Beacon Solar, LLC

DOCKET
08-AFC-2
DATE APR 18 2007
RECD. APR 21 2008

April 18, 2008

Ms. Melissa Jones
Executive Director
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Beacon Solar Energy Project's Response to California Energy Commission Data Adequacy Recommendation

Dear Ms. Jones:

On behalf of Beacon Solar, LLC ("Beacon Solar"), and in response to the California Energy Commission's ("Commission") April 11, 2008 Data Adequacy Recommendation, I am pleased to submit the enclosed data adequacy responses for the Beacon Solar Energy Project ("Project"). The enclosed documents respond to the data inquiries related to Beacon Solar's Application for Certification ("AFC") as set forth by Commission Staff in its April 11, 2008 Recommendation.

I hereby attest, under penalty of perjury, that to the best of my knowledge, the contents of these data adequacy responses are truthful and accurate. Please contact me at (949-759-5420) or by email at gary_l_palo@fpl.com, if you have any questions regarding the enclosed application.

Respectfully Submitted,

On behalf of Beacon Solar, LLC

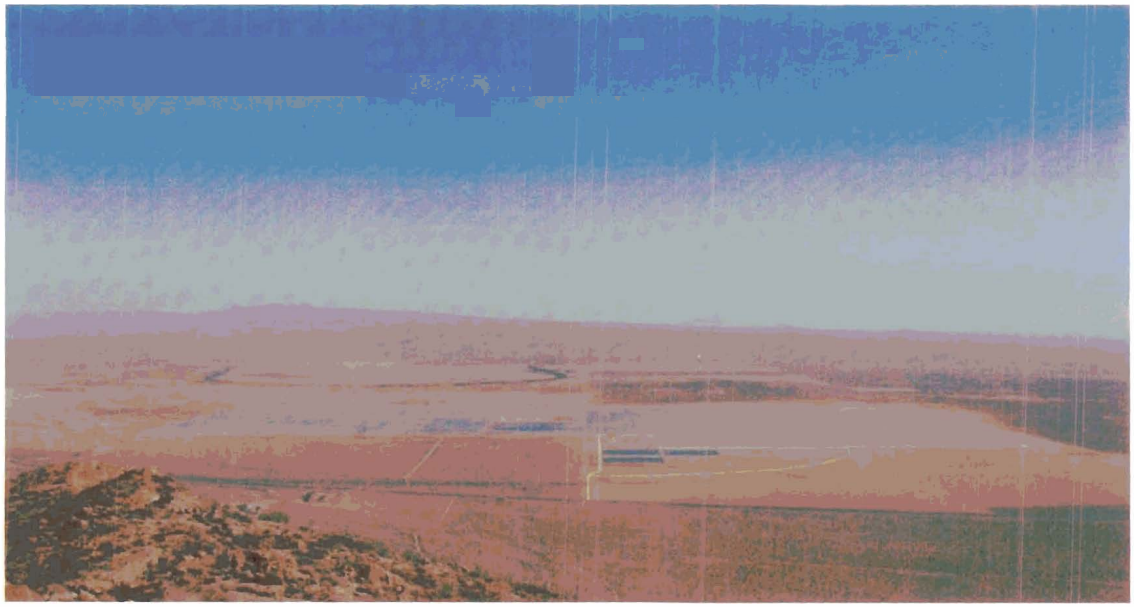
Gary Palo
Project Director
Beacon Solar, LLC
6 Belcourt Drive
Newport Beach, CA 92660

cc: Jane Luckhardt, Attorney at Law
Downey Brand, LLP

BEACON SOLAR ENERGY PROJECT

APPLICATION FOR CERTIFICATION

Volume 3 Data Adequacy Supplement



Submitted by:

Beacon Solar, LLC

Submitted to:

California Energy Commission

April 2008

Prepared by:

ENSR | AECOM

Air Quality

Response to CEC Staff Data Adequacy Comments

Technical Area: Air Quality

Following are additional information and/or clarifications in response to the specific issues raised in the CEC staff Data Adequacy review. For each specific area where a question was raised by CEC staff, the applicable section of the CEC Siting Regulations is identified, followed by the "Information Required to Make AFC Conform with Regulations", followed by the supplemental/clarifying information.

AIR-1. Appendix B (g) (8) (A).

Information Required:

Letter of application completeness from Kern County Air Pollution Control District. The application was filed on March 26, 2008.

Response:

A letter of application completeness for the BSEP was received from the KCAPCD on April 17, 2008. The letter is attached.

KERN COUNTY AIR POLLUTION CONTROL DISTRICT
DAVID L. JONES, APCO

April 16, 2008

Mr. Gary Palo
Director Development
Beacon Solar, LLC
6 Belcourt Drive
Newport Beach, California 92660

SUBJECT: Application No.: 0369001–012 - Project No.: 080414
(In Reply Refer to ATC No. & Project No.)

Dear Mr. Palo:

Your Authority to Construct applications for two boilers, cooling tower, six heat transfer fluid expansion tanks, carbon adsorption system, diesel fueled firewater pump, and bio-remediation operation all serving solar power plant have been received by this office.

Based on the initial information and additional information received for these applications (including a controlled contaminated soil treatment operation), the applications are now complete. It is possible, however, after actual processing commences, additional information may be required to clarify, amplify, correct or otherwise supplement parts of your application.

Processing will be completed as soon as possible and you will be notified if additional support information is required. Should you have any questions, please telephone Glen Stephens of our office at (661) 862-5250.

Sincerely,

David L. Jones
Air Pollution Control Officer

DLJ:GES:tf

cc: Mr. Bill Pfanner, California Energy Commission
Ms. Sara Head, ENSR

Bakersfield Office: 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370
Phone (661) 862-5250 - Fax (661) 862-5251
www.kernair.org - kcapcd@co.kern.ca.us
Field Office: Phone (661) 824-7085

Biological Resources

Response to CEC Staff Data Adequacy Comments

Technical Area: Biological Resources

Following are additional information and/or clarifications in response to the specific issues raised in the CEC staff Data Adequacy review. For each specific area where the questions were raised by CEC staff, the applicable section of the CEC Siting Regulations is identified, followed by the "Information Required to Make AFC Conform with Regulations," followed by the supplemental/clarifying information.

BIO-1. Appendix B (g) (13) (C).

Information Required:

In areas yet to be surveyed discussed in Section 5.3.2.4, page 5.3-9, please provide a detailed discussion of when, where, and what the surveys in 2008 will entail.

Response:

The new Figure 5.3-9 shows the areas where biological surveys are being conducted during appropriate periods of the spring of 2008 (because these had not yet been clearly defined as part of the project description at the time surveys were conducted in the spring of 2007). These areas include the approximately 80-acre addition to the northeast portion of the plant site, an approximately 100-foot wide band adjacent to the north side of the existing access road from SR-14 on the northern boundary of the plant site, the two transmission line route options, and the natural gas pipeline route. Of the four distinct survey areas, three of the areas (i.e., the 80-acre addition, the narrow band north of the existing access road, and transmission line route options) were surveyed to a large degree during the spring of 2007 because they all fall within areas where multiple zone of influence (ZOI) transects were walked (see Figure 5.3-4 in Volume 1 of the AFC). While Beacon Solar believes that those 2007 multiple ZOI transects serve to adequately define the environmental baseline for those areas for purposes of evaluating environmental impacts, we felt it prudent to conduct full, 100% coverage surveys for these areas this spring (2008) to ensure there would be no data gaps. Only the natural gas pipeline route outside of the plant site boundaries was not surveyed during 2007. As noted in the AFC, all gas pipeline construction/operations/maintenance activities would take place entirely within already disturbed roads and rights of way. Nevertheless, Beacon Solar is conducting the requisite 1000-ft buffer surveys this spring (2008) on both sides of the gas pipeline centerline.

In the spring of 2008, all four areas are being surveyed for 1) special status plant species, 2) desert tortoise (*Gopherus agassizi*), 3) western burrowing owl (*Athene cunicularia*), and 4) general floral and faunal species (including mapping of any additional areas of vegetation, and any incidental occurrences of special status species not targeted during the surveys described). Because of the low rainfall associated with the spring of 2007, the special status plant surveys will also cover the entire plant site, and all associated linear features (i.e., the transmission line route options and the natural gas pipeline route), with the exception of the highly disturbed road and shoulder along Neuralia Road where the gas pipeline would be installed. This road shoulder is routinely maintained to be kept free of vegetation, which was one of the factors in selecting the route for the

natural gas pipeline. The desert tortoise and western burrowing owl surveys will cover the 80-acre addition, the narrow band north of the existing access road to the plant site from SR-14, and the portions of the transmission line route options and natural gas pipeline route outside the plant site boundaries that were previously surveyed with numerous ZOI transects during the spring of 2007.

Surveys for special status plant species are being conducted during four different periods from March to June 2008 in order to coincide with the appropriate blooming period of the particular plant species potentially associated with the Project area. Surveys will follow all appropriate standard practices and guidelines. Per recent discussions with CEC Staff, a repeat of the 2007 buffer zone survey (i.e., three quarter and one-mile transects from the boundary) around the plant site is not required. Surveys for the desert tortoise are being conducted within the protocol survey window (March 15 to May 31), in order to optimize above-ground detection of the species, if present. Surveys for the western burrowing owl are being conducted per the California Department of Fish and Game (CDFG), and the California Burrowing Owl Consortium (CBOC) guidance, with surveys conducted during the period from March through May 2008, when the species is most active around its burrows.

BIO-2. Appendix B (g) (13) (D) (i).

Information Required:

Staff needs to know the status of the areas yet to be surveyed discussed in Section 5.3.2.4, page 5.3-9, and the 2008 botanical survey. Please provide a detailed discussion of when, where, and what the surveys in 2008 will include.

Response:

See response to BIO-1 above.

BIO-3. Appendix B (g) (13) (F) (ii).

Information Required:

Please provide a list of contacts for habitat compensation and management. Please provide any communications with other agencies or groups regarding habitat compensation and management.

Response:

A list of the biological resource agency representatives that have been consulted to date regarding this Project are provided in Table 5.3-2 of the BSEP AFC. In addition, CEC Staff that have been consulted and/or participated in site visits include Rick York and Mark Sazaki. A list of the communications with these agencies related to habitat compensation and management are provided below.

- December 12, 2007: Meeting at the Ventura Office of the USFWS, between the BSEP team, and the USFWS and CDFG, to discuss the project (including proposed habitat

compensation ratios of 1:1 for the desert tortoise, and 2:1 for the Mohave ground squirrel. The possibility of qualifying for a "Low Effect" Habitat Conservation Plan (HCP) was also discussed. The CEC was invited, but was unable to attend.

- January 9, 2008: Distribution of the minutes of the December 12, 2007, meeting to all parties at the meeting and the CEC, reiterating the proposed compensation ratios for desert tortoise and Mohave ground squirrel.

- February 25, 2008: USFWS informs the BSEP team that the Low Effect HCP process is appropriate for the project

These communications are detailed further below.

During a meeting on December 12, 2007, with Judy Hohman (USFWS) and Annette Tenneboe (CDFG) (CEC staff were invited but could not attend), BSEP representatives described the reasons why the plant site and all linear components east of SR-14 would not be considered habitat for either the desert tortoise or Mohave ground squirrel, based on expert analyses conducted by Dr. Alice Karl and Dr. Phil Leitner.

As part of the December 12, 2007, meeting, the project team described the habitat quality of the project site, and suggested to the USFWS and CDFG that the compensation ratios should be on the order of 1:1 for desert tortoise, and 2:1 for the Mohave ground squirrel, for areas to the west of State Route 14. The USFWS agreed with the 1:1 ratio for desert tortoise habitat, and that the 2:1 ratio for Mohave ground squirrel habitat seemed to be appropriate. On January 9, 2008, Kimberly McCormick (regulatory counsel for Beacon Solar, LLC), finalized and distributed the minutes for the December 12, 2007, meeting, reiterating the mitigation and compensation ratio discussion. On February 25, 2008, the USFWS responded to Kimberly McCormick, via e-mail, that the USFWS concurred with the screening form, and that the Low Effect HCP process was appropriate for the proposed project — see email reproduced below:

From: Judy_Hohman@fws.gov [mailto:Judy_Hohman@fws.gov]
Sent: Monday, February 25, 2008 11:48 AM
To: Kimberly McCormick
Subject: Beacon Solar Energy Project

Hi Kim,

As I mentioned on the phone, I briefed Carl and he concurred that a low effect HCP would be appropriate.

Attached is a recommended format or template for the HCP. Please call or e-mail me if you have any questions.

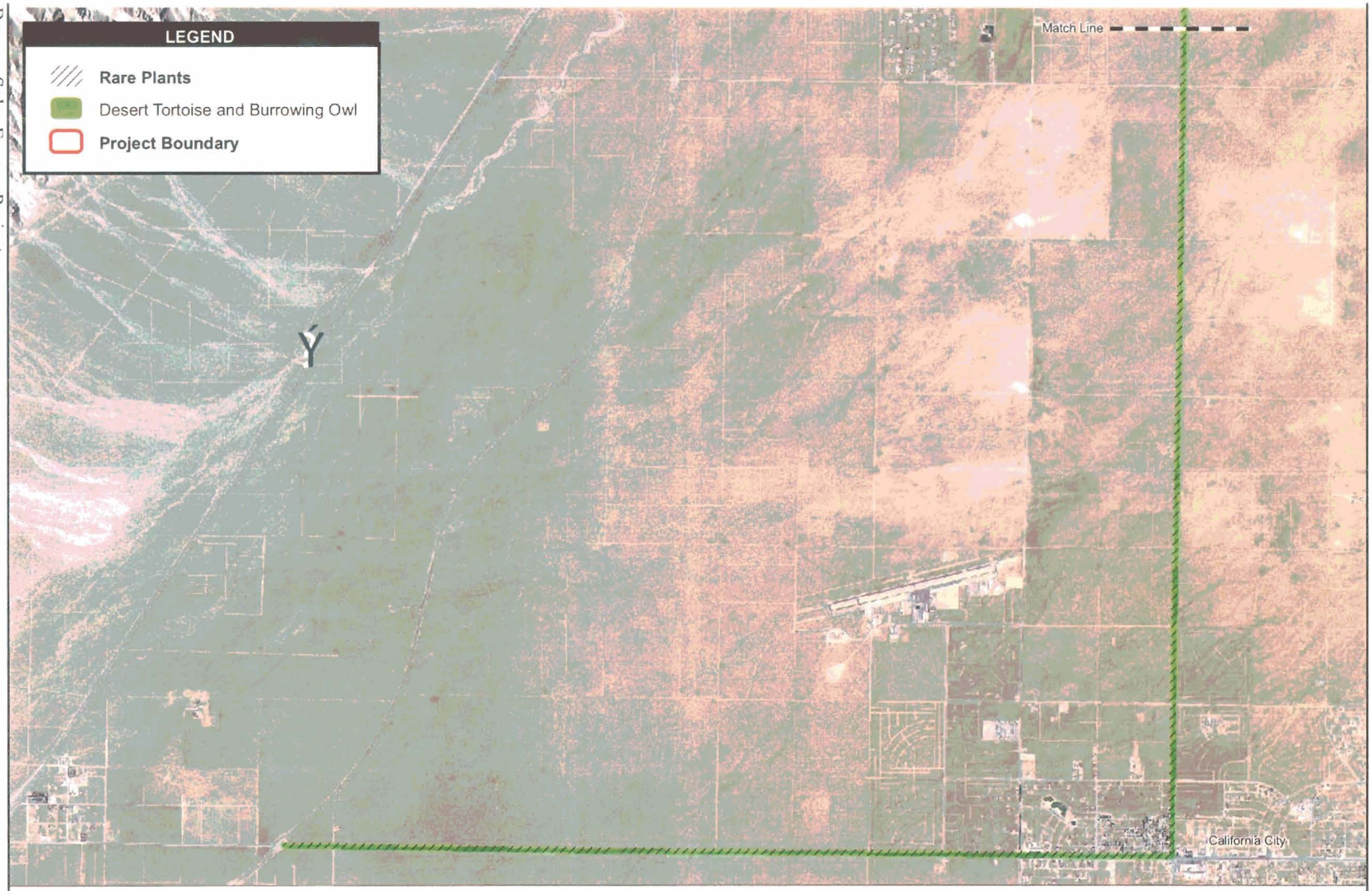
Judy

Judy Hohman
U.S. Fish and Wildlife Service

Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003
Phone: 805-644-1766, ext. 304
Fax: 805-644-3958

Based on the discussions during the December 12, 2007, meeting, Beacon Solar prepared the AFC and the Fish and Game Code Section 2081 Incidental Take Permit Application (2081 Application), outlining habitat compensation measures and ratios, as well as management measures. The 2081 Application was submitted to CDFG on March 28, 2008, with copies of the 2081 Application simultaneously submitted to the USFWS and the CEC.

Beacon Solar is working with Dr. Karl and Dr. Leitner to determine appropriate locations for compensation habitat for desert tortoise, Mohave ground squirrel and burrowing owl. Beacon Solar representatives also have had very preliminary conversations with representatives of the Desert Tortoise Preserve Committee regarding suitable compensation habitat. Beacon Solar is holding off on any further discussions until the CEC, CDFG and USFWS agree in principal on the amount and nature of habitat compensation required for the Project.



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Scale: 1:63,360; 1 inch = 5,280 feet; 1 Mile

Figure 5.3-9
Future Survey Areas
2 of 2

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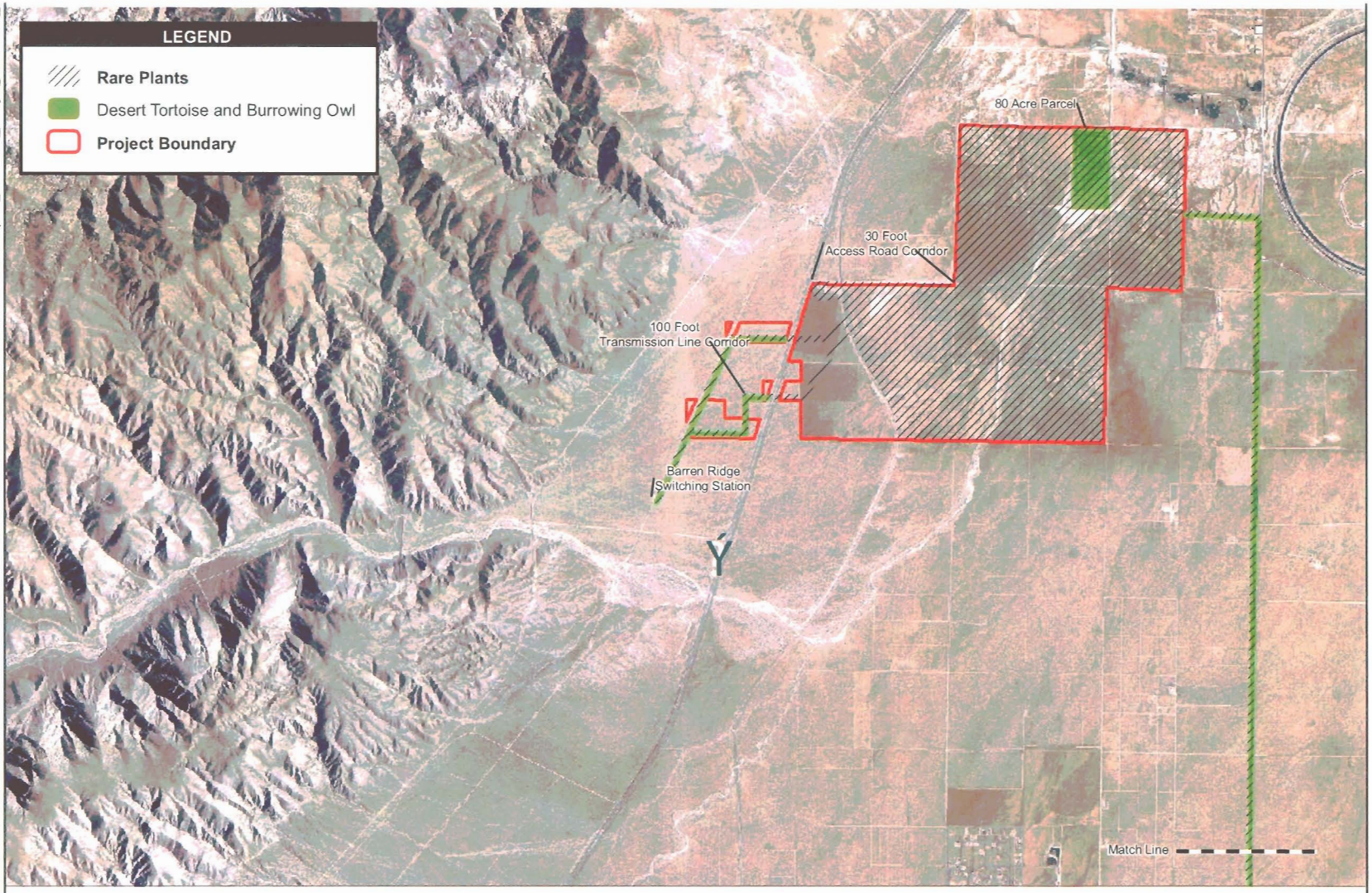

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Scale: 1:63,360; 1 inch = 5,280 feet; 1 Mile

Figure 5.3-9
Future Survey Areas
1 of 2

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Cultural Resources

Response to CEC Staff Data Adequacy Comments

Technical Area: Cultural Resources

Following are additional information and/or clarifications in response to the specific issues raised in the CEC staff Data Adequacy review. For each specific area where questions were raised by CEC staff, the applicable section of the CEC siting Regulations is identified, followed by the "Information Required to Make AFC Conform with Regulations", followed by the supplemental/clarifying information.

CULT-1. Appendix B (g) (1).

Information Required:

The applicant provided a discussion of direct and cumulative impacts. Please also provide a discussion of indirect impacts.

Response:

As discussed in the AFC Section 5.4.3, indirect impacts alter the setting, access to, or other elements of the resource in a manner that negatively affects the significance of the resource. Examples of indirect impacts include increased access to cultural sites, erosion at archaeological sites, or visual intrusions that affect the setting of a building (e.g., constructing a modern facility adjacent to a rural farmstead). Based on preliminary review, cultural resources impacts are expected to be minimal, and with the proposed mitigation measures, Project indirect impacts (as well as direct and cumulative impacts) would also be less than significant.

CULT-2. Appendix B (g) (2) (B).

Information Required:

1. Does Kern County have a local ordinance that requires the county to maintain a list of significant historical resources? If so, please identify the cultural resources listed pursuant to ordinance within a 1-mile radius around the project site and not less than one-quarter mile on each side of the linear facilities.

2. Mathew Tennyson, who is referenced as conducting the architectural survey does not appear to meet Secretary of the Interior's Professional Standards for architectural history. Jennifer Hirsch's resume is included in Volume 2, Appendix G, and she does appear to meet Secretary of the Interior Standards for architectural history, but her role in providing information is not clear. Please discuss Ms. Hirsch's role in gathering cultural resources information for the project.

3. The applicant provided Table 5.4-3 that listed previous cultural resources surveys. Please add the CHRIS identifying number and delineate the area of all past surveys on a USGS 7.5 map.

4. Please provide copies of technical reports whose survey coverage is wholly or partly within the .25 mile area surveyed or that report on excavations or architectural surveys within the literature search area.

Response:

1. Kern County does not maintain a separate list of locally designated historic resources, but recognizes historic designations for the State Landmarks listings, the California Register of Historical Resources, and the National Register of Historic Places in their County Land Ordinance 18.05, their Building Regulations, and their General Plan.

2. Matthew Tennyson worked under the direction of Jennifer Hirsch, who does meet the Secretary of Interior's Standard for Architectural History. Specifically, after Ms. Hirsch conducted the field survey of the Project area, Mr. Tennyson took photographs of selected buildings as requested by Ms. Hirsch. Ms. Hirsch was responsible for the built environment resource descriptions and assessments.

3. A revised Table 5.4-3 with CHRIS identifying numbers is provided below. Five copies of the record search survey maps at 7.5' quad scale have been provided to Ms. Melissa Jones, CEC Executive Director, along with a letter requesting confidentiality.

Table 5.4-3 (Revised) Summary of Previous Surveys within Records Search Limits

Report Number	NADB No. CHRIS No.	Author	Title
KE-00029	1140980	Robert S. White	An Archaeological Assessment of the United Tire Recycling Corporation Project
KE-00030	1140979	Robert S. White	An Archaeological Assessment of the Cornell Corrections California City Prison Site
KE-00051	1441011	Don Laylander	Negative Archaeological Survey Report
KE-00248	1141344	Environmental Sciences Section	Cultural Resource Survey Report for Flightline Security Fence
KE-00634	1140010	Michael Macko	Sylmar Expansion Project Cultural Resources Inventory and Significance Evaluation
KE-00649	1140357	James McManus	Archaeological Survey Report for 9-KER-14
KE-01108	N/A	Robert A. Schiffman	Archaeological Investigation of Solar World's Proposed Wind Farm Near Cantil, Kern County, California
KE-01594	N/A	L. Bruce Nybo	An Archaeological Evaluation of the Six Sections in Fremont Valley, Kern County, California
KE-01595	N/A-	Robert A. Schiffman	Archaeological Investigation for Six Sections of Land in Fremont Valley, Kern County, California
KE-01706	N/A	JIM ULI	Archaeological Investigation of Solar World's Proposed 40 Acre Wind Turbine Generator Farm Near Cantil, Kern County, California

Report Number	NADB No. CHRIS No.	Author	Title
KE-01763	N/A	California Department of Transportation	Archaeological Reconnaissance Survey for Minor Construction Projects PM 29.3/29.9
KE-01932	N/A	Mark Q. Sutton	Archaeological Investigations at Cantil., Fremont Valley, Western Mojave Desert, California
KE-01961	N/A	Mark Q. Sutton	The Archaeology of the Cantil Test Track, Fremont Valley, Western Mojave Desert, California
KE-01967	N/A	Michael V. Spear	Historical Resource Evaluation Report for a Widening Project on 9-KER-14, Near Cinco, Kern County
KE-01968	N/A	California Department of Transportation	Historic Property Survey Report, Jawbone Canyon Expressway Project
KE-01969	N/A	Denise O'Connor	Historical Architectural Survey Report for a Proposed Highway Project on Route 14 in Kern County, California.
KE-02118	N/A	Brian F. Smith and Associates	An Archaeological Survey of the Fremont Valley Pipeline Project, Mojave, California
KE-02135	N/A	McManus et al.	Negative Declaration, Department of Transportation
KE-02608	N/A	Theodoratus Cultural Research, Inc., and Archaeological Consulting and Research Services, Inc.	Cultural Resources Overview of the Southern Sierra Nevada
KE-02680	N/A	Bevill, Kelly, and Westwood	Cultural Resources Investigations of Selected Portions of the First and Second Los Angeles Aqueducts
KE-02879	N/A	Catherin Lewis Pruett	A Cultural Resources Assessment for the Rancho Seco Inc. Water System Rehabilitation Project, Near Cantil, Kern County, California
KE-02888	N/A	Mooney/Hayes Association	Cultural Resource Survey of Work Stations of the Sheep 12 kV (#325719S) and Greasewood 12 kV (#1924243E) Circuits, Southern California Edison Decorated Pole Replacement Program (2003), Kern County, California (Negative Declaration)

Report Number	NADB No. CHRIS No.	Author	Title
KE-03276	N/A	Stacy Jordan and Michael Wise	Archaeological Survey Report for the Southern California Edison Company, LADWP Rule 15 Line Extension, Private Inholding, Kern County, California
KE-03534	N/A	URS Corporation	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, California

N/A – Not available; CHRIS/NADB numbers have not been assigned according to Celeste Thomson at the Southern San Joaquin Valley Information Center

4. Five copies each of the 11 reports listed below in new Table 5.4-7 have been sent to CEC Executive Director Jones together with a request for confidentiality.

Table 5.4-7 Reports Within 0.25-mile of Project and Linear Facilities

Report Number	NADB No. CHRIS No.	Author	Title
KE-00029	1140980	Robert S. White	An Archaeological Assessment of the United Tire Recycling Corporation Project
KE-00030	1140979	Robert S. White	An Archaeological Assessment of the Cornell Corrections California City Prison Site
KE-00248	1141344	Environmental Sciences Section	Cultural Resource Survey Report for Flightline Security Fence
KE-00649	1140357	James McManus	Archaeological Survey Report for 9-KER-14
KE-01108	N/A	Robert A. Schiffman	Archaeological Investigation of Solar World's Proposed Wind Farm Near Cantil, Kern County, California
KE-01967	N/A	Michael V. Spear	Historical Resource Evaluation Report for a Widening Project on 9-KER-14, Near Cinco, Kern County
KE-01968	N/A	California Department of Transportation	Historic Property Survey Report, Jawbone Canyon Expressway Project
KE-01969	N/A	Denise O'Connor	Historical Architectural Survey Report for a Proposed Highway Project on Route 14 in Kern County, California.
KE-02118	N/A	Brian F. Smith and Associates	An Archaeological Survey of the Fremont Valley Pipeline Project, Mojave, California
KE-02135	N/A	McManus et al.	Negative Declaration, Department of Transportation

Report Number	NADB No. CHRIS No.	Author	Title
KE-03276	N/A	Stacy Jordan and Michael Wise	Archaeological Survey Report for the Southern California Edison Company, LADWP Rule 15 Line Extension, Private Inholding, Kern County, California

N/A – Not available; CHRIS/NADB numbers have not been assigned according to Celeste Thomson at the Southern San Joaquin Valley Information Center

CULT-3. Appendix B (g) (2) (C).

Information Required:

1. It does not appear that Matthew Tennyson meets Secretary of the Interior Standards for architectural history. It does appear that Jennifer Hirsch meets the requirements. Please clarify Ms. Hirsch's role in gathering information for the project.

2. Please identify the name of the person who meets Secretary of the Interior Standards in architectural history who either conducted or provided oversight for the historic architecture field surveys.

Response:

1. Jennifer Hirsch served as Architectural Historian for the Project. As discussed above in response to CULT-2, after Ms. Hirsch conducted the field survey, Mr. Tennyson took photographs of selected buildings as identified and requested by Ms. Hirsch. Ms. Hirsch was responsible for the built environment resource descriptions and assessments.

2. Jennifer Hirsch, who served as Architectural Historian for the Project, has a graduate degree in Historic Preservation from University of Pennsylvania and an undergraduate degree in Architectural Studies from Brown University. Based on this training and her years of experience, she meets the Secretary of Interior's Standard for Architectural History.

CULT-4. Appendix B (g) (2) (C) (v).

Information Required:

Please clarify Jennifer Hirsch's role regarding cultural resources activities for the project.

Response:

See response to CULT-3 above.

Geological Hazards

Response to CEC Staff Data Adequacy Comments

Technical Area: Geological Hazards

Following are additional information and/or clarifications in response to the specific issues raised in the CEC staff Data Adequacy review. For each specific area where questions were raised by CEC staff, the applicable section of the CEC Siting Regulations is identified, followed by the "Information Required to Make AFC Conform with Regulations", followed by the supplemental/clarifying information.

GEOL-1. Appendix B (g) (8) (A).

Information Required:

Summary of geology and seismicity along related linear facilities.

Response:

The BSEP offsite linear facilities consist of: 1) a natural gas pipeline extending approximately 16.4 miles off the plant site (with an additional approximately 1.2 miles of the pipeline within the plant site boundary), and 2) two transmission line options, each extending approximately 1.9 miles in total off the plant site (with approximately 1.6 miles of both routes within the plant site boundary). Along with the power plant site, these facilities are located in the alluvial-filled basin of the Fremont Valley, southeast of the Tehachapi Mountain foothills. Topography along these linear facilities is relatively flat and is underlain by Quaternary-age alluvium, Holocene lacustrine and playa deposits near the surface, and older alluvium at depth. The majority of the linear facilities are within Arizo gravelly loamy sand, Cajon loamy sand, Cajon gravelly loamy sand, Rosamond Clay loam, Rosamond clay loam, saline-alkali, and Garlock loamy sand soil types. The runoff potential of these soils is negligible to moderate and water and wind erosion hazard is moderate to high. There are no permanent bodies of water located along the route of the linear facilities.

The linear facilities are located in seismically active Southern California and a review of the Kern County Online Mapping System (2007) and the Alquist-Priolo Earthquake Fault maps (Division of Mines and Geology 2000) indicate that two AP fault zones are in the vicinity of the routes of the linear facilities (the locations of AP faults zones with respect to linear facilities are shown on new Figure 5.5-4). The transmission line options fall between the Garlock East Fault and the Garlock West Fault, and the offsite gas pipeline crosses the Garlock West Fault at the plant site boundary. The origination point of the gas pipeline (west of California City) is approximately 12 miles from the Garlock West Fault. The expected relative Peak Acceleration for the Garlock East and West Faults is 0.37g. In addition, the gas line crosses the Randsburg-Mojave Fault and a portion of the Muroc Fault. The portion of these faults have not been mapped as AP zones.

The section of the gas pipeline that crosses the AP zones is subject to surface rupture from active faults and therefore the risk of earthquake-induced ground rupture would be considered significant before mitigation. Neither linear facility is located in an area with the potential for permanent ground displacement due to earthquake-induced landslides because surface topography at and near the linear facilities is relatively flat, even for the transmission line where it approaches the foothills.

Due to generally flat terrain, linear facilities are not prone to significant mass wasting at present. The implementation of SWPPP and BMPs are expected to reduce water and wind erosion of soils to a less than significant level. Although no fieldwork was conducted to identify fractures, no fractures induced from excessive groundwater pumping in the Fremont Valley have been mapped crossing the linear facility routes (Pampeyan et al 1998). Further assessment of the linear facility alignment with respect to these structures will be performed as part of the BSEP detail design process.

Slope stability, liquefaction, subsidence, collapsible soils and expansive soils in relation to linear facilities are briefly summarized here and do not significantly differ from the plant site (refer to AFC Section 5.5 Geotechnical Hazards for a more detailed description of these geologic hazards).

Groundwater at the linear facilities is reported to be deeper than 270 feet and thus liquefaction is not considered likely. Subsidence due to groundwater withdrawal has been documented in various regions of the Mojave Desert. With implementation of planned mitigation measures, seismically induced settlement would be expected to be low and additional geotechnical investigations will be completed during the BSEP final design phase to assess seismically induced settlement in the vicinity of the Project. Based on the Project's preliminary geotechnical studies (Kleinfelder, 2007a, 2007b), the onsite alluvial deposits have a moderate to high potential for collapse. A more detailed investigation has been recommended to evaluate these soils including density and collapse tests, as a basis for final design. However, the potential for damage due to collapsible soils is considered to be very low provided that the mitigation measures for sub-grade improvements are implemented (Kleinfelder, 2007b). Linear facilities are mostly located outside areas with soils considered potentially expansive (those associated with lacustrine deposits); however, as mentioned above, detailed geotechnical investigation is planned to further evaluate and verify the expansion potential of the native soil deposits.

No significant impacts are expected from BSEP construction or operations- related activities. Short term grading will occur, but with the implementation of the SWPPP and BMPs, there will be no significant dust issues. There will be no offsite fill procurement sites and the same materials excavated from the site will be used for backfill. Design level investigations are planned to quantify the issues related to collapsible soils, expansion and liquefaction. The potential for subsidence is considered low because current and proposed groundwater pumping levels will be less than the historic pumping rates. The design of trenching, piping and backfill will be conducted with consideration of seismicity issues. Construction of linear facilities in accordance with Seismic Zone 4 requirements and the requirements of the Alquist-Priolo Earthquake Fault Zoning Act will ensure that earthquake-related impacts and impacts from soil collapse are minimized. As such, the BSEP would not be expected to contribute significant cumulative effects on geologic resources and hazards during either construction or operation.

GEOL-2. Appendix B (g) (17) (B).

Information Required:

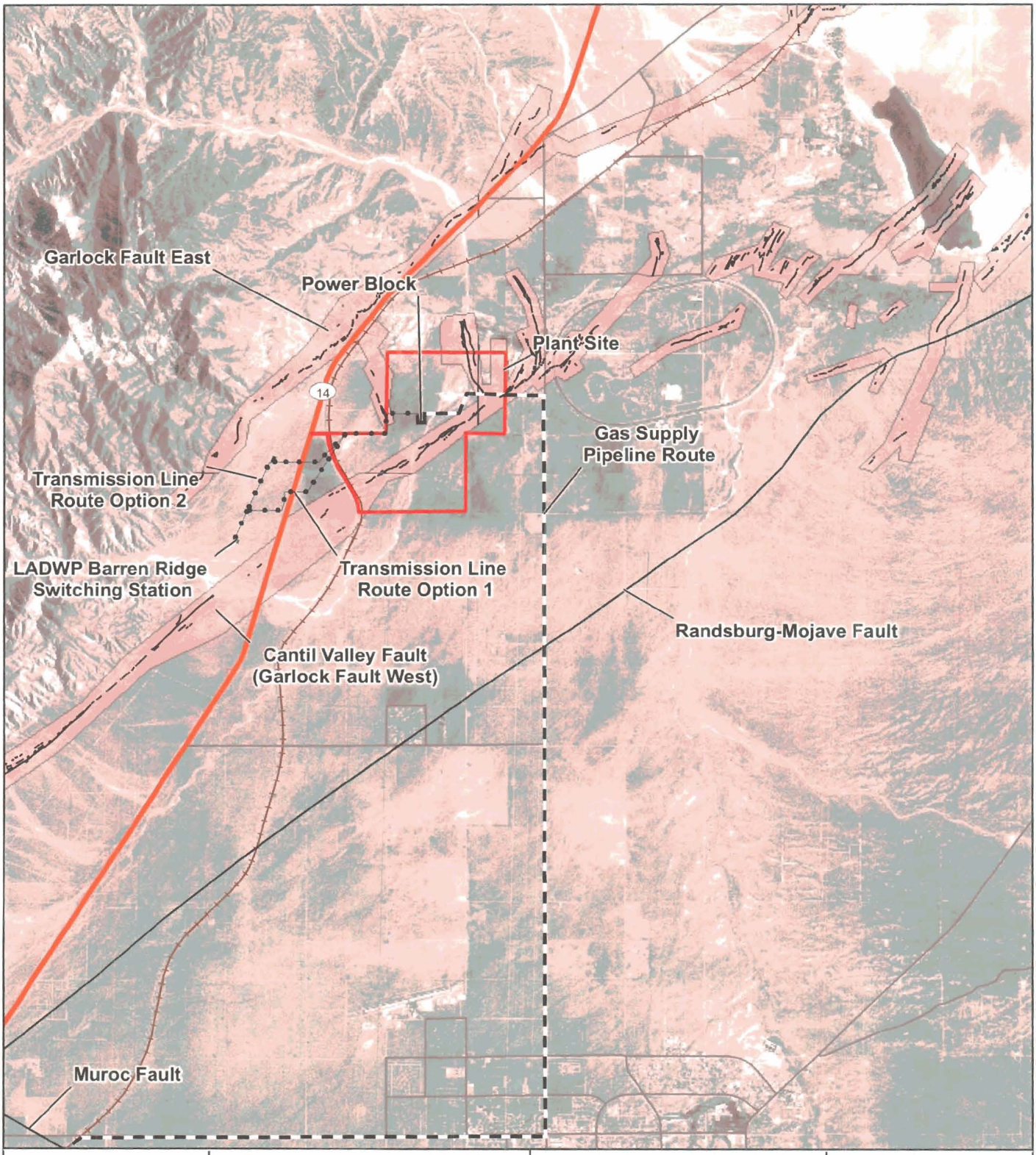
Discussion of linear facilities in Section 5.5.2.3.

Response:

See response to GEOL-1 above regarding the Geologic Hazards potential for Project linear facilities.

Reference

Pampeyan E., Holzer, T., and M. M. Clark. 1988. Modern Ground Failure in the Garlock Fault Zone, Fremont Valley, California. Geological Society of American Bulletin, 100: 677-691, May.



Map Location

Legend

- Transmission Line Route
- Gas Supply Pipeline Route
- Power Block
- Plant Site
- Alquist-Priolo Fault Zone
- Fault Lines

N W E S

Beacon Solar Energy Project

Figure 5.5-4
Project Linear Features vs. Alquist-Priolo Fault Zones

1:110,000

0 1 2 Miles

Beacon Solar

ENSR | AECOM

Project: 10056-014
Date: April 2008

Land Use

Response to CEC Staff Data Adequacy Comments

Technical Area: Land Use

Following are additional information and/or clarifications in response to the specific issues raised in the CEC staff Data Adequacy review. For each specific area where the questions were raised by CEC staff, the applicable section of the CEC Siting Regulations is identified, followed by the "Information Required to Make AFC Conform with Regulations", followed by the supplemental/clarifying information.

LAND-1. Appendix B (g) (3) (A) (iii).

Information Required:

The AFC indicates that the areas surrounding the project site have little potential for foreseeable future development. No list or discussion of discretionary reviews by jurisdictional public agencies was provided. Please provide a list and/or discussion of all discretionary reviews initiated or completed within 18 months for projects, including General Plan/Zoning amendments, with the potential to impact or be impacted by the project.

Response:

Land development records were researched by BSEP consultants together with Kern County Planning Department staff (Lorine Vasquez) on April 8, 2008, and the only discretionary review identified in the area surrounding the BSEP site was issuance in March 2007 of a conditional use permit for a mobile home located approximately 0.3-mile southwest of the nearest Project boundary. No other discretionary reviews initiated or completed within the past 18 months were identified.

LAND-2. Appendix B (g) (3) (C).

Information Required:

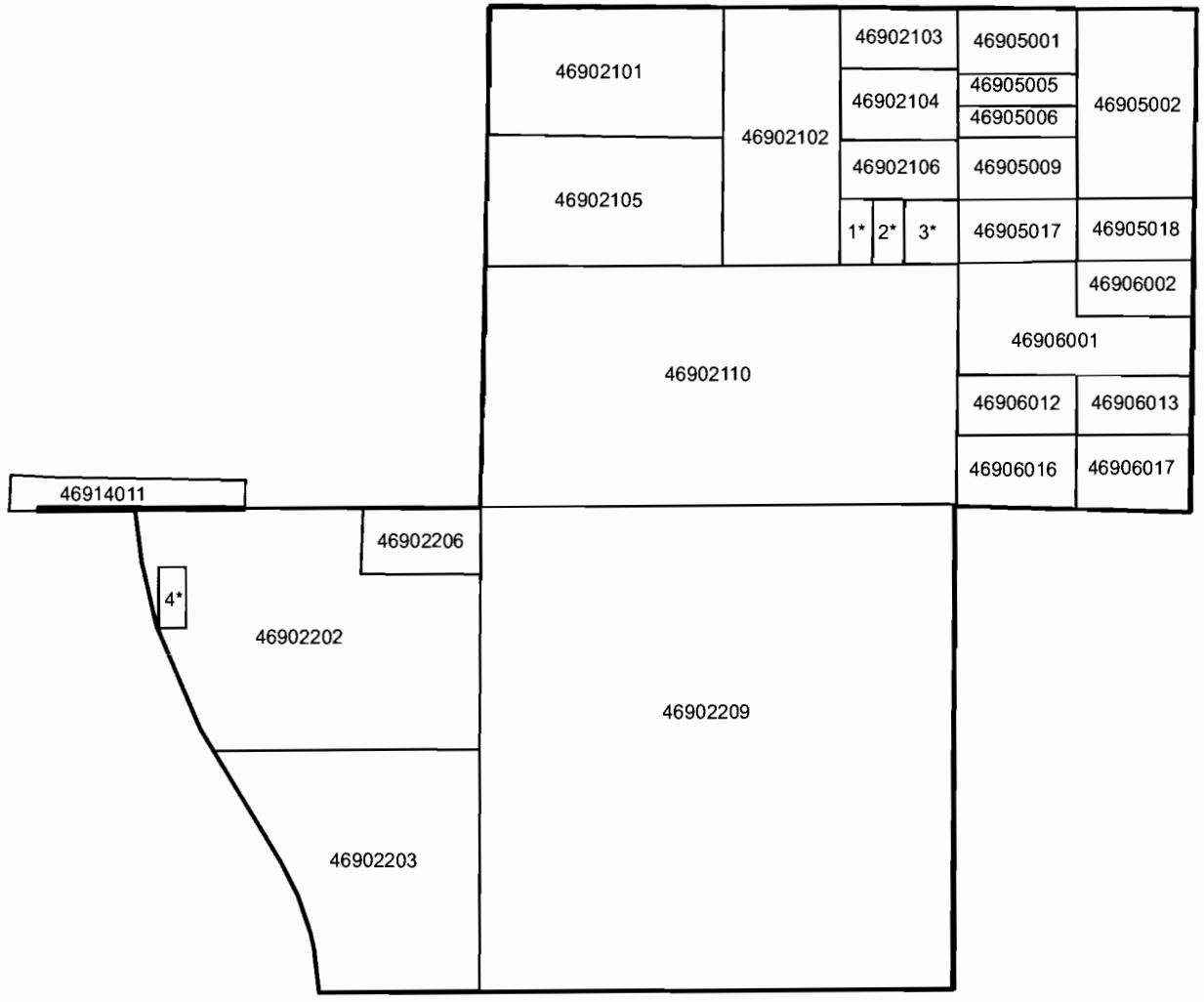
The cover letter for the AFC submission indicates that Beacon Solar intends to "develop, construct, own, and operate the proposed new facility on land owned by the company". There is no discussion within the AFC regarding current land ownership, legal status of the parcels, or method and timetable for merging or combining the multiple parcels. Please provide a discussion of the current land ownership, legal status, intent regarding transfer of title, and method/timetable for merging or combining the multiple parcels (excluding linears and any temporary use areas).

Response:

The BSEP 2012 acre site, excluding linears (and the Project will not utilize offsite temporary laydown or staging areas), consists of 29 separate assessor parcels (see new Figure 5.7-7). Beacon Solar owns 26 of the 29 parcels contained within the Project site boundary. Beacon Solar has entered into purchase arrangements for the remaining parcels within the site area not yet owned by the Applicant, and expects to close the purchase of these remaining parcels in the near

future. The remaining parcels comprise approximately 29.5 acres of the total 2012 acre project site area.

The parcels that comprise the site were all created by previous owners by deed and are not the result of any formal subdivision process. Prior to the start of construction, BSEP will process and record a subdivision map with Kern County to combine the separate parcels into a single legal lot. To ensure that this process is completed in a timely manner, Beacon Solar plans to initiate this process in the summer of 2008.



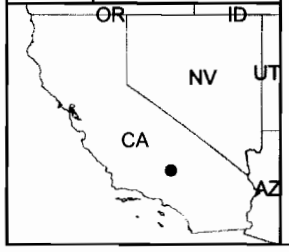
1* - 46902108

2* - 46902107

3* - 46902109

4* - 46902201

Map Location



Legend

Plant Site

Parcels

1:24,000

0 2,000 4,000 6,000 8,000 Feet

Beacon Solar Energy Project

Figure 5.7-7
BSEP Plant Site Parcels

Source: Kern County, 2007.

Beacon

ENSR

Project: 10056-014
Date: April 2008

Socioeconomics

Response to CEC Staff Data Adequacy Comments

Technical Area: Socioeconomics

Following are additional information and/or clarifications in response to the specific issues raised in the CEC staff Data Adequacy review. For each specific area where questions were raised by CEC staff, the applicable section of the CEC Siting Regulations is identified, followed by the "Information Required to Make AFC Conform with Regulations", followed by the supplemental/clarifying information.

SOCI-1. Appendix B (g) (7) (A) (i).

Information Required:

Please provide information about projected revenues.

Response:

According to Debbie Stevenson of the Kern County Auditor's office (personal communication with Addie Olazabal, EDAW, April 8, 2008), no significant growth in discretionary revenues is projected in fiscal year 2008-2009. Projected revenues are anticipated to remain relatively consistent with the data presented in AFC Table 5.11-8 for the current fiscal year (2007-2008).

SOCI-2. Appendix B (g) (7) (B) (vii).

Information Required:

Please provide separate estimates of the total operation payroll for permanent and short-term (contract) employees.

Response:

BSEP operations phase payroll is estimated at $7 to $8 million annually. There are no plans to utilize short-term (contract) employees during BSEP operations. Therefore, the estimated $7 to $8 million annually would be for all permanent employees.

SOCI-3. Appendix B (g) (7) (B) (ix).

Information Required:

Please provide an estimate of the capital cost of plant and equipment.

Response:

The capital cost of the plant and equipment for BSEP is estimated at $1billion.

SOCI-4. Appendix B (i) (1) (B).

Information Required:

Please provide tables in which each agency (such as public works departments and assessors) with jurisdiction to enforce identified laws, regulations, and standards is identified.

Response:

Please see table below.

SOCI-5. Appendix B (i) (2).

Information Required:

Please provide in table (above) name and title of contact along with telephone number.

Response:

Please see table below.

Agency Contact	Phone/E-mail	Function
Jackie Denney Treasurer/Tax Collector 1115 Truxtun Avenue Bakersfield, CA 93301-2370	(661) 868-3490 2servu@co.kern.ca.us	Property tax collection.
Ann K. Barnett Auditor-Controller-County Clerk 1115 Truxtun Avenue Bakersfield, CA 93301-4639	(661) 868-3599 Auditorcontroller@co.kern.ca.us	Computes tax rates, tax bills, and tax allocation factors. Accounts for and reports financial transactions of the County, schools, and special districts.
Barry Jung, Director Community and Economic Development 2700 "M" Street, Suite 250 Bakersfield, CA 93301-2370	(661) 862-5050 kerncd@co.kern.ca.us	Implements programs to serve the needs of Kern County residents, including public facilities improvements.
Steve Mattern, Director Superintendent of Schools, District Financial Services 1300 17th Street Bakersfield, CA 93301-4533	(661) 636-4691 Stmattern@kern.org	Provides detailed accounting support and assistance to school districts, and is the liaison between school districts and the Kern County Auditor-Controller's Office.
Michael J. Bevins California City Public Works Director 21000 Hacienda Blvd. California City, CA 93505	(760) 373-7297 pwdir@ccis.com	Oversees the coordination of public improvement projects in California City.

Agency Contact	Phone/E-mail	Function
Linda Lunsford California City Manager 21000 Hacienda Blvd. California City, CA 93505	(760) 373-8661 Citymgr@ccis.com	Provides organizational leadership to ensure the effective implementation of projects, programs, and policies, and prepares the annual budget.