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May 11, 2009

DOCKET
08-AFC-09
DATE <u>May 11 2009</u>
RECD. <u>May 11 2009</u>

File No. 039610-0003

VIA FEDEX

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-9
1516 Ninth Street, MS-4
Sacramento, California 95814-5512

Re: City of Palmdale Hybrid Power Plant Project: Docket No. 08-AFC-9

Dear Sir/Madam:

Pursuant to California Code of Regulations, title 20, sections 1209, 1209.5, and 1210, enclosed herewith for filing please a copy of a letter from Matt Amalong to Erinn Wilson regarding the submittal of a revised Application for Incidental Take of Endangered Species, Threatened Species, and Candidate Species for the above-referenced project.

Please note that the enclosed submittal was filed today via electronic mail to your attention and to all parties on the attached electronic proof of service list.

Very truly yours,



Paul E. Kihm
Senior Paralegal

Enclosure

cc: 08-AFC-9 Proof of Service List (w/encl. via e-mail and U.S. Mail)
Michael J. Carroll, Esq. (w/encl.)



May 11, 2009

Erinn Wilson
Staff Environmental Scientist
South Coast Region
18627 Brookhurst Street # 559
Fountain Valley, CA 92708-6748
Office: (714) 968-0953

Dear Erinn,

Re: Palmdale Hybrid Power Project (08-AFC-9) Revised 2081 Application

As discussed on April 20, 2009 during a phone call between Scott Harris and Kim McCormick, counsel for Inland Energy, enclosed is a revised **Application for Incidental Take of Endangered Species, Threatened Species, and Candidate Species** (CESA Application) for the Palmdale Hybrid Power Project (PHPP), which was filed today with the California Energy Commission (CEC). The CESA Application revisions confirm that the City of Palmdale, the project applicant, is not seeking incidental take authorization under CESA for desert tortoise because it is not anticipated that any take of desert tortoise will occur as a result of project construction or operations.

Also provided as part of the CESA Application is Attachment 1, *Determination of Mitigation Ratio for Loss of Potential Mohave Ground Squirrel Habitat*, written by Dr. Phil Leitner. This document provides the basis for the proposed mitigation ratio for impacts to Mohave ground squirrel included in the CESA Application.

We have also included copies of the **Swainson's Hawk Nesting Survey Report** and the **Special-Status Species Surveys Addendum to the BRTR**. These reports were filed with the Energy Commission on May 1, 2009.

We would like to suggest a meeting with CDFG and CEC staff to discuss any questions you may have regarding the CESA Application or any other issues related to biology, and to assist in maintaining the CEC permitting schedule for this project. Please let me know if you believe this would be beneficial, and we can schedule a date and time. Please do not hesitate to contact me if you have any other questions.

Sincerely,

Matt Amalong
Wildlife Biologist

AMEC Earth and Environmental, Inc.
3120 Chicago Avenue, Suite 110
Riverside, CA 92507
Tel (951) 369-8060
Fax (951) 369-8035
www.amec.com

PALMDALE HYBRID POWER PROJECT

FINAL

APPLICATION FOR INCIDENTAL TAKE OF ENDANGERED SPECIES, THREATENED SPECIES, AND CANDIDATE SPECIES

**PER THE CALIFORNIA ENDANGERED SPECIES ACT
IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATIONS,
TITLE 14, DIVISION 1, SUBDIVISION 3, CHAPTER 6, ARTICLE 1, SECTION 783.2**

Prepared for:
City of Palmdale
Los Angeles County, California
38300 Sierra Highway, Suite A
Palmdale, CA 93550
Office: (661) 267-5115

Principal Officer:
Mr. Stephen Williams, City Manager
swilliams@cityofpalmdale.org

Prepared by:
AMEC Earth & Environmental, Inc.
3120 Chicago Avenue, Suite 110
Riverside, California 92507
Office: (951) 369-8060
Fax: (951) 369-8035

Principal Investigator:
Matt Amalong, Wildlife Biologist
matt.amalong@amec.com

May 2009
AMEC Project No. 6554000247

The following application for incidental take of species listed under the California Endangered Species Act (CESA) is being submitted to:

Ed Pert

Regional Manager, CDFG South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123

and

Donald Koch

Director, CDFG
31416 Ninth Street
Sacramento, CA 95814

(1) Applicant's full name, mailing address, and telephone number(s). If the applicant is a corporation, firm, partnership, association, institution, or public or private agency, the name and address of the person responsible for the project or activity requiring the permit, the president or principal officer, and the registered agent for the service of process.

Applicant: City of Palmdale
Los Angeles County, California

Name and
Title of
Principal
Officer: Stephen Williams, City Manager
(661) 267-5115 (Telephone), (661) 267-5122 (Fax),
Email: swilliams@cityofpalmdale.org

Mailing
Address: City of Palmdale, 38300 Sierra Highway, Suite A, Palmdale, CA
93550

(2) The common and scientific names of the species to be covered by the permit and the species' status under the California Endangered Species Act (CESA), including whether the species is the subject of rules and guidelines pursuant to Section 2112 and Section 2114 of the Fish and Game Code.

Species: Mohave ground squirrel (*Spermophilus mohavensis*)
Status: Threatened

(3) A complete description of the project or activity for which the permit is sought.

The City of Palmdale (City) proposes to construct, own, and operate the Palmdale Hybrid Power Project ("PHPP" or "Project"), a nominal 570-megawatt (MW) hybrid combined-cycle and solar thermal electrical generation facility and has contracted with Inland Energy, Inc. to develop the Project. The Project is located in the City of Palmdale

and unincorporated areas of Los Angeles County, California (the power plant site and most linear facilities are within the City; portions of the transmission line route are within unincorporated areas) and includes a 333-acre power plant site, including both a power block and a solar array, 50-acre construction laydown area, 35.6-mile transmission line, 7.4-mile reclaimed water pipeline, 8.7-mile natural gas supply pipeline, 1-mile sanitary wastewater pipeline, and 0.5-mile potable water pipeline (Figure 1). Throughout this report, the term "Project Site" refers to all Project elements in the aggregate (power plant site and all linear facilities); "linear facilities" refers to the various Project pipelines and the transmission line in the aggregate; all other references are to the specific Project component being addressed ("power plant site" or "plant site," "transmission line," "reclaimed water pipeline," "natural gas supply pipeline," "sanitary wastewater pipeline," and "potable water pipeline").

Commencement of construction is planned for late 2009, with commercial operation commencing in summer of 2012. The PHPP will use a zero liquid discharge (ZLD) design (no evaporation ponds), and no off-site industrial liquid waste discharge will occur. Cooling water blowdown from the Project will be processed on-site to solid waste and disposed at a permitted off-site disposal facility. The Project is expected to supply power to the rapidly growing southern California market, with the solar thermal input providing approximately 10 percent of the peak power generated by the plant during the time of day with the highest energy demand.

The California Energy Commission (CEC) will include authorization of incidental take of the Covered Species, pursuant to the California Endangered Species Act (CESA), as part of its License Decision Conditions of Certification for the proposed Project, in coordination with the California Department of Fish and Game (CDFG).

Power Plant

The power plant consists of a hybrid of natural gas-fired combined-cycle generating equipment integrated with solar thermal generating equipment, to be developed on an approximately 333-acre site in the northern portion of the City. The combined-cycle equipment utilizes two natural gas-fired combustion turbine generators (CTG), two heat recovery steam generators (HRSG), and one steam turbine generator (STG). The solar thermal equipment utilizes arrays of parabolic collectors to heat a high-temperature working fluid. The heat transfer fluid (HTF) is used to boil water to generate steam. The combined-cycle equipment is integrated thermally with the solar equipment at the HRSG and both utilize the single STG that is part of the Project. The solar energy will be generated using parabolic trough mirror technology and will be designed to provide up to 50 MW of the PHPP's nominal 570 MW capacity. The Project will permanently impact the entire 333-acre power plant site.

Construction Laydown Area

Although the construction laydown area will only be used during construction, it is considered to permanently impact 50 acres west of the power plant site. This area would be used for storing Project-related equipment; parking, staging, and maintenance of

construction heavy equipment and personnel vehicles; and assembling power plant components.

Linear Facilities

The proposed Project will require the construction and installation of five linear utility features: (1) transmission line, (2) reclaimed water pipeline, (3) natural gas supply pipeline, (4) sanitary wastewater pipeline, and (5) potable water pipeline.

Transmission Line

The Project proposes to connect the power plant with the Southern California Edison (SCE) electrical transmission system at SCE's existing Vincent Substation, approximately 11 miles south-southwest of the proposed power plant site. To accommodate the needs of Palmdale's aviation community (Air Force Plant 42 and Los Angeles [LA] World Airports), a transmission line route approximately 35.6 miles long is planned that extends north and east from the power plant site, then south and back to the west. The Project's transmission system will be constructed in two segments, as briefly summarized below.

- Segment 1. Transmission line segment 1 involves the construction of approximately 23.7 miles of 230-kilovolt (kV) transmission line in new and existing right-of-ways (ROWs) between the power plant site and SCE's Pearblossom Substation. The route extends northward and eastward from the power plant site, then southward and finally back to the southwest.
- Segment 2. Transmission line segment 2 is a system reliability upgrade that includes increasing transmission capacity and expansion of the existing Vincent Substation. A new single-circuit 230 kV line will be installed on new 230 kV towers parallel to existing lines in an existing 11.9-mile transmission ROW extending westward from the Pearblossom Substation to the Vincent Substation.

Permanent disturbance areas for the transmission line include pole footprints, access roads, laydown areas, and other Project-related facilities. The Project is anticipated to permanently impact approximately 8.6 acres along the transmission line.

Reclaimed Water Pipeline

Reclaimed water for the Project cooling tower makeup and other industrial uses will be supplied from the City of Palmdale Water Reclamation Plant (PWRP). The City will design and construct an approximately 7.4-mile, 14-inch pipeline from the PWRP to the power plant site in existing City street ROWs. No new disturbance is anticipated.

The Project's backup cooling water supply will be reclaimed water. The Antelope Valley recently drafted an Integrated Regional Water Management Plan (AVIRWMP). The AVIRWMP shows a proposed reclaimed water backbone system, linking the PWRP with the City of Lancaster's plant, with both wastewater treatment plants producing reclaimed water. In the event of an outage in the PWRP's reclaimed water production system, the Lancaster plant can provide a source of reclaimed water to serve as a backup for the

Project's cooling water supply. The backbone system is already a separate planned project and no additional pipelines other than those already planned for PHPP will be needed to connect the PHPP with the backbone system based on the route shown in the AVIRWMP.

Natural Gas Supply Pipeline

The Project's combustion turbines, startup boiler, and HTF heater will be fueled with natural gas delivered via a new 20-inch natural gas pipeline. The Southern California Gas Company (SCG) will design and construct the approximately 8.7-mile pipeline in existing City street ROWs. The pipeline will originate at the SCG facility on East Avenue S and terminate at the power plant site. No new disturbance is anticipated.

Sanitary Wastewater Pipeline

Sanitary wastewater will be disposed through an existing Los Angeles County Sanitation District 12-inch sanitary wastewater pipeline. The sanitary wastewater pipeline will extend east from the power plant site along E. Avenue M. It will be approximately 1 mile long and will be constructed in existing City street ROWs. No new disturbance is anticipated.

Potable Water Pipeline

Potable water will be obtained from the Los Angeles County Waterworks District 40, which has an existing potable water line along E Avenue M that currently terminates a short distance west of the power plant site's northern border. The potable water pipeline will be located within the power plant site, then extend west along Avenue M for approximately 0.5 miles. The portion of the pipeline along Avenue M will be constructed in existing City street ROWs. No new disturbance outside of the power plant site is anticipated.

The Project's total permanent surface disturbance footprint outside of existing roadways would be 416.11 acres (Table 1).

Table 1. Direct permanent surface disturbance (in acres) per affected vegetation community and Project component.

Vegetation Community	Power Plant Site	Construction Laydown Area	Reclaimed Water, Natural Gas, Sanitary Wastewater, & Potable Water Pipelines	Transmission Line Segments		TOTAL (acres)
				1	2	
Mojave Creosote Bush Scrub	116.55	0	0	11.96	1.53	130.04
Joshua Tree Woodland	183.15	0	0	2.20	1.53	186.88
Desert Saltbush Scrub	0	0	0	4.62	0	4.62
Rabbitbrush Scrub	33.3	50.0	0	0.31	0	83.61
Mojavean Juniper Scrub	0	0	0	0	4.57	4.57
Mojave Desert Wash Scrub	0	0	0	0.12	0	0.12
Agricultural Land	0	0	0	5.08	0	5.08
Urban and Disturbed Lands	0	0	0	1.19	0	1.19
Total (acres)	333.0	50.0	0	25.48	7.63	416.11

The 26.84 acres of surface disturbance associated with transmission line installation on currently undisturbed lands, as well as the 50.0 acres of surface disturbance associated with the construction laydown area, would be reclaimed according to specifications outlined in a revegetation plan to be approved by CEC. This revegetation plan would be implemented in the first and last phases of construction activities under the oversight of qualified biologists. It would entail native plant and cacti salvage, post-construction “vertical mulching” of salvaged shrubs, Joshua tree relocation, and hand-broadcast seeding of native plants. Salvaged plant material would either be stored on-site until needed for revegetation purposes.

Heavy equipment anticipated for use during the Project construction would include bulldozers, excavators, backhoes, cranes, scrapers, dump trucks, water trucks, and tractor trailers. Light duty personal vehicles would also be used in access road travel.

All Project facilities would be designed, constructed and operated in accordance with applicable laws, ordinances, regulations and standards (LORS). Resource impact minimization and mitigation measures have been incorporated into the Project. These measures include pre-construction biological clearance surveys, temporary and permanent wildlife exclusion fencing, off-site habitat impact compensation, environmental awareness training for all involved personnel, construction monitoring, and regular compliance reporting to involved agencies.

(4) The location where the project or activity is to occur or to be conducted.

The PHPP would be located primarily within the City of Palmdale, with a portion of the transmission line situated in adjacent unincorporated Los Angeles County (Figure 1). The Project consists of six components (with quadrangle and Township Range Section (TRS) data below):

1. Power Plant Site and Construction Laydown Area:
 - USGS 7.5' Quadrangle: Lancaster East
 - T6N, R12W, S 1-2
2. Transmission Line
 - USGS 7.5' Quadrangles: Lancaster East, Alpine Butte, Littlerock, Palmdale, Pacifico Mountain
 - T5N, R10W; R11W, S 19-24, 29-30; R12W, S 23-24, 26-27;
 - T6N, R10W, S 4-5, 9, 16, 20-21, 23, 26-29, 35; R11W, S 6; R12W, S 1;
 - T7N, R10W, S 29, 31-33; R11W, S 29, 31-36; R12W, S 36
3. Reclaimed Water Pipeline
 - USGS 7.5' Quadrangles: Lancaster West, Lancaster East, Palmdale
 - T6N, R11W, S 17-20; R12W, S 1-2, 11, 13-14, 24
4. Natural Gas Supply Pipeline
 - USGS 7.5' Quadrangles: Lancaster West, Lancaster East, Palmdale
 - T5N, R12W, S 2
 - T6N, R12W, S 1-2, 11, 13-14, 23-26, 35-36
5. Sanitary Wastewater Pipeline
 - USGS 7.5' Quadrangle: Lancaster East
 - T6N, R11W, S 6
 - T6N, R12W, S 1
6. Potable Water Pipeline
 - USGS 7.5' Quadrangles: Lancaster East
 - T6N, R12W, S 1-2

(5) An analysis of whether and to what extent the project or activity for which the permit is sought could result in the taking of species to be covered by the permit.

The Project would occur within the historic range of the Mohave ground squirrel. Small mammal trapping has been conducted on the proposed power plant site (CSU Stanislaus 2006 and Eremico Biological Services 2006, referenced in AMEC 2008).

Small mammal trapping surveys conducted to date have not documented Mohave ground squirrel presence within the proposed power plant site and transmission line segments where potentially suitable habitat for the species exists. No Mohave ground squirrel has been identified during the course of the remainder of the surveys undertaken for the Project.

The data on Mohave ground squirrel occurrences and recent trapping attempts indicate that the species was widespread in the Palmdale-Lancaster region during the first half of the 20th Century. Several occurrence records east of Palmdale from the period 1973-1989 suggest that Mohave ground squirrels were still present there in remaining patches of desert scrub habitat. The absence of any positive records in the region since 1991, in spite of protocol trapping at almost 40 locations, raises the possibility that the species is no longer present within the general area that would be affected by the Project. However, there are still a number of existing patches of apparently suitable habitat that have yet to be sampled (Leitner 2008).

Vegetation removal, surface grading, work staging activities, and vehicle travel associated with Project construction would permanently remove potentially suitable habitat for Mohave ground squirrels. As potential habitat for this species would be disturbed and permanently lost, the Project has the potential for incidental take of a small number of individual Mohave ground squirrel, although it is unlikely based on the survey results and analysis of the nearest populations. Total surface disturbance where vegetation removal, grading, staging, and vehicular travel would occur has been estimated at 416.11 acres. Of this acreage, approximately 271.84 acres may include vegetation potentially suitable for Mohave ground squirrel (Table 2).

Table 2. Affected vegetation communities with habitat potentially suitable for Mohave ground squirrel.

Vegetation Community	Power Plant Site	Construction Laydown Area	Reclaimed Water, Natural Gas, Sanitary Wastewater, & Potable Water Pipelines	Transmission Line Segments		TOTAL (acres)
				1	2	
Mojave Creosote Bush Scrub	116.55	0	0	11.96	1.53	130.04
Joshua Tree Woodland	183.15	0	0	2.20	1.53	186.88
Desert Saltbush Scrub	0	0	0	4.62	0	4.62
Total (acres)	299.7	0	0	18.78	3.06	321.54

(6) An analysis of the impacts of the proposed taking on the species.

The Project would result in the disturbance and permanent loss of 321.54 acres that may include vegetation potentially suitable for Mohave ground squirrel. The Project has the potential for incidental take of a small number of individual Mohave ground squirrel, although it is unlikely based on the survey results and analysis of the nearest populations. This incidental take could occur as the result of above-ground animal harassment, harm or mortality associated with surface disturbance and vegetation removal during Project construction activities. The loss of potentially suitable vegetation is not considered a likely impact because of the low likelihood that the Project is inhabited by Mohave ground squirrel.

As part of the Project, avoidance and minimization measures would be implemented to minimize potential impacts to the Mohave ground squirrel. These would include well-defined work zones, environmental awareness training, biological monitoring/reporting, and relocation of unearthed Mohave ground squirrel, if found. With the implementation of these measures, the potential for incidental take of individual Mohave ground squirrel would be very low.

(7) An analysis of whether issuance of the incidental take permit would jeopardize the continued existence of a species. This analysis shall include consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (A) known population trends; (B) known threats to the species; and (C) reasonably foreseeable impacts on the species from other related projects and activities.

Authorization of incidental take of the Covered Species for the Project would not jeopardize the continued existence of the Mohave ground squirrel because Project impacts on this species are likely to be very small based on the unlikely presence of the species on the Project site. Should a minor amount of take of individuals or habitat occur, this would take place in a peripheral population that is not considered to be important for species persistence.

This conclusion has been made in light of known population trends and threats to the species, as well as in consideration of reasonably foreseeable impacts on the species. Implementation of the Project would not significantly diminish the range or appreciably reduce acreage occupied by the species in the wild.

(8) Proposed measures to minimize and fully mitigate the impacts of the proposed taking.

- a. Before initiating ground-disturbing activities, the City of Palmdale or its appointed agent, will designate a biologist (Designated Biologist) knowledgeable and experienced in the biology and natural history of the Mohave ground squirrel to direct all measures to avoid the take of individual animals and minimize habitat disturbance. The CEC would be notified in writing, prior to the commencement of ground-disturbing activities, of the Designated Biologist's name, business address, and telephone number.
- b. The City of Palmdale, or its appointed agent, will develop and implement a Worker Environmental Awareness Program (WEAP) in which each of its employees, as well as employees of contractors and subcontractors who work on the Project Site or any related facilities during site mobilization, ground disturbance, grading, construction, operation, and closure, are informed about sensitive biological resources associated with the Project. The WEAP may be administered by a competent individual acceptable to the Designated Biologist.

The WEAP will:

1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material and electronic media is made available to all participants.
2. Discuss the locations and types of sensitive biological resources on the Project Site and adjacent areas.

3. Present the conservation and legal reasons for protecting these resources.
 4. Discuss the various temporary and permanent habitat protection measures.
 5. Identify contacts for complying with the species protection measures.
 6. Discuss the management measures included in the CEC License Decision Conditions of Certification pertaining to CESA compliance.
 7. Include a training acknowledgement form to be signed by each worker indicating that they received training and shall abide by the guidelines. Upon completion of the WEAP, the signed training acknowledgement forms will be filed at City of Palmdale offices and will be made available to the CEC upon request.
- c. The City of Palmdale, or its appointed agent, will ensure that exclusion fencing is constructed around temporary and long-term surface disturbance areas and pre-construction clearance surveys are conducted as described in the Biological Assessment prepared for the Project.
- d. A clearance survey of the Project area will be implemented immediately prior to surface disturbance.
- e. If a Mohave ground squirrel or other non-listed special-status species is found during Project-related activities, it will be relocated to an appropriate habitat at an off-site location according to direction provided in the CEC License Decision Conditions of Certification and in coordination with the local CEC and CDFG representatives. If other listed species other than Mohave ground squirrel are found, these areas will be marked and monitored to ensure Project impact avoidance.
- f. A trash abatement program will be initiated during pre-construction phases of the Project, and will continue through the duration of the Project. Trash and food items will be contained in closed (raven-proof) containers and removed regularly (at least once a week) to avoid attracting potentially-opportunistic predators such as ravens, coyotes, and feral dogs.
- g. The City of Palmdale, or its appointed agent, will acquire Habitat Management Lands ("HM Lands") approved by the CEC for the Mohave ground squirrel prior to initiating ground-disturbing Project activities, or no later than 18 months from the effective date of the initiation of ground disturbing Project activities, if financial assurances are provided for acquisition of the HM Lands.
- h. The amount of the required HM Lands will be based upon a mitigation ratio of 1:1 for the power plant site (299.7 acres), based on the fact that (1) 2006 surveys yielded no detections of the species, although 2005 was a very good reproductive year for MGS and populations therefore should have been high if

present; (2) there are no recent records of the species in the region despite extensive survey work; and (3) the site is a small, isolated parcel of no long-term value to the survival of the species even if occupied (Leitner 2009). The amount of the required HM Lands will be based upon a mitigation ratio of 3:1 for the transmission line (21.84 acres).

The City of Palmdale intends to provide financial assurances to the CEC, in the form of an irrevocable letter of credit, a pledged savings account, or another form of security such as an irrevocable escrow account (Security), to ensure funding to complete the acquisition of HM Lands. The Security will be provided prior to commencing ground-disturbing activities and will include:

1. a long-term habitat management endowment calculated at a rate of \$1,300/ acre for HM Lands for permanent monitoring and maintenance of HM Lands;
2. an enhancement fee in the amount of \$250/acre for HM Lands for initial enhancement of the HM Lands; and
3. land acquisition costs in the amount of \$1,000/acre for HM Lands.

Interest accrued from the long-term habitat management endowment will be applied towards improving the HM Lands managed for the Mohave ground squirrel. The Security will provide that CEC may draw on the principal sum if it is determined that the City of Palmdale has failed to comply with the Conditions of Certification of the CEC License Decision for the Project.

The Security will be returned to the City of Palmdale upon completion of the legal transfer of the HM Lands to the CEC, CDFG or an approved third party entity, or upon completion of an implementation agreement with an approved third party entity, acceptable to CEC and CDFG, to acquire and/or manage the HM Lands.

- i. For the duration of Project construction activities, the City of Palmdale, or its appointed agent, will conduct compliance inspections at least once a week to assess compliance with measures adopted to minimize and mitigate all construction-phase impacts.
- j. Every month for the duration of Project construction activities, the City of Palmdale, or its appointed agent, will provide the CEC and CDFG with a written Compliance Report to communicate observations made during compliance monitoring, as well as all other relevant information obtained by the City of Palmdale or its appointed agent.
- k. Beginning with issuance of the CEC License Decision for the Project and continuing for the life of the Project, the City of Palmdale, or its appointed agent, will provide the CEC and CDFG with an annual Status Report no later than January 31st of every year. Each Annual Status Report will include, at a minimum:

- 1) a general description of the status of the Project, including actual or projected completion dates, if known; 2) a table showing the current implementation status of each mitigation measure in the Biological Resources Mitigation Implementation Monitoring Plan (BRMIMP); and 3) an assessment of the effectiveness of each mitigation measure in minimizing and compensating for Project impacts.
- I. The City of Palmdale, or its appointed agent, will immediately notify the CEC and CDFG in writing if it determines that any of the mitigation measures were not implemented as written in the CEC License Decision or if the City of Palmdale believes for any reason that measures may not be implemented within the time period indicated in the CEC License Decision.
 - m. All observations of the Mohave ground squirrel and their sign during Project construction activities will be conveyed to the City of Palmdale's Designated Representative or Designated Biologist. This information would be included in the next monthly compliance report to the CEC and CDFG.
 - n. The City of Palmdale's Designated Biologist will have authority to immediately stop any activity that is not in compliance with the CEC License Decision, and to order any reasonable measure to avoid the take of an individual Mohave ground squirrel.
 - o. Construction personnel will access the City of Palmdale's Project Site using existing routes and will not cross Mohave ground squirrel habitat outside of the Project Site. To the extent possible, previously disturbed areas within the Project Site will be used for temporary storage areas, construction laydown areas, and any other surface-disturbing activities. If construction of off-site routes of travel would be required, the CEC would be contacted prior to carrying out such an activity.
 - p. Project-related vehicle traffic will be restricted to established roads, staging, and parking areas, or such areas specifically graded for Project construction activities. The City of Palmdale, or its appointed agent, will post signs; place posting stakes, flags, and/or rope or cord; and place fencing as necessary to minimize the disturbance of Mohave ground squirrel habitat.
 - q. Vehicle speeds will not exceed 20 mph on unpaved roads in the Project Site to enhance the ability of vehicle operators to detect and avoid Mohave ground squirrel on or traversing the roads.
 - r. If a Mohave ground squirrel is killed by Project-related activities during construction, or if a Mohave ground squirrel is otherwise found dead, a written report will be sent to the CEC and CDFG within two (2) calendar days. The report would include the date, time of the finding or incident, location of the carcass, and the circumstances.

- s. The City of Palmdale, or its appointed agent, will comply with any stop-work order issued by the CEC immediately upon receipt thereof, to remedy a violation of the CEC License Decision Conditions of Certification, or to prevent the illegal take of an endangered, threatened, or candidate species.

- t. No later than 45 days after completion of Project construction activities and implementation of all mitigation measures, the City of Palmdale, or its appointed agent, will provide the CEC and CDFG with a Final Mitigation Report. This report would be prepared by the Designated Biologist and would include, at a minimum:
 - 1. A table identifying each mitigation measure in the BRMIMP and the date when each of the was implemented and/or completed;
 - 2. All available information about project-related incidental take of species named in the CEC License Decision Conditions of Certification regarding CESA compliance;
 - 3. Construction dates;
 - 4. An assessment of the effectiveness of each mitigation measure;
 - 5. Recommendations on how mitigation measures might more effectively minimize and mitigate impacts; and
 - 6. Any other pertinent information.

(9) A proposed plan to monitor compliance with the minimization and mitigation measures and the effectiveness of the measures.

The Biological Resources Mitigation Implementation Monitoring Plan (BRMIMP) is a requirement of the CEC License Decision for the Project. The BRMIMP explains the mitigation measure in detail and identifies the implementation schedule, the party responsible for completing the mitigation measure.

No later than 45 days after completion of the Project, including implementation of all mitigation measures, the City of Palmdale will provide the CEC and CDFG with a Final Mitigation Report. The Final Mitigation Report will be prepared by the Designated Biologist and will include, at a minimum:

- 1. A copy of the BRMIMP table with notes showing when each of the mitigation measures was implemented;
- 2. All available information about Project-related incidental take of Covered Species (Mohave ground squirrel);
- 3. Information about other Project impacts on Covered Species;
- 4. Construction dates;
- 5. An assessment of the effectiveness of each mitigation measure in minimizing and compensating for Project impacts;

6. Recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects on the Covered Species; and
7. Any other pertinent information.

(10) A description of the funding source and the level of funding available for implementation of the minimization and mitigation measures.

The City of Palmdale, as the Project Proponent, would provide financial assurances to guarantee an adequate level of funding is available to implement all minimization, mitigation and compensation measures identified in the CEC License Decision Conditions of Certification for CESA compliance. These funds would be used solely for implementation of the minimization, mitigation and compensation measures associated with this Project.

The City of Palmdale intends to provide financial assurances in the form of an irrevocable letter of credit, a pledged savings account or another form of security (Security) approved by the CEC, to ensure funding. The amount of the Security will be calculated as follows:

1. a long-term habitat management endowment calculated at a rate of \$1,300/ acre for HM Lands for permanent monitoring and maintenance of HM Lands;
2. an enhancement fee in the amount of \$250/acre for HM Lands for initial enhancement of the HM Lands; and
3. land acquisition costs in the amount of \$1,000/acre for HM Lands.

Interest accrued from the long-term habitat management endowment will be applied towards improving the HM Lands managed for the Mohave ground squirrel. The Security will provide that CEC may draw on the principal sum if it is determined that the City of Palmdale has failed to comply with the License Decision Conditions of Certification.

The Security will be returned to the City of Palmdale upon completion of the legal transfer of the HM Lands to the CEC or an approved third party entity, or upon completion of an implementation agreement with an approved third party, acceptable to CEC and CDFG, to acquire and/or manage the HM Lands.

REFERENCES

AMEC. 2008. Palmdale Hybrid Power Project Biological Resources Technical Report. Report prepared for ENSR Corporation and submitted as an Appendix to the AFC. On file with the California Energy Commission, Sacramento, California.

California Department of Fish and Game (CDFG). 2007. California Endangered Species Act 2081 (b) and (c) Incidental Take Permit Process. California Department of Fish and Game, Sacramento, California.

California State University, Stanislaus, Endangered Species Recovery Program. 2006. Final Report of Mohave Ground Squirrel Surveys Conducted for the Palmdale Power Project. Prepared for ENSR Corporation.

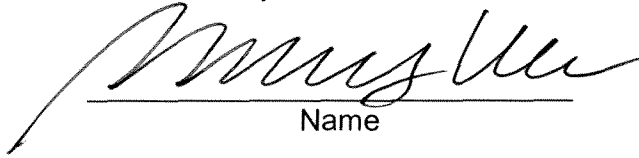
Eremico Biological Services. 2006. Mohave Ground Squirrel Survey in a Portion of the Proposed Palmdale Power Project Site, Palmdale, Los Angeles County, CA. Prepared for ENSR Corporation.

Leitner, P. 2008. Mohave Ground Squirrel Habitat Assessment, Palmdale Hybrid Power Plant. July 15, 2008.

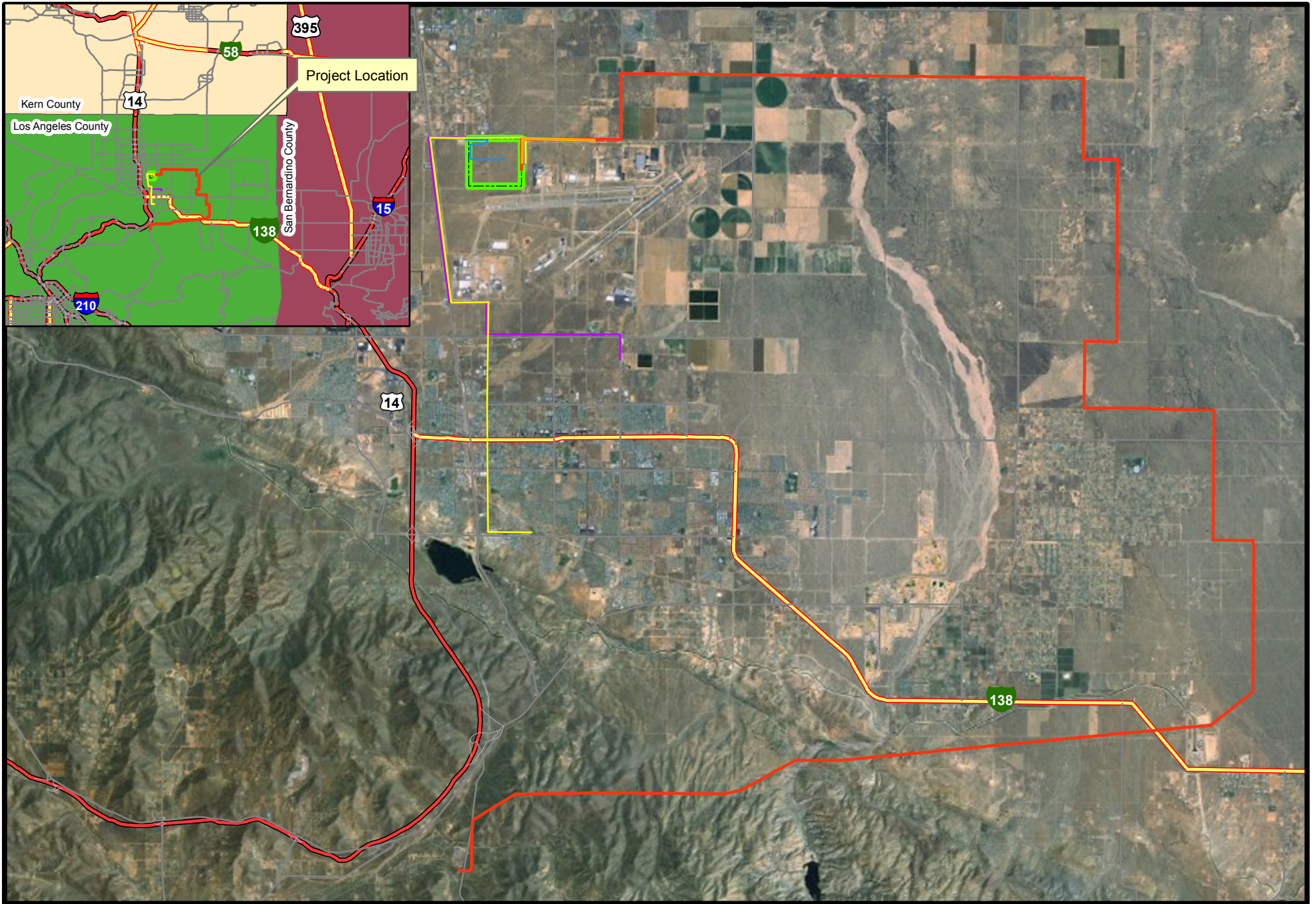
Leitner, P. 2009. Personal communication with Sara Head, AECOM Environment.

Palmdale Hybrid Power Project
CESA Section 2081 Application
City of Palmdale
May 2009

I certify that the information submitted in this application is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to suspension or revocation of this permit and to civil and criminal penalties under the laws of the State of California.


Name

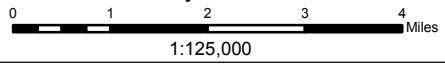
5-11-09
Date



- Legend**
- Power Plant Site Survey Area
 - Transmission Line
 - Potable Water
 - Sanitary Wastewater Pipeline
 - Natural Gas Pipeline
 - Reclaimed Water Pipeline

Palmdale Hybrid Power Project

Figure 1
Vicinity & Location



Map Notes:
 Projection: NAD 83, Zone 11
 Path: S:\active projects\Palmdale
 Power Plant Bio 6554000247\graphics\mxd\2009
 Date: 04/10/09



Attachment 1

**Determination of Mitigation Ratio for Loss of
Potential Mohave Ground Squirrel Habitat**

Dr. Philip Leitner

April 2009

DETERMINATION OF MITIGATION RATIO FOR LOSS OF POTENTIAL MOHAVE GROUND SQUIRREL HABITAT

PALMDALE HYBRID POWER PLANT SITE

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The Palmdale Hybrid Power Plant (PHPP) is proposed for development on an approximately 333-acre site in the northern portion of the City. A construction laydown area immediately west of the proposed power plant site would permanently impact an additional 50 acres. The power plant site itself includes 94 acres of Mojave Creosote Bush Scrub and 189 acres of Joshua Tree Woodland, for a total of 283 acres of habitat that is considered to be suitable for the Mohave ground squirrel (*Spermophilus mohavensis*). In addition, there are 50 acres of Rabbitbrush Scrub on the power plant site and 50 acres of the same vegetation community on the construction laydown area. The Rabbitbrush Scrub is not suitable habitat for the Mohave ground squirrel.

In the habitat assessment report that I prepared in 2008, I tentatively proposed a compensation ratio of 2:1 as mitigation for permanent loss of suitable Mohave ground squirrel habitat on the power plant site. This was based on the good quality of the habitat to be impacted. However, a consideration of the value of this habitat in a regional context suggests that it is of minimal value for the conservation and recovery of the species.

First, although the Mojave Creosote Bush Scrub and Joshua Tree Woodland on the power plant site are relatively undisturbed and of good intrinsic quality for the species, there is no evidence that it is present here. Protocol trapping at 5 sites on and adjacent to the power plant site in 2006 failed to detect Mohave ground squirrels. Although protocol trapping results are technically valid only for 12 months, the lack of detections is biologically significant. In 2006 the number of Mohave ground squirrel detections throughout the range of the species was by far the highest of the current decade, probably because of high 2004-2005 winter rainfall and enhanced reproduction, with good survival into 2006. If Mohave ground squirrels were present on the power plant site, protocol surveys in 2006 would have had the highest probability of detecting them.

Second, there is no evidence that Mohave ground squirrels still occur in the region around the power plant site. During the period 1973-1984, there were 3 records of the species within 2-4 miles of the power plant site. During the last 25 years, the nearest

occurrence was a visual observation in 1991, about 13 miles to the east. Since 1998, protocol trapping has been conducted at >60 sites in Los Angeles County (exclusive of Edwards AFB), yet no Mohave ground squirrels have been detected.

Third, the geographic location of the power plant site makes its conservation value very doubtful. It is on the extreme western edge of the Mohave ground squirrel range, in the center of an area that has seen high development pressure and loss of wildlife habitat, especially in the past 25 years. It is part of a small island of remaining habitat that is completely surrounded on all sides by residential, commercial, industrial, and agricultural development. It is cut off by developed land from the nearest known recent Mohave ground squirrel occurrence, which is located 14 miles to the northeast at the south end of Rogers Dry Lake, Edwards AFB.

To summarize, the 283 acres of Mojave Creosote Bush Scrub and Joshua Tree Woodland on the power plant site technically appear to provide suitable Mohave ground squirrel habitat. However, there is no evidence that the species is present on the power plant site or in the general region. The power plant site is completely isolated by extensive urban and agricultural development from any known population or potentially occupied habitat. Such a small, isolated patch of habitat could not be expected to support a sustainable Mohave ground squirrel population.

Because of the minimal conservation value of the habitat on the power plant site, I would recommend a compensation ratio of 1:1. Acquisition of mitigation land within the Mohave Ground Squirrel Conservation Area in the northeastern portion of Los Angeles County would provide considerable benefit to the species, if available at a reasonable cost. It may well be possible to acquire lands for conservation in this area that also support the desert tortoise and Joshua tree woodland.

**STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

In the Matter of:)	Docket No. 08-AFC-9
)	
Application for Certification,)	PROOF OF SERVICE
for the CITY OF PALMDALE HYBRID)	
POWER PLANT PROJECT)	(Revised April 30, 2009)
)	
_____)	

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PALMDALE HYBRID POWER PROJECT

CEC Docket No. 08-AFC-09

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PALMDALE HYBRID POWER PROJECT
CEC Docket No. 08-AFC-09

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DECLARATION OF SERVICE

I, Paul Kihm, declare that on May 11, 2009, I served and filed copies of the attached:

LETTER FROM MATT AMALONG TO ERINN WILSON

to all parties identified on the Proof of Service List above in the following manner:

California Energy Commission Docket Unit

- Transmission via electronic mail and by depositing one original paper copy with FedEx overnight mail delivery service at Costa Mesa, California, with delivery fees thereon fully prepaid and addressed to the following:

CALIFORNIA ENERGY COMMISSION
Attn: DOCKET NO. 08-AFC-09
1516 Ninth Street, MS-4
Sacramento, California 95814-5512
docket@energy.state.ca.us

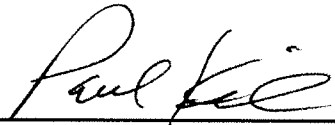
PALMDALE HYBRID POWER PROJECT
CEC Docket No. 08-AFC-09

For Service to All Other Parties

- Transmission via electronic mail to all email addresses on the Proof of Service list; and
- by depositing one paper copy with the United States Postal Service via first-class mail at Costa Mesa, California, with postage fees thereon fully prepaid and addressed as provided on the Proof of Service list to those addresses **NOT** marked "email preferred."

I further declare that transmission via electronic mail and U.S. Mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210.

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 11, 2009, at Costa Mesa, California.



Paul Kihm