan; and site monitoring and reporting.

**Sunol Valley Golf Course Irrigation Pond Improvement Project - Sunol, California (2005)**

Project Manager for the environmental permitting for Sunol Valley Golf Course. Project included improvements to existing irrigation ponds located within habitat for federally protected species as well as the development of a new maintenance yard. Environmental permitting included preparation and processing of a Mitigated Negative Declaration, NPDES compliance, Section 404 Permit, Section 401 Water Quality Certification, Section 7 Compliance, and Section 1602 Streambed Alteration Agreement.

**Spectrum 6 Development Project - City of Irvine, California (1998)**

Project Manager for environmental permitting on behalf of The Irvine Company. Included processing Section 404 Individual Permit, Section 401 Certification, and Section 1603 Agreement; conducting jurisdictional delineation; and preparing Section 404(b)(1) Alternatives Analysis.

**Bonita Village Residential Development Project - City of Irvine, California (1997)**

Project Manager for the environmental permitting on behalf of The Irvine Company. Included processing Section 404 Nationwide Permit, Section 1601 Agreement, and Section 401 Certification; conducting jurisdictional delineation; compliance with NCCP requirements; development of mitigation plan; and ensuring compliance with Section 7.

**Jamboree Business Center - City of Irvine, California (1997)**

Project Manager for the environmental permitting on behalf of The Irvine Company. Included processing the Section 404 Nationwide Permit, Section 1603 Agreement, and Section 401 Certification; and conducting jurisdictional delineation.

**Retail Center Project - City of Irvine, California (1996)**

Project Manager for the environmental permitting on behalf of The Irvine Company. Included processing the Section 404 Nationwide Permit, Section 401

Certification, and Section 1603 Agreement; and conducting jurisdictional delineation.

**Newporter North - City of Newport Beach, California (1995)**

Project Manager for the environmental permitting on behalf of The Irvine Company. Included processing a Section 404 Nationwide Permit, Section 1603 Agreement, and Section 401 Certification; conducting a jurisdictional delineation; ensuring compliance with Section 106; and preparing a mitigation plan.

**Planning Area 10 Project - City of Irvine, California (1997)**

Project Manager for the environmental permitting on behalf of The Irvine Company. Included processing of the Section 404 Individual Permit, Section 401 Certification, and Section 1603 Agreement; conducting jurisdictional delineation; and preparing Section 404(b)(1) Alternatives Analysis.

**Linear Park Outlet - City of Huntington Beach, California (1998)**

Project Manager for the environmental permitting on behalf of PLC Land Company. Included processing Section 404 Nationwide Permit, Section 401 Certification, and Section 1603 Agreement; and developing the mitigation plan.

**Liberty and North Peak Projects - City of Lake Elsinore, California (1998)**

Coordinated with the Corps regarding compliance with Section 106 for The Town Group (formerly TMC).

**Infrastructure**

**5 Bridges Replacement – San Bernardino, California (2007-2008)**

Project Manager for the environmental permitting on behalf of BNSF Railway. Project included replacement of 5 deck replacements. Included processing emergency permits from the agencies. Required coordination with BLM due to access issues. Two of the bridges were located within critical habitat for the desert tortoise.

**Oakland Bridge Skyway Project - City of Stockton, California (2003)**

Project Manager for the environmental entitlements and permitting for Kiewit/FCI/Manson Oakland Bridge Skyway Project. Project included development of a pre-cast yard, batch plant, and barge slip for development of the segment for the new Oakland Bay Bridge. Environmental permitting included preparation and processing of a Mitigated Negative Declaration and NPDES compliance. Also included was processing of the Section 404 Permit, Section

1603 Streambed Alteration Agreement, Section 7 Consultation and Section 401 Water Quality Certification for the barge slip that was part of the project.

**Harbor North Off-Ramp - Costa Mesa, California (2005-2006)**

Environmental Project Manager for the environmental clearances for the proposed Harbor North Off-Ramp off the I-405. Project required clearance through CEQA and the City of Costa Mesa is the Lead Agency and Caltrans was acting as a Responsible Agency. Responsible to have all technical studies prepared for the project including air, noise, natural resources, cultural resources, and visual impacts.

**Borrego Wash Improvements - County of Orange, California (1998)**

Project Manager for the environmental entitlements and permitting for the Irvine Ranch Water District for improvements to Borrego Wash for protection of adjacent waterlines. Included preparing and processing CEQA/NEPA documents, Section 404 Nationwide Permit, Section 1603 Agreement, and Section 401 Certification. Also included conducting the jurisdictional delineation and preparing the Air Quality Analysis.

**Natural River Management Concept - Valencia, California (1995)**

Assisted with the development of the Natural River Management Concept. It allows for the stabilization of rivers while preserving the river's natural characteristics.

**San Diego Creek Watershed General Permit - Orange County (1993-1994)**

Project Manager for the development and processing of the Section 404 Permit and Section 1600 Agreement for The Irvine Company, the County of Orange, and the City of Irvine. Included permit submittals and jurisdictional delineation.

**Hicks and East Hicks Retarding Basins - Orange County, California (1997)**

Project Manager for the environmental permitting for The Irvine Company. Included processing Section 404 Nationwide Permit, Section 401 Certification, Section 1603 Agreement, and Section 7 Compliance; and conducting jurisdictional delineation.

**Laguna Terrace Park - Laguna Beach, California (1996)**

Project Manager for the environmental permitting for the interim flood control protection of the Laguna Terrace Park. Included processing a Section 404 Nationwide Permit, Section 1603 Agreement, Section 401 Certification, and a Coastal Development Permit; and conducting a jurisdictional delineation.



**Nutmeg Street Bridge - City of Murrieta, California (1996)**

Project Manager for the environmental permitting for the Nutmeg Street Bridge project. Included processing a Section 404 Nationwide Permit, Section 1603 Agreement, and Section 401 Certification; and conducting a jurisdictional delineation.

**Agua Chinon Retarding Basin - Orange County, California (1997)**

Project Manager for the environmental permitting for The Irvine Company. Included processing a Section 404 Nationwide Permit, Section 401 Certification, Section 1603 Agreement, and Section 7 Compliance; managing the CEQA update; and conducting jurisdictional delineation.

**City of Corona Operation and Maintenance Permit - Corona, California (1996)**

Project Manager for the City of Corona. Included processing Section 404 Permit, Section 401 Certification, Section 1601 Agreement, Section 7 Biological Opinion; preparing and processing the NEPA document; and conducting jurisdictional delineation.

**Borrego Wash Improvements - County of Orange, California (1995)**

Project Manager for the environmental permitting for the Los Alisos Water District for improvements to Borrego Wash for protection of adjacent waterlines. Included processing Section 404 Nationwide Permit, Section 1603 Agreement, and Section 401 Certification; conducting jurisdictional delineation; preparing and processing CEQA and NEPA documents; and preparing the Air Quality Analysis.

**Main Street Channel Maintenance Project - City of Corona, California (1997)**

Project Manager for the environmental permitting for the City of Corona. Included processing Section 404 Individual Permit, Section 1601 Agreement, and Section 401 Certification.

**Fiber Optics Projects****Level (3) Communications Project - San Luis Obispo to Oxnard, California (1999-2002)**

Project Environmental Coordinator for the environmental permitting and compliance for the portion of the project between San Luis Obispo and Oxnard for contractor, Kiewit Pacific Co. Included processing Section 404 Nationwide 12 Permits, Section 401 Waiver of Certifications, Section 1603 Agreements, several Coastal Development Permits, encroachment permits; also included providing

onsite assistance to the construction personnel with compliance with environmental issues, coordination of environmental monitors and daily coordination with resource agencies regarding ongoing construction. Required to manage several subconsultants on behalf of the client as well as provide oversight to over 150 monitors.

### **Level (3) Carpinteria Realignment - Santa Barbara County, California (2003)**

Project Manager for environmental permitting on behalf of Level (3) Communications for the re-alignment of the fiber optic line near Carpinteria. Project involved filing for amendment to Mitigated Negative Declaration for fiber optic line construction in wetland habitat within Santa Barbara County. Also included biological survey, processing environmental permits, a Horizontal Directional Drilling (HDD) Plans, Frac-Out Contingency Plans, Stormwater Pollution Prevention Plans (SWPPP), Spill Prevention Control and Countermeasure (SPCC) Plans, Revegetation Plans, and Mitigation and Monitoring Plans.

### **Santa Ynez River/San Antonio Creek Realignment Project - Vandenberg Air Force Base, California**

Project Manager for environmental permitting on behalf of Level (3) Communication for the realignment of the fiber-optic beneath two river systems within Vandenberg Air Force Base. Involved biological surveys, coordination with Vandenberg staff, processing environmental permits, Section 7 Consultation with USFWS, development of HDD Plans, Frac-Out Contingency Plans, SWPPP, SPCC Plans, Revegetation Plans, and Mitigation and Monitoring Plans.

### **Sayres and Associates - Various Locations (2003-2005)**

Prepared numerous NEPA compliance documents (Environmental Assessments) and SWPPP for fiber optic extension projects for Homeland Security project. Included site reviews as well as coordination with the resource agencies as required.

### **Mining Projects**

### **Royal Mountain King Mine - Calaveras County, California (2005)**

Project Manager for environmental permitting for Natural Treatment System wetlands. Project included development of wetlands within existing drainages onsite to assist with TDS loading issues as part of the closure of the mine. Included processing Section 404 Permit, Section 401 Certification, and Section 1602 Agreement. Coordinated the biological review and jurisdictional delineation. Other issues also included a Waste Discharge Requirement update, CEQA evaluation, and water rights issues.

**Beartrack Mine - Salmon, Idaho (2005)**

Project Manager for review of wetland issues associated with closure of the mine. On behalf of client review potential issues related to closure of certain elements of the mine and permitting requirements.

**Railroad****BNSF Permitting Assistance – Various Projects (2003)**

Assisted BNSF with various projects related to crossing closures. Permitting included preparation of Proponent's Environmental Assessment for processing with the California Public Utilities Commission, coordination of biological and cultural reviews, and various environmental permits. Projects included Avenue 13, Deadman Creek and North Tower Road.

**Wetland Mitigation Sites****San Joaquin Marsh Mitigation Project - City of Irvine, California (1994)**

Project Manager for the environmental permitting for The Irvine Company. Included processing of the Section 404 Individual Permit, Section 401 Certification, and Section 1603 Agreement; preparing Section 404(b)(1) Alternatives Analysis; conducting jurisdictional delineation; developing the mitigation plan; and site monitoring and reporting.

**City of Corona Mitigation Sites - Corona, California (1995)**

Completed monitoring and reporting requirements for the City of Corona mitigation sites. Included coordination with the resource agencies.

**SPECIALIZED TRAINING**

- Developing a Biological Assessment, USFWS, June 2007
- Successful CEQA Compliance, UCLA Extension, July 2002
- Wetland Delineation and Management Training, Richard Chinn Environmental Training, June 1996
- CalTrans Horizontal Directional Drilling Inspection Course, December 2000
- Federal Energy Regulatory Commission Environmental Compliance Training, February 2003
- Hazwoper Supervisory Training, August 2005
- Various courses toward Environmental Management Certificate, UCI Extension, 2004-2006

**PROFESSIONAL AFFILIATION**

- Association of Environmental Professionals
- American Planning Association
- Women's Environmental Council
- Society of Wetland Scientists
- The National Audubon Society
- Environmental Law Institute
- The Desert Tortoise Council







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

**APPLICATION FOR CERTIFICATION  
For the AVENAL ENERGY PROJECT**

**Docket No. 08-AFC-1  
PROOF OF SERVICE  
(revised 9/22/2008)**

**INSTRUCTIONS:** All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy **AND** e-mail the document to the address for the Docket as shown below, **AND** (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

CALIFORNIA ENERGY COMMISSION  
Attn: Docket No. 07-AFC-9  
1516 Ninth Street, MS-15  
Sacramento, CA 95814-5512  
[docket@energy.state.ca.us](mailto:docket@energy.state.ca.us)

**APPLICANT**

Jim Rexroad, Project Manager  
Avenal Energy Center, LLC  
500 Dallas Street, Level 31  
Houston, TX 77002 USA  
[Jim.Rexroad@macquarie.com](mailto:Jim.Rexroad@macquarie.com)

Tracey Gilliland  
Avenal Power Center, LLC  
500 Dallas Street, Level 31  
Houston TX 77002  
[Tracey.Gilliland@macquarie.com](mailto:Tracey.Gilliland@macquarie.com)

**APPLICANT CONSULTANT**

Joe Stenger, Project Director  
TRC Companies  
2666 Rodman Drive  
Los Osos, CA 93402  
[jstenger@trcsolutions.com](mailto:jstenger@trcsolutions.com)

**COUNSEL FOR APPLICANT**

Jane E. Luckhardt  
DOWNEY BRAND  
555 Capitol Mall, 10th Floor  
Sacramento, CA 95814  
[jluckhardt@downeybrand.com](mailto:jluckhardt@downeybrand.com)

**INTERESTED AGENCIES**

California ISO  
P.O. Box 639014  
Folsom, CA 95763-9014  
[e-recipient@caiso.com](mailto:e-recipient@caiso.com)



## **INTERVENORS**

Loulana A. Miles  
Marc D. Joseph  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080  
[mdjoseph@adamsbroadwell.com](mailto:mdjoseph@adamsbroadwell.com)  
[lmiles@adamsbroadwell.com](mailto:lmiles@adamsbroadwell.com)

John Wilson  
Advisor to Commissioner Rosenfeld  
[jwilson@energy.state.ca.us](mailto:jwilson@energy.state.ca.us)

Gary Fay  
Hearing Officer  
[gfay@energy.state.ca.us](mailto:gfay@energy.state.ca.us)

**\*Christopher Meyer**  
**Project Manager**  
[cmeyer@energy.state.ca.us](mailto:cmeyer@energy.state.ca.us)

## **ENERGY COMMISSION**

Jeffrey D. Byron  
Commissioner and Presiding Member  
[jbyron@energy.state.ca.us](mailto:jbyron@energy.state.ca.us)

Lisa DeCarlo  
Staff Counsel  
[ldecarlo@energy.state.ca.us](mailto:ldecarlo@energy.state.ca.us)


Arthur Rosenfeld  
Commissioner and Associate Member  
[arosenfe@energy.state.ca.us](mailto:arosenfe@energy.state.ca.us)

Public Adviser's Office  
[pao@energy.state.ca.us](mailto:pao@energy.state.ca.us)

## **DECLARATION OF SERVICE**

I, Joshua D. Taylor, Declare that on October 6, 2008, I deposited copies of the attached Supplemental Information regarding a buffer along the San Luis Canal for the Avenal Energy Project (08-AFC-1) at the Federal Express Hub on Barranca Parkway in Irvine, California with waybills fully prepaid and addressed to those individuals identified on the Proof of Service list above.

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

  
Joshua D. Taylor

