Palmdale Hybrid Power Project (PHPP): Further Energy Commission Staff Clarification of Data Request 22, March 3, 2009

This additional clarification is specifically addressed to the geographic scope and level of detail intended in the language underlined below in staff's January 30th version of Data Request 22

Energy Commission Data Request 22, Revised by the Applicant on 1/29/09 and Further Revised by Staff on 1/30/09 (verbatim)**:**
In response to Data Request 22, the Applicant proposes to provide additional information on which to assess the potential presence and locations of buried archaeological sites in the proposed project area for the purpose of gauging whether the construction and operation of the proposed project could impact such resources. The proposed study includes a review of the extant literatures for archaeology, geoarchaeology, and Quaternary science, and an assessment, based on this review, of what is currently known about the incidence of buried archaeological deposits in the portion of Antelope Valley that includes the proposed project area. The review will utilize materials pertinent to the study at the cultural resources records and curation facility at Edwards Air Force Base, and will also include reference to aerial photographs. The study will focus on the landscape contexts for archaeological resources that are characteristically found in the portion of the Antelope Valley that includes, but is not necessarily limited to, the proposed power plant site area as shown in the attached figure and on the landform or landforms traversed by the proposed project laterals, the reclaimed water supply pipeline, the SoCal natural gas pipeline, and the transmission line.

Although the study will focus on the historical geomorphology and archaeology of the proposed project area, the scope of the study will be broader in scale in order to develop an understanding of the regional geomorphic context (including the landforms and drainages) that played a role in the historical geomorphology of the proposed project area and that has shaped the character of the surface and subsurface archaeological records there.

Applicant will prepare and submit, under confidential cover, an assessment of what is currently known about the landforms on which PHPP components will be located and the stratigraphy of those landforms, a discussion of the known incidence of buried archaeological deposits in this portion of Antelope Valley, a discussion of the volume of previous archaeological investigations in the same portion of the Antelope Valley that include subsurface inventory or subsurface monitoring efforts, and a summary of archaeologists', ethnohistorians', ethnographers', and historians' understanding of the prehistoric and historic utilization of the project area. The fewer archaeological data that are available, the more emphasis will be given to the historical geomorphology of the project area to provide a more substantive context for interpreting the possible presence of buried archaeological deposits. Where the data are available, emphasis will be on the distribution, depths, and kinds of buried archaeological deposits that have been found, and their stratigraphic context.

The study shall be prepared by a professional in geoarchaeology, a person who, at a minimum, meets the U.S. Secretary of the Interior's Professional Qualifications Standards for a professional in archaeology and is able to demonstrate the completion of graduate-level coursework in geoarchaeology, physical geography, geomorphology, or Quaternary science.

Staff's Clarification of Geographic Scope of Data Request 22
Geoarchaeological studies and cultural resources studies (and those of other research-oriented disciplines as well) use a similar two-phase approach to their subjects. They start with establishing a larger, more general context—historical and geologic for geoarchaeological studies, historical and ethnographic for cultural resources—that delimits the studies geographically and presents the framework within which to identify the phenomena of interest, to define research questions, and to interpret and evaluate data. That larger context is usually not elaborate or detailed. It just has to generally frame, in time and space, the subjects that are the focus of the second and more important phase of the study and for which greater detail is appropriate.

Within this general concept of a common approach to research, staff's Data Request 22 seeks information about the project's geoarchaeological setting at two scales: the regional (Phase 1) and the site-specific (Phase 2).

Phase 1 geomorphology is represented in Data Request 22 by the following language in the first paragraph:

> "The study will focus on the landscape contexts for archaeological resources that are characteristically found in the portion of the Antelope Valley that includes, but is not necessarily limited to, the proposed power plant site area … and on the landform or landforms traversed by the proposed project laterals, the reclaimed water supply pipeline, the SoCal natural gas pipeline, and the transmission line."

Phase 1 geomorphology is also represented in Data Request 22 by the following language in the second paragraph:

> "Although the study will focus on the historical geomorphology and archaeology of the proposed project area, the scope of the study will be broader in scale in order to develop an understanding of the regional geomorphic context (including the landforms and drainages)."

Phase 1 geoarchaeology is represented in Data Request 22 by the following language in the first paragraph, requesting:

> "…an assessment, based on this review [of the extant literatures for archaeology, geoarchaeology, and Quaternary science], of what is currently known about the incidence of buried archaeological deposits in the portion of Antelope Valley that includes the proposed project area."

Phase 1 geoarchaeology is also represented in Data Request 22 by the following language in the third paragraph, requesting:

> "…a discussion of the volume of previous archaeological investigations in the same portion of the Antelope Valley [the portion of the Antelope Valley that includes, *but is not necessarily limited to*, the proposed power plant site area] that include subsurface inventory or subsurface monitoring efforts…."

Phase 1 geoarchaeology is also represented in Data Request 22 by the following additional language in the third paragraph:

> "Where the data are available, emphasis will be on the distribution, depths, and kinds of buried archaeological deposits that have been found, and their stratigraphic context."

Phase 1 is "the big picture," a general description of the landforms in the region of the project site and an account of the geomorphic history of the region. It should provide the broad context for understanding the formation of the landforms on which proposed project components would be located, the ages of these landforms as they may relate to human occupation, and the geomorphic forces, particularly, in the case of the PHPP's proposed location, erosion and deposition of sediments, that have shaped the landforms and affected the three-dimensional distribution of the potential array of prehistoric archaeological deposits in the project areas.

The specific area for which staff is requesting a "big picture" summary is outlined on the attached figure (Energy Commission DR22 Figure 1). It is necessarily large to include the project site's landform and those nearby landforms with which it has a historical geomorphic relationship. So the Phase 1 study area includes:

- the source of and the transporting vectors for the project site's sediments—the San Gabriel Mountains and the canyons in the foothills of the San Gabriel Mountains to the south and southwest;
- the project site's landform—the merged alluvial fans forming a bajada extending to the northwest and southeast; and
- the landform of the proposed project's most extensive component, the transmission line—the slightly sloping plain to the north and northeast dissected by numerous shallow washes, which further drain the two higher landforms.

PHPP counsel noted that the phrase in the first paragraph ("…on the landform or landforms traversed by the proposed project laterals, the reclaimed water supply pipeline, the SoCal natural gas pipeline, and the transmission line…"), in which staff specified the Phase 1 geographic coverage, appears to be including areas additional to that staff indicated in the original Data Request 22 ("…landforms traversed by the western part of Segment 2 of the proposed transmission line…"). Staff believes the revised January 30th version just specifies more clearly the coverage staff intended, which was determined by landform, not by project component. That is, the western part of Segment 2 of the proposed transmission line cuts across all three landforms about which staff seeks information, so staff used that phrase to indicate the landforms the

study should include. Listing, instead, all the project components in the revised version further clarifies that all the landforms need to be included in the Phase 1 discussion.

Because the Phase 1 context need not be detailed, it need not be expensive to compile. To minimize cost, it would be important to retain a geoarchaeologist familiar with efficiently finding information in the literature of the archaeological, geological, and Quaternary science fields, and familiar, ideally, with the Antelope Valley region. For the geological and Quaternary science literature, a review of a few articles or monographs about the historical geomorphology of the southwestern Antelope Valley and of current geological maps and aerial photographs would probably suffice to provide the general information for the context.

For the archaeological literature, the acquisition and digestion of every archaeological survey report for the entire region would not be required for Phase 1. Rather, articles that synthesize raw archaeological data from multiple reports, most especially from excavation reports, should be sought (such as Sutton 1980, cited in the Cultural Resources section of the AFC) to provide the archaeological assessment that staff seeks in Data Request 22: "what is currently known about the incidence of buried archaeological deposits in the portion of Antelope Valley that includes the proposed project area" (first paragraph; similar language in the third paragraph). Staff also wants, as a measure of the reliability of the data on buried prehistoric archaeological deposits in the southern Antelope Valley, to have a perspective on how much subsurface archaeology has been done in the region, hence the request, in the third paragraph, for information on "…the volume of previous archaeological investigations in the same portion of the Antelope Valley…."

Phase 2 geomorphology is represented in Data Request 22 by the following language in the third paragraph, requesting :

> "…an assessment of what is currently known about the landforms on which PHPP components will be located and the stratigraphy of those landforms…."

Phase 2 geomorphology is also represented in Data Request 22 by the following language in the third paragraph:

> "The fewer archaeological data that are available, the more emphasis will be given to the historical geomorphology of the project area."

Phase 2 geoarchaeology is represented in Data Request 22 by the following language in the third paragraph, requesting:

> "…a summary of archaeologists', ethnohistorians', ethnographers', and historians' understanding of the prehistoric and historic utilization of the project area…."

Phase 2 would require an analysis of greater detail, addressing the project's construction areas. Staff seeks site-specific information on what subsurface sedimentary layers of what ages are present in PHPP construction areas. Such data are best obtained through a field study entailing actual excavation, but, in the absence of

any previous study that produced subsurface soil data pertinent to PHPP construction areas, extrapolation of the sedimentary layers likely to be found in the project's construction areas, based on Phase 1 information on the landforms, their age, and their developmental processes, can provide indications of the potential for buried archaeological resources. Phase 1 information can also address the age of the relevant landforms, when site-specific field data are not available (landforms older than 14,000 years will be considered, for our purpose here, too old for humans in this hemisphere to have used or lived on them).

The Phase 2 summaries and assessments should identify the geomorphology of the landforms where the PHPP construction areas would be located because the prehistoric archaeological data, presented in the AFC, apparently represent only surface deposits, which are infrequent and do not represent much variation in site types. Because those more direct data pertinent to the types and ages of subsurface archaeological deposits that are likely are not available, staff also requested that the PHPP's geoarchaeologist summarize the perspectives of archaeologists, ethnohistorians, ethnographers, and historians on the past uses of the project vicinity, since these can provide indirect but useful evidence for the types and ages of subsurface archaeological deposits possible in the project's construction areas.

Clarification of Level of Detail

The expected level of detail is represented in Data Request 22 by the following language in the first paragraph, asking for:

> "…a review of the extant literatures for archaeology, geoarchaeology, and Quaternary science…."

The expected level of detail is also represented in Data Request 22 by the following language in the first paragraph, advising the PHPP geoarchaeologist to:

> "…utilize materials pertinent to the study at the cultural resources records and curation facility at Edwards Air Force Base, and will also include reference to aerial photographs."

Staff specified a literature review for archaeology, geoarchaeology, and Quaternary science for the PHPP region because staff recognizes that the information staff seeks is both of an interdisciplinary nature, and may have limited availability, so the more kinds of sources reviewed, the more likely the desired information can be found. Staff directed the applicant's geoarchaeologist to the cultural resources records and curation facility at Edwards Air Force Base because staff believes that, since it is dedicated specifically to the region's cultural resources, that repository may have collected particularly pertinent archaeological reports and other data. Consequently, seeking information and consulting with the staff there may be more useful than going back to the California Historical Resources Information System (CHRIS) center at California State University, Fullerton.

Finally, staff does not expect the PHPP's geoarchaeologist to exhaust all possible sources. Staff expects just a good faith effort to provide the requested information. If

some of the requested information is not available, then the geoarchaeologist should just document the effort to obtain it and provide such information as could be obtained.

Examples of Geoarchaeological Studies Similar to What Staff Seeks in Data Request 22

Ivanpah SEGS project, San Bernardino County, see pp. 19–35 in the following document on the Energy Commission's website:
http://www.energy.ca.gov/sitingcases/ivanpah/documents/applicant/DR_1b/07-AFC-5_ISEGS_Data_Response_Set_1B_LR.pdf

Beacon Solar Energy Project, Kern County, see pp. 70-79 in the following document on the Energy Commission's website:
http://www.energy.ca.gov/sitingcases/beacon/documents/applicant/2008-08-25_Supplemental_Response_to_CEC_Data_Request_TN-47643.pdf

Lodi Energy Center project, San Joaquin County, see below.

Lodi Energy Center (08-AFC-10)
Data Response Set IB, Responses to CEC Staff Data Requests 13 and 37

ATTACHMENT DR13-1

T E C H N I C A L M E M O R A N D U M

Historical Geomorphology of the Lodi Energy Center
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DATE: February 12, 2009

Introduction

As part of the Application for Certification process for the Northern California Power Agency's (NCPA) Lodi Energy Center (LEC) project (08-AFC-10), the California Energy Commission (CEC) requested further information on the historical geomorphology of the proposed project site. This technical memorandum is a response to CEC Data Request No. 13:

"Please provide a discussion of the historical geomorphology of the project site that evidences consideration of the potential there for buried archaeological deposits. The discussion should include information on the development of Delta sand deposits during and subsequent to the Late Pleistocene era, particularly sands of the Piper series. The primary bases for the discussion should be data on the geomorphology, sedimentology, pedology, and stratigraphy of the project area or the near vicinity during the Late Quaternary period. The sources of these data may be a combination, as necessary, of extant literature or primary field research."

Context

Soils and Sediments

The Natural Resource Conservation Service (NRCS) (1998) defines the Piper series as very deep, poorly drained soils that formed in alluvium from granitic rock sources. Piper soils are on natural levees and flood plains, typically on sloping natural levees 15 feet below to 5 feet above sea level or at elevation of up to 300 feet. They formed in sandy or coarse-loamy alluvium mostly from granitic sources along streams in low basins and in the Sacramento- San Joaquin Delta. Geographically associated soils are the Kingile, Shima, and Sacramento soils. Kingile and Shima soils are organic soils. Diagnostic horizon recognized in the Piper Series pedon is an ochric epipedon present from the surface to a depth of 10 inches (A1, A2 zones) (NRCS, 1998). Soils in the vicinity of the project site and the natural gas pipeline right-of-way are classified as Devries sandy loam, a soil of historic flood-basins and basin rims (NRCS, 1992).

Geomorphology and Topography

The trunk streams of the Great Valley converge with each other and the Mokelumne River at the Sacramento-San Joaquin Delta. Prior to the middle 19th century the delta possessed all the features of a classical delta with anastomosing channels, low levees, broad flood basins, and many channel segments both abandoned and submerged. The LEC project area lies on the eastern margin of the delta, at the toe of the delta-fan of the Mokelumne River less than a mile east of the high water limit of the historic autumnal tides (Marchand and Atwater, 1979). The overarching control of sedimentation in the delta, including in the vicinity of the project area, has been the interplay between glacio-eustatic sea-level fluctuations and glacial outwash borne by Sierra Nevada streams (Lettis and Unruh, 1991; Shlemon, 1971; Shlemon and Begg, 1975). Episodic sea level declines during Middle and Late Quaternary glaciations led to fluvial down-cutting and westward migration of the delta-fan system,[1] while subsequent deglacial sea-level rise led to eastward migration of the estuarine and delta-fan system, and aggradation within the current limits of the Sacramento-San Joaquin Delta. The last period of deglaciation and sea-level rise, followed by encroachment of estuarine habitats and accretion of the current Mokelumne River fan-delta, began approximately 15,000 years ago (B.P.; Bloom, 1983). Marine/estuarine environments entered San Francisco Bay by 10,000 B.P. and prograded eastward occupying most of the current delta by about 6,000 B.P. (Atwater et al., 1977; Shlemon and Begg, 1975).

Soil survey classifications are generally for agronomic purposes and the designations are seldom employed to great extent in geomorphological or geological investigations. The nuance here is that a soil, as used in these studies, is a suite of chemical and physical characteristics developed by weathering of the parent sediment after it is laid down. Therefore, one might encounter a suite of soil characteristics (such as color, alteration of physical properties with depth, vertical distribution of clays and elements such as iron, aluminum, and calcium) developed to a very similar degree on two sediments of different origin, for example, a fluvial sand and an eolian (dune) sand. In the vicinity of the project area, Marchand and Atwater (1979) have identified limited relict dunes about a mile north of the project site, with a more extensive dune field approximately 4 miles to the northnortheast. In their (Marchand and Atwater, 1979) stratigraphic inventory they note that, according to the USDA. soil survey of San Joaquin County in preparation at the time, these dune sands support (among other soils) the Piper series.

The relict dune area about a mile north of the project site is characterized by about 3.5 feet of loose sand overlying compact sandy silt and silty sand (Atwater, 1982). It possesses minimal topographic relief (Thornton and Lodi South 7.5' topographic series, U.S. Geological Survey), although its relative height was no doubt greater prior to intensive farming in the area. These sands mantle the Modesto Formation and represent its uppermost stratum in this area (Atwater, 1982). The Modesto Formation is typically assigned to the Late Pleistocene (ca. 78,000 to 10,000 B.P.; Atwater, 1982;

[1] During glacial-maximum times the mouth of the Sacramento River lay west of the Farallon Islands, some 30 miles west of the current coastline. The consequent reduction of maritime influence on the local climate led to increased aridity (see Thompson et al., 1993).

Marchand and Allwardt, 1979), although there is no a priori reason that this sand might not also date to the early Holocene (10,000 – 7,000 B.P.) period of maximum aridity in western California (e.g., Davis, 1999; Anderson, 1990; Davis and Moratto, 1988). Relict dunes and sand sheets along coastal California and in areas such as the Sacramento-San Joaquin Delta have usually been related to a more arid (albeit cold) Late Pleistocene climate when the sea had retreated far to the west due to glacio-eustatic sea-level decline (Dupré et al., 1991). The climate was more arid and, at the same time, rivers issuing from the glaciated Sierra Nevada were discharging enormous sediment loads that would have been a ubiquitous source of wind-blown sand in the lowlands of the Great Valley and Delta (Atwater and Marchand, 1980; Lettis and Unruh, 1991). With more recent paleoclimatic reconstructions indicating aridity well into to the middle Holocene (Davis, 1999; Malamud-Roam et al., 2006), it is reasonable to suggest that the uppermost, eolian facies of the Modesto Formation may in some places post-date the Pleistocene.

It also should be noted that another enormous sediment-discharge pulse took place in the late 19th and early 20th century in response to placer mining in the Sierra Nevada. The radical downstream geomorphic adjustments that resulted were noted early in the last century (e.g., Bryan, 1923), and the stratigraphic impact of this has been discussed recently by Florsheim and Mount (2003). Although not possessing an ochric epipedon, a reddishbrown sediment layer overlying late Holocene basin deposits is widespread in the area of the confluence of the Cosumnes and Mokelumne rivers, about 10 miles north, and likely elsewhere. Its thickness ranges from about a half-meter to more than 2.5 meters (1.6 to 8.2 feet). This red-brown sandy-silt has been termed the “anthropogenic layer” by Marchand and Atwater (1979). However, its character and color should be distinguishable from the deep oxidation profile of the eolian sands described by Atwater (1982; Atwater and Marchand, 1980).

Analysis

A brief review of the archaeological literature of the Sacramento-San Joaquin Delta area and the subdued topography of the fan toes of the Mokelumne and Cosumnes Rivers indicates that major archaeological sites were located on topographic (or paleotopographic) highs. The relative elevation of village mounds and other sites of intense habitation would have increased from simple accretion of anthropogenic debris, but natural levees and other natural topographic highs commonly hosted prehistoric sites (Beardsley, 1948). However, this does not hold true for the oldest sites, which are actually found below adjacent terrain, frequently in marshlands some distance from current river courses and within indurated alluvium (Moratto, 1984). Some prehistoric sites were recorded as occurring on “clay mounds,” which might be erosional remnants of flood-basin deposits. Many older sites are in alluvium that is “well-indurated” with carbonate deposition, suggesting relatively rapid rates of soil formation (that is, considerably less than 7,000 years to form a well-developed carbonate [CCa] soil horizon). It should be noted as well that at least one previous analysis does not appear to support the relationship between topographic highs and archaeological sites (e.g., West and Welch, 1996), but this is due more to a lack of geomorphological rigor in the

use of “landform codes” than a reflection of what may actually be the case.[2] The study of lowland sedimentation processes during the late Holocene and historic periods in the Sacramento-San Joaquin Delta by Florsheim and Mount (2003) is germane to this discussion. Their study area lies only 11 miles north of the LEC project area, and is in an area that hosts a number of important sites near the confluence of the Cosumnes River, Mokelumne River, and Dry Creek (Figure 4.6 in Moratto, 1984). Florsheim and Mount (2003) describe the geological facies changes in the delta-fan subsurface in terms of habitats and energy regimes of a low-gradient riverine system entering a prograding delta. Chief among these processes in prehistoric and early historic (pre-20th century) times were the seasonal overbank flows of the perennial rivers (the Mokelumne, Sacramento, and Cosumnes rivers in this area) creating floodplain lakes and seasonal marshes that slowly drained through multiple channels in the flood basin. Relatively coarse-grained sands were suspended in the energetic channel flows and deposited on the levees or as splay deposits adjacent to levee breaches. Finer clays and silts were carried farther into the basins and deposited in relatively less energetic habitats as flood-basin sediments. Flood-basin deposits generally are clay-rich sediment derived from overbank flood flows trapped between natural levees and the edges of fans (Bryan, 1923; Florsheim and Mount, 2003).

Conclusions

Atwater (1982) and Marchand and Atwater (1979) have identified relict dunes and sand sheets on the eastern periphery of the Sacramento-San Joaquin Delta. The closest that have been mapped lie about a mile north of the project site, with a more extensive dune field approximately 4 miles to the north-northeast. In their stratigraphic inventory, Marchand and Atwater (1979) note that, according to the USDA soil survey of San Joaquin County in preparation at the time, these dune sands support (among other soils) the Piper series. Many relict dune systems in western California have been assigned a Pleistocene age, although clarification of the degree of early- to middle Holocene drought in western California raises the question of whether some might be younger than 10,000 B.P. Some eolian landforms may therefore post-date the beginning of the PaleoIndian Period (ca. 12,000 B.P.). Dunes offered windbreaks in what otherwise was a generally flat landscape, and later in the Holocene would have offered topographically elevated sites in a seasonally waterlogged region. Thus, an archaeological record at depth can be expected from these features absent significant historic disturbance. The most intriguing strata for investigation would be those displaying the contact between overlying eolian sand and underlying Modesto Formation alluvium. Younger archaeological materials atop older eolian strata, which would occur if a dune provided well-drained ground for later Holocene occupation, could be evinced by organic rich and finer-grained (silts and clays) strata overlying the older sands.

[2] Table 1 in West and Welch (1996) lumps sediment descriptors such as “peats and muds,” “organic soils,” and “valley fill” with topographic descriptors such as “alluvial fans,” “low terraces,” and “basins and basin rims” (sic) confounding any attempt to understand the relationship between site occurrence and topography alone.

It is doubtful, however, that circumstances will arise in the course of this project that will allow for a test of any of these hypotheses. Neither Atwater (1982) nor Marchand and Atwater (1979) map relict dunes or other eolian landforms within a mile of the project site or the natural gas pipeline route. Other sands are present at depth, but the deeply oxidized ochric horizon characteristic of the Piper series was not noted in prior geotechnical studies (Carlton Engineering, 2008; Kleinfelder, 1993). Silty sands to sandy silty clays extend to a depth of 2 to 8 feet below the surface of the project area. The range of horizontally bedded sediments encountered below that depth, alternating from fluvial sands to silty clays, is consistent with the facies changes described by Florsheim and Mount (2003) for the fluvially dominated sedimentation of the delta-fan area not far to the north. Therefore, no immediate evidence is available from the vicinity of the project site or the natural gas pipeline right-ofway to suggest substantive subsurface archaeological potential.

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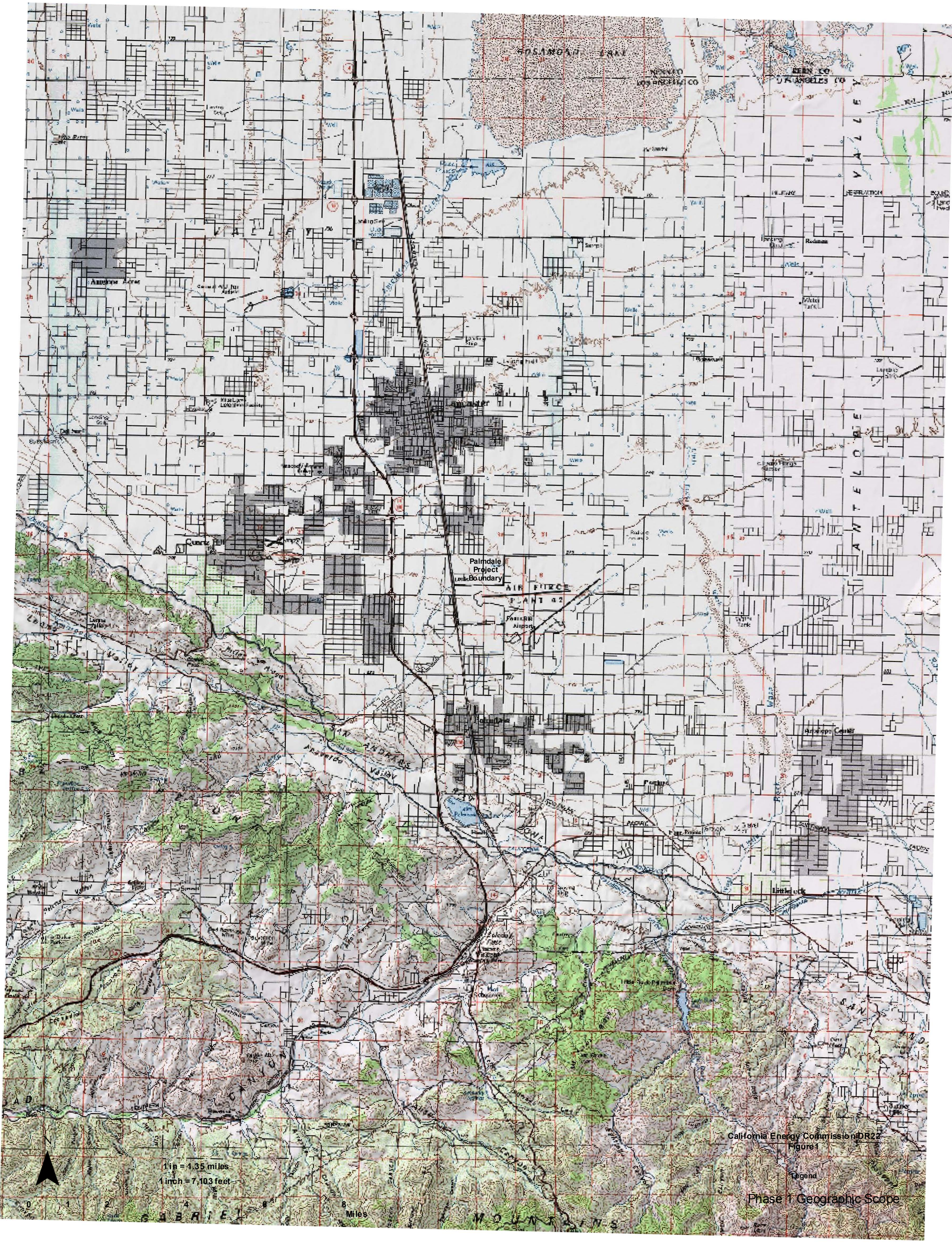
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1 in = 1.35 miles
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California Energy Commission DR22
Figure 1
Legend
Phase 1 Geographic Scope

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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APPLICATION FOR CERTIFICATION
For the *PALMDALE HYBRID*
POWER PROJECT

Docket No. 08-AFC-9

PROOF OF SERVICE
(Revised 2/27/2009)

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DECLARATION OF SERVICE

I, Teraja` Golston , declare that on March 04, 2009, I served and filed copies of the attached Email- C. Holmes to M. Carroll Palmdale – Clarification of DR 22. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[http://www.energy.ca.gov/sitingcases/palmdale/index.html]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

For service to all other parties:

_X__sent electronically to all email addresses on the Proof of Service list;

_X_ by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

_____sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

_____depositing in the mail an original and 12 paper copies, as follows:

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

docket@energy.state.ca.us

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

____Original Signature in Dockets____
Teraja` Golston