

Palmdale Hybrid Power PROJECT

Responses to CEC Data Request Set 1 (1-88)

Docket 08-AFC-9



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| DATE <u>JAN 12 2009</u> |
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Submitted on Behalf of:



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ORIGINAL

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Submitted by:



Inland Energy, Inc.

Submitted to:
California Energy Commission
January 12, 2009

Prepared by:

AECOM

PALMDALE HYBRID POWER PROJECT

**Responses to CEC Data Requests 1 through 88 (Set 1)
Docket No. 08-AFC-9**

**Submitted on behalf of:
*City of Palmdale***

**by:
*Inland Energy, Inc.***

**Submitted to:
California Energy Commission**

**Prepared by:
AECOM Environment**

January 12, 2009

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 1 – 17

Technical Area: Biological Resources

Response Date: January 12, 2009

Data Request 1:

Please conduct and provide the results of the upcoming 2009 special-status species surveys for sensitive biological resources during the appropriate season(s) along the Section 1 transmission line right of way (ROW), which were not surveyed prior to filing the AFC.

Response:

Please see extension request filed December 30, 2008. Special-status species surveys (including ROW, Buffer Zone, and zone of influence [ZOI] transects) along the previously unsurveyed 3.75-mile section of Transmission Line Segment 1 will be conducted in April 2009. Results of the surveys will be submitted in approximately 30 days from completion of the survey.

Data Request 2:

Please provide the field survey results and maps from the project site and along the linear facilities showing the locations of the four plant species protected under the City of Palmdale Native Desert Vegetation Ordinance and California Desert Native Plant Act.

Response:

Please see Figure 6 from AFC Appendix H illustrating the habitat communities present on the Project site. Joshua trees (*Yucca brevifolia*) are found primarily within the Joshua Tree Woodland habitat, but also are present in lower densities within the Mojave Creosote Bush Scrub, Desert Saltbush Scrub, and Mojavean Juniper Woodland and Scrub habitats. California junipers (*Juniperus californica*) are found primarily within the Mojavean Juniper Woodland and Scrub habitat, but also are present in lower densities in Joshua Tree Woodland habitat. The two cacti species detected on the Project Site (golden cholla [*Cylindropuntia echinocarpa*] and beavertail cactus [*Opuntia basilaris*]) are located in various habitats, including Mojave Creosote Bush Scrub, Joshua Tree Woodland, Desert Saltbush Scrub, Rabbitbrush Scrub, and Mojavean Juniper Woodland and Scrub habitats. Additional location information will be provided with the Native Desert Vegetation Preservation Plan (see response to Data Request 3, below).

Data Request 3:

Please provide a draft of the desert vegetation preservation plan as required by the City of Palmdale Native Desert Vegetation Ordinance. Also, please provide any correspondence that the City staff provided as guidance regarding what will need to be included in a desert vegetation preservation plan.

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Response:

Please see extension request filed December 30, 2008.

The California Desert Native Plants Act (CDNPA) allows the harvest of certain species of non-listed, native plants under permits issued by the County Agricultural Commissioner or Sheriff. The purpose of the CDNPA is to prevent the unlawful harvesting of native desert trees and cacti, either for wood, landscaping, or other purposes. Species growing on the Project that are protected under this act include California juniper, Joshua tree, beavertail cactus and golden cholla.

The purpose of the City of Palmdale (City) Joshua Tree and Native Desert Vegetation Preservation Ordinance (PNDVO) is to protect and preserve desert vegetation, particularly Joshua trees but also all federally or state-listed species and those species protected by the CDNPA, within the context of "reasonable planning, developmental or property rights considerations." To this end, while not all vegetation can be protected, project design should "strive to protect and maintain the most desirable and significant of the healthy desert vegetation." The PNDVO requires that each development proposal include a desert vegetation preservation plan that contains the following:

1. A written report and a site plan which depicts the location of each Joshua tree and California juniper, discusses their age and health, and identifies and locates all trees and shrubs that can be saved in place or relocated. The report shall be prepared by a desert native plant specialist.
2. A site landscaping plan showing the proposed location of those Joshua trees or California junipers, and any other native desert vegetation that will remain on site.
3. A long-term maintenance program for any desert vegetation preserved on the site. The minimum term of any maintenance program shall be two growing seasons, unless a shorter length of time is determined by the City's landscape architect or, in-lieu thereof, the director of public works' designee in cases where the trees retained on the site are of such health and vigor after one growing season that their survival is assured.
4. Such other and further information as the director of planning may deem necessary to fulfill the purposes and intent of this chapter in a particular case. (Ord. 952 §2(part), 1992).

Section 5.3 of the PHPP AFC describes the plant communities and habitats found on the Project areas. Joshua tree is identified as a common species in three communities: Mojave Creosote Bush Scrub, Joshua Tree Woodland and Mojavean Juniper Woodland and Scrub. Beavertail cactus and golden cholla are also typically common in these communities. Much of the project is overlapped by these three communities (AFC Figure 5.3-4), with a total estimated disturbance acreage of 283 acres on the power plant site (Mojave Creosote Bush Scrub and Joshua Tree Woodland only) and 4.26 on the transmission lines (AFC Table 5.3-6). Based on the anticipated high density per acre of individuals of each protected species plus the large disturbance acreage, locating and assessing each individual plant per PNDVO requirement No. 1, above, is impractical on the power plant site. Instead, a valid, scientifically based approach will be used to provide a

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projected density of individuals per acre as well as health and age assessments by species. This approach is based on accepted quantitative vegetation sampling techniques (e.g., Mueller-Dumbois and Ellenberg 1974, Bonham 1989), wherein a site is sampled via a stratified-random approach, the results of which are then extrapolated to the entire site. For the power plant site, the entire site first will be stratified into 114 hectares, and then into a 10-by-10 grid of approximately 10 hectares per grid cell. Within each grid cell, one hectare will be randomly chosen to be completely surveyed for all protected species. Each individual will be counted, measured for height (i.e., age) and any other age indicators (e.g., volume), assessed for health, and located using a Global Positioning System (GPS). These variables (except GPS) will be extrapolated first to the grid cell and then to the entire power plant site to provide a quantitative assessment of all protected species that can serve as a basis for the desert vegetation preservation plan.

For the transmission line, the disturbance acreage of which is only 4.26 acres, the individual disturbance sites will be surveyed completely for age, health, and location of each individual of each protected species. This will occur once the location of each disturbance site is known.

The Project Desert Vegetation Preservation Plan (Preservation Plan) will be developed based on the results of these quantitative surveys, as well as landscaping and project design features that are not fully developed at this time. An estimated timeline for the preparation of the Preservation Plan is provided below:

Inventory – February 2009

Inventory Report and Site Plan – April 2009

Site Landscaping Plan – March 2009

Long-term Maintenance Program – April 2009

Based on this preliminary schedule, a Preservation Plan is expected to be submitted in April 2009. This schedule is dependent on receipt of information from Southern California Edison (SCE) on the transmission line pole placement. It is also dependent on receipt of input from the City Public Works and Engineering Departments.

The following summarizes the Applicant's correspondence with the City (e.g., Ms. Connie Brown, Senior Engineering Landscape Technician¹, Mr. Timothy W. Hughes, Deputy Director of Public Works, and Mr. Richard Kite, Assistant Director of Planning):

- The City is willing to accept a random sampling method of counting Joshua trees on the power plant site, which has worked on large projects in the past.
- The City's standing policy is to utilize the Joshua trees on site as much as possible. The City would like to see some Joshua trees placed upon the PHPP site as accents, possibly

¹ Note, this title is a correction of Ms. Brown's title as presented in Table 5.15-2 of the AFC.

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along East Avenue M, at the entry point and at other locations along the roadway between East Avenue M and the power block. Joshua trees could also be placed along the Air Force Plant 42 property line but should be kept at least 20 feet clear of the Plant 42 fence line. The City wants to ensure there is no issue with utility corridors, maintenance roads, setbacks, and security requirements (for the PHPP or for Air Force Plant 42). Joshua trees may also be used to replace some of the landscaping along Sierra Highway that will be removed when the recycled water line is installed under the Bikeway.

- The City ordinance requires that, where possible and based on abiotic and biotic conditions, two trees per acre of disturbed land be preserved, either on site or at a location designated by the City. The ordinance also requires that the City develop both a Joshua Tree Preserve for permanent preservation of native desert vegetation, including transplanted Joshua trees, and tree “banks,” for interim storage of transplanted desert vegetation. The City proposes that a preserve be established near the south west corner of the PHPP plant site where the City would set aside enough land to encompass at least 1,300 trees. This plan would allow for full disturbance of the City property south of East Avenue M, which encompasses the 377-acre power plant site. If the preserve does not already have 1,300 trees, the best specimen Joshua trees from the land to be disturbed for the power plant would be transplanted along the fence line. The City would also allow public adoption of Joshua trees, where a tree contractor would be hired to remove any remaining Joshua tree(s) from the land to be disturbed, prior to any grading work, for transplanting on private property.

References:

Bonham, C., 1989. Measurements for terrestrial vegetation. John Wiley and Sons, Inc., New York. 338 pp.

Mueller, D. and H. Ellenberg, 1974. Aims and methods of vegetation ecology. John Wiley and Sons, Inc., New York. 547 pp.

Data Request 4:

Please verify the aerial interpreted preliminary wetland delineation results and provide the results from the ground-truthing exercise with the tower locations and access/spur roads superimposed on the figures. Show the wetland delineation maps at a scale of 1 inch equals 200 feet.

Response:

Please see extension request filed December 30, 2008. Revised maps at the requested scale will be provided within 30 days of receipt of the locations of transmission poles, pull sites, and access roads.

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Data Request 5:

Please provide the final determination from the U.S. Army Corps of Engineers (USACE) regarding whether or not jurisdiction will be asserted. Should the USACE assert jurisdiction, please explain the project-specific circumstances that would necessitate substantial temporary or permanent impacts to jurisdictional waters.

Response:

Please see extension request filed December 30, 2008. No impacts to waters of the United States are anticipated. A jurisdictional determination will be requested from USACE if Waters of the United States may be impacted.

Data Request 6:

Please contact California Department of Fish and Game (CDFG) and provide a record of correspondence regarding the need to complete a Streambed Alteration Agreement. Should a Streambed Alteration Agreement be needed, please explain the project-specific circumstances that would necessitate substantial temporary or permanent impacts to jurisdictional waters of the State. Also provide the CDFG mitigation for the Streambed Alteration Agreement, if appropriate.

Response:

Please see extension request filed December 30, 2008. Pending confirmation with the more detailed transmission plans, no impacts to State waters are expected.

Data Request 7:

Please provide the anticipated schedule of USACE and Regional Water Quality Control Board (RWQCB) permitting for (and verification of) jurisdictional waters, and expected mitigation measures likely to be included in USACE and RWQCB permits, if appropriate.

Response:

Please see extension request filed December 30, 2008. Pending confirmation with the more detailed transmission plans, no permitting for impacts to waters of the United States or State waters are expected.

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Data Request 8:

Please provide the following:

- a. A map or detailed description of the location of proposed tortoise-exclusion fencing; and
- b. An explanation as to whether the fences will be permanent or temporary, and how (or why not) USFWS exclusionary fence recommendations will be employed.

Response:

The following measures are designed to meet U.S. Fish and Wildlife Service (USFWS) exclusionary fence recommendations. The power plant site will be permanently fenced with desert tortoise exclusion fencing and the adjacent staging area will be temporarily fenced with desert tortoise exclusion fencing. If offsite unpaved roads are regularly used during construction (not currently planned), temporary desert tortoise exclusion fencing will be installed. All desert tortoise exclusion fencing will follow the USFWS recommended design for fence fabric and construction (http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/dt/DT_Exclusion-Fence_2005.pdf). Careful monitoring will be conducted during all exclusion fence installation. A biological monitor will be on site or on-call to deal with issues that emerge during construction.

Construction activities along linear components generally will not be fenced, but will be closely monitored to ensure desert tortoises are not killed or injured. All surface-disturbing actions on or adjacent to native habitats will be monitored. Heavy equipment use in habitat within the linear corridors will be assigned a biological resource monitor. Desert tortoise exclusion fencing may be installed temporarily to minimize the risk of injury to any tortoises living adjacent to construction zones. Additional avoidance and minimization measures, as outlined in response to Data Request 16, will be implemented to minimize the Project's impact on desert tortoises.

All fences will be maintained throughout their intended life. Fences will be monitored monthly, or more often as needed, as well as during or after storms. All fence breaches will be repaired immediately with appropriate fencing material.

Data Request 9:

Please provide an analysis of the biological resource impacts expected to occur during construction of new access/spur roads for the linear facilities that are proposed for the project and what type of exclusionary fencing (permanent or temporary) will be deployed.

Response:

A Final Design Plan is required to analyze fully the specific impacts to biological resources that may occur during construction of new access/spur roads for the linear facilities. At a minimum, however, potential impacts will include minor habitat loss. Acreages of vegetation communities anticipated to be impacted during construction of new access/spurs roads were included in AFC

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Table 5.3-6. Other impacts may include temporary avoidance of construction areas and disruption of normal behaviors and movements. Biological monitoring and consultation will prevent impacts to sensitive habitats and minimize or avoid injury to sensitive species during construction of linear Project components. All surface-disturbing actions on or adjacent to native habitats will be monitored. Additional avoidance and minimization measures, as outlined in response to Data Request 16, will be implemented to minimize the Project's impact on biological resources.

Data Request 10:

Please provide a detailed raven monitoring and control plan that discusses:

- how the monitoring and control plan will be coordinated with CDFG and USFWS;
- area covered by the plan;
- use of perch-deterrent devices and locations of their installation;
- measures that might reduce raven presence and nesting activities (e.g., removing food items, garbage, and access to water);
- a monitoring plan, including discussion of survey methods and frequency for establishing baseline data on pre-project raven numbers and activities,
- assessing post-project changes from this baseline, and the funding mechanism for the monitoring plan;
- remedial actions that would be employed (e.g., nest removal) if raven predation of juvenile desert tortoise and other wildlife is detected; and
- the circumstances that would trigger the implementation of remedial actions.

Response:

Please see extension request filed on December 30, 2008.

The PHPP is expected to have minimal, if any, impact on desert tortoises. No desert tortoise or sign were found on the Project site and only one potential burrow, with no sign of recent use, was found almost 4,000 feet west of the Project site. Additionally, a solar field consisting of mirrors and no vegetation is expected to be an inhospitable environment for ravens, and the power plant will be maintained to prevent development of raven subsidies. There currently are numerous transmission lines in the Project area, and the new poles and tower types currently envisioned would not provide significantly more perch opportunities.

Given this low expectation for desert tortoise occurrence in the Project area or Project-related raven attractions, the Applicant is working with the USFWS and CDFG to determine the need for raven monitoring or payment to USFWS of a fee in lieu of conducting project-specific monitoring that would be used to support regional monitoring of common raven. Once this input related to the

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need for raven monitoring (either project-specific or fee in support of regional monitoring) is obtained, the Applicant will develop a Raven Control Plan that outlines avoidance and minimization measures to reduce or eliminate the likelihood that the Project will attract common ravens. The Plan will include measures consistent with the Environmental Assessment to Implement a Desert Tortoise Recovery Plan Task: Reduce Common Raven Predation on the Desert Tortoise, dated March 2008, and issued by the USFWS. The Plan will also include an adaptive management component that will include control actions that may be taken if deemed necessary by USFWS and CDFG. Authorizations required by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code will be obtained from USFWS and CDFG, respectively, for any control actions that may involve active nest removal and/or lethal removal of ravens.

Data Request 11:

Please describe the likely components of a facility closure plan (e.g., decommissioning methods, timing of any proposed restoration, restoration performance criteria) and discuss each relative to biological resources and specifically species of concern such as desert tortoise.

Response:

At the time of Project closure, all PHPP facilities and equipment, both above ground and subsurface (e.g., pipelines), will be removed if warranted. To the extent practicable, removed materials will be recycled or reused; materials that could not be recycled or reused will be disposed at appropriately permitted disposal facilities in accordance with applicable regulations.

If the power plant is decommissioned, it is unlikely that the land will be returned to an undeveloped state. It is more likely that the property will be redeveloped into some other use.

Treatment of any decommissioned facility lands not planned for redevelopment will include removal of any potential hazards to wildlife and site revegetation, all of which will be described in the Project Revegetation Plan that will be prepared for the PHPP. In summary, impermeable surfaces will be ripped or pitted with appropriate heavy machinery to facilitate native plant revegetation. Constructed road berms, if any, will be removed. Minor surface disturbances will be raked using manual methods.

A native plant species seed mix will be broadcasted through manual and/or mechanical means onto prepared soils in winter months; followed by an initial watering if weather was not conducive to seed germination. Plant species comprising the various involved plant communities, as documented in the Biological Resources Technical Report (AFC Appendix H), will be used in developing the native plant seed mix. "Vertical mulching," surface raking, and rock/organic debris placement, as well as a degree of initial non-native plant manual removal will be incorporated into this revegetation effort to maximize native plant species survival.

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Planting success criteria will be specified in the Project Revegetation Plan that will be prepared. Native plant revegetation success criteria not achieved in a specified time period will necessitate additional effort until an acceptable level of planting success was accomplished.

Data Request 12:

Please describe the potential funding (e.g., a bond) and/or legal mechanisms for decommissioning and restoration of the project site that could be used at the end of operations.

Response:

The PHPP is presently owned and expected to be operated by the City of Palmdale. As such, funding for decommissioning and site restoration activities will be provided from set-aside revenues generated by the Project or, if need be, by the City from the City's General Fund at a future date related to the need for decommissioning. It is not expected that the City will post a bond. In the event the City chooses to sell the PHPP to a private firm, the sale will contain provisions to include a decommissioning fund or bond.

Data Request 13:

Please describe the potential funding and/or legal mechanisms for decommissioning and restoration of the project site that could be used in the event of bankruptcy or the untimely closure for financial reasons.

Response:

The PHPP is presently owned and expected to be operated by the City of Palmdale. As such, funding for decommissioning and site restoration activities will be provided from set-aside revenues generated by the Project or, if need be, by the City from the City's General Fund. Regardless of the timing (at the end of the facility's normal operating life or unexpectedly before that time), there is minimal risk that the City, as a public agency, will go bankrupt or be otherwise unable to fund the needed decommissioning/restoration activities for the Project. In the event the City chooses to sell the PHPP to a private firm, the sale will contain provisions to include a decommissioning fund or bond.

Data Request 14:

Provide a discussion of closure requirements of the County of Los Angeles, City of Palmdale, USFWS, CDFG, and any other agency that may have facility closure requirements.

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Response:

To meet existing County of Los Angeles, City of Palmdale, and State agency guidelines, the County of Los Angeles, City of Palmdale, and CDFG will require removal of all facility infrastructures in the event of facility closure, if no specific redevelopment plan is in place. This requirement would include the removal of all project-specific power plant buildings, natural gas pipelines and use infrastructure, solar energy generation mirrors, heat transfer fluid piping, fencing, paved roadways, water and chemical tanks, water pipelines, and utility poles/lines. Natural gas pipelines owned and operated by Southern California Gas Company, transmission lines owned and operated by SCE, and reclaimed water supply lines that are part of the regional backbone and distribution system would not be considered project-specific components.

This structural removal will include several post-decommissioning surface disturbance treatments such as the removal of potential soil/groundwater contaminants and wildlife entrapment hazards, the de-compaction of compacted soils, and native plant revegetation, which will be addressed in the PHPP Revegetation Plan. The Revegetation Plan will include success criteria and identify additional planting efforts if the criteria are not met within identified timelines.

Data Request 15:

Please provide an updated map or aerial photograph for Figure 6 at a suitable scale that identifies the location of the Southern Riparian Scrub plant community.

Response:

Please see the attached revised Figure 6-S (Rev.1). Southern Riparian Scrub is an early successional community of Mojave Riparian Forest. Both are present in the location illustrated in Figure 6-S (Rev.1). This revised figure is provided at the end of this section.

Data Request 16:

Please clarify which list is currently proposed or provide a complete list of mitigation measures that the project applicant intends to implement.

Response:

A complete list of mitigation measures that the Applicant currently proposes to implement is provided below. A complete Biological Resources Mitigation, Implementation and Monitoring Plan (BRMIMP) will be prepared and submitted to the California Energy Commission (CEC), USFWS and CDFG for approval prior to the initiation of ground disturbance.

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The following list of general impact avoidance and minimization measures applies to all Project activities. These measures are standard practices designed to prevent environmental degradation, and the Applicant will ensure implementation of these measures to avoid and minimize impacts to the greatest extent feasible. The measures include:

Construction

- BIO-1: All Project construction, operation, maintenance, and/or termination actions will comply with applicable state and federal laws.
- BIO-2: A Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) will be created to comprehensively describe avoidance, minimization, and mitigation measures, document their implementation, and monitor their effectiveness.
- BIO-3: A Designated Biologist will be appointed to oversee and be responsible for compliance with biological conditions of Project approval. The Designated Biologist or approved Alternate Designated Biologist will be on site or easily accessible during Project construction and operational activities. The Designated Biologist will have the authority to halt all Project activities that may result in harm to sensitive biological resources or are in violation of biological conditions of Project approval.
- BIO-4: 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 prior to their involvement in Project activities. The WEAP will (1) be developed by or in consultation with the Designated Biologist and consist of an onsite or training center presentation in which supporting written material and electronic media are 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 reasons for protecting these resources; (4) present the meaning of various temporary and permanent habitat protection measures; (5) identify whom to contact if there are further comments or questions about the material discussed in the program; (6) include a training acknowledgement form to be signed by each worker indicating that they received training and shall abide by the guidelines.
- BIO-5: Construction activity will be monitored by a qualified biologist to ensure compliance with avoidance and minimization measures.

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- BIO-6: The anticipated impact zones, including staging areas, equipment access, and disposal or temporary placement of spoils, will be delineated with stakes and flagging prior to construction to avoid natural resources where possible. Construction-related activities outside of the impact zone will be avoided.
- BIO-7: Best Management Practices (BMP) will be employed to prevent loss of habitat due to erosion caused by Project-related impacts (*i.e.*, grading or clearing for new roads). All detected erosion will be remedied within two days of discovery.
- BIO-8: To minimize the transfer of exotic weed seed to portions of the Project in or adjacent to native vegetation along Project linear components, all equipment brought to those areas would be power-washed prior to arrival. Travel of equipment through weed-infested areas en route to these Project areas will be avoided.
- BIO-9: Prior to daily mobilization of construction activities on site, all vehicles and equipment will be inspected to ensure these vehicles and equipment are operating correctly and free of fluid leaks. Contractor equipment will be repaired as necessary. Fueling of equipment will take place within existing paved roads and not within or adjacent to drainages or native desert habitats. Spills of hazardous materials will be immediately contained and removed to an approved facility using accepted techniques.
- BIO-10: New and existing roads that are planned for either construction or widening will not extend beyond the planned impact area. All vehicles passing or turning around will do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route will be clearly marked (*i.e.*, flagged and/or staked) prior to the onset of construction.
- BIO-11: Water, gravel placement, or other approved dust control measures will be employed to control fugitive dust emissions. Construction and maintenance vehicles will observe a 10 mph speed limit on all unpaved roads within the PHPP power plant site and 20 mph along linear routes to reduce fugitive dust emissions and avoid collisions with wildlife.
- BIO-12: Spoils will be stockpiled in disturbed areas presently lacking native vegetation. Stockpile areas will be marked to define the limits where stockpiling can occur.
- BIO-13: 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.

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- BIO-14: For the duration of Project construction activities, the City of Palmdale, or its appointed agent, will conduct compliance inspections at least once a week during active construction periods to assess compliance with measures adopted to minimize and mitigate all construction-phase impacts.
- BIO-15: Every month for the duration of Project construction activities, the City of Palmdale, or its appointed agent, will provide the appropriate agencies 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.
- BIO-16: The City of Palmdale, or its appointed agent, will provide the appropriate agencies with an annual Status Report no later than January 31 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 copy of the BRMIMP with notes showing the current implementation status of each mitigation measure; (3) an assessment of the effectiveness of each mitigation measure in minimizing and compensating for Project impacts.

Post-Construction

- BIO-17: Upon Project construction completion, all associated refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal and/or plastic containers, and boxes will be removed from the site and properly disposed of.
- BIO-18: No later than 45 days after completion of the Project construction activities, including completion of all mitigation measures, a Final Mitigation Report will be provided to the CEC. This report will be prepared by the Designated Biologist and will include, at a minimum: (a) a table with information showing when each of the mitigation measures was implemented; (b) all available information about Project-related incidental take of species named in an incidental take permit; (c) information about other Project impacts on special-status species and habitats; (d) construction dates; (e) an assessment of the effectiveness of each mitigation measure in minimizing Project impacts; and (f) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects.

Operation

- BIO-19: The operations phase Storm Water Pollution Prevention Plan and the Drainage, Erosion, and Sediment Control Plan will identify the Project design features and BMPs that will be used to effectively manage drainage-related issues (e.g., erosion and sedimentation) for long-term operations.

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BIO-20: Maintenance and Operation Staff and vehicles will remain on Project property to avoid impacts to biological resources outside the Project.

Jurisdictional Waters

Proposed Project features are currently expected to avoid all federal and state jurisdictional waters. Should aspects of the proposed Project necessitate surface disturbance within these areas, specific impact minimization measures would be required, as outlined below.

Offsite Habitat Compensation

BIO-21: Should impacts to California streambeds and/or federal waters become necessary during Project activities, mitigation for such impacts will be determined in accordance with required permits from CDFG and/or USACE.

Specific Impact Minimization Measures (if necessary)

BIO-22: Construction and maintenance of access routes will not result in alteration of existing drainage flow patterns. All road shoulder “berms” associated with route construction will be leveled to re-establish original drainage flow patterns.

BIO-23: All applicable state and federal hazardous materials and waste management laws, along with all implementing regulations, will be obeyed. These laws include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and Clean Water Act (CWA).

BIO-24: Appropriate spill containment material will be kept on site and personnel instructed on how to use this equipment. All fuels and other materials used will be contained and equipment/materials stored with appropriate containers. All hazardous materials associated with construction activities will be removed from the site upon completion of construction activities.

BIO-25: Road installation across washes will be designed to avoid the wash banks or bed.

Vegetation

BIO-26: The project will comply with the requirements of the City of Palmdale Native Desert Vegetation Ordinance. This will include a stratified-random sampling method for inventorying and evaluating Joshua trees, California junipers, and cacti on the PHPP plant site and linears, a landscaping plan showing the proposed relocation of Joshua trees and cacti throughout the site, and a long-term maintenance program for the native desert vegetation that is preserved on the site.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 1 – 17

Technical Area: Biological Resources

Response Date: January 12, 2009

- BIO-27: Upon completion of construction of the new transmission line poles, stringing of new lines, and the installation of the Project pipelines, the disturbed areas will be reclaimed, revegetated, and/or restored using methods outlined in the Revegetation Plan.
- BIO-28: Restoration progress monitoring will be conducted for a specified time period following Project completion to document progress and provide additional recommendations to achieve the restoration goals (usually a specified percent cover of native species) of the overseeing agency. Success standards and a monitoring schedule will be detailed in the Revegetation Plan.

Wildlife

Mitigation will be required for the Project's permanent impacts to habitats occupied, or presumed occupied, by special-status wildlife species. The PHPP will consult with wildlife agencies with respect to impacts on these special-status species and associated mitigation acreage requirements. Avoidance and minimization measures for temporary indirect impacts to habitat of special-status wildlife species will be achieved through onsite monitoring of construction activities in areas with the potential to support these species.

Desert Tortoise

The following avoidance and minimization measures will be implemented to ensure that any potential impacts to the desert tortoise are avoided on the power plant site and potentially inhabited portions of the transmission line.

- BIO-29: Clearance surveys on the power plant site will be conducted for desert tortoise prior to surface disturbance and following site exclusion fencing. On the linear facilities, clearance surveys will be conducted for desert tortoise immediately prior to surface disturbance. A Biological Monitor will be present at all times during active construction to ensure avoidance of special-status biological resources.
- BIO-30: Construction and maintenance personnel will be required to inspect for desert tortoise under vehicles prior to moving a vehicle. If a desert tortoise is found beneath a vehicle, the vehicle will not be moved until the desert tortoise has left of its own accord. Should the tortoise fail to leave in a reasonable time, and construction must halt to avoid harm to the tortoise, USFWS and CDFG will be contacted for direction. CEC will be notified subsequent to conversations with the resource agencies. If a desert tortoise is in imminent danger of immediate death or injury (such as from an approaching vehicle or equipment), and the desert tortoise has been given the opportunity to move but has withdrawn in its shell and is not moving, the Designated Biologist may move it out of harm's way. All desert tortoise observations will be reported immediately to the Designated Biologist.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

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- BIO-31: Project activities that might endanger a desert tortoise will cease if a desert tortoise is found on an active work area. Project activities will resume after the desert tortoise has moved to a safe area on its own. If a desert tortoise is in imminent danger of immediate death or injury (such as from an approaching vehicle or equipment), the Designated Biologist may move it out of harm's way. Any such tortoise will be monitored by a Biological Monitor to ensure its safety, including determining if the tortoise has a nearby burrow or is likely to be active in the area. If necessary, temporary fencing will be installed in the active work area, to exclude the tortoise from active construction.
- BIO-32: The approved Designated Biologist, Alternate Designated Biologist, or biological monitor will be onsite during the construction period to ensure that construction activities are in compliance with these avoidance and minimization measures, and to ensure that any desert tortoises wandering onto the construction site will not be inadvertently harmed.
- BIO-33: The Designated Biologist will be responsible for: (1) enforcing a litter-control program; (2) ensuring that desert tortoise exclusion fences are maintained where applicable; (3) ensuring that desert tortoise habitat disturbance is restricted to authorized areas; (4) ensuring that all equipment and materials are stored within the boundaries of previously disturbed areas; (5) ensuring that all vehicles associated with construction activities remain within the proposed construction zones; and (6) ensuring that all other compliance measures to avoid harm to tortoises are implemented.
- BIO-34: Any tortoise found on or near the site will be reported immediately to the USFWS and CDFG by the Designated Biologist.
- BIO-35: Upon locating or receiving a report of a dead/injured tortoise on the Project Site, the Designated Biologist will be required to immediately notify the local CDFG and USFWS representatives.
- BIO-36: Any common raven nesting observed during construction, operation, or maintenance of the Project will be documented and reported to the appropriate authorities as identified in the PHPP Raven Control Plan. Common raven nest removal from proposed facilities, when determined necessary in consultation with the USFWS and CDFG, may occur during the inactive nesting season, with appropriate agency approvals.

Coast (San Diego and California) Horned Lizards

- BIO-37: All construction activities will be located outside of washes and drainages, areas where these species are most likely to occur. Additionally, a biological monitor familiar with the species will be present for all activities involving operation of heavy equipment or ground disturbance in any areas that may be inhabited by

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

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the species. Individual coast horned lizards found within the Project site will be relocated to offsite areas away from harm. Upon completion of Project activities, all temporarily disturbed areas will be revegetated and restored, including the Mojavean juniper scrub habitat that represents portions of the potentially suitable habitat for this species on the Project site.

Nesting and Migratory Birds

- BIO-38: To comply with the MBTA, if any construction activity is scheduled to occur during nesting season (generally February 1 through August 31), at least one nesting bird survey (more if deemed necessary) will be conducted by a qualified biologist within permanent and temporary impact areas. If no nests are found, construction will proceed. If nesting birds, including but not limited to special-status species, are detected in these areas, the nest will be flagged and no construction activity will take place near the nest (buffers will be determined based on species and agency recommendations) until nesting is complete (nestlings have fledged or nest has failed) or the CDFG, USFWS, and the CEC agree that construction can proceed with the incorporation of agreed-to monitoring measures.
- BIO-39: Common raven nest-removal measures recommended for desert tortoise conservation purposes will be conducted with appropriate agency approvals. Such removals will be conducted outside the nesting season. Raven nest-removal and monitoring measures will be coordinated with the USFWS, CDFG, and CEC prior to initiation of the Project.

Burrowing Owl

- BIO-40: A preconstruction survey of the permanent and temporary impact areas will be conducted within 30 days of the commencement of construction activities to locate active burrowing owl burrows. The survey will consist of walking parallel transects and noting any fresh sign or presence of individuals.
- BIO-41: No disturbance will occur within 160 feet of occupied burrows during the non-breeding season (September 1 – January 31) or within 250 feet of occupied burrows during the breeding season (February 1 – August 31), unless a qualified Biologist approved by CDFG verifies through noninvasive methods either that the birds have not begun egg-laying and incubation or that juveniles from the occupied burrow are foraging independently and are capable of independent survival. A minimum of 6.5 acres of foraging habitat will be preserved, contiguous with occupied burrow sites to the extent possible, for each pair of breeding owls or single, unpaired resident owl.
- BIO-42: Burrowing owls within the temporary or permanent impact areas and a 160-foot buffer will be excluded from active burrows during the non-breeding season

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 1 – 17

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(September 1 – January 31) and encouraged to passively relocate to suitable, unoccupied habitat at least 160 feet outside of the exclusion area. Offsite burrows will be supplemented at a 2:1 replacement ratio of enhanced natural, unoccupied burrows or artificial burrows, as per guidelines from the California Burrowing Owl Consortium (CBOC, 1993) and CDFG Memorandum (1995). A minimum of 6.5 acres of foraging habitat will be preserved for each pair impacted. After initial burrows are confirmed to be no longer in use (one week), the burrow will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bag will be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. Burrowing owls will not be moved or excluded from burrows during the breeding season.

- BIO-43: During construction activities, monthly and final compliance reports will be provided to CDFG and other applicable resource agencies documenting the effectiveness of mitigation measures. Biological issues also will be covered in the ongoing compliance reporting required by the CEC. The CBOC's mitigation guidelines used by CDFG recommend that mitigation for impacts to burrowing owls should be based on the number of pairs directly impacted. Mitigation ratios are based on whether suitable acquired habitat is occupied by the species or is contiguous to the impact area.
- BIO-44: The Project will provide funding for monitoring and permanent management of the protected lands acquired for burrowing owl impacts. This monitoring will include an annual report submittal to the CDFG.

Bats

- BIO-45: A biological monitor familiar with these species will be present for all activities involving operation of heavy equipment or ground disturbance that could potentially affect special-status bat species. Any potential roosts or hibernacula will be identified and avoided. The biological monitor will conduct surveys along relevant portions of the ROW and vicinity at a sufficient frequency to ensure that these species are not adversely impacted.

Pallid San Diego Pocket Mouse and Southern Grasshopper Mouse

- BIO-46: A biological monitor familiar with these species will be present for all activities involving operation of heavy equipment or ground disturbance in areas potentially suitable for these species. Individuals found within the Project site will be relocated to offsite areas away from harm. Upon completion of Project activities, all temporarily disturbed areas will be revegetated and restored.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

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Mohave Ground Squirrel (MGS)

The Project Applicant has elected to assume presence of this species on the power plant site and along portions of the transmission line, and to satisfy incidental take authorization requirements under CESA §2081 for assumed impacts to this species. Impact minimization and mitigation measures are outlined below.

- BIO-47: To help avoid and minimize impacts to the species, a biological monitor will be on site during all construction activities in potential MGS habitat. Addressing potential MGS-related concerns will be part of the biological portion of the WEAP, which will be implemented as part of the CEC-required BRMIMP. Trash and food items will be removed from the Project site daily and disposed of properly to avoid attracting opportunistic predators of MGS such as badgers, foxes, coyotes, feral dogs, ravens, hawks, and eagles. Monthly and final compliance reports will be provided to CDFG and other applicable resource agencies documenting the effectiveness of mitigation measures.
- BIO-48: Mitigation for direct and indirect impacts to MGS will be determined in negotiations with CDFG and CEC.
- BIO-49: All potential MGS habitat temporarily disturbed through Project activities will be revegetated and restored in accordance with the PHPP Revegetation Plan.
- BIO-50: All observations of MGS and their sign during Project activities will be conveyed to the Designated Biologist. This information will be included in monthly compliance reports to the CDFG and CEC.
- BIO-51: Work personnel will access the Project site using existing routes. To the extent possible, previously disturbed areas within the Project site will be used for temporary storage areas, material laydown sites, and any other surface-disturbing activities. If construction of offsite routes of travel will be required in potential MGS habitat, the CDFG and CEC will be contacted prior to carrying out such an activity.
- BIO-52: If a MGS is found in a burrow during Project-related activities, it will be immediately relocated to a burrow at a protected offsite location approved by the CDFG's Regional Representative. The MGS will only be relocated by a qualified biologist to a relocation burrow prepared according to CDFG guidelines.
- BIO-53: If a MGS is injured as a result of Project-related activities, it will be immediately taken to a CDFG-approved wildlife rehabilitation facility. Any costs associated with the care or treatment of such injured MGS will be borne by the Project. The CDFG will be notified immediately unless the incident occurred outside of normal business hours. In that event, the CDFG will be notified no later than 12:00 noon on the next business day. Notification to the CDFG will be via telephone or

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

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email, followed by a written incident report. Agency notification of take will include the date, time, location, and circumstances of the incident, and the name of the facility to which the animal is taken.

- BIO-54: If a MGS is killed by Project-related activities during construction, or if a MGS is otherwise found dead, a written report will be sent to the CDFG within two (2) calendar days. The report will include the date, time of the finding or incident, location of the carcass, and the circumstances.

American Badger

- BIO-55: A biological monitor familiar with this species will be present for all activities involving operation of heavy equipment or ground disturbance in areas potentially suitable for this species. Individuals found within the Project site will be allowed to move away on their own. Upon completion of Project activities, all temporarily disturbed areas will be revegetated and restored.
- BIO-56: If American badger dens are discovered on Project areas to be disturbed, a one-way trap door will be installed to passively exclude the badger from the den. American badgers are known to use several dens in a wide area, frequently moving between dens. Therefore, all badger dens will be fitted with the one-way trap doors to encourage badgers to move off site. After 48 hours post-installation, the den will be excavated and collapsed, following the same protocol as with burrowing owl burrows. Alternatively, a qualified biologist will trap and remove badgers from occupied dens and translocate them off site into appropriate habitat.

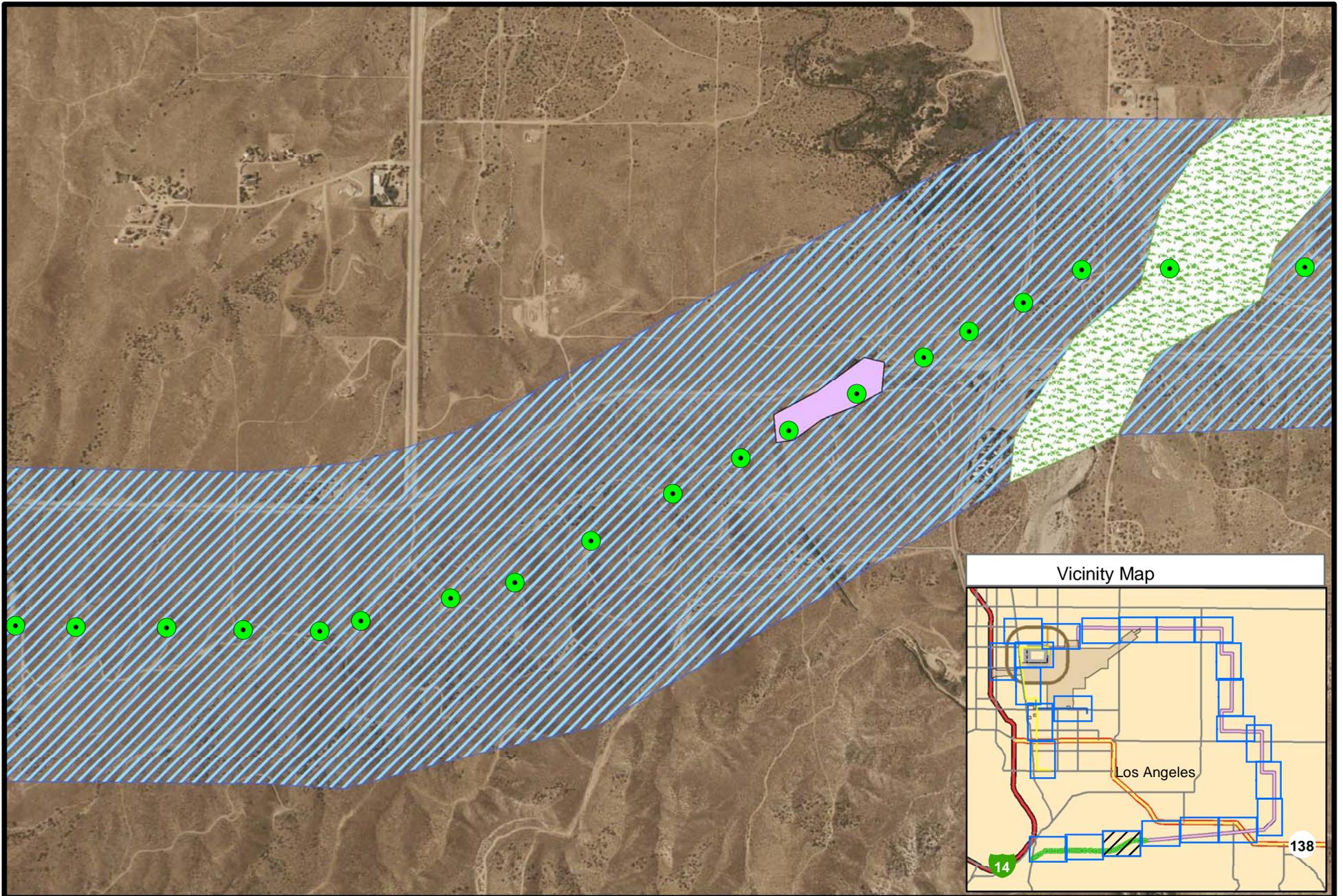
Data Request 17:

Please provide Swainson's hawk nesting survey results for the area within 1 mile of the project site and within ½ mile of the linear facilities during the appropriate nesting season (mid-March through July).

Response:

As discussed in the extension request filed December 30, 2008, Swainson's hawk protocol surveys will be initiated in early 2009 and continue through April 20, 2009. A report will be submitted in May 2009. If nests are found in the survey area, additional surveys will be required through July 30, 2009, and a report will be submitted in August 2009. Surveys will adhere to *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's hawk Technical Advisory Committee, May 31, 2000).

Attachment DR 15
Habitat Communities

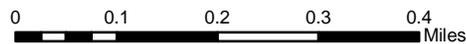


Legend

-  Mojave Riparian Forest/Southern Riparian Scrub
-  Mojavean Juniper Scrub
-  Mojave Desert Wash Scrub
-  Towers

Palmdale Hybrid Power Project

Habitat Communities
Figure 6-S



1:12,000

Map Notes:

Projection: NAD 83, Zone 11
 Path: S:\active projects\Palmdale
 Power Plant Bio 6554000247\graphics\mxd
 Date: 12/19/08



PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUEST 18-25

Technical Area: Cultural Resources

Response Date: January 12, 2009

Data Request 18:

Please provide color copies of all available historic US Geological Survey (USGS) topographic maps that cover the entire project area. Copies reduced in size are acceptable, as long as printed information on the maps is legible.

Response:

The Applicant has obtained color copies of six USGS topographic maps, four from online sources and one each from the Los Angeles Public Library (LAPL) and the map library at University of California, Berkeley. Reduced size copies (8.5 by 11 inches) are provided in Attachment DR-18 of this submittal. In addition, two sets of the maps in a larger size (20 by 17 inches) have been docketed.

Data Request 19:

If the Vincent Substation and/or the existing transmission lines in the project's Segment 2 corridor are 45 years of age or older, please have an architectural historian, who meets the Secretary of the Interior's standards for architectural history, complete DPR 523 "Primary" and "Building, Structure, and Object" forms for them and prepare a discussion of their history, focusing on their role in the development of the California ISO grid, the changing sources of the power they have transmitted, and the communities they have served over time. Please have the discussion cover the technological and engineering innovations (if any) of the substation and lines and any association with persons or developments important in state or local history. In addition, the discussion should include a recommendation of a potential period of significance for each resource and an evaluation of the integrity of each. Please provide this discussion and the architectural historian's resume to staff.

Response:

According to Mr. Adam Srimo (Senior Archaeologist) of Southern California Edison (SCE), the Vincent Substation went into operation in 1967. Since it is less than 45 years old and does not possess "exceptional importance" or make an "unusual contribution" to Federal, state or local history, the substation does not qualify for listing on the California Register of Historical Resources (CRHR), and thus no further work on the Substation is required.

The data request also references several transmission lines operating within the Segment 2 transmission corridor. It refers to an existing, unnamed 230-kV line consisting of dual wooden poles connected by cross-braces and topped by a cross-arm from which three conductors are suspended (commonly known as an "H" frame), and at least two "older" transmission lines in the same corridor that are supported on steel "lattice" towers. The Applicant plans to replace only the wooden "H" frame structure with steel monopoles and triple cross-arms as proposed in the AFC.

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The Applicant currently does not expect that replacement or modification of the steel, 500-kV steel "lattice" transmission line structures referenced in the data request will be needed.

Based on information received from Mr. Sriro at SCE, the wooden "H" frame transmission line was built as a one-way 230-kV feed between the Vincent Substation and the Pearblossom pumping station in 1971; therefore, the transmission line is 38 years old. The steel 500-kV "lattice" structures were built between 1965 and 1966 and are now between 43 to 44 years old. Therefore, since all of the transmission lines in the corridor are less than 45 years old, and do not possess "exceptional importance" or make an "unusual contribution" to Federal, state, or local history, they do not qualify for listing in the CRHR and the replacement of the "H" frame towers would not create a significant impact by introducing an incompatible design element (e.g., steel monopoles), thus no further work is required with respect to the transmission lines.

Data Request 20:

Please submit a new confidential Attachment 7 which adds the tower locations and the pull site locations for the proposed transmission line to the plotted locations of known and newly identified cultural resources.

Response:

Please see extension request filed December 30, 2008.

Data Request 21:

Please submit a new non-confidential Figure 5 which adds the tower locations and the pull site locations for the proposed transmission line to the plotted locations of known and newly identified built-environment resources.

Response:

Please see extension request filed December 30, 2008.

Data Request 22 (Option 1):

Please review the extant literatures for archaeology, geoarchaeology, and Quaternary science and provide, under confidential cover, an assessment of what is currently known about the incidence of buried archaeological deposits in the portion of Antelope Valley that includes the proposed project area. Staff suggests materials pertinent to the archaeology of Antelope

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

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Valley are held at the cultural resources records and curation facility at Edwards Air Force Base and recommends that these materials be accessed and relevant information be incorporated into the requested assessment. The primary emphasis of the assessment should be the present state of knowledge of the landscape contexts for archaeological resources that are characteristically found in the portion of Antelope Valley that includes the proposed project area and on the landform or landforms traversed by the western part of Segment 2 of the proposed transmission line. The fewer archaeological data available, the more emphasis should 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, please emphasize the kinds of buried archaeological deposits that have been found, the stratigraphy in, above, and below the deposits, and the depths at which the archaeological deposits in the area typically occur.

Response:

Please see objection filed December 30, 2008.

Data Request 23 (Option 2):

Please have a qualified geoarchaeologist (meets the U.S. Secretary of Interior's Professional Qualifications Standards for prehistoric archaeologist and able to demonstrate the completion of graduate-level coursework in geoarchaeology) research the project area and, using information gathered under Option 1, propose a research design to:

- Map the landforms in the project area;
- Sample the landforms for those areas of the site where project excavations would extend deep (> one meter) into native soils that presently compose the surface of the project area, and where project excavations would extend any depth into native soils;
- Acquire data to determine the precise physical character and ages of the various sedimentary deposits and paleosols that may lie beneath the surface of the landforms in the project area to the proposed maximum depth of excavation for the proposed project, and;
- Provide an interpretation of the geoarchaeological field data assessing the likelihood and the potential distribution of buried archaeological deposits in those portions of the proposed project area that would be subject to deep ground disturbance, and the probable age ranges and deposit types that may be present.

Response:

Please see objection filed December 30, 2008.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 18-25

Technical Area: Cultural Resources

Response Date: January 12, 2009

Data Request 24:

Please submit the resume (including copies of graduate course transcripts) of the geoarchaeologist and the research design to staff for review and approval.

Response:

Please see objection filed December 30, 2008.

Data Request 25:

When a geoarchaeological research design for the proposed site has been approved by staff, please have the author of the research design conduct the approved testing and submit a report to staff.

Response:

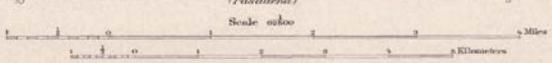
Please see objection filed December 30, 2008.

Attachment DR 18
Project Area
USGS Historic Topographic Maps

1900 TUJUNGA 1:62,500 SCALE TOPOGRAPHIC MAP



R. U. Goode Geographer in charge
Triangulation by S. S. Gannett
Topography by L. C. Tietcher
Surveyed in 1857



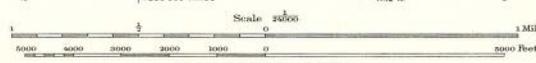
Contour Interval 50 feet
Datum is mean sea level.

Edition of Nov. 1900

1933 LANCASTER 1:24,000 SCALE TOPOGRAPHIC MAP



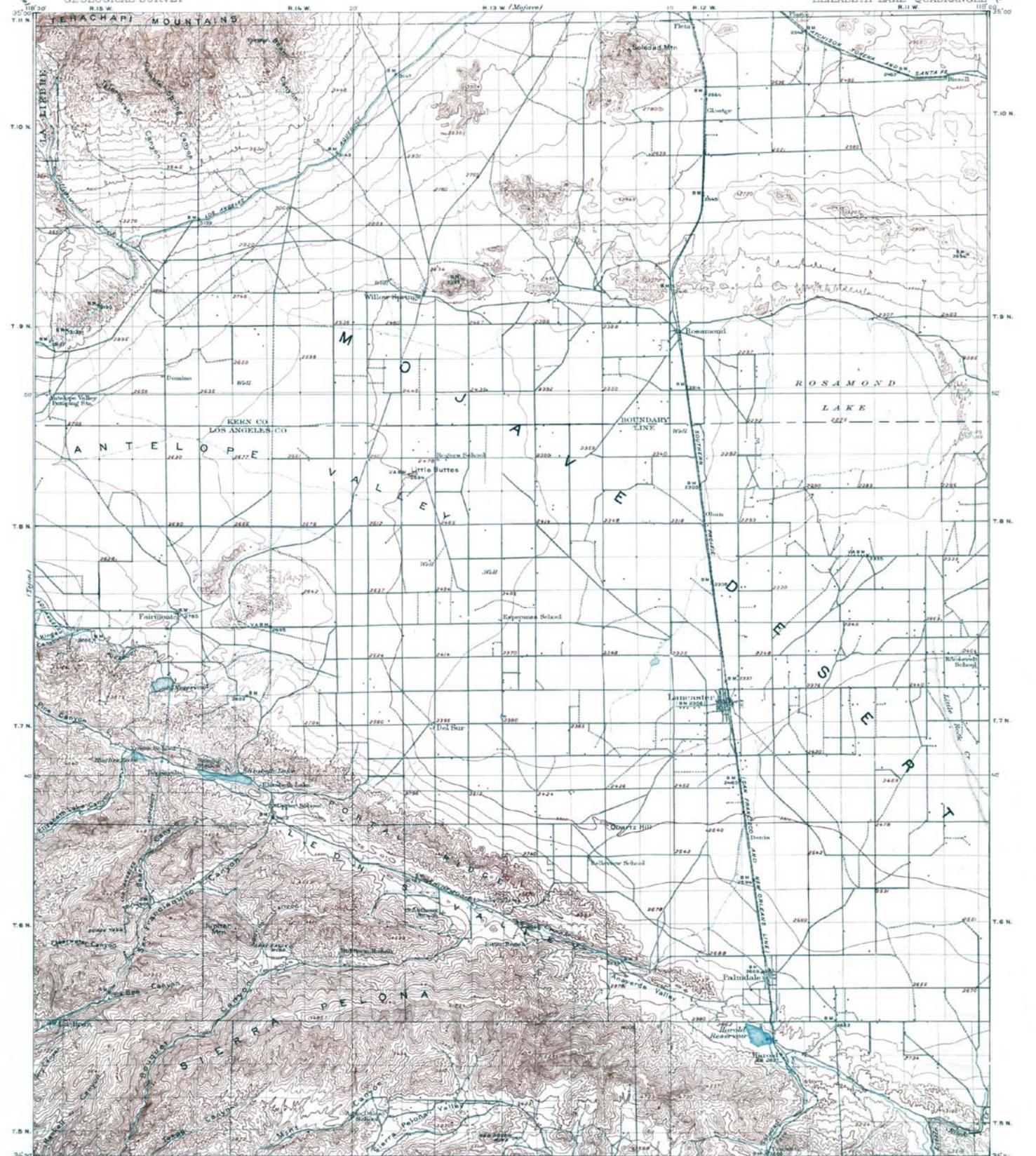
Topography by F.A. Woopio
Control by U.S. Geological Survey and
U.S. Coast and Geodetic Survey
Surveyed in 1929 and 1930



Scale 24000
Contour intervals 5 and 25 feet,
changing on the 2775 foot contour
Datum: to mean sea level

Palmdale 1 mi.
Los Angeles City Hall 70 mi.
Polyconic projection North American datum
5000 yard grid based upon U.S. zone system, G
HARD IMPROVEDLY SURFACED ROADS
OTHER MAIN TRAVELED ROADS
INFORMATION PUBLISHED BY LOS ANGELES COUNTY, 1932

**1941 ELIZABETH LAKE 1:125,000 SCALE TOPOGRAPHIC
MAP**



Scale 1:62,500
R.R. Marshall, Chief Geographer
Geo. R. Davis, Geographer in charge
Topography by D.L. Reaburn, C.P. McKinley, N.E. Ballmer
and J.W. Miller
Control by C.F. Unquhart, L.F. Biggs, C.H. Semper
and H.S. Crowe,
Surveyed in 1915.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |



Reproduced by the 36th Engineer Topo. Bn., E.S., P. No. 2252
Edition of 1917, reprinted 1941
ELIZABETH LAKE CALIF.
WAS-11150-50

SURVEYED IN COOPERATION WITH THE CITY OF LOS ANGELES

1944 TUJUNGA 1:62,500 SCALE TOPOGRAPHIC MAP

ELIZABETH LAKE
1:25,000

CALIFORNIA 1:62,500

LOS ANGELES COUNTY

WAR DEPARTMENT
CORPS OF ENGINEERS, U.S. ARMY
ELIZABETH LAKE
1:25,000

FIRST EDITION-AMS 1

TUJUNGA QUADRANGLE

15 MINUTE SERIES

ALPINE BUTTE



OBsolete TOPOS

Prepared under the direction of the Chief of Engineers, by the Army Map Service (AMS), U. S. Army, Washington, D. C., 1944.
Control by U. S. Geographical Survey.
Planimetry controlled by photogrammetric methods from controlled triangulation, Army Map Service, from U.S.A.F. aerial photography, 1940.
Elevations computed from U.S.G.S. Tujunga Quadrangle, 1:62,500, 1900; surveyed 1897.
Polyconic Projection, North American Datum.

ROAD CLASSIFICATION 1944

Interstate highway
Federal highway
State highway
County highway
Local road

U.S. Route
State Route
County Route
Local Road

**REFERENCE
MAP FILE**
HISTORY DEPARTMENT
LOS ANGELES PUBLIC LIBRARY
830 WEST FIFTH STREET
LOS ANGELES, CALIF. 90071

Scale 1:62,500

0 1000 2000 3000 4000 5000 Feet

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

APPROXIMATE AREA OF COASTAL PLAIN
AND MOUNTAIN RANGE
CALIFORNIA STATE ZONE 5 IS INDICATED BY DOTTED LINE
OUTSIDE THE GREAT LINE OF MEAN HIGH TIDE

LEGEND

BRUSH

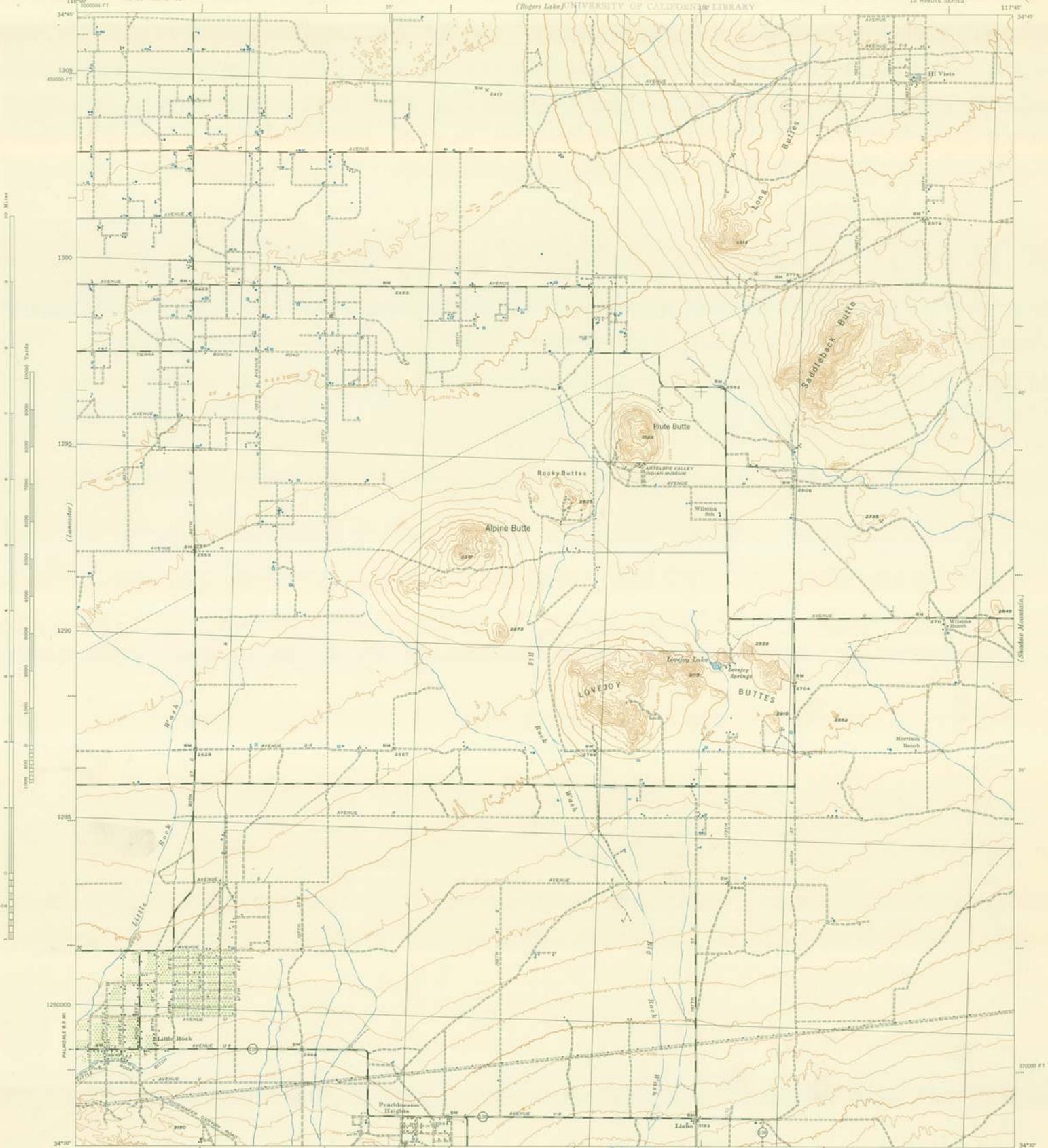
94113 J

TUJUNGA, CALIF.
N3415 W1800/15

L.A. Co.

1945 ALPINE 1:62,500 SCALE TOPOGRAPHIC MAP

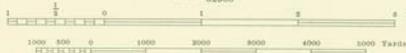
(Bigler Lake) UNIVERSITY OF CALIFORNIA LIBRARY



FIRST EDITION (SEE ADVANCE EDITION) 1944, REVISED (SEE F) 1945
Prepared under the direction of the Chief of Engineers, U. S. Army, 1943.
Control by U. S. Geological Survey, 1930, 1931.
Topography by U. S. Geological Survey, 1930, 1931.
Planimetric detail revised from single lens aerial photographs by 29th
Engineers, U. S. Army, 1943.
Photography by 2nd Photographic Squadron, Air Corps, U. S. Army, 1942.
Polyconic Projection, North American 1927 Datum.

MAP COLLECTION
UNIVERSITY OF CALIFORNIA LIBRARY

22097
APR 11 1945



ROAD CLASSIFICATIONS

| | | |
|---|---|-------------|
| Dependable hard surface, heavy duty road | Loose surface graded, dry weather road | U. S. Route |
| Secondary, hard surface, all weather road | Dirt road | State Route |
| More than two lanes indicated by note with tick at point of change. | Road Data 1944 | |

THE PROVISIONAL ROAD GRID COMPUTED FROM "ROAD WIDTHS FOR PROGRESSIVE MAPS
IN THE U. S. ZONE 10" U. S. G. S. SPECIAL PUBLICATION NO. 55
(THE LAST THREE ARE OF THE SAME ORDER AND NUMBER)
CALIFORNIA STATE GRID ZONE 10 IS INDICATED BY DOTTED LINES
OUTSIDE THE ROAD LINES AT 1/2 MILE SPACES

USE DIAGONAL TO OBTAIN NUMERICAL VALUES. TO DETERMINE MAGN.
MAGN. NORTH LINE, CORRECT THE POINT POINT "P" ON THE SOUTH EDGE OF
THE MAP WITH THE VALUE OF THE ANGLE BETWEEN GRID AND MAGNETIC
NORTH, AS PLOTTED ON THE GRAPH SCALE AT THE NORTH EDGE OF THE MAP

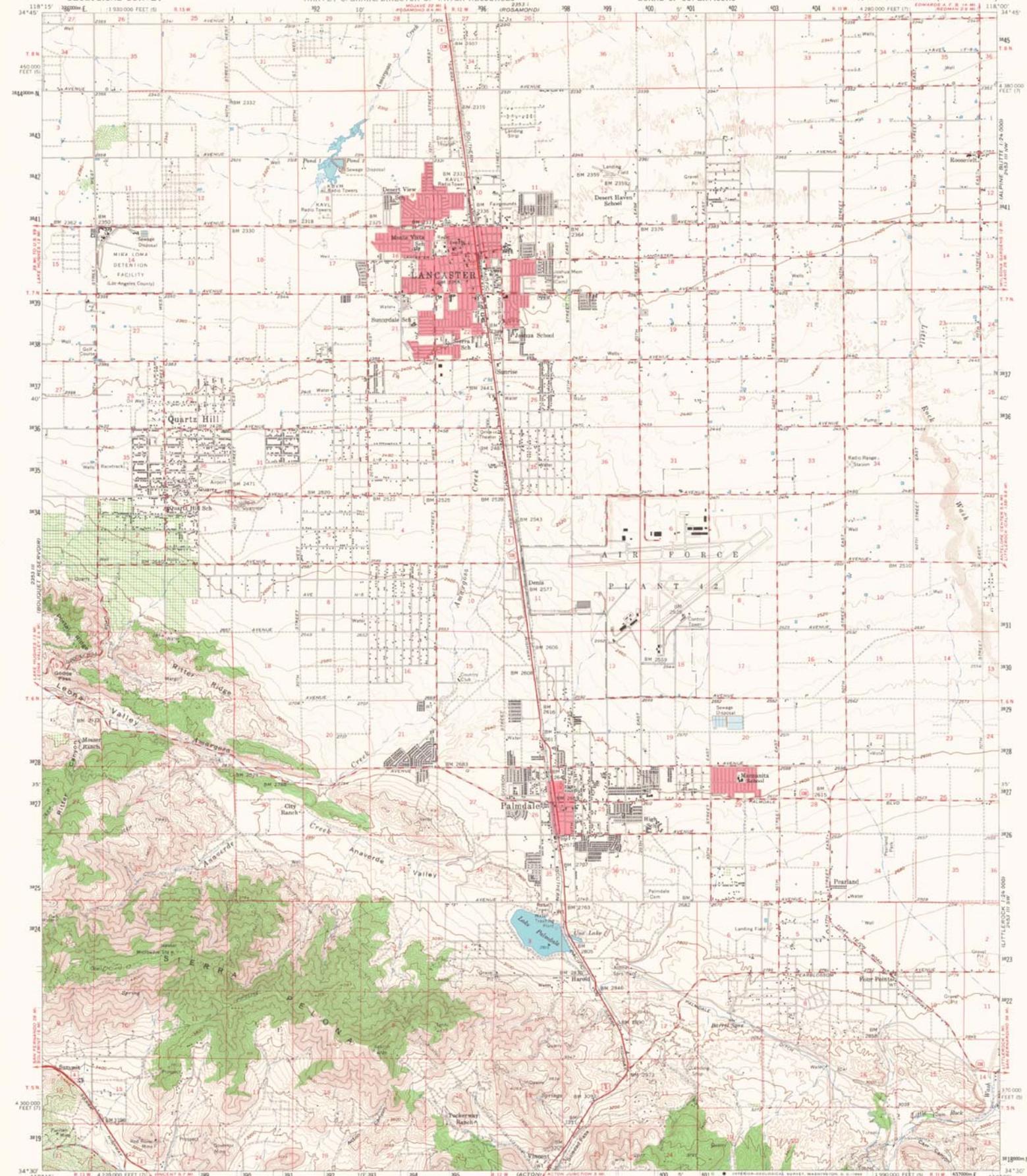


ALPINE BUTTE, CALIF.
N3430-W11745-15

1945

93700
svar
J6
Case D
4
16

1958 LANCASTER 1:62,500 SCALE TOPOGRAPHIC MAP



Mapped, edited, and published by the Geological Survey
 Control by USGS and USC&GS
 Compiled in 1969 from 1:24,000 scale maps of Lancaster East, Lancaster West, Ritter Ridge, and Palmdale 7.5 minute quadrangles.
 Topography by planimetric surveys 1929-1931, revised 1958 and from aerial photographs by photogrammetric methods
 Aerial photographs taken 1956
 Polyconic projection, 1927 North American datum
 10,000-foot grid based on California coordinate system, zones 5 and 7
 1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue
 Red tint indicates areas in which only landmark buildings are shown
 Dashed land lines indicate approximate locations
 Unchecked elevations are shown in brown

ROAD CLASSIFICATION
 Heavy-duty ——— Light-duty ———
 Medium-duty ——— Unimproved dirt ———
 U.S. Route State Route

QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20542
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

1968
 AMS 2555 II-SERIES V795

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUEST 26

Technical Area: Geology and Paleontology Resources

Response Date: January 12, 2009

Data Request 26:

Please provide further evaluation and/or recommendations for mitigation of hydrocompaction and verify that calculated hydrocollapse settlements (potentially in combination with previous elastic settlements under initial construction) do not exceed tolerances for the proposed facilities. A summary of typical layering and settlement potential from each layer, after mitigation, would be appropriate.

Response:

The final design will ensure that the settlements do not exceed the tolerances for the proposed facilities. A final Geotechnical Investigation Report will be prepared for the Project prior to the detailed engineering design. Soil borings will be performed for foundations supporting heavy equipment and other structures.

The following options will be evaluated to mitigate the collapse potential due to hydrocompaction:

- Remove unsuitable soil susceptible to hydrocompaction under foundations and replace with reconditioned/treated soil or suitable material, and
- Use deep foundations to mitigate settlement due to hydrocompaction.

Settlement of foundations depends on various factors, such as load on foundation, type of foundation, existing soil layers under the foundation, seasonal variation of moisture content etc., which are not currently known. Structural design of foundations will include settlement evaluation to ensure the settlement of foundations does not exceed the allowable values. Typically, for power plants, the maximum allowable settlement for foundations is 1 inch and differential settlement is ½ inch.

The impact of lateral infiltration of stormwater stored in infiltration basins on foundations will also be evaluated in light of the proposed mitigation as described above. Proper compaction of structural backfill should help to mitigate such problems. If required, in-situ or laboratory testing will be conducted to evaluate the rate of lateral infiltration. The recommendations of the project geotechnical engineer will be incorporated in the design of infiltration basins. The lateral infiltration can be reduced or eliminated in various ways such as designing a cut-off wall, jet grouting, Soil-Cement vertical wall, soil mixing, concrete wall, use of geo-membrane, etc.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUESTS 27**

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Data Request 27:

Please provide the identity, amount, concentration (if a liquid), proposed use, location of use and storage, CAS number, toxicity, fire hazard (if any), and reportable quantity (if listed as such by any federal or California regulation) of any hazardous material that is proposed for use or storage at the proposed power plant.

Response:

Operation of the proposed facility is several years away. Specific, branded boiler water treatment chemicals have not yet been selected for the PHPP, so the chemicals were grouped in Table 5.6-3 of the AFC as "Boiler Water Treatment Chemicals". There are a number of suitable chemical suppliers, each with its own proprietary formulation for oxygen scavengers and neutralizing amines. Each proprietary formulation has one or more common active ingredients, and any number of additional ingredients, some of which may not be disclosed on the available literature (e.g., technical data sheets and material safety data sheets).

Table DR-27 provides the results of the additional research to identify the common active ingredients currently used by chemical suppliers for oxygen scavengers and neutralizing amines. This is the best estimate of the types of materials proposed for use at this time. The requested information including identity, amount, concentration, proposed use, location of use and storage, CAS number, toxicity, fire hazard (if any), and reportable quantity (if listed as such by any federal or California regulation) of the major hazardous materials proposed for use at the PHPP is also provided in Table DR-27.

Certain hazardous materials that will be used for day-to-day maintenance (e.g., aerosol adhesives, solvents, paints, thinners and strippers; oils, lubricants and greases; sealants; detergents, soaps and cleaners, resins and hardeners; etc.) will be stored and utilized on site in quantities well below reportable quantities. Many of these materials will be purchased from local retail establishments, just as is typically done for domestic use. Inasmuch as this facility has not been designed, fixtures and finishes have not been determined and it is not proposed to be operational for approximately three years, specific types of small quantity chemicals have not yet been identified for use or purchase. Since these small quantity daily use materials are typically identified and selected just prior to facility operation, detailed information on CAS numbers and their potential chemical and toxicological properties is not currently available and is premature. However, the type and quantity of the hazardous materials for daily maintenance is expected to be substantially similar to the maintenance materials used by other industrial facilities, particularly power plants, and the materials will be handled in a manner that meets or exceeds industry standards and all applicable LORS.

As the operations phase of the facility draws closer, specific brands and quantities of these daily use chemicals will be identified. As required in the proposed facility Health and Safety Plan to be developed, MSDSs indicating the requisite product specific chemical hazard data will be provided by each manufacturer and compiled in the Plan. The MSDSs will be readily available to all

PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

personnel and will provide the users with hazard information and safe handling guidance. Potentially flammable materials will be stored in safety lockers and other small quantities of materials will be stored according to manufacturer's instructions.

In addition, actual operation phase of the PHPP may be able to take advantage of ongoing chemical industry innovations and employ the use of more suitable or efficient and less toxic process chemicals. These options will be evaluated when the Project is closer to the start of operation.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|--|--|---|
| Natural Gas (methane) CAS No ¹ . 74-82-8 | Low toxicity; Hazard class – Flammable Gas | Not applicable | None Established | No onsite storage; up to 140 lbs of natural gas in equipment and piping; pressurized carbon steel pipeline for delivery to site | Piping will be designed to U.S. Department of Transportation (DOT) specifications; onsite facilities (gas metering) will be designed and operated to industry standards. Pressure relief valves |
| Hydrogen CAS No. 1333-74-0 | Low toxicity; Hazard class – Flammable Gas | Not applicable | None Established | In generator cooling loop 320 lbs, with maintenance inventory of 320 lbs in a “tube trailer” | Pressure safety tank, crash posts, pressure relief valves |
| Aqueous Ammonia (ammonium hydroxide), < 20% solution CAS No. 7664-41-7 | High toxicity ⁵ ; Hazard class – Corrosive, Irritant | 100 (45.4) | 25 ppm (NIOSH) | Carbon steel tank (30,000 gal) | Spill containment, ammonia detectors. alarms, RMP |
| Sodium Hydroxide, 50% solution CAS No. 1310-73-2 | High toxicity; Hazard class – Corrosive | 1,000 (454) | PEL: 2 mg/m ³ (OSHA) | Carbon steel tank (7,500 gal) | Isolated from incompatible chemicals, secondary containment |
| Sodium Hypochlorite, 12.5% solution CAS No. 7681-52-9 | High toxicity; Hazard class – Poison- B, Corrosive | 100 (45.4) | Workplace Environmental Exposure Limit (WEEL) - STEL: 2 mg/m ³ PEL: 0.5 ppm (TWA), STEL: 1 ppm as Chlorine TLV: 1 ppm (TWA), STEL: 3 ppm as Chlorine | Plastic tank (2,500 gal) | Secondary containment |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|--|--|---|
| Sulfuric Acid, 93% solution CAS No. 7664-93-9 | High toxicity; Hazard class – Corrosive, Water Reactive | 1,000 (454) | PEL: 1 mg/m ³ (OSHA) | Lined, carbon steel tank (10,000 gal) | Isolated from incompatible chemicals, lined tank, secondary containment |
| Boiler Water Treatment Chemicals – Oxygen Scavenger Proprietary formulation that may include one or more of the following active ingredients: | Low to moderate toxicity; Hazard class varies by ingredient | -- | Varies by ingredient | Plastic totes up to 330 gal., or 55- gal. drums | Secondary containment |
| Carbohydrazide CAS No. 497-18-7 | Moderate toxicity; Hazard Class – Irritant | Not applicable | Not listed | | |
| Diethylhydroxylamine CAS No. 3710-84-7 | Moderate toxicity; Hazard Class – Class II Combustible Liquid | Not applicable | Not established | | |
| Sodium bisulfite CAS No. 7631-90-5 | Moderate toxicity; No hazard class | 5,000 (2,270) | NIOSH REL: 5mg/m ³ OSHA PEL None | | |
| Sodium metabisulfite CAS No. 7681-57-4 | Moderate toxicity; No hazard class | Not applicable | NIOSH REL: 5mg/m ³ OSHA PEL None | | |
| Sodium sulfite CAS No. 7757-83-7 | Moderate toxicity; No hazard class | Not applicable | ACGIH 5 mg/m ³ | | |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|---|--|---|
| Boiler Water Treatment Chemicals – Neutralizing Amine Proprietary formulation that may include one or more of the following active ingredients: | Low to moderate toxicity; Hazard class varies by ingredient | -- | Varies by ingredient | Plastic totes up to 330 gal., or 55- gal. drums | Secondary containment |
| Morpholine CAS No. 110-91-8 | Moderate toxicity; Hazard class – Class I-C Flammable Liquid, Corrosive | Not applicable | NIOSH REL: 70 mg/m ³ OSHA PEL: 70 mg/m ³ | | |
| Cyclohexamine CAS No. 108-91-8 | Moderate toxicity; Hazard class – Class I- C Flammable Liquid, Corrosive | Not applicable | NIOSH REL: 10 mg/m ³ OSHA PEL: None | | |
| Diethylaminoethanol CAS No. 100-37-8 | Moderate toxicity; Hazard class – Class II Combustible Liquid | Not applicable | NIOSH REL: 50 mg/m ³ OSHA PEL: 50 mg/m ³ | | |
| Aminomethylpropanol CAS No. 124-68-5 | Low toxicity; No hazard class | Not applicable | ACGIH not established | | |
| Methoxypropylamine CAS No. 5332-73-0 | Moderate toxicity; Hazard class – Class I-C Flammable Liquid, Corrosive | Not applicable | None listed | | |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|---|---|--|
| Carbon Dioxide CAS No. 124-38-9 | Low toxicity; Hazard class – Non- Flammable Gas | Not applicable | TLV: 5,000 ppm (9,000 mg/m ³) TWA | Carbon steel cylinders, 24 tons maximum onsite, 6 tons in the largest container | Carbon steel tank with crash posts |
| Therminol VP-1 Biphenyl (26.5%) CAS No. 92-52-4 Diphenyl ether (73.5%) CAS No. 101-84-8 | Moderate toxicity, Hazard class – Irritant; Combustible Liquid (Class III-B) | Biphenyl = 100 (45.4) Diphenyl ether = Not applicable | Biphenyl = PEL: 0.2 ml/m ³ (8-hr TWA) TLV: 0.2 ml/m ³ (1 mg/m ³) (8-hr TWA) Diphenyl ether = TLV: 1 ml/m ³ (8-hr TWA) TLV: 2 ml/m ³ (15-min TWA) PEL: 1 ml/m ³ (7 mg/m ³) (15-min TWA) | 260,000 gal in system, no additional storage | Continuous monitoring of pressure in piping network; routine inspections (sight, sound, smell) by operations staff; isolation valves throughout piping network to minimize fluid loss in the event of a leak; prompt clean up and repair. |
| Lube Oil CAS No. 64742-65-0 | Low toxicity Hazard class – NA | Not applicable | None established | Carbon steel tanks, largest container 1,200 gal, 4,000 gal total in tank storage, maintenance inventory in 55-gallon steel drums | Secondary containment area for each tank and for maintenance inventory |
| Calcium Oxide (Lime) CAS No. 1305-78-8 | Low toxicity; ORM-B | Not applicable | 2 mg/m ³ , 8-hour TWA | 4,000 lbs maximum, 50-lb bags on pallets, mixed with water as needed in 2,000-gal fiberglass tank | Secondary containment for tank; dry, indoor storage for dry material |
| Mineral Insulating Oil CAS No. 8042-47-5 | Low toxicity Hazard class – NA | Not applicable | None established | Carbon steel transformers, largest vessel 16,000 gal, total inventory 65,000 gal, no maintenance inventory onsite | Used only in transformers, secondary containment for each transformer |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|---|---|---|
| Diesel Fuel CAS No. 68476-34-6 | Low toxicity; Hazard class – Combustible Liquid | Not applicable | PEL: none established TLV: 100 mg/m ³ (ACGIH) | Carbon steel tank (1,200 gal [generator]), Carbon steel tank (300 gal [fire water pump engine]) | Stored only in fuel tank of emergency engines, secondary containment. |
| Nitrogen CAS No. 7727-37-9 | Low toxicity; Hazard class – Non- Flammable Gas | Not applicable | None established | Carbon steel tank; 7,500 lbs total inventory | Carbon steel tank with crash posts |
| Hydraulic fluid | Low to moderate toxicity; Hazard class – Class IIIB Combustible Liquid | Not applicable | TWA (oil mist): 5 mg/m ³ STEL: 10 mg/m ³ | Carbon steel tanks and sumps; 500 gallons in equipment, maintenance inventory of 110 gallons in 55-gal steel drums | Found only in equipment with a small maintenance inventory. Maintenance inventory stored within secondary containment. |
| Water treatment chemical NALCO Tri-Act 1800 Cyclohexylamine (5 – 10%) CAS No. 108-91-8 Monoethanolamine (10 – 30%) CAS No. 141-43-5 Methoxypropylamine (10 – 30%) CAS No. 5332-73-0 | High toxicity; Hazard class – Corrosive, Class II Combustible Liquid | Not applicable | Cyclohexylamine = TLV: 10 ppm (41 mg/m ³) Monoethanolamine = TLV: 3 ppm (7.5 mg/m ³) TWA: 3 ppm (7.5 mg/m ³) STEL: 6 ppm (15 mg/m ³) Methoxypropylamine = TLV: 5 ppm TWA STEL: 15 ppm | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|--|---|---|---|--------------------------------------|---|
| Water treatment chemical NALCO Elim-Ox Carbohydrazide (5 -10%) CAS No. 497-18-7 | Moderate toxicity; Hazard class – Sensitizer | Not applicable | Carbohydrazide = PEL: none established | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO 3D Trasar 3DT185 Phosphoric Acid (60 -100%) CAS No. 7664-38-2 | High toxicity; Hazard class – Corrosive | 5,000 (2,270) | Phosphoric acid = PEL: 1 mg/m ³ (TWA) TLV: 1 mg/m ³ (TWA), STEL: 3 mg/m ³ | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO 3D Trasar 3DT177 Phosphoric acid (30%) CAS No. 7664-38-2 | Moderate toxicity; Hazard class – Irritant | 5,000 (2,270) | Phosphoric acid = PEL: 1 mg/m ³ (TWA) TLV: 1 mg/m ³ (TWA), STEL: 3 mg/m ³ | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO 3D Trasar 3DT190 Substituted aliphatic aldehyde (1 – 5 %) CAS No. Proprietary | Low toxicity; Hazard class – Irritant | Not applicable | None established for mixture | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|--|--------------------------------------|---|
| Water treatment chemical NALCO Acti-Brom (R) 7342 Sodium bromide CAS No. 7647-15-6 | Low toxicity; Hazard class – Irritant | Not applicable | Sodium bromide = PEL: none established | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO pHFreedom® 5200M Sodium salt of phosphonomethylated diamine CAS No. None/Not Listed | Low to moderate toxicity; Hazard class – Irritant | Not applicable | Sodium salt of phosphonomethylated diamine = PEL: none established | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO PCL-1346 CAS No. Not Available | Low toxicity; Hazard class – Irritant | Not Available | None established for mixture | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO Permacare (R) PC-7408 Sodium bisulfite CAS No. 7631-90-5 | Low toxicity; Hazard class – Irritant | 5,000 (2,270) | Sodium bisulfite = PEL: none established: TLV: 5 mg/m ³ TWA | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|--|---|---|--|--|---|
| Water treatment chemical NALCO BT-3000 Sodium hydroxide CAS No. 1310-73-2 Sodium tripolyphosphate CAS No. 7758-29-4 | High toxicity; Hazard class – Corrosive | Sodium hydroxide = 1,000 (454) Sodium tri- polyphosphate = Not applicable | Sodium hydroxide = PEL: 2 mg/m ³ Sodium tripolyphosphate = PEL: none established | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Water treatment chemical NALCO 8338 Sodium nitrite CAS No. 7632-00-0 Sodium tolyltriazole CAS No. 64665-57-2 Sodium hydroxide CAS No. 1310-73-2 | Moderate toxicity; Hazard class – Toxic | Sodium nitrite = 100 (45.4) Sodium tolyltriazole = Not applicable Sodium hydroxide = 1,000 (454) | Sodium nitrite = PEL: none established Sodium tolyltriazole = PEL: none established Sodium hydroxide = PEL: 2 mg/m ³ | Plastic totes, 2 x 400 gal | Inventory management, isolated from incompatible chemicals, secondary containment |
| Welding gas Acetylene CAS No. 74-86-2 | Moderate toxicity; Hazard class – Toxic | Not applicable | PEL: none established | Steel cylinders; 200 cubic ft each, 800 cubic ft total onsite | Inventory management, isolated from incompatible chemicals, |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|---|---|---|---|---|---|
| Welding gas Oxygen CAS No. 7782-44-7 | Low toxicity; Hazard class – Oxidizer | Not applicable | PEL: none established | Steel cylinders; 200 cubic ft each, 800 cubic ft total on site | Inventory management, isolated from incompatible chemicals |
| Welding gas Argon CAS No. 7440-37-1 | Low toxicity; Hazard class – Non- flammable Gas | Not applicable | PEL: none established | Steel cylinders; 200 cubic ft each, 800 cubic ft total on site | Inventory management |
| Fertilizer Urea CAS No. 57-13-6 | Low toxicity; Hazard class – NA | Not applicable | WEEL: 10 mg/m ³ , 8-hour TWA | Stored in bags (dry pellets), 5 x 50-lb, 250 lbs total inventory | Inventory management, indoor storage |
| Fertilizer Monopotassium phosphate CAS No. 7778-77-0 | Low toxicity; Hazard class – Irritant | Not applicable | TLV: 10 mg/m ³ (inhalable) 8-hr TWA, 3 mg/m ³ (respirable) 8-hr TWA PEL: 15 mg/m ³ (total dust) 8-hr TWA, 5 mg/m ³ (respirable) 8-hr TWA | Stored in bags (dry pellets), 5 x 50-lb, 250 lbs total inventory | Inventory management, indoor storage |
| Herbicide Roundup® or equivalent CAS No. 38641-94-0 | Low toxicity; Hazard class – Irritant | Not applicable | Isopropylamine salt of glyphosphate = no specific occupational exposure has been established | No onsite storage, brought on site by licensed contractor, used immediately | No excess inventory stored on site |

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 27

Technical Area: Hazardous Materials Management

Response Date: January 12, 2009

Table DR-27 Summary of Special Handling Precautions for Large Quantity Hazardous Materials

| Hazardous Material | Relative Toxicity² and Hazard Class³ | RQ⁴ pounds (kg) | Permissible Exposure Limit | Storage Description; Capacity | Storage Practices and Special Handling Precautions |
|--|---|---|---------------------------------------|---|---|
| Soil stabilizer Active ingredient: acrylic or vinyl acetate polymer or equivalent CAS No. Active ingredient is 'Not Hazardous' | Non-toxic; Hazard class – NA | Not applicable | None established | No onsite storage, supplied in 55- gal drums or 400-gal totes, used immediately | No excess inventory stored on site |

¹ CAS No. – Chemical Abstracts Service registry number. This number is unique for each chemical.

² Low toxicity is used to describe materials with an NFPA Health rating of 0 or 1. Moderate toxicity is used describe materials with an NFPA rating of 2. High toxicity is used to describe materials with an NFPA rating of 3. Extreme toxicity is used to describe materials with an NFPA rating of 4.

³ NA denotes materials that do not meet the criteria for any hazard class defined in the 1997 Uniform Fire Code.

⁴ RQ - Reportable Quantity for hazardous substance as designated under section 102(a) defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). (To note: As previously discussed in the text, Table 5.6-3 includes those chemicals stored or used in excess of 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases. These quantities coincide with the thresholds for reporting under California's HMBP requirements.)

⁵ RQ - Reportable Quantity for extremely hazardous substance as designated under section 302(a)(2) defined under CERCLA.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 28-49**

Technical Area: Land Use

Response Date: January 12, 2009

Data Request 28:

Given that the information provided in the AFC is from July 2008, and that early 2009 is approaching, please provide information regarding the current status of the City's General Plan Amendment and zone change for the proposed PHPP project site. Please advise when the General Plan Amendment and zone change process for the PHPP project site will be completed.

Response:

The City has already initiated the application process for the General Plan Amendment (GPA) and Zoning Ordinance amendment (the "rezoning") for the PHPP site. (See Section 5.7.3.2 of the AFC for further discussion on the need for these amendments.) The City has proposed amending the General Plan land use designation to IND (Industrial) and the zoning classification to M-2 (General Industrial). The procedures for considering the GPA and rezoning will conform to the City's standard procedures as described in the General Plan and Palmdale Municipal Code (PMC). (See General Plan, p. I-15; PMC § 24.11.)

The City's Planning Commission is expected to consider the GPA and rezoning at its February 5, 2009 meeting. Following the Planning Commission's review and recommendation, the City Council is expected to consider the GPA and rezoning at its March 4, 2009 meeting.

If the City Council approves the GPA, it will become effective immediately by resolution. For the rezoning, the first reading of the ordinance is expected to occur on March 4, 2009, with the second reading on March 18, 2009. If the City Council approves the rezoning ordinance, it will become effective 30 days following the second reading.

Data Request 29:

Given the upcoming expected General Plan Amendment and zone change for the proposed PHPP project site, Energy Commission staff assumes that the City is conducting California Environmental Quality Act (CEQA) analysis to determine the impacts of the General Plan Amendment and zone change process. If so, please provide the results of the city's CEQA analysis for its General Plan Amendment and zone change.

Response:

The City has initiated its review under CEQA for the GPA and rezoning, along with the amendment process discussed in our response to Data Request 28. At this time, the City is evaluating whether a CEQA categorical exemption applies. If an exemption does not apply, the City anticipates that the CEQA review will result in the preparation of a Negative Declaration or Mitigated Negative Declaration. If applicable, the City will properly file a Notice of Intent to adopt the Negative

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 28-49**

Technical Area: Land Use

Response Date: January 12, 2009

Declaration or Mitigated Negative Declaration with the Los Angeles County Clerk before the Planning Commission considers the GPA and rezoning. (See Title 14, California Code of Regulations, § 15072(d).) The City currently anticipates that it will complete its CEQA review in time for the Planning Commission to consider the GPA and rezoning at its February 5, 2009 meeting. If the CEQA review is delayed, the Planning Commission's consideration of the GPA and rezoning will be delayed accordingly. The Energy Commission will be provided with the CEQA documentation once it is available for public review.

Data Request 30:

Please provide specific details regarding the city's findings associated with the recommendation to approve the General Plan Amendment and zone change for the project site.

Response:

According to Timothy Hughes, Deputy Director of Public Works for the City of Palmdale, in consultation with City Planning staff, the following findings will be required for the GPA and rezoning:

GPA Findings:

- The City Council will need to find that the proposed amendment conforms with the intent of the General Plan to allow for ongoing review and revision of the plan to meet the changing needs of the community and to reflect continued effectiveness of the General Plan.
- The City Council will need to find that it is in the public's interest to revise the General Plan Land Use Map at this time for the change based upon the benefit to the public.
- The City Council will need to find that the adoption of the General Plan Amendment will not be in conflict with Section 65358 (b) of the Government Code, which permits only four amendments per year to the Land Use Element.
- The City Council will need to find that the proposed change conforms with the applicable goals, policies, and objectives as described in the General Plan for the proposed change.

Rezoning Findings:

- The City Council will need to find that upon adoption of the General Plan Amendment, the proposed change in zone classification would be consistent with the General Plan designation based upon the General Plan policies.
- The City Council will need to find that the land included within the zone change is suitable for any of the land uses permitted within the proposed zone based upon the standards and requirements of the Zoning Ordinance for that zone.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 28-49**

Technical Area: Land Use

Response Date: January 12, 2009

- The City Council will need to find that the proposed change in zone within the project area is reasonable and beneficial at this time.
- The City Council will need to find that the proposed change in zone district classification within the project area will not have a substantial adverse impact on surrounding properties or the community in general.

If the GPA and rezoning are approved, the City does not anticipate that any conditions will be attached to the approvals (i.e., the approvals will be unconditional).

Data Request 31:

For each specific land use and zoning designation traversed by the proposed project linear facilities as described in AFC Tables 5.7-2b and 5.7-3b, please provide the applicable General Plan policies and zoning code section and the city's consistency determination of the particular project component with each of those policies and zoning requirements, and justification for consistency. For an example of this type of LORS consistency analysis, please refer to the Land Use section of any of the recently published Energy Commission Staff Assessments.

Response:

Please see extension request filed on December 30, 2008.

Data Request 32:

Please provide the conditions the city would impose if it were the permitting agency (but for the exclusive authority of the Energy Commission), in order to ensure the project's consistency with the city's applicable LORS.

Response:

According to Timothy Hughes, Deputy Director of Public Works for the City of Palmdale, in consultation with City Planning staff, the City would impose the standard Conditions of Approval for an industrial development. These conditions would include standard requirements for final plan approvals, grading requirements, fee payments, exactions, and other typical requirements during construction of the project.

Specific development requirements/conditions for the project would include:

- Compliance with the City Native Desert Vegetation Preservation Ordinance.

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- Full right-of-way improvements on East Avenue M including any required right or left turn lanes and related traffic controls.
- A 20-foot landscaped buffer along the East Avenue M frontage.
- Onsite drainage improvements to accommodate storm water flows associated with the development.

Data Request 33:

Please provide Figure 5.7-5 at an easily legible scale (e.g., 1 inch = ½ mile).

Response:

An updated Figure 5.7-5 is provided at the end of this section in an easily legible scale. The Figure, entitled "Important Farmland in the Vicinity of the Project and Linear Facilities" has been expanded to include 14 discrete mapsheets, each at 1:24,000 scale or one inch equals 2,000 feet.

Data Request 34:

Please provide the exact source (including year of data) for Figure 5.7-5.

Response:

The source of the data for Figure 5.7-5 is the California Division of Land Resource Protection, Los Angeles County Important Farmland Data, 2006.

Data Request 35:

Please discuss whether any of the lands affected by the PHPP (including linear facilities) are under a Williamson Act Contract. If so, provide the exact location and amount of land (in acres) that would be disturbed.

Response:

According to the Los Angeles County Department of Regional Planning (LACDRP), Los Angeles County does not participate in Williamson Act Contracts. A representative of the LACDRP stated that the County does not enter into contracts with private landowners to restrict use; however, local jurisdictions may do so with their land. According to Mr. Richard Kite, with the City of Palmdale Planning Department, the City of Palmdale also does not participate in issuing Williamson Act

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Contracts. Mr. Kite was not aware of any Williamson Act Contract land in the vicinity of the Project site.

Data Request 36:

Please provide written documentation of the Air Force's satisfaction with the PHPP plant site, solar arrays, and linear facilities.

Response:

Please See Attachment DR-36, Department of the Air Force – Memorandum for Inland Energy.

Data Request 37:

Please provide detailed information on when the applicant (i.e., the city) expects to initiate the parcel merger process for the 61 (shown in AFC Table 2-1) currently separate project site parcels.

Response:

The PHPP plant site is located on City-owned property that was previously subdivided. The previous subdivision is no longer applicable and is not consistent with the Project. As such, the City has begun processing a Parcel Map that will consolidate the existing parcels on the site, vacate unnecessary existing right-of-way, and dedicate or offer to dedicate any new right-of-way required along East Avenue M and onsite for required access purposes. If approved, the Parcel Map would result in two new parcels – one for the PHPP plant site and one for the remaining City-owned property. The tentative and final Parcel Map processing will be in compliance with applicable provisions of the California Subdivision Map Act and the City of Palmdale Municipal Code, Title 16 (Subdivisions). As discussed on page 5.7-17 of the AFC, this process would require approval by the Planning Commission, a public notice and a hearing before the Planning Director, with the final Parcel Map likely going to the City Council as a consent calendar item. The City anticipates that the Parcel Map would be covered by the CEQA categorical exemption provided in Title 14, California Code of Regulations, § 15315.

The Parcel Map review process will trail the GPA and rezoning process discussed in the response to Data Request 28 because of the time needed to complete the necessary surveys and maps. The City anticipates the Parcel Map will be ready for consideration by the Planning Commission in April or May 2009.

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Data Request 38:

Please provide detailed information regarding the city's procedures as they would apply to the PPHP project site for processing the Parcel Map and completion of parcel consolidation.

Response:

The processing of the tentative and final Parcel Map will be in compliance with applicable provisions of the California Subdivision Map Act and the City of Palmdale Municipal Code (PMC), Title 16 (Subdivisions). As discussed on page 5.7-17 of the AFC, this process would require approval by the Planning Commission, a public notice and a hearing before the Planning Director, with the final Parcel Map likely going to the City Council as a consent calendar item.

The tentative Parcel Map must be considered under CEQA. (PMC §§ 16.60.020, 16.40.060.) The City anticipates that the tentative Parcel Map would be covered by the CEQA categorical exemption provided in Title 14, California Code of Regulations, § 15315. Once the application is complete and the CEQA review has been finalized, the Planning Director will set a public hearing for the tentative Parcel Map. (See PMC § 16.60.020.) The Planning Commission can then approve the tentative map if it makes the following findings:

- (A) The proposed subdivision, and any proposed phasing thereof, is consistent with the zoning ordinance, general plan, any applicable specific plan and the City of Palmdale Municipal Code;
- (B) The tentative map does not propose to divide land which is subject to contract entered into pursuant to the California Land Conservation Act of 1965, or the land is subject to a land conservation act contract but the resulting parcels following division of the land will not be too small to sustain their agricultural use;
- (C) The site is physically suitable for the type and proposed density of development proposed by the tentative map;
- (D) The design of the subdivision and the proposed improvements, with conditions of approval, are either:
 - (1) Not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat, or
 - (2) The design of the subdivision and the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat, but an environmental impact report has been prepared and a statement of overriding considerations has been adopted, pursuant to Public Resources Code Section 21081(c), finding that specific economic, social or other considerations make it not feasible to adopt the mitigation measures or project alternatives identified in the environmental impact report;
- (E) The design of the subdivision and the type of improvements are not likely to cause serious public health and safety problems;

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(F) The tentative map design provides for future passive or natural heating or cooling opportunities in the subdivision to the extent feasible;

(G) The design of the subdivision and the type of improvements will not conflict with easements acquired by the public at large for access through or use of the private property within the proposed subdivision, or the design of the subdivision and the type of improvements will conflict with the easements acquired by the public at large for access through or use of property within the proposed subdivision but alternate easements which are substantially equivalent to those previously acquired by the public will be provided; and

(H) The proposed subdivision, including any proposed phasing, represents orderly development of the project site and surrounding area.

(PMC §§ 16.40.100, 16.60.020.) The City anticipates that the tentative Parcel Map will be consistent with PMC § 16.40.100 and the Planning Commission will make the requisite findings. Subsequently, the City Council will approve the final Parcel Map if it is consistent with the Subdivision Map Act, Palmdale Municipal Code, and the approved tentative map. (PMC § 16.70.070.)

As discussed in our response to Data Request 37, the Parcel Map review process will trail the GPA and rezoning process discussed in our response to Data Request 28 because of the time needed to complete the necessary surveys and maps. The City anticipates the tentative Parcel Map will be ready for consideration by the Planning Commission in April or May 2009.

Data Request 39:

Please specify which portions (specify distance and locations) of the 23.7-mile Segment 1 require new transmission line right-of-way, and which portions are within existing rights-of-way. This is especially important given that each new pole along new right-of-way areas would need a stub road.

Response:

Please see extension request filed on December 30, 2008.

Data Request 40:

Please specify whether, or not, each stub road will remain in place permanently for access to the transmission line during operations and maintenance activities for the line. If not, please specify the number, location, and size (in width and length) of maintenance access roads for the transmission line.

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Response:

Please see extension request filed on December 30, 2008.

Data Request 41:

For the portions of Segment 1 that would be sited within existing rights-of-way, please specify what types of existing right-of-way would be used where these portions would be located.

- a) For example, discuss whether these existing rights-of-way would be in public roadways, other existing utility corridors, etc.
- b) Discuss whether there is sufficient room (i.e., width) within these existing rights-of-way to site the proposed 230 kV transmission line.

Response:

Please see extension request filed on December 30, 2008.

Data Request 42:

Given that new right-of-way would be needed for portions of Segment 1, please specify the width of the right-of-way required for the proposed 230 kV transmission line in both urban and rural lands being traversed. Note that transmission line right-of-way width requirements are different (i.e., greater) in urbanized areas due to the potential for development in close proximity to high voltage lines.

Response:

Please see extension request filed on December 30, 2008.

Data Request 43:

Would the 200 X 200 feet of disturbance for each pole foundation be temporary or permanent disturbance (i.e., for maintenance activities).

Response:

Please see extension request filed on December 30, 2008.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
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Data Request 44:

Please specify approximately how many pulling sites would be required along the entire 35.6 miles of transmission line right-of-way.

Response:

Please see extension request filed on December 30, 2008.

Data Request 45:

Please specify the total amount of land disturbance (in acres) resulting from each pulling site.

Response:

Please see extension request filed on December 30, 2008.

Data Request 46:

Please specify the location and size (in acres) of the construction laydown and worker parking area for Segments 1 and 2 of the 35.6-mile transmission line.

Response:

Please see extension request filed on December 30, 2008.

Data Request 47:

For Segment 2, please provide the following information:

- a) Specific data on the SCE transmission line (i.e., name and voltage) currently existing in the right-of-way that would be used for Segment 2;
 - b) The width (in feet) of the existing SCE right-of-way between Pearblossom and Vincent Substations;
 - c) Clarification as to whether there is sufficient room in the existing SCE right-of-way to accommodate the siting of a new 230 kV transmission line on tubular steel poles for 11.9 miles;
-

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
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- d) If not, a description of how much additional width (in feet) would be required to accommodate the 230 kV transmission line in Segment 2;
- e) Indication as to what entity would own and operate the transmission line; Note that if the transmission line is not SCE-owned and operated, it would not be sited within an SCE right-of-way but rather would be sited in an adjacent right-of-way;
- f) If the 230 kV transmission line is sited in an adjacent right-of-way to the existing SCE right-of-way, describe the land that would need to be acquired to accommodate the line.

Response:

Please see extension request filed on December 30, 2008.

Data Request 48:

For both Segments 1 and 2 of the transmission line, please provide the following information:

- a) A description of how the applicant (i.e., the city) intends to obtain the rights-of-way needed for siting of the 35.6 miles of transmission line;
- b) A description of any applicant plans to purchase lands through which the transmission line right-of-way would traverse, or to obtain easement agreements for the right-of-way;
- c) If land needs to be purchased for siting of the transmission line, a schedule for when purchase agreements would be executed to ensure that the transmission line right-of-way has been obtained;
- d) If the applicant intends on entering into easement agreements for the right-of-way, a schedule as to when these agreements would be in place;

Response:

Please see extension request filed on December 30, 2008.

Data Request 49:

Please specify the locations and distance along the 35.6-mile transmission line right-of-way of lands to be purchased vs. lands that would be leased for easement.

Response:

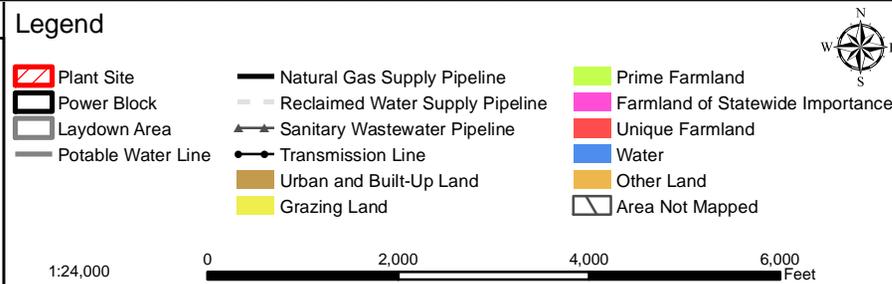
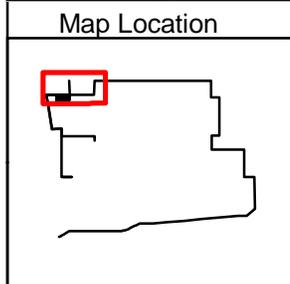
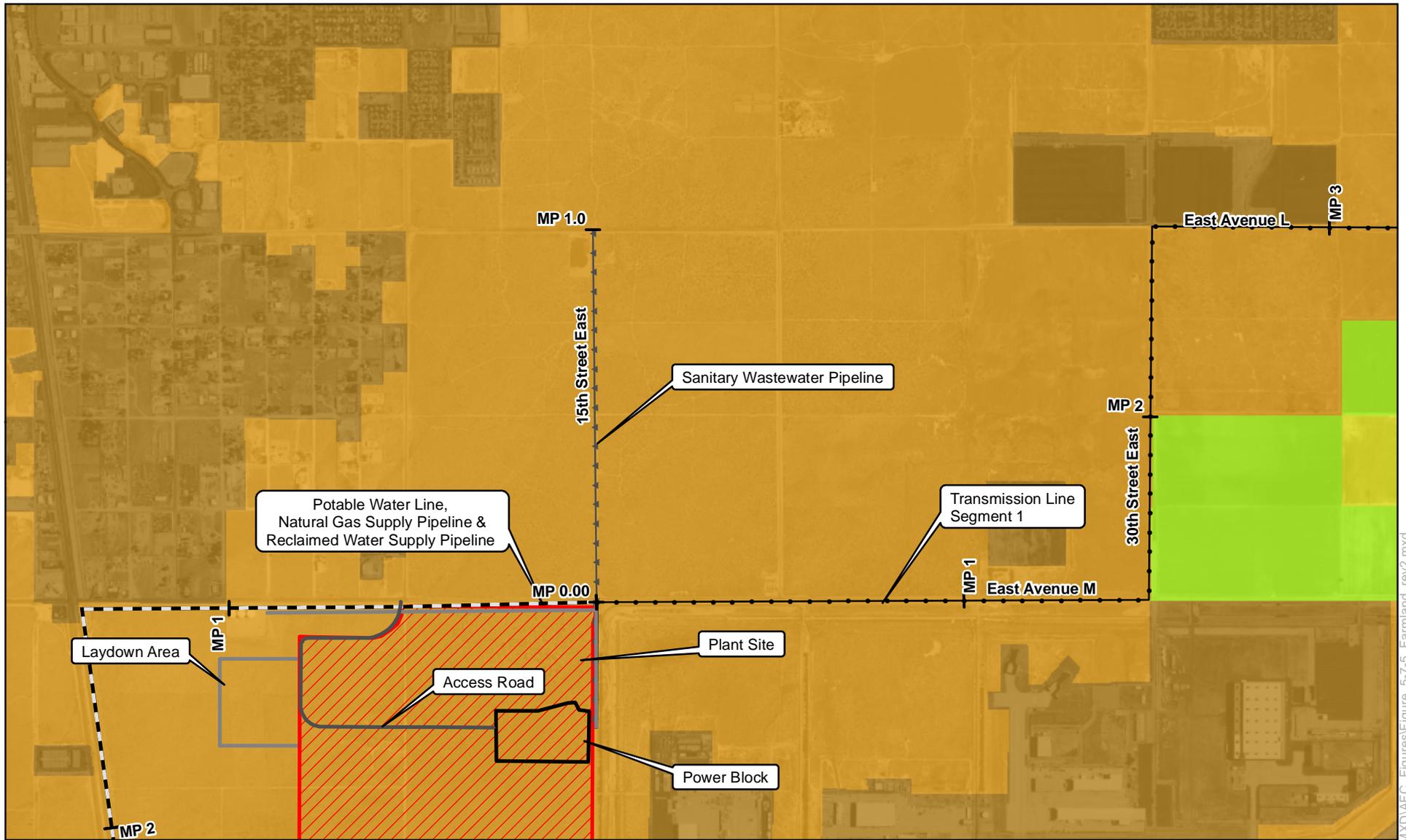
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Attachment DR 33

**Important Farmland in the Vicinity of the Project and Linear
Facilities**

Attachment DR 36

Letter from the US Air Force Regarding PHPP



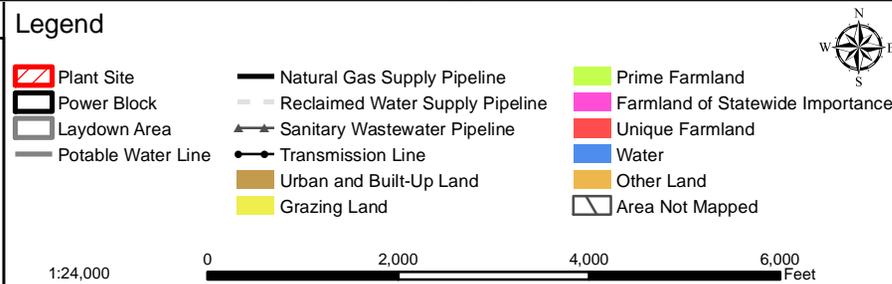
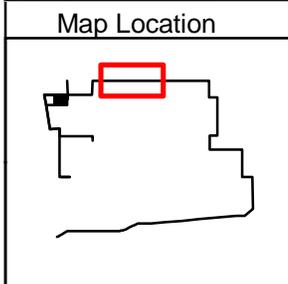
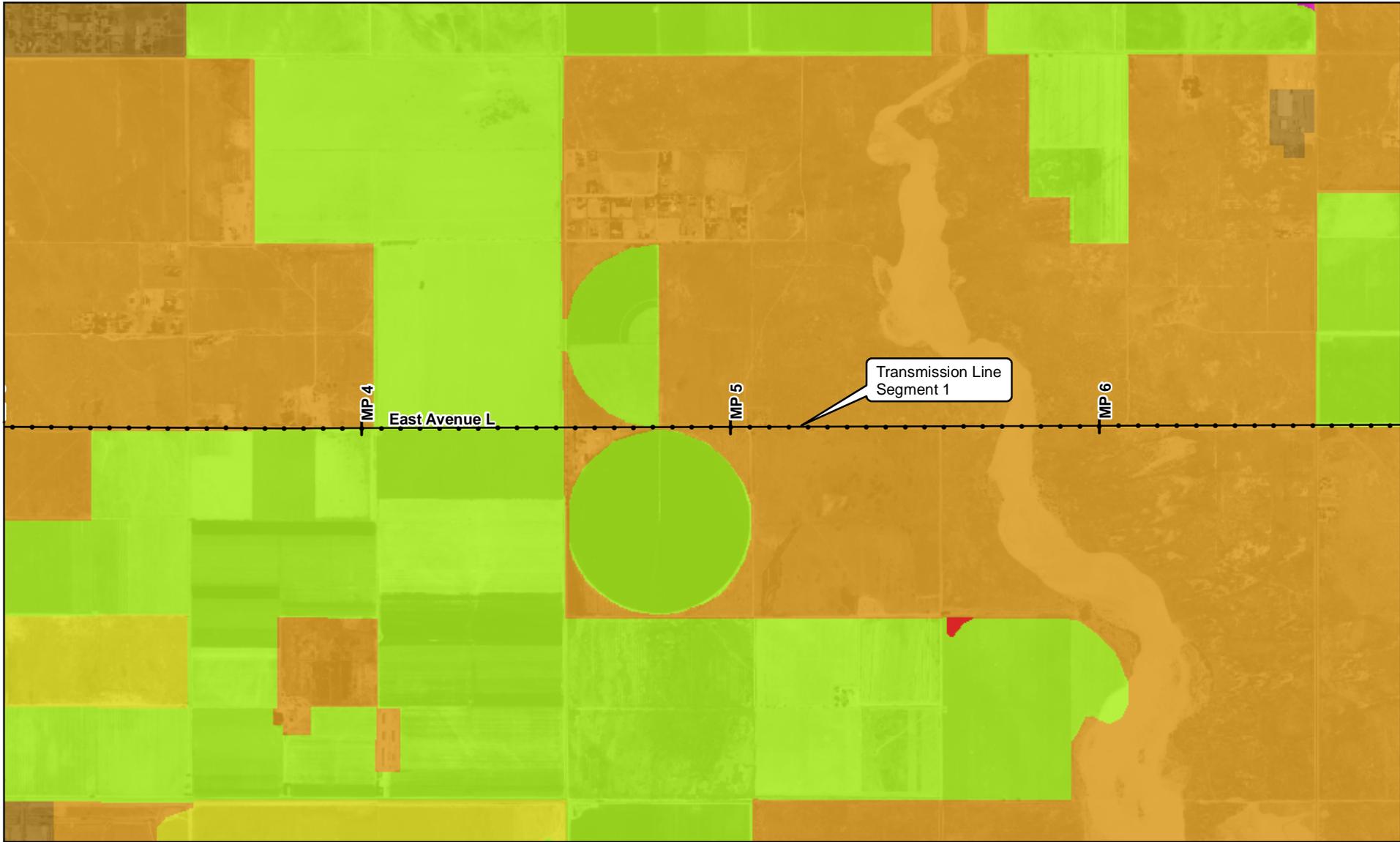
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in the Vicinity of the Project and Linear Facilities

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Project: 10855-002
 Date: December 2008

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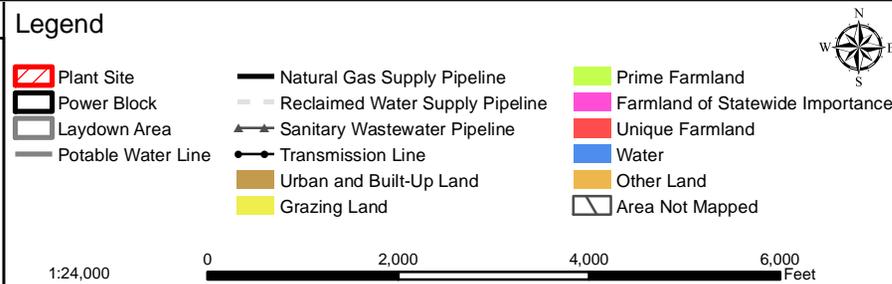
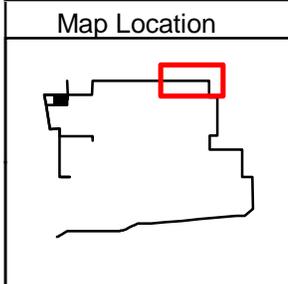
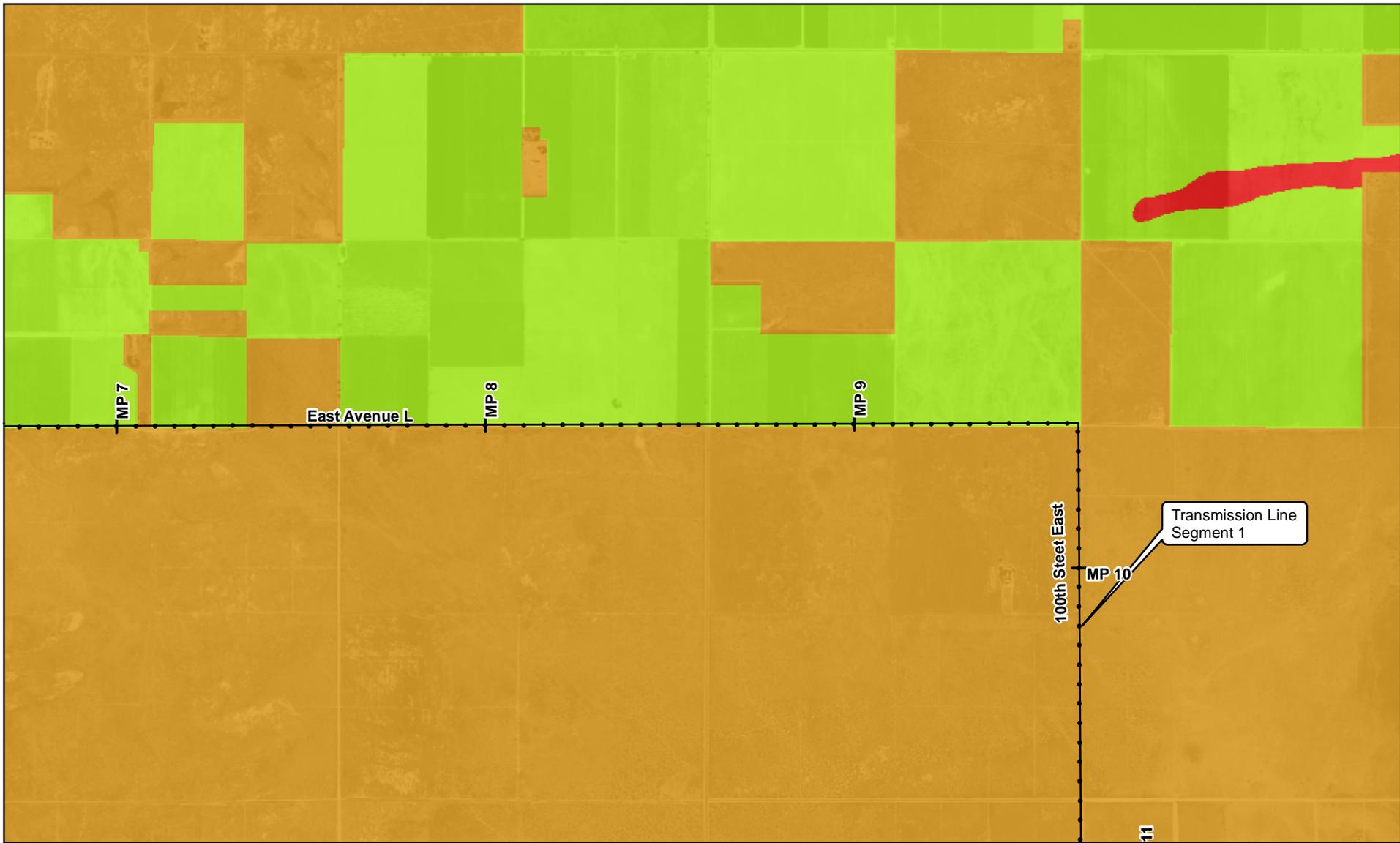
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
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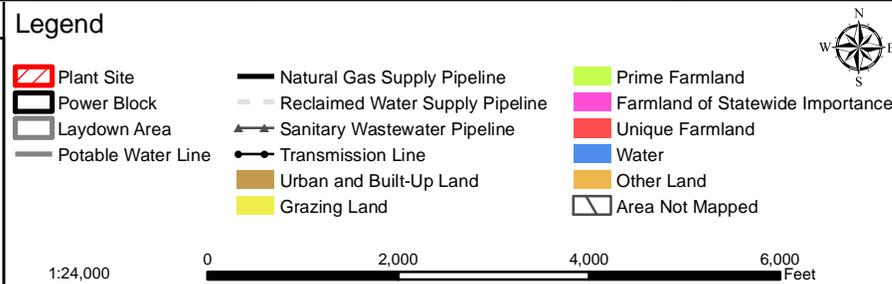
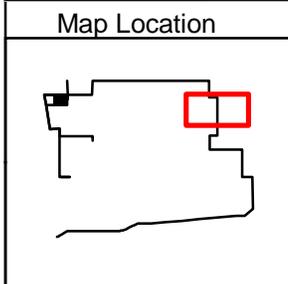
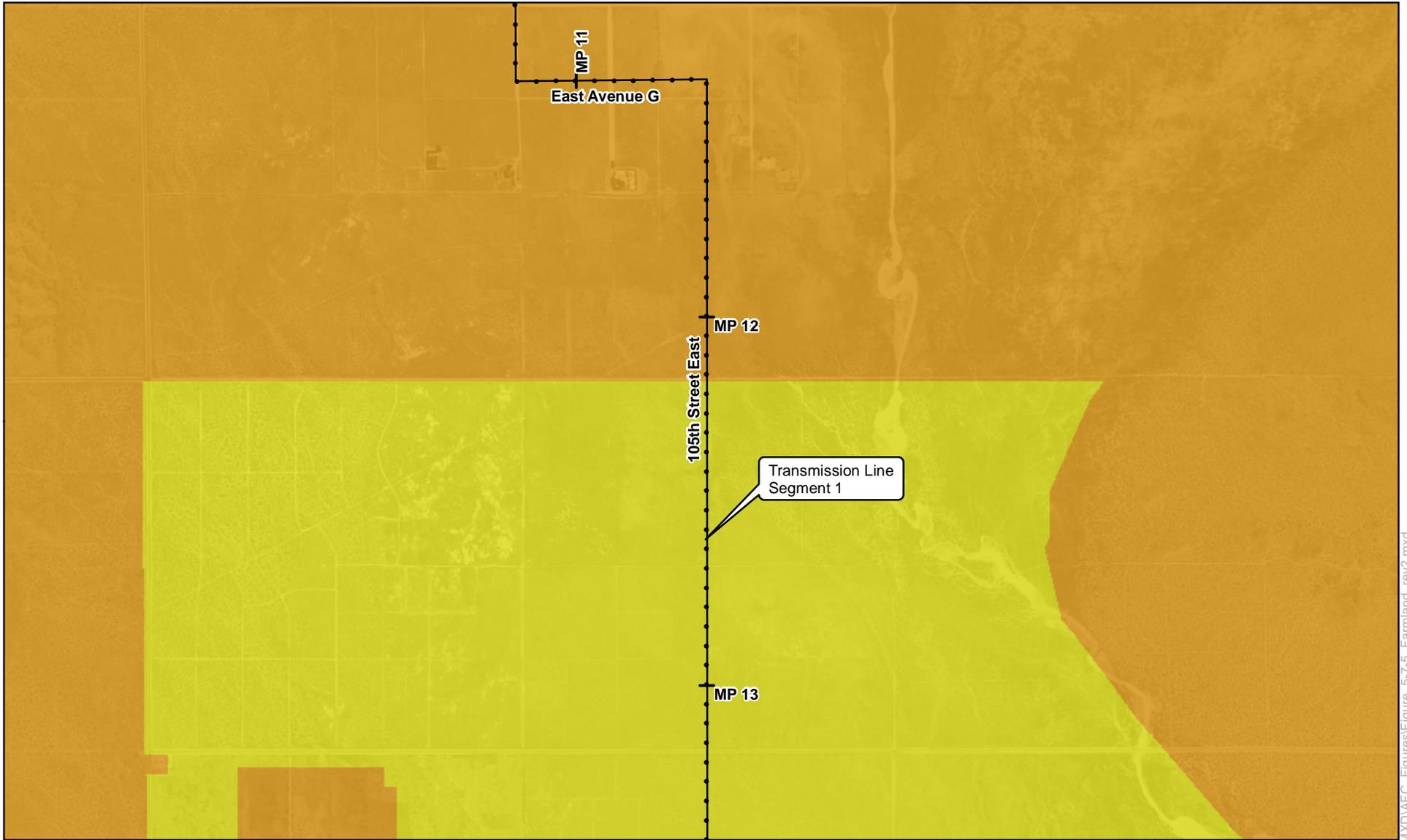
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
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and Linear Facilities

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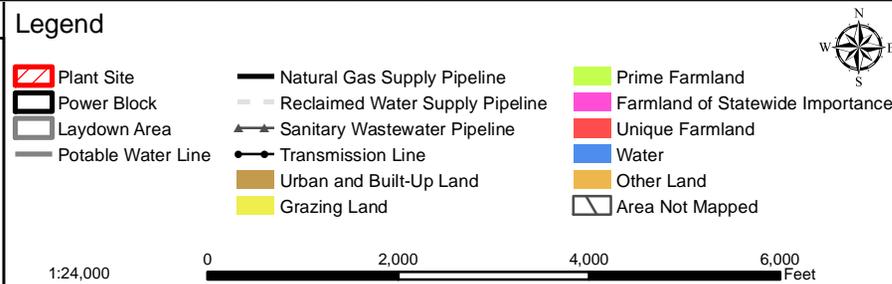
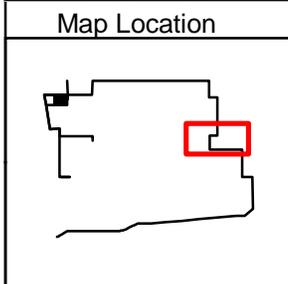
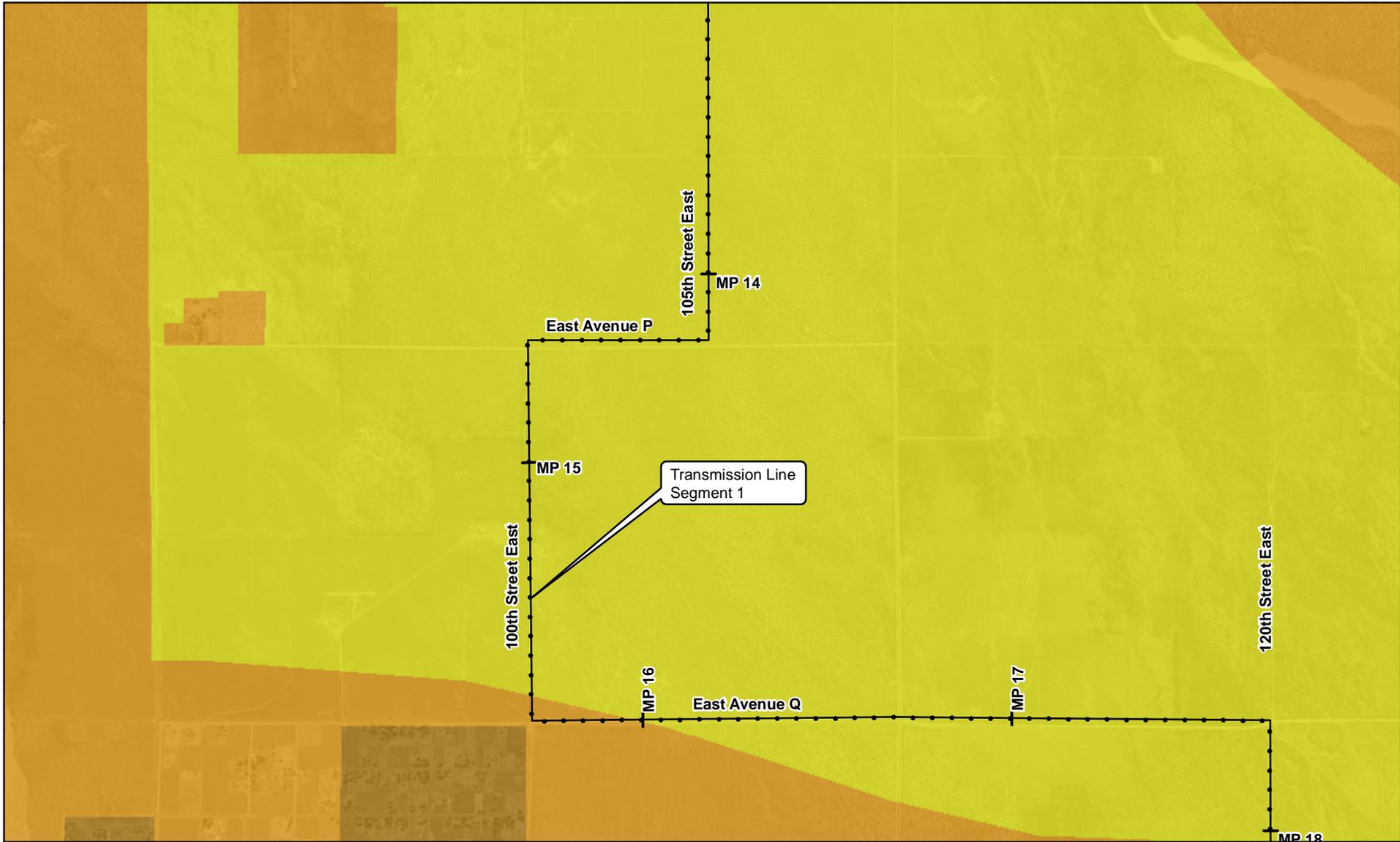
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
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and Linear Facilities

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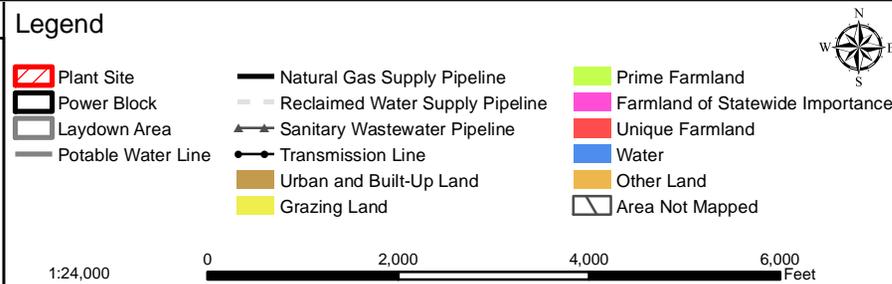
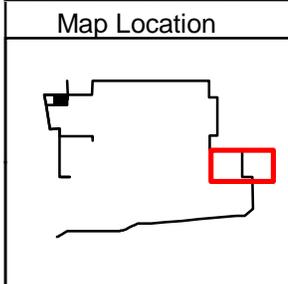
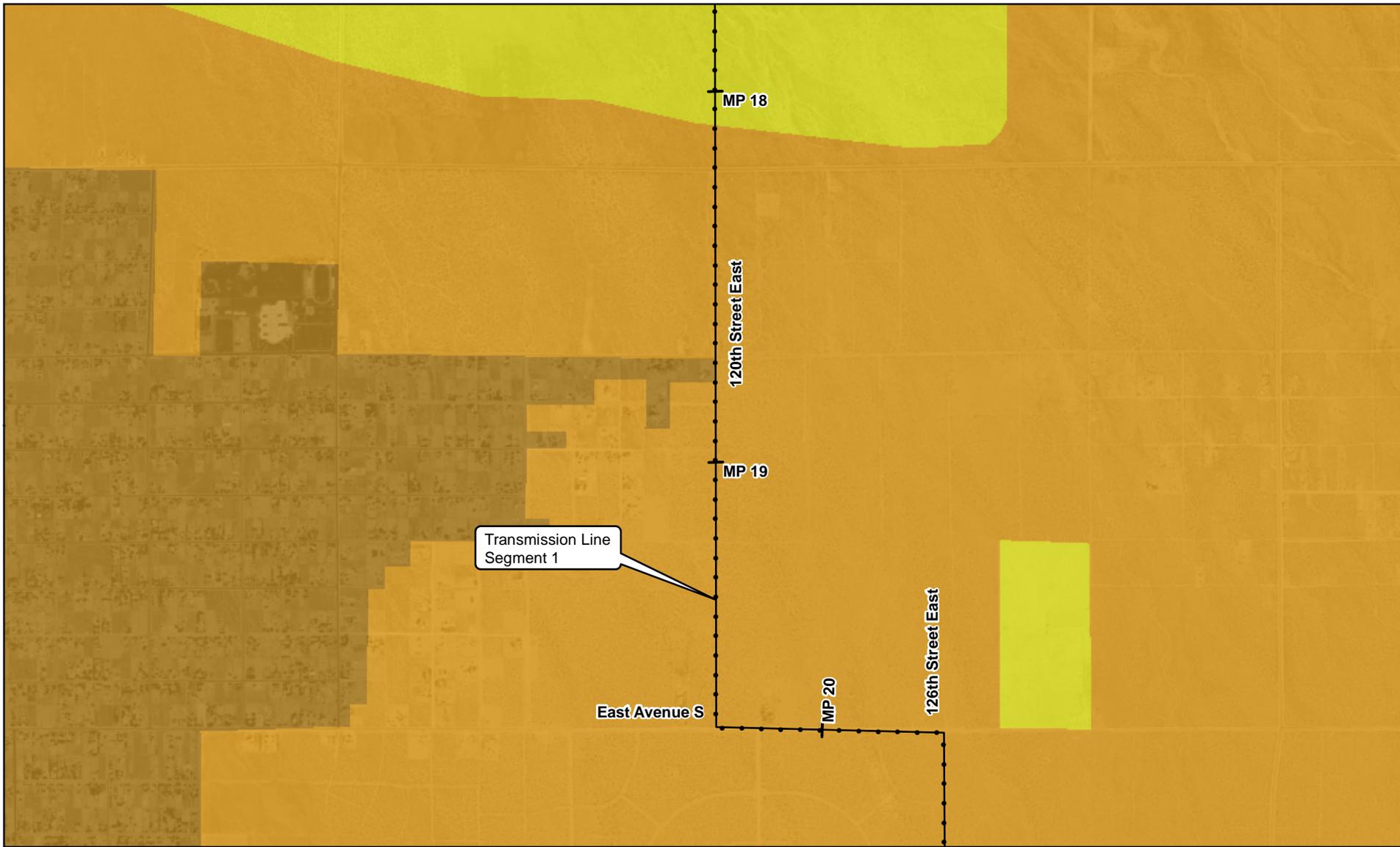
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in the Vicinity of the Project and Linear Facilities

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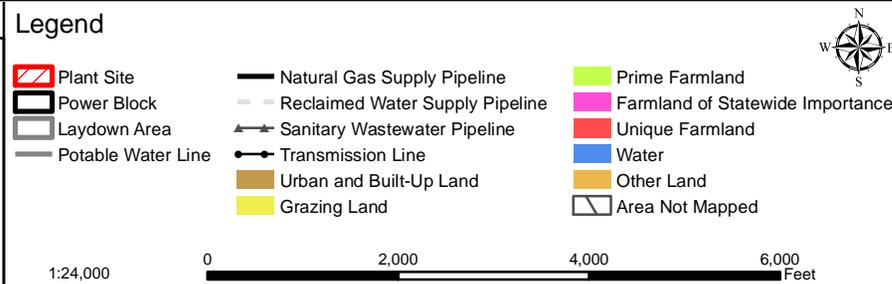
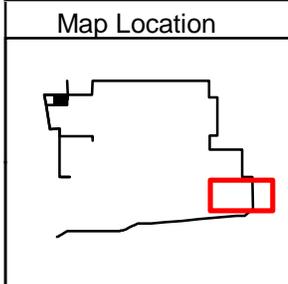
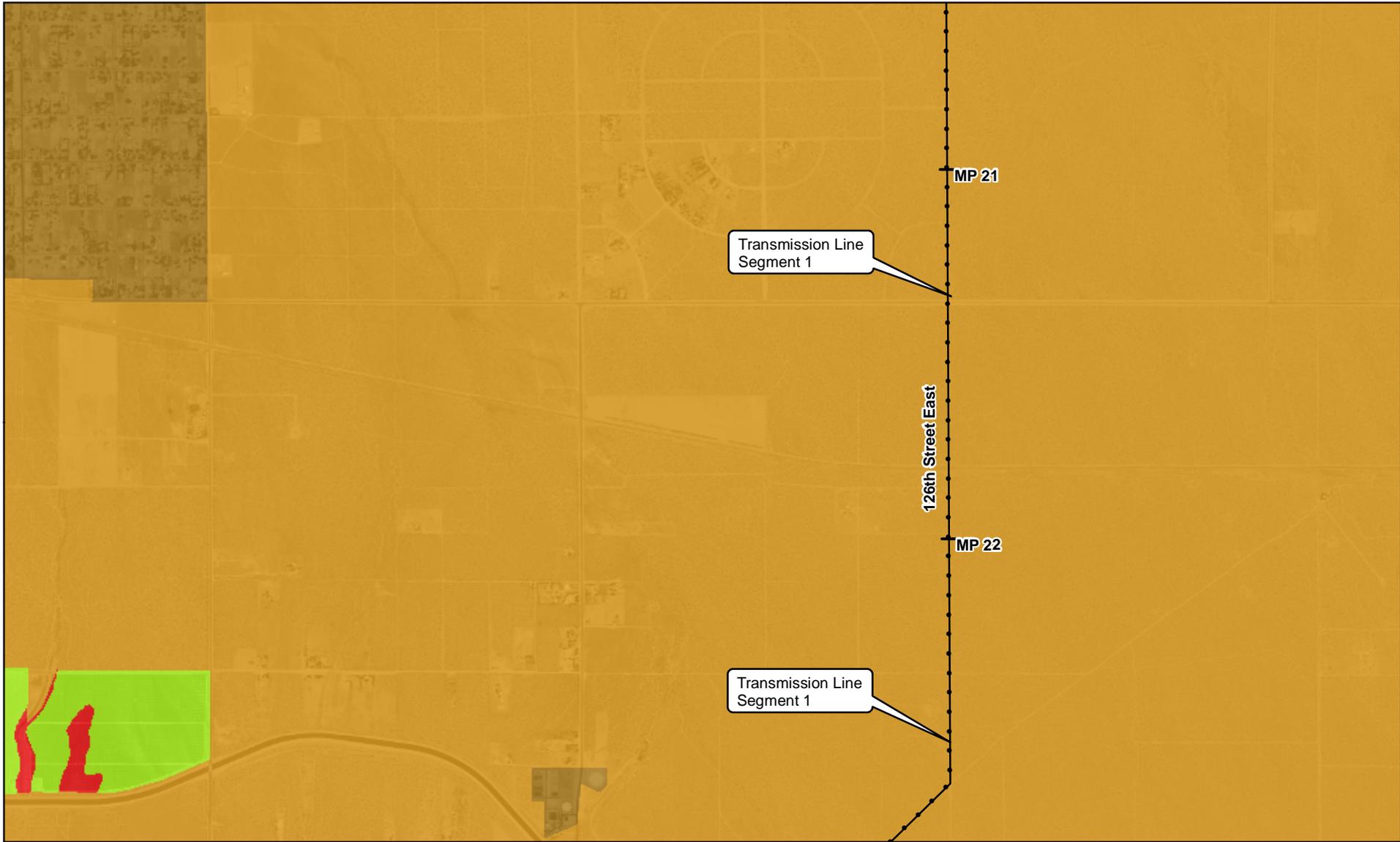
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
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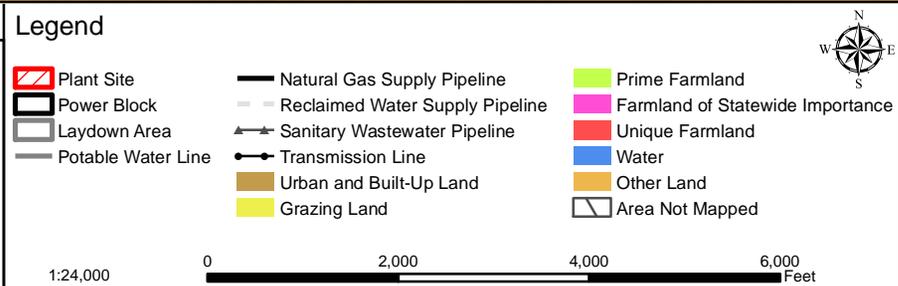
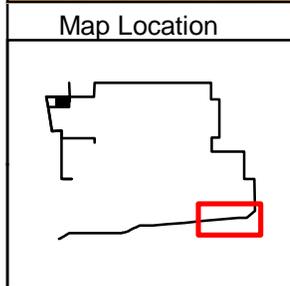
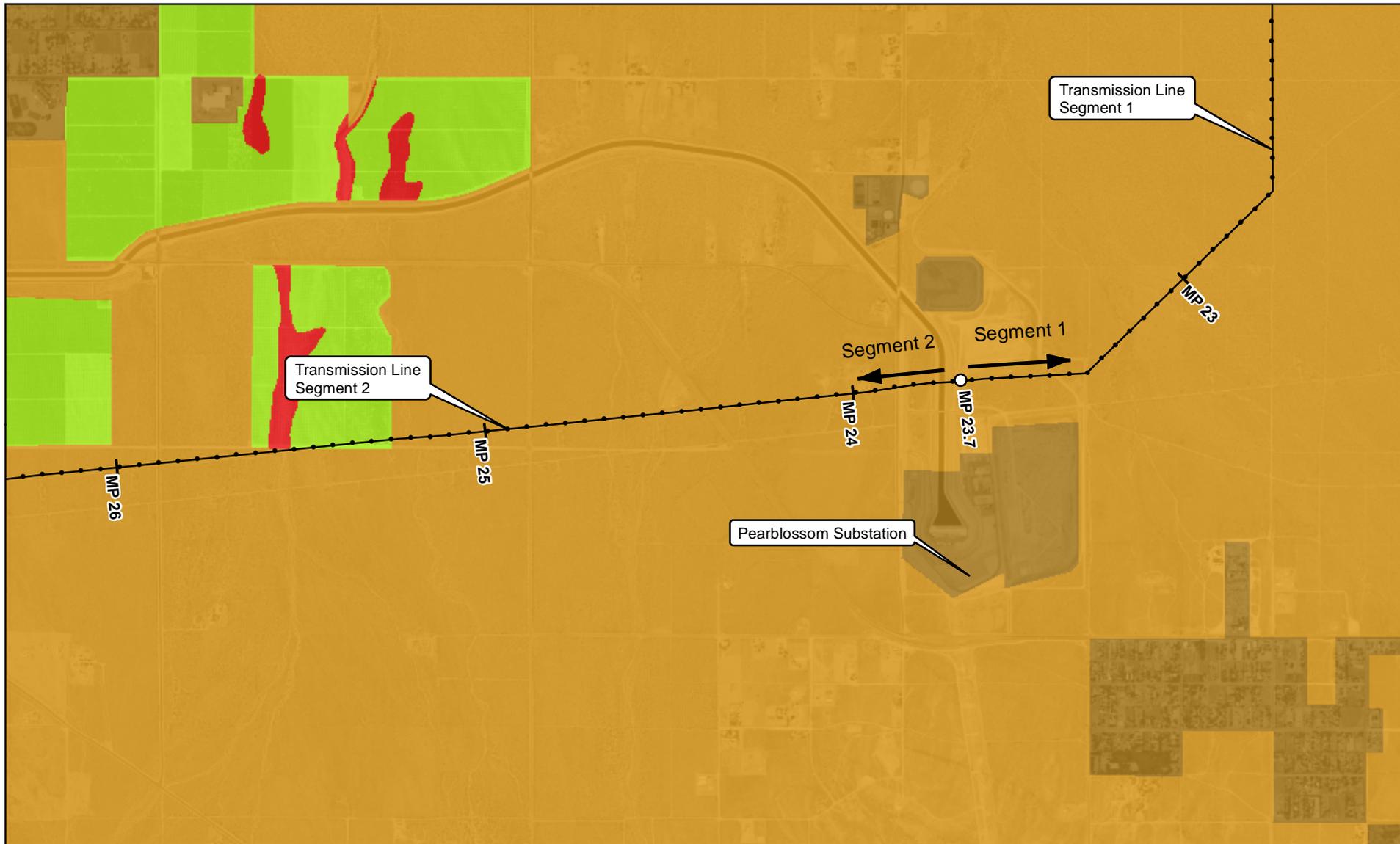
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
the Vicinity of the Project
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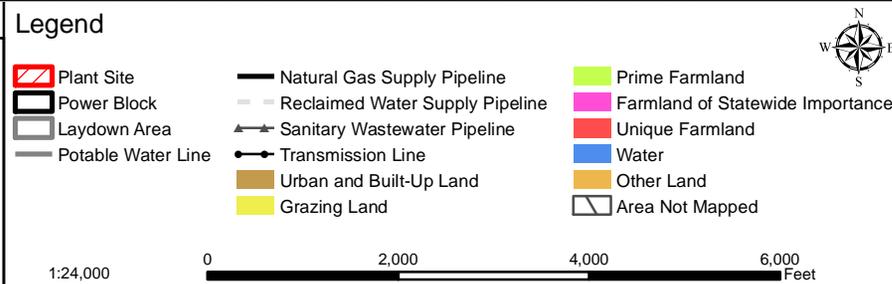
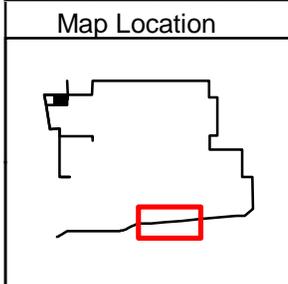
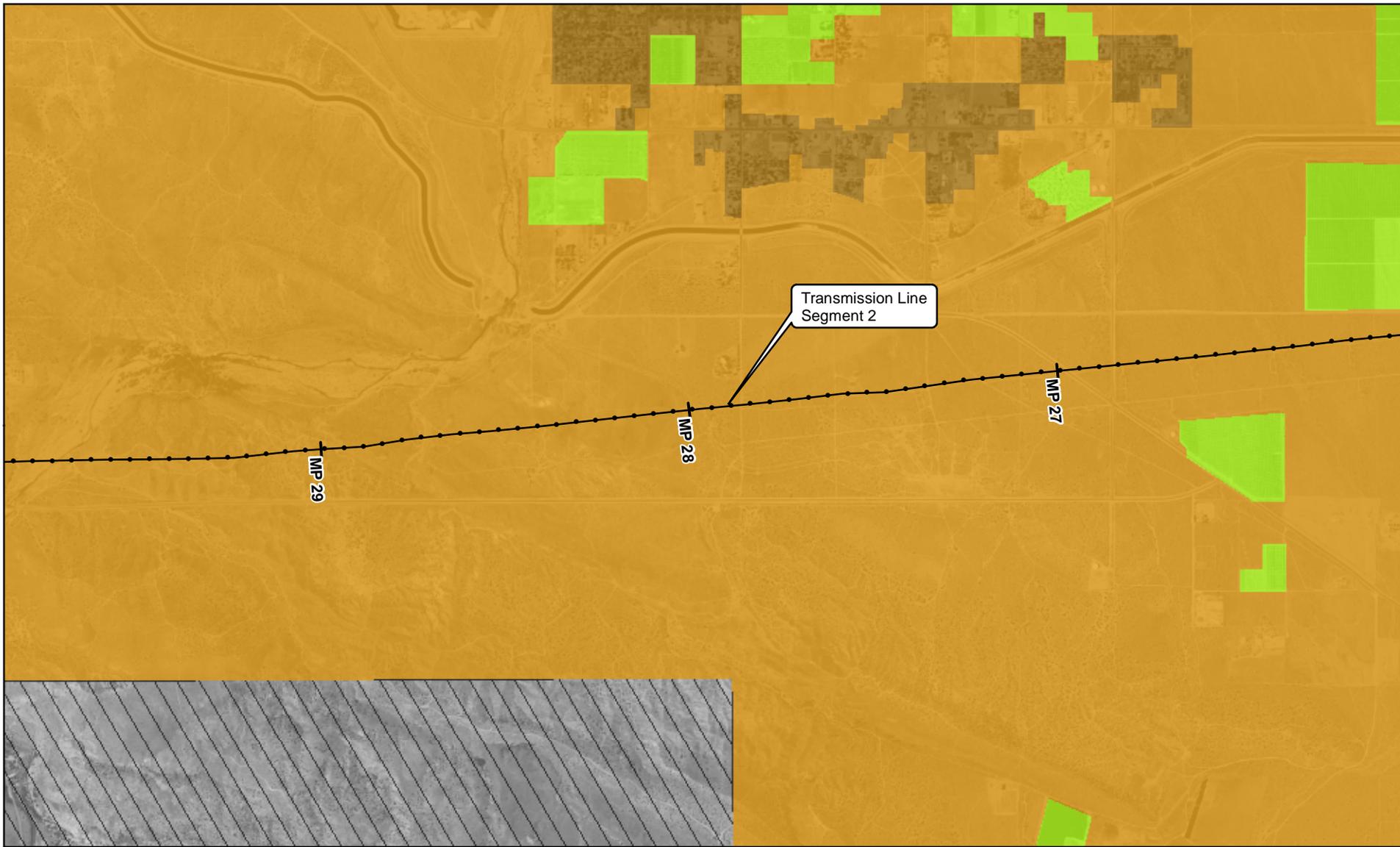
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Figure 5.7-5
Important Farmland in
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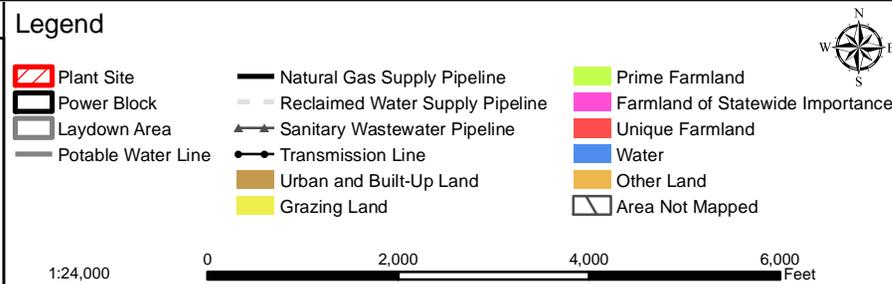
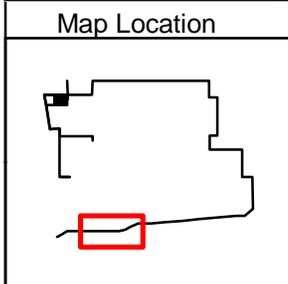
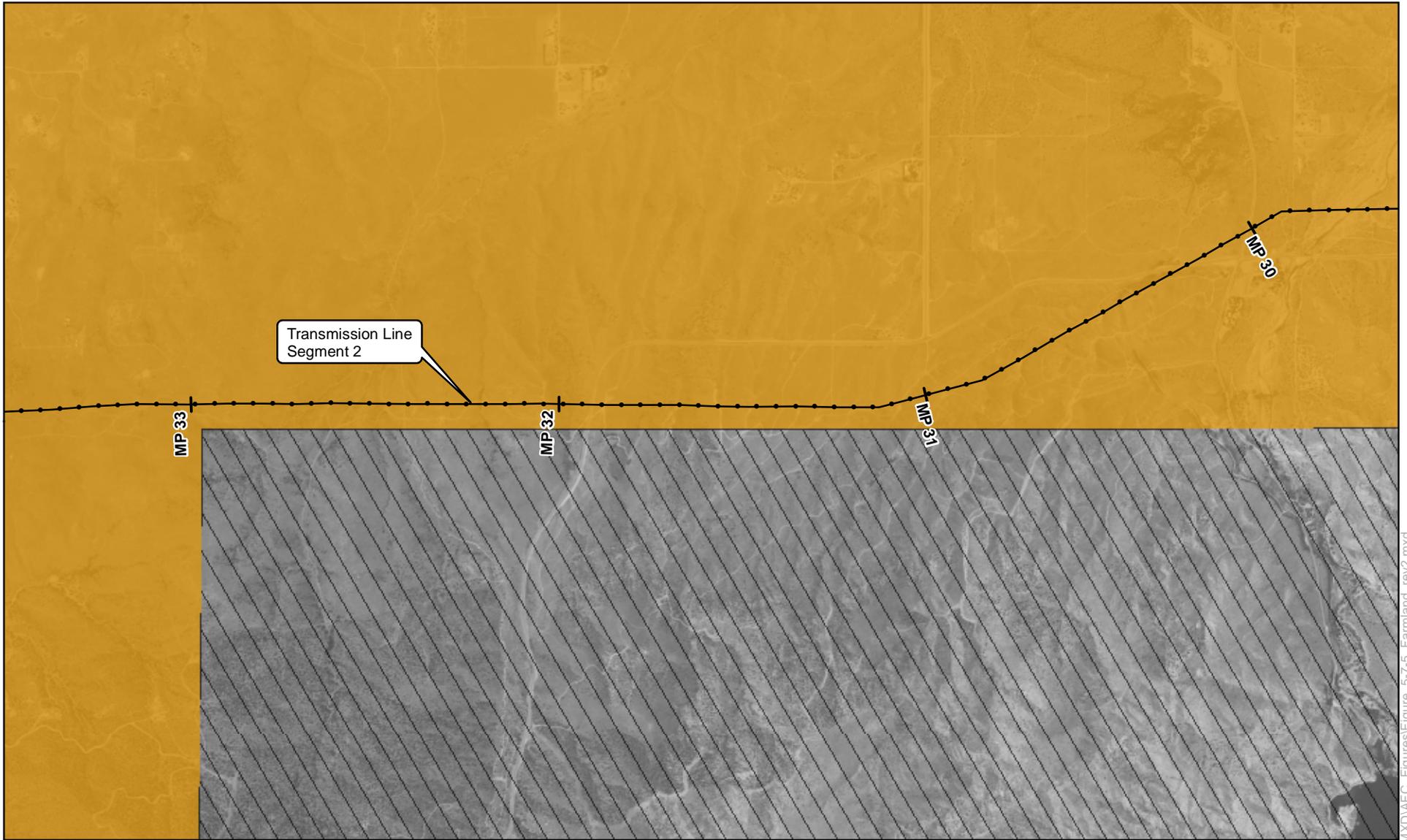
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
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Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
the Vicinity of the Project
and Linear Facilities

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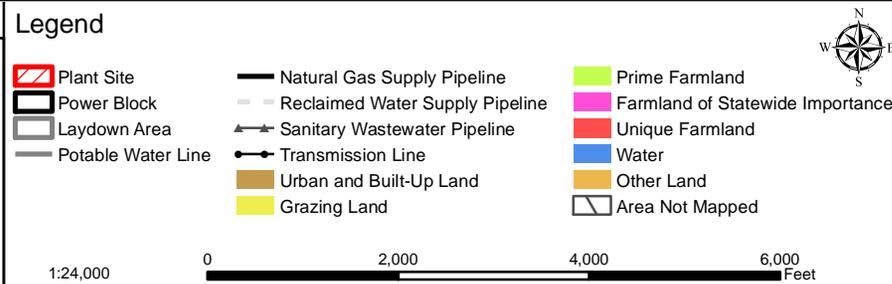
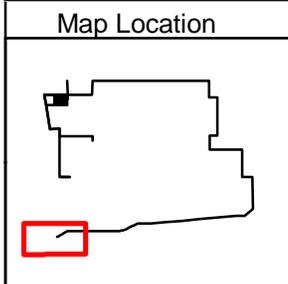
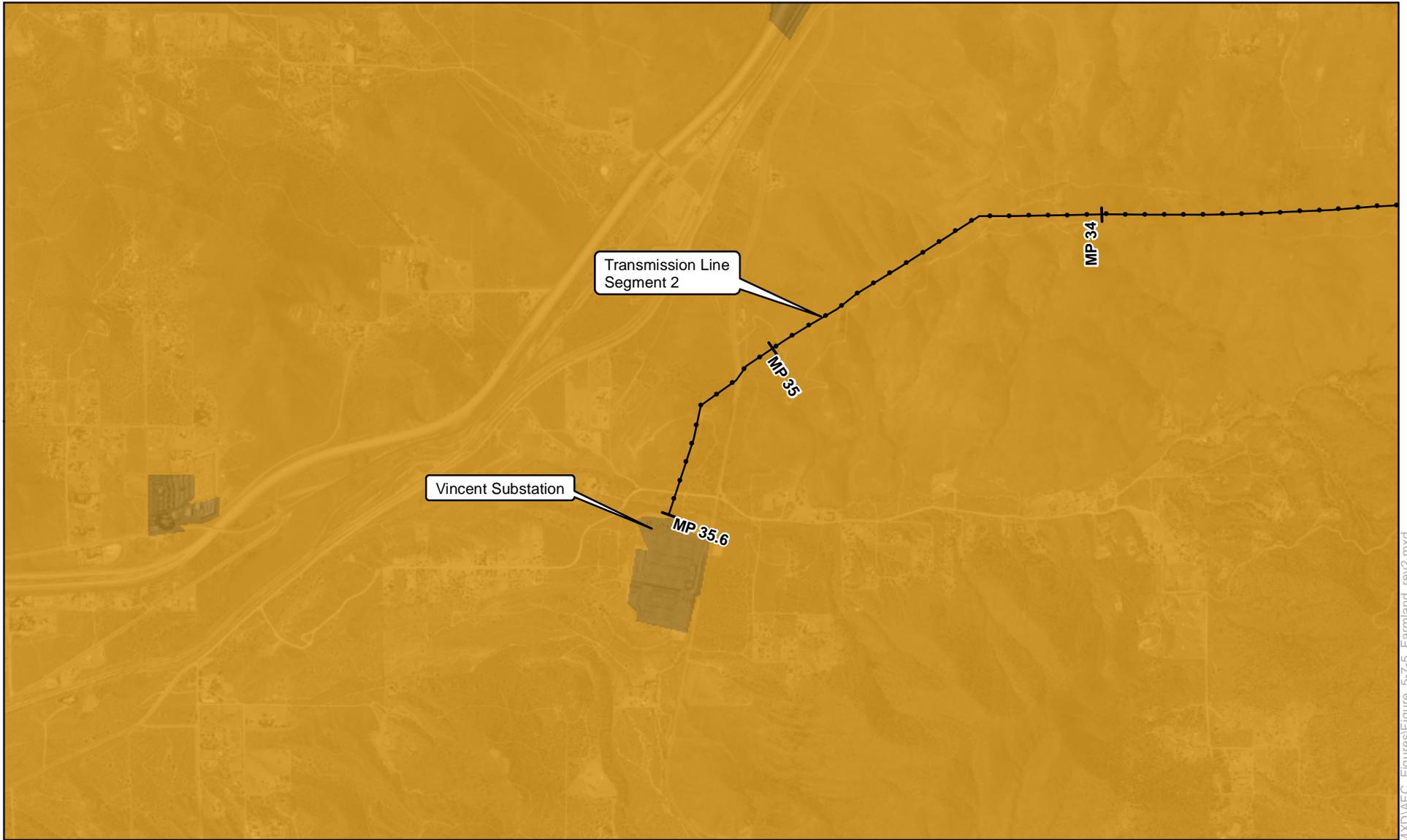
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a place to call home

Inland Energy, Inc.

ENSR | AECOM

Project: 10855-002
 Date: December 2008

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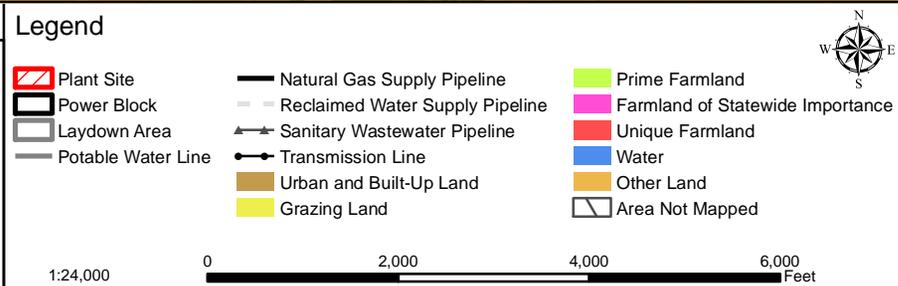
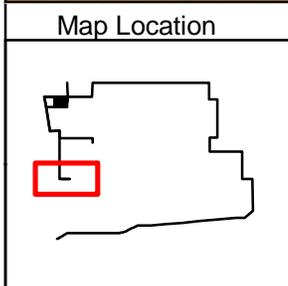
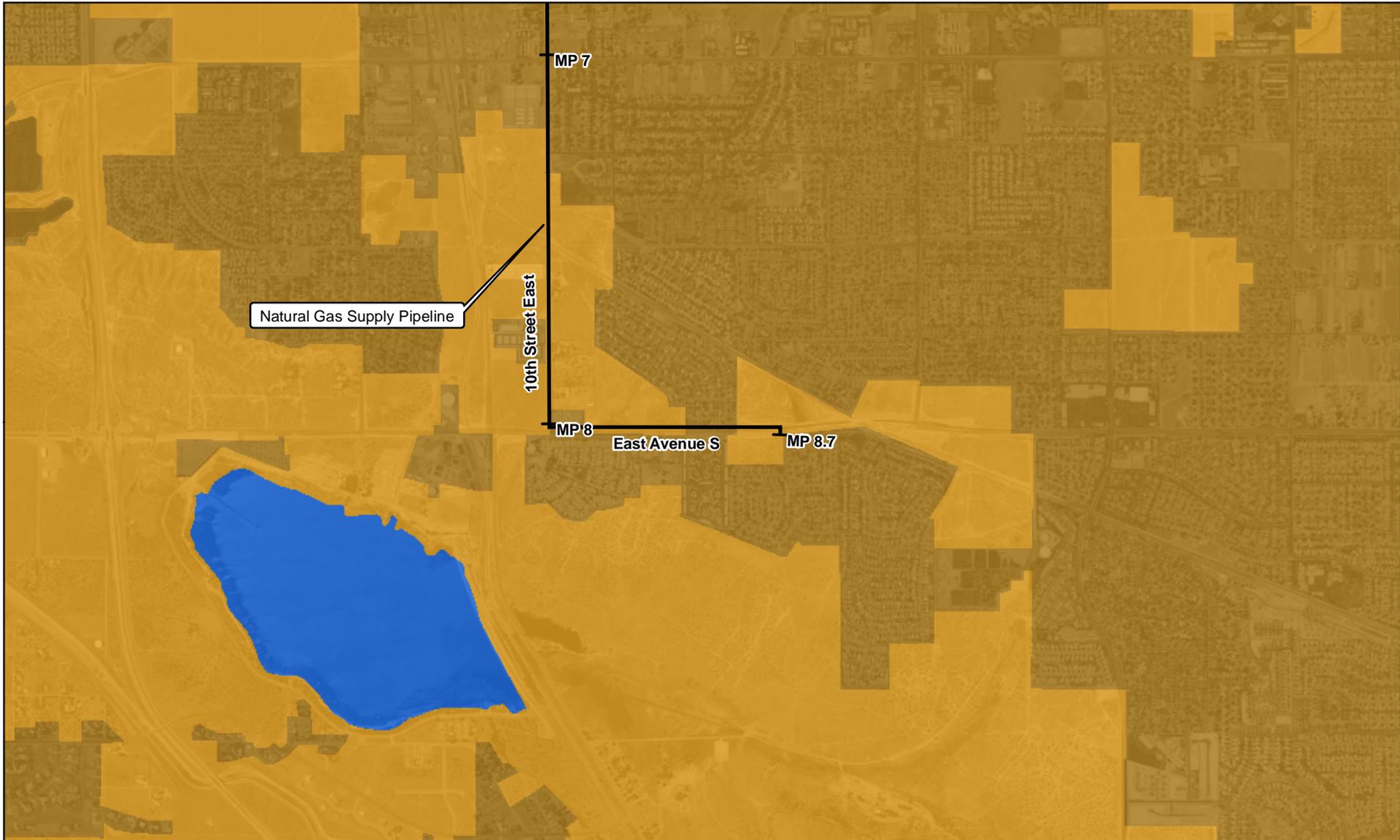
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
the Vicinity of the Project
and Linear Facilities

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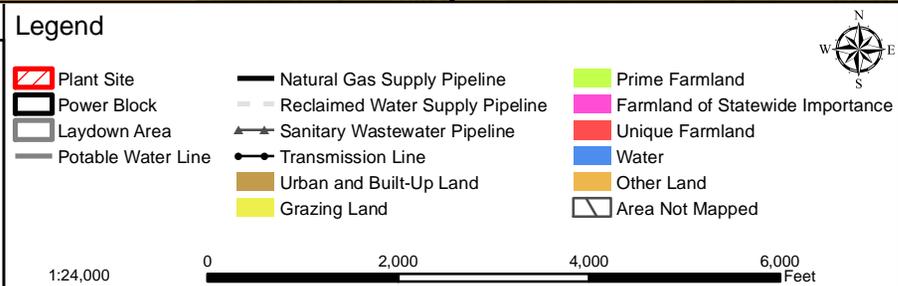
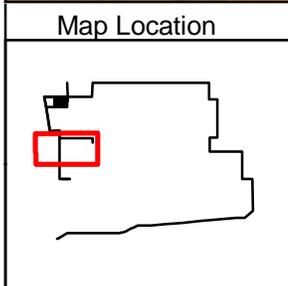
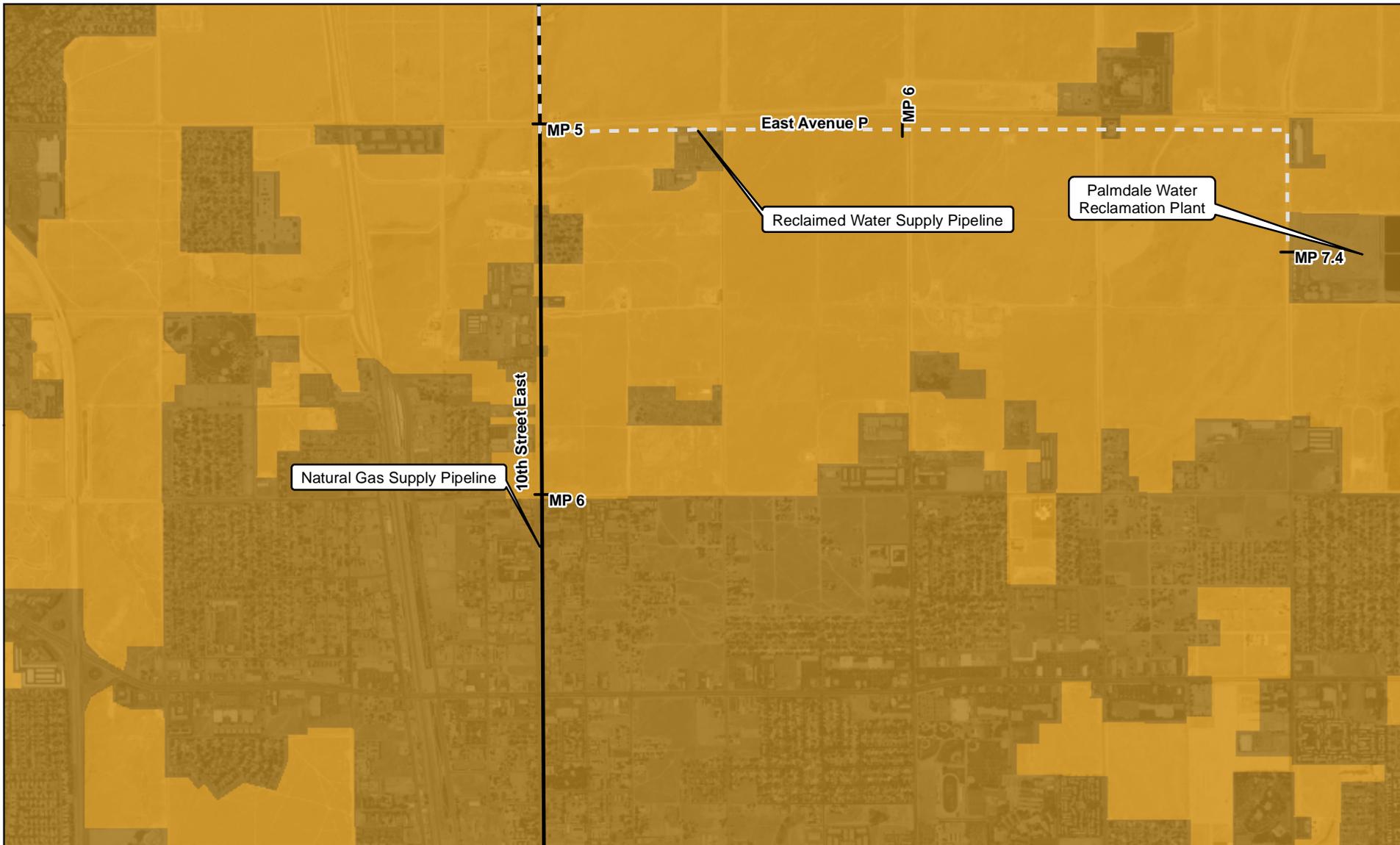
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
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 Date: December 2008

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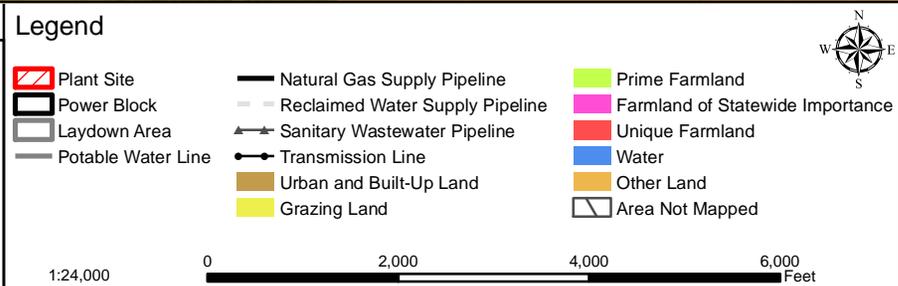
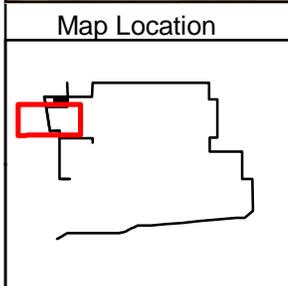
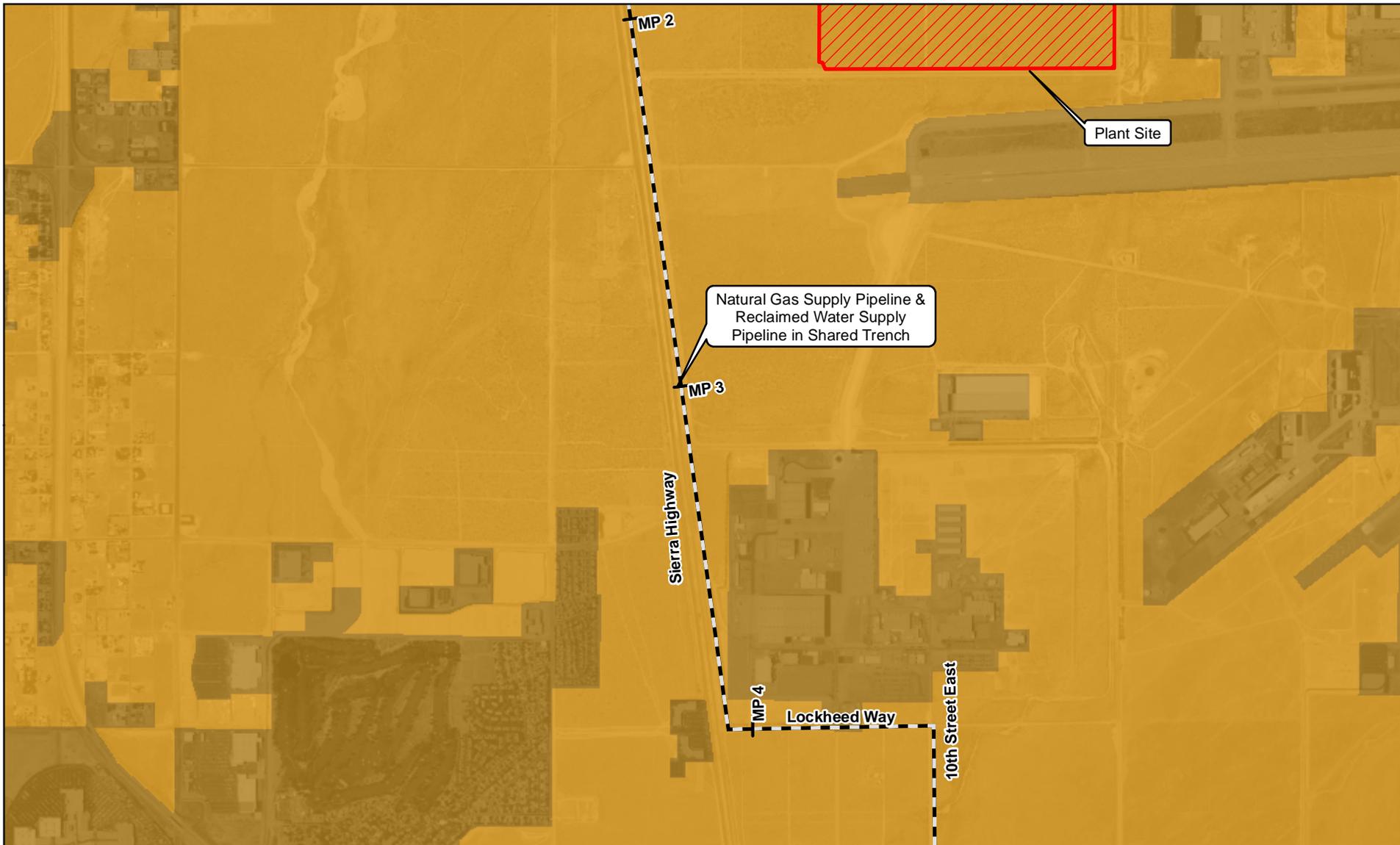
Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
the Vicinity of the Project
and Linear Facilities

Mapsheet 13 of 14

Project: 10855-002
 Date: December 2008

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Palmdale Hybrid Power Project

Figure 5.7-5
Important Farmland in
the Vicinity of the Project
and Linear Facilities

Mapsheet 14 of 14

Project: 10855-002
 Date: December 2008

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Attachment DR 36

Letter from the US Air Force Regarding PHPP



DEPARTMENT OF THE AIR FORCE
DETACHMENT 1, AERONAUTICAL SYSTEMS CENTER (AFMC)
PRODUCTION FLIGHT TEST INSTALLATION, AF PLANT 42
2503 EAST AVE P, PALMDALE CA 93550-2196

11 April 2006

MEMORANDUM FOR INLAND ENERGY INC.
ATTN: MR. BUCK JOHNS
3501 JAMBOREE ROAD
NEWPORT BEACH CA 92660

FROM: ASC DET 1/CC

SUBJECT: Relocation Site for Palmdale's Proposed Power Plant

REFERENCES: (a) ASC Det 1/CC Letter Dated 21 Mar 2006, Subject: Analysis of Potential Impacts on Plant 42 from Palmdale's Proposed Power Plant
(b) 27 March 2006 Meeting with City of Palmdale, Inland Energy, and ASC Det 1

1. Pursuant to reference (a) letter and our reference (b) meeting, please be advised that the same comments apply to your proposed re-location of the Palmdale Power Plant which is planned for the property North of the Lockheed Plant 10 Skunkworks, East of Sierra Highway, and West of Air Force Plant 42 Production Site 1. After our meeting, we synthesized your presentation material and requested inputs from all our affected airfield operations stakeholders regarding your new proposed site.

2. After a careful review and analysis of the inputs, we take no exception to the revised location and believe we can work with our constituents to mitigate any airfield operational impacts. It should be noted; however, the proposed location will still need to go through FAA review and coordination as part of your normal permitting process. We have already made contact with the FAA terminal instrument procedures professionals and have requested they evaluate the new proposed location and advise ASC Det 1 Airfield Management if any adjustments need to be made to civil and military flight operations.

3. We would also request your design focus on a north to south, versus east to west physical configuration for both the power plant and the venting stacks. In addition, you should also consider maximizing the distance of the venting stacks from Runway 25 and positioning them as close to the existing structures near Air Force Plant 42 Production Site 1 to minimize any impacts to our airfield operations.

4. If you have any questions, please contact my Chief Engineer, Mr. Rome Arengo, at (661) 272-6720.


RONALD A. ORTIZ, Lt Col, USAF
Commander

cc: Steve Williams (City of Palmdale)

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

Note on the Responses to Data Requests 50 to 53:

The PHPP will use recycled water from the Palmdale Water Reclamation Plant (PWRP) as the primary source of cooling and process water. An onsite, one million gallon capacity reclaimed water storage tank will provide a four-hour reserve capacity to supply process and cooling water needs in the event of a short-term disruption of the raw water supply. In addition to the reserve volume of water provided by the onsite tank storage, the Project will have a back-up water source in the event of a more extended outage in the City of Palmdale's reclaimed water supply system. This backup supply will be reclaimed water supplied by the City of Lancaster via the planned regional reclaimed water backbone system. The regional reclaimed water backbone system will link the PWRP with the Lancaster Water Reclamation Plant (LWRP) and is expected to be completed in 2013. Since both the Palmdale and Lancaster plants will be producing reclaimed water, reclaimed water produced by the LWRP will be able to supply the Project in the event of an extended outage of the PWRP. Because of these primary and backup reclaimed water sources, the Applicant has provided recycled water data for each of the water reclamation plants (both PWRP and LWRP) in the answers to Questions 50 through 53, below.

Data Request 50:

Please provide the monthly and yearly total recycled water volume produced by the PWRP for the last 10 years (1998 to 2008).

Response:

Because of the large volume of data, the monthly total recycled water data for both the LWRP and PWRP are provided in Attachment DR-50 at the end of this section. Included in the data for each facility are the monthly total and maximum plant influent plant flows (in million gallons per day [mgd]) as well as the mean, maximum, and minimum annual influent values (in mgd) for each year between 1997 and 2007 (please note that data for 2008 will not be available until March of 2009). For the convenience of the reader, the table below provides a summary of the annual average daily flows (in mgd) and total annual recycled water volume (in acre-feet per year [AFY]) for each of the two facilities.

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| Recycled Water Volume at PWRP and LWRP | | | | |
|--|------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|
| | Palmdale Water Reclamation Plant | | Lancaster Water Reclamation Plant | |
| Year | Annual Average Daily Flow (mgd) | Total Annual Recycled Volume (AFY) | Annual Average Daily Flow (mgd) | Total Annual Recycled Volume (AFY) |
| 1997 | 8.26 | 9,251 | 10.1 | 11,312 |
| 1998 | 8.32 | 9,318 | 11.3 | 12,656 |
| 1999 | 8.57 | 9,598 | 11.8 | 13,216 |
| 2000 | 9.06 | 10,147 | 12.3 | 13,778 |
| 2001 | 9.17 | 10,270 | 12.4 | 13,888 |
| 2002 | 8.90 | 9,968 | 12.8 | 14,336 |
| 2003 | 9.20 | 10,304 | 13.2 | 14,784 |
| 2004 | 9.40 | 10,528 | 13.3 | 14,896 |
| 2005 | 9.70 | 10,864 | 13.6 | 15,232 |
| 2006 | 9.86 | 11,432 | 14.9 | 16,688 |
| 2007 | 9.70 | 10,864 | 15.2 | 17,024 |

Data Request 51:

Please provide the projected total volume of recycled water that would be produced by the PWRP during the first 10 years of the proposed power plant's operation, and provide a copy of the source of that information.

Response:

Startup of the PHPP is anticipated in the summer of 2012. Using recycled water produced by the PWRP is considered to be the preferred source for cooling water, with the LWRP used as an emergency backup water source. The annual average and maximum recycled water use are

PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

estimated to be 3,091 AFY and 4,121 AFY respectively, but would vary depending on the time of year and plant operation (see response to Data Request 54 for details). In addition to agricultural and municipal reuse, a major user of this tertiary treated water will be the PHPP.

The projected total volume of recycled water that would be produced by the PWRP during the first 10 years of PHPP operation is contained in the PWRP 2025 Facilities Plan and EIR, Chapter 5, Figure 5-7, entitled "Projected Wastewater Flow for the District No. 20 Planning Area," a copy of Figure 5-7 is included at the end of this section. This EIR may be directly accessed at the URL:
http://www.lacsd.org/info/publications_n_reports/wastewater_reports/palmdale2025/default.asp.

As Figure 5-7 indicates, PWRP upgrades will create increased capacity at the PWRP starting in 2005. Thus, the PWRP is projected to produce approximately 12.5 mgd of full tertiary treated water by 2009, 14 mgd by 2011, and 15 mgd by the summer of 2013. This volume is projected to increase at an average rate 0.62 mgd per year so that by the year 2123 the volume of recycled water produced by the PWRP is projected to be at 21.2 mgd.

The projected total volume of recycled water that would be produced by the LWRP during the first 10 years of PHPP operation is contained in the LWRP 2020 Facilities Plan and EIR, Chapter 5, Figure 5-3, entitled "District 14 Planning Area Projected Wastewater Flow," a copy of Figure 5-3 is included at the end of this section. This EIR may be directly accessed at the URL:
http://www.lacsd.org/info/publications_n_reports/wastewater_reports/lancasterfacilities/default.asp.

As Figure 5-3 indicates, the LWRP is projected to produce approximately 21 mgd of full tertiary treated water in the summer of 2013. This volume is projected to increase at an average rate 0.82 mgd per year so that by the year 2023 the volume of recycled water produced by the LWRP is projected to be at 29.2 mgd.

Data Request 52:

Please identify whether there are current or future customers that can or will request delivery of recycled water from the PWRP, and identify the volume of water that will or would be required by those customers.

Response:

There are three longstanding contracts for recycled water from the LWRP, which together total 3.2 mgd (~3,590 AFY) of flow currently provided to Piute Ponds, Apollo Park, and the Impoundment Areas.

In addition, Los Angeles County Waterworks District 40 recently signed a new contract with both the LWRP and PWRP for approximately 12 mgd (~13,440 AFY) of recycled water flow. They are expected to begin taking recycled water in 2011. Also, the City of Lancaster recently signed a

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

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contract with both the LWRP and PWRP for approximately 0.85 mgd (~950 AFY) of recycled water flow. They are expected to begin taking recycled water in 2009. Both of these contracts were written on a combined basis for the two plants (thus contract flow rates cannot be provided on a per plant basis). Each contract has a 25-year term beginning in 2008.

Data Request 53:

Please discuss the reliability of the recycled water supply and whether there have been any interruptions in production or delivery of the recycled water supply during the past 10 years (1998 to 2008).

Response:

Recycled water is assumed to be 100 percent reliable since it is based on a consistent water supply and is not expected to change for average, single-dry, or multi-dry year water conditions. Usefulness of recycled water as a supply is limited more by recycled water infrastructure and demand for recycled water than reliability of such water as a supply.

According to the Los Angeles County Sanitation District (LACSD), during the past ten years, there have been no un-planned shutdowns of either the LWRP or the PWRP. In fact, there have never been any major plant upsets on record, and no major disruptions in production or delivery of recycled water during the operating history of each of these facilities. Both the PWRP and LWRP use large oxidation ponds for secondary treatment, which are very resistant to any kind of upset. While each of the plants have experienced minor "excursions," that is, short-term interruptions that last only a few hours and occur approximately once a month, these excursions are expected to occur much less frequently when both plants are upgraded to full tertiary treatment.

Note on the Responses to Data Requests 54 and 57:

An average water consumption rate of 3,150 AFY was used throughout the AFC. However, Table 4-1 of the AFC (Section 4.0 Alternatives) provided a water consumption rate of 5,250 AFY. The 5,250 AFY was a maximum instantaneous water consumption rate based on an early heat and water mass balance calculation and was determined based on load/temperature profiles and plant performance predictions at various environmental conditions.

Since submission of the AFC, the engineering team has revised the water balance calculations based on more specific information and has calculated that the maximum water usage for the plant at a 100 percent capacity factor (plant running full load 24/7/365) will be 4,121 AFY. See response to Data Request 57 for revision of Table 4-1 based on the 4,121 AFY maximum rate.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

Data Request 54:

Please clarify and explain what would be the proposed annual average and maximum recycled water use requirement for the project in acre-feet.

Response:

The annual average and maximum recycled water use are estimated to be 3,091 AFY and 4,121 AFY respectively. The actual numbers would depend on the exact operating patterns of the plant or the net capacity. For average annual consumption, a 75 percent capacity factor was used to simulate the current combined-cycle power plant operating profile in California. For maximum consumption, a 100 percent capacity factor was used assuming 24 hour, 7 days a week operation for an entire year.

Since the actual dispatch pattern of the power plant would not be known until starting operation, the actual water consumption may vary from the estimates above. As a reference, the following table is provided to show a series of annual water usage corresponding to the various capacity factors.

Estimated Recycled Water Use Rates at Various PHPP Capacity Factors (CF)

| CF | Recycled Water Use (AFY) |
|------|--------------------------------|
| 60% | 2,473 |
| 65% | 2,679 |
| 70% | 2,885 |
| 75% | 3,091 |
| 80% | 3,297 |
| 85% | 3,503 |
| 90% | 3,709 |
| 95% | 3,915 |
| 100% | 4,121 |

Data Request 55:

Please quantify the economic soundness and environmental desirability of using the lower aquifer, which is contaminated with arsenic.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

Response:

The question presumes arsenic is present in groundwater below the site at elevated concentrations that render it unsuitable for beneficial use, and that this water would be more suitable than tertiary-treated waste water for power plant cooling.

There are two aquifer units within the Antelope Valley Groundwater Basin, the shallow unit that is used for the majority of water resource needs and the deeper unit which contains water of lesser quality (DWR, 2004; Standish-Lee, 1999). In order to establish that the deeper groundwater is suitable for project water supply, significant exploration and costs would be required with no guarantee that water could be produced at volumes to meet project requirements, or that significant impacts could be caused by its withdrawal. By comparison, there is a much higher degree of certainty in using tertiary-treated waste water, in terms of its supply and quality over groundwater.

Exploration to assess groundwater supply would include well installation(s), sampling and pumping tests. Further, groundwater modeling would need to be performed in order to understand the extent of impacts on adjacent water supply wells and to determine the effect on the shallow aquifer unit from long-term pumping in the deeper unit. A recent ruling (Antelope Valley Press, 2008) indicates that the basin behaves as one hydraulically interconnected unit. Minimization of the impacts on the shallow aquifer unit would therefore appear to be very important since the groundwater resources are strained with the Antelope Valley Groundwater Basin. Using deeper groundwater has the potential to impact shallow groundwater supply and quality.

It should be noted that significant efforts have been taken by water supply agencies within the Antelope Valley Groundwater Basin to avoid arsenic contamination of the upper aquifer. The Los Angeles County Waterworks District No. 40 (District), part of the Los Angeles County Department of Public Works (LADPW), obtains its potable water supply from the Antelope Valley Groundwater Basin (LACDPW 2003). New more stringent arsenic limitations set by the EPA had the potential to result in District wells not meeting the drinking water standard for arsenic. The District's potential cost for building arsenic-removal facilities was determined to be nearly \$34 million. A U.S. Geological Survey (USGS, 2008) scientific investigation found that high-arsenic levels were concentrated in the deepest portions of the wells, 600 feet or more below the land surface. Using this finding, the District implemented a well modification pilot project where the deep portions of five wells were sealed off permanently, while preserving the ability to pump high-quality water.

In summary, arsenic-impacted groundwater was not considered for water supply because:

- The nature and extent of this resource is not understood and would require significant exploration and cost with no guarantee that it would meet water supply requirements;
- The use of deeper groundwater has the potential to impact shallow aquifer supply, which is already strained and is essential for the potable water supply; and
- The groundwater supply within the Antelope Valley Groundwater Basin is under adjudication providing complexity over water rights and future use.

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Response Date: January 12, 2009

In comparison to the uncertainties and excessive costs related to evaluation and use of the lower aquifer water, the use of reclaimed water by the power plant is considered by the City to provide economic stability to its water treatment plans (see response to Data Request 56).

References

Antelope Valley Press, 2008. Judge Rules that the Entire Antelope Valley Aquifer is Linked: Valley Press, November 11.

California Department of Water Resources, 2004. California's Groundwater Bulletin 118: Antelope Valley Groundwater Basin – South Lahontan Hydrologic Region, February.

County of Los Angeles, Department of Public Works, 2003. Los Angeles County Waterworks District No. 40, Antelope Valley Groundwater Contamination Study to Address Arsenic and Chromium Levels in District Production Wells, May 27.

Standish-Lee Consultants and Palmdale Water District, 1999. Palmdale Water District Groundwater Assessment and Protection Program, January.

United State Geological Survey, 2008. USGS Cooperative Water Program, Fact Sheet 2008-3043 May.

Data Request 56:

Please discuss the effect of the project's recycled water use on the local and regional water supply.

Response:

The following discussion describes how the PHPP's proposed recycled water use will have both direct and indirect positive effects on the local and regional water supply.

Unlike many other users of reclaimed water, a power plant is a consistent year-round, paying customer of reclaimed water. As such, a combined-cycle power plant customer can consistently take reclaimed water during all weather conditions. Furthermore, this type of customer can provide economic stability that makes the upgrades to tertiary treatment more financially viable.

Directly, the PHPP assists in meeting the Antelope Valley Integrated Regional Water Management Plan's (AVIRWMP) goals of maximizing the beneficial uses of recycled water and meeting planning targets for using 33 percent recycled water by 2015, 66 percent by 2025, and 100 percent by 2035. In addition, the exclusive use of recycled water by the PHPP means more groundwater remains available for drinking water and other potable water uses throughout the Antelope Valley.

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Technical Area: Soil and Water Resources

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Indirectly, the PHPP positively impacts the regional water supply in the following ways:

- The PHPP is a major catalyst for building a significant portion of the Antelope Valley's recycled water backbone piping system, which will deliver recycled water to a variety of users. The AVIRWMP team publicly stated that most reclaimed water backbone systems fail because they do not have a reliable, year-round, consumptive user. The PHPP provides a stable, long-term, use for the Antelope Valley's recycled water backbone system, as well as an important economic justification for implementing the system.
- The PHPP by providing an economic incentive for implementing the reclaimed water backbone system will allow expansion of the use of recycled water for both urban and agricultural uses.
- The PHPP's exclusive reliance on recycled water helps to improve regional surface water quality by reducing the direct discharge of wastewater with high levels of nutrients and other constituents of concern.
- The PHPP's use of recycled water will provide water supply reliability and operational flexibility and allow the use of a wet cooling process without impacting potable water supplies. The power generated by using wet cooling instead of dry cooling will be more efficient and cost-effective for consumers.
- The alternative to using recycled water for power plant cooling is to re-inject and/or percolate more of the reclaimed water back into the aquifer with subsequent impacts to groundwater quality. This reclaimed water contains high concentrations of total dissolved solids (TDS), which would have a tendency, over time, to add to the salt concentration of the aquifer. By removing some of the reclaimed water from the reinjection cycle, treating it to remove solids, disposing of those solids in a landfill, and reutilizing the treated water in a closed-loop heat rejection system, the PHPP indirectly helps to reduce the overall salt loading of the aquifer.

In addition, there are other general benefits of improving the economic viability of the WRPs in order to increase the availability of recycled water for other uses. They include:

- The reduction in direct discharges from wastewater treatment plants to impaired receiving waters would facilitate achievement of Total Maximum Daily Loads (TMDLs) established for various chemical constituents of concern including TDS and nutrients.
- The provision of recycled water meeting Title 22 requirements for irrigation to both urban and agricultural users would reduce the demand on potable water supplies. Reduction of the use of potable water for irrigation would increase the long-term reliability of potable water supplies.
- The reliance on potable water sources for fire suppression would be reduced with the addition of a non-potable supply treated to meet the requirements of Title 22.
- Recycled water expansion projects could be used for creating accompanying habitat benefits through the use of recycled water to create riparian and wetland habitat in the local area.
- In times of drought when restrictions are placed on the use of potable water for non-essential uses like landscape irrigation, recycled water meeting the requirements of Title 22 would be

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readily available. During periods of mandatory water rationing, recycled water could save significant investments in landscaping.

In addition, the use of recycled water for the PHPP complies with current policies and statutes established by the State of California. The State of California has proposed a recycled water policy (Draft Resolution 31808) to encourage the use of recycled water for non-potable uses including industrial water supply. In addition to the above stated benefits, the draft recycled water policy states the following:

“The use of recycled water establishes a local source of water supply that is not as vulnerable to some of the risks associated with imported water supplies such as droughts, delivery system failures by earthquakes or levee breaks, pumping restrictions to protect endangered species, and uncertain precipitation changes caused by global climate change.”

References:

Antelope Valley Integrated Regional Water Management Plan (AVIRWMP), prepared by Regional Water Management Group of the AVIRWMP with Kennedy Jenks Engineers, 2007.

Draft State Water Resources Control Board Recycled Water Policy (Draft Resolution 31808), 2008.

Data Request 57:

Please add the wet-dry hybrid cooling option to AFC Table 4-1 and include the initial capital costs and the estimated annual water use for process needs including cooling.

Response:

Revised Table 4-1R which includes the hybrid option and the additional information requested are provided below the table. The revised table also incorporates the revised maximum water use as described in the note to Data Request response 54 above.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

**Table 4-1R. Net Power Effects and Annual Operating Cost Comparison of Wet, Dry and Hybrid Cooling at the Palmdale Hybrid Power Project
(Average Design Case: 2 CTGs at 100%, Solar with Partial firing, 77°F, 13.23 psia, 40% RH)**

| Item | Wet-Dry Hybrid | Wet Cooling Tower | ACC |
|--|----------------|-------------------|---------------------|
| Fan Power | 3,000 kW | 1,700 kW | 6,350 kW |
| Circulating pump power | 1,200 kW | 2,400 kW | 0 kW |
| Power loss due to high STG backpressure | 0 kW | 0 kW | 536 kW |
| Reclaim water supply and ZLD water treatment power consumption | 525 kW | 850 kW | <200 kW |
| Total net power loss effects ¹ | 13,100 kW | 12,798 kW | 14,042 kW |
| Equivalent electrical power cost ² | \$17,213,400 | \$16,816,572 | \$18,451,188 |
| Treatment Chemical Addition ³ | \$125,000 | \$250,000 | \$0 |
| Make-up cooling water | \$412,100 | \$824,200* | Less than \$100,000 |
| Total \$/year | \$17,750,500 | \$17,890,772 | \$18,551,188 |

Source: KPE, 2008

¹ Operating costs based on the conditions provided above and full time operation, with annualized costs (\$/year) based on a value of \$0.15/kW-hr.

² Water treatment chemicals are assumed to be needed in a wet and wet-dry hybrid tower to prevent corrosion, bio fouling, etc., but would not be needed in an ACC.

³ Calculated using 4,121 AFY of water usage and \$200 per acre-ft

Capital Costs:

Total, all-inclusive capital cost for water supply and cooling components, including engineering, construction, materials, and equipment, is estimated to be:

Hybrid: \$67,000,000; including circulating water and condensate pumps

Wet : \$26,000,000; including condenser, circulating pumps and condensate pumps

Dry (ACC): \$59,000,000; including condensate pumps

Estimated Annual Water Use -

Hybrid: 2,061 AFY

Wet: 4,121 AFY

Dry: Less than 500 AFY

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Although a dry cooled plant would use less water, construction of a water supply pipeline would still be needed in order to supply process water, mirror washing, and other needs. The cost of constructing the relatively short segment of the water supply pipeline that connects the PHPP to the regional backbone would not be significantly different for the three alternatives.

Data Request 58:

Please clarify if the proposed project site is within the service boundaries of the District identified in the application.

Response:

Figure DR-58 presenting the service boundaries of the Los Angeles County Waterworks Districts 40, Regions 04 and 34 is provided at the end of this section. This map is based on a figure provided at: http://dpw.lacounty.gov/wwd/web/docs/wwd_maps/LACo_wwd_40_04_34index.pdf. The location of the PHPP plant site is within District 40, Region 04, and is shown as a red box. The locations of the sanitary wastewater, reclaimed water, and natural gas pipeline routes, and the transmission line route is also shown on the figure. The cooperative agreement between the Applicant and the Waterworks District does not distinguish between the two Regions (04 and 34) within District 40.

Data Request 59:

Please provide information on all the other projects undergoing review within the City of Lancaster or provide the rationale for why these projects were not included in the cumulative impacts analysis.

Response:

As suggested by the City of Lancaster, the Applicant's consultant conducted a review of the Lancaster's online Development Summary Report and Tract Status Map in order to identify projects for inclusion in the cumulative impacts analysis. The Development Summary Report and Tract Status Map provide information on development projects under review or recently approved by the City of Lancaster. Projects within 3 miles of the PHPP plant site were considered in the cumulative impacts analysis. Relatively small projects (residential projects of less than 100 lots/units and commercial and industrial developments of less than 10 acres) were excluded from the analysis because they would be unlikely to significantly contribute to cumulative impacts when considered together with the PHPP. Other projects were excluded as being only speculative at this time and unlikely to occur given current economic conditions. Two projects in Lancaster were already addressed in the Project AFC. Projects not addressed previously and not excluded by the above criteria are listed in Table DR-59:

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CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

Table DR-59. Lancaster Projects Considered for Cumulative Analysis

| <u>City of Lancaster Project Number¹</u> | <u>Size (Acres)</u> | <u>Type</u> | <u>Description</u> | <u>Status</u> |
|--|-------------------------|-------------|--|---|
| CUP 07-15/ TPM 69768 | 13.3 | Commercial | 109,739 sq. ft. commercial center | Expires 12/17/09 |
| SPR 06-24/ SPR 06-28/ TPM 67027 | 11.4 | Commercial | Subdivide 2 commercial lots; Construct a 77,537 sq. ft. self- storage facility & 8 office buildings totaling 73,668 sq. ft. | Expires 02/15/10; Grading permit approved but not yet issued |
| TPM 64637 | 19.6 | Commercial | 4 commercial lots | Expires 03/17/11 |
| TPM 68266 | 123.2 | Commercial | Subdivide into 2 commercial parcels | Recorded 10/23/07 |
| TTM 46790 | 25.8 | Residential | 127 single family lots | 0% complete as of 09/30/08 |
| TTM 49864-06 | 390 | Residential | 292 single family lots | 6% complete as of 09/30/08 |
| TTM 60614 | 79 | Residential | 126 single family lots | 20% complete as of 09/30/08 |
| TTM 64333/ SPR 05-25 | 10 | Residential | 127 residential airspace condos w/ recreational facilities | Expires 10/16/09 |
| ¹ CUP - Conditional Use Permit; SPR - Site Plan Review; TPM - Tentative Parcel Map; TTM - Tentative Tract Map | | | | |

The above projects are similar in nature and size to those already analyzed in the cumulative impacts analysis included in the AFC and do not substantially alter the conclusions of that analysis. No significant impacts would be expected from cumulative effects of the PHPP considered together with the projects listed above.

In addition, as discussed in the AFC, the PHPP is consistent with the City of Lancaster's General Plan. The City of Lancaster General Plan 2020 is currently in the process of being updated as the City of Lancaster General Plan 2030, and a public review draft of the Environmental Impact Report (EIR) for the General Plan 2030 was released in December 2008. The draft EIR uses projections from the Southern California Association of Governments' Regional Plan and Guide as the basis for cumulative impacts. The Regional Plan incorporates planned development reflective of local land use and zoning but does not include projections for power plant development in Northern Los Angeles County.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

Based on the data provided in the draft General Plan EIR, there will be significant cumulative impacts in the City of Lancaster from planned commercial/residential development on Traffic, Air Quality, Noise, Hydrology, Public Services, and Utilities. However, the type of impacts and the significance are specific to residential and commercial development (i.e., more street traffic, more cars, greater use of public services, water and utilities). As established in the discussion of cumulative impacts in the AFC, the PHPP will contribute less than significant impacts to Traffic, Air Quality, Noise and Public Services in comparison to the cumulative impacts of the commercial/residential development projects listed above. In comparison to the cumulative impacts of these projects, construction of the PHPP will have no cumulative impact in terms of hydrology due to implementation of BMPs for onsite stormwater and drainage and the establishment of the PHPP as a consistent user of recycled water. As only a small portion of the PHPP infrastructure is located within the City of Lancaster, the Project will not create significant demands on the City's Public Services and Utilities. In addition, construction of the PHPP will have a net positive cumulative impact on Utilities as, in addition to providing power to the listed projects, the PHPP will provide the incentive for expansion of currently existing recycled water infrastructure.

References

City of Lancaster, 2008. Development Summary Report, January 1, 2008-September 30, 2008. Accessed online at www.cityoflancaSterca.org/Modules/ShowDocument.aspx?documentid=1251 on December 28.

City of Lancaster, 2008. General Plan 2030 Program Environmental Impact Report, Public Review Draft. December. Accessed online at <http://www.lancaster2030.info/documents/PDF%20Format%20Public%20Review%20EIR/Sec00.TableafContents.pdf> on December 28.

City of Lancaster, 2008. Tract Status Map. Accessed online at www.cityoflancaSterca.org/Modules/ShowDocument.aspx?documentid=5604 on December 28.

Southern California Association of Governments, 2002. Regional Plan and Guide, Energy Chapter Update. Accessed online at www.scag.ca.gov/rcp/energy.htm on December 28, 2008.

Data Request 60:

Please provide the proposed mirror washing schedule, including frequency, duration, and quantity of water that would be used.

Response:

Solar field mirrors are washed more frequently during the summer and most shoulder months (April through October) than during the colder months (November through March). Each cleaning cycle for

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

the approximately 3,800 mirrors will take a little more than three weeks to complete. The washing schedule typically consists of three shifts per week and six hours per shift. Cleaning is usually performed at night and sometimes on weekends. An estimated 400 gallons of water is needed per mirror per wash, which totals 1.52 million gallons per cleaning cycle. A total of ten cleaning cycles is expected to be performed on an annual basis with eight cleaning cycles performed during April through October and two cleaning cycles between November through March. The annual water consumption for mirror washing will be approximately 46.6 AFY or 15.2 million gallons per year.

Data Request 61:

Please provide the long term maintenance requirements on access routes, reapplication of dust suppression on all disturbed surfaces that receive repeated use, and the expected number and size of the fleet of maintenance equipment that would be used for all maintenance activities in the facility.

Response:

After initial grading, a dust palliative product such as Soil-Cement™ will be applied to the entire solar field. The treated surface is intended to stabilize the bare ground of the solar field and to minimize potential surface erosion. The layer of Soil-Cement tends to erode with time due to natural causes; therefore, it would be re-applied once every two years to ensure the imperviousness of the surface. Routine blading and leveling of the access routes between the mirrors will be regularly performed by a local contractor corresponding to the mirror washing schedule, or on an as-needed basis.

The primary access road for the facility and the ancillary access roads within the power block will be paved with asphalt and will not need the application of water or other dust control palliatives. Maintenance of the asphalt roads will consist of slurry application, which will be applied to the surfaces of the access roads to prevent asphalt erosion and surface asphalt oils from oxidizing. If the surface has heavy cracking or buckling, it will be repaired prior to applying slurry seal.

The expected maintenance equipment is listed below.

Maintenance Equipment

| Qty. | Equipment |
|------|--|
| 1 | 4,000-gallon diesel truck used for deluge mirror washing |
| 2 | 400-gallon trailer mounted zoom brooms (scrub) |
| 1 | Blade |

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

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Response Date: January 12, 2009

Data Request 62:

Please describe in detail the method by which the mirrors would be washed and the volume of water that would run off the mirrors and onto the soil below the mirrors.

Response:

The solar field will be cleaned using a combination of water deluge and scrub brushing to maintain reflectivity. Both methods will use only demineralized water for cleaning, with no detergents, surfactants, or other additives to the water. The mirror cleaning water will be drawn from the power plant's condensate storage system at a fill station capable of an approximately 400 gallons per minute flow rate.

During the course of a typical year, the reflectivity maintenance program is expected to consume approximately 15.2 million gallons of plant condensate water. The deluge cleaning method employs a specialized diesel tractor truck with approximately 4,000 gallons of water capacity. Wash water from the deluge truck will be applied using cab-controlled adjustable spray nozzles powered by high volume pumps driven by a separate diesel engine. The deluge spray and brush cleaning operation requires two operators. The deluge truck, controlled by a single operator, sprays a large volume of precisely-patterned, low-pressure, demineralized water on the entire aperture of a Solar Collector Assembly as it moves between rows. The scrub brush trailer is attached to the deluge truck and controlled by a separate operator.

Data Request 63:

Please describe how vegetation would be managed, including treatment of noxious and invasive species, beneath the mirrors.

Response:

Soil-Cement™ or other similar product will be applied on the solar field to create a less pervious surface. The Soil-Cement treatment creates a crust-like encapsulation of the soil; and based on the experience of other desert solar arrays using this dust control method, vegetative growth of any kind will be discouraged within the Project site. It is estimated that the Soil-Cement cover will discourage approximately 95 percent of weed growth by creating a hard, impermeable surface.

The potential impact to biological resources resulting from invasive and exotic plant species was identified in the AFC (Section 5.3, Biological Resources). As mitigation for this potential impact, requirements to prevent the introduction of invasive plant species will be incorporated into the Biological Resources Mitigation Implementation Monitoring Plan (BRMIMP) that will be developed for the PHPP (Mitigation BIO-1). Because the solar field will be maintained as vegetation-free, specific

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

requirements to address invasive weeds within the solar field will not be required as part of the BRMIMP.

It is anticipated that the application and maintenance of Soil-Cement within the solar field will function as the primary means of preventing vegetation growth. However, some limited opportunistic vegetation growth within the solar field is expected. During operation, the following weed control measures will be used within the solar field:

- Individual weeds or weed colonies will be controlled by either hand-pulling or spot spraying of commercially available herbicides.
- Herbicide will not be applied during periods of precipitation or on windy days.
- If herbicide is sprayed when standing water is present, a non-water soluble herbicide will be used such as Rodeo® or Aquamaster®.
- All weed debris will be collected and properly disposed of off site.
- Equipment will not travel through a weed-infested area en route to the Project.

Data Request 64:

Please describe the chemical constituents and their concentration in the water that would be used to wash the mirror.

Response:

Only high purity demineralized water, with no other additives, will be used to wash the mirrors. The demineralized water treatment process removes most mineral ions from the water. Since the majority of water impurities in the raw water are dissolved salts, demineralization (also called deionization) produces high purity water that is generally similar to distilled water.

Data Request 65:

Please discuss and quantify the buildup of the mirror wash water chemicals in the soil beneath the mirrors throughout the life of the project.

Response:

There will be no significant chemical constituents in the mirror wash water due to the exclusive use of high purity demineralized water for washing as stated in the response to Data Request 64; therefore, no chemicals will accumulate in the soil beneath the mirrors.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 50-66**

Technical Area: Soil and Water Resources

Response Date: January 12, 2009

Data Request 66:

Please discuss how wastewater from the mirror washing would be managed.

Response:

Although approximately 85 percent of the mirror wash water is expected to evaporate on site, the same best management practices (BMPs) and drainage facilities used to control stormwater resulting from onsite precipitation will also address the drainage from mirror washing.

As required by the CEC, the Applicant has prepared a draft Drainage, Erosion, and Sediment Control Plan (DESCP). The DESCP describes the location, timing, and maintenance schedule of BMPs to be used to control stormwater and process water drainage within the project area. Final design and placement of the BMPs will take place during the final phase of construction planning after licensing. The DESCP describes the basic arrangement for routing and retaining onsite storm water and process water drainage. For purposes of developing drainage plans for the Project site, the site was divided into two sections, the North and the South. The north section includes the roughly 127-acre area of solar field north of the access road and roughly the northern half of the Power Block (roughly 13 acres) and drains to the north into an infiltration basin. The south section of the site includes roughly 175-acre area of solar field south of the access road and the southern half of the power block area (roughly 12-acres) and drains to infiltration basins located on the south side of the access road and the south side of the Power Block area. The use of onsite infiltration basins will ensure that all stormwater and process-water will be retained and infiltrated on site.

Attachment DR 50a
Palmdale Water Reclamation Plant
Monthly Total Recycled Water Volume
1997-2007

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
 PALMDALE WATER RECLAMATION PLANT
 ANNUAL MONITORING REPORT, 1997

OPERATIONS SUMMARY - MONTHLY AVERAGES

WQCB ORDER NO. 6-93-18

(REUSE)

MONITORING AND REPORTING PROGRAM NO. 93-18 A2

| DATE | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|------------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TOTAL EFFLUENT TO LADOA SITE |
| JAN | 7.99 | 11.3 | 7.31 |
| FEB | 7.78 | 11.1 | 7.09 |
| MAR | 7.89 | 11.4 | 7.16 |
| APR | 7.89 | 11.2 | 6.90 |
| MAY | 8.00 | 11.5 | 6.75 |
| JUN | 8.34 | 11.4 | 6.93 |
| JUL | 8.39 | 11.3 | 6.60 |
| AUG | 8.65 | 11.7 | 7.85 |
| SEP | 8.75 | 11.8 | 8.04 |
| OCT | 8.57 | 11.9 | 8.25 |
| NOV | 8.50 | 11.8 | 8.77 |
| DEC | 8.34 | 11.5 | 8.81 |
| MEAN | 8.26 | 11.5 | 7.54 |
| MAX | 8.75 | 11.9 | 8.81 |
| MIN | 7.78 | 11.1 | 6.60 |
| LIMITS: | | | |
| MEAN | 15.0 | | |
| MAX | | 37.5 | |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
 PALMDALE WATER RECLAMATION PLANT
 ANNUAL MONITORING REPORT, 1998

OPERATIONS SUMMARY - MONTHLY AVERAGES

WQCB ORDER NO. 6-93-18

(REUSE)

MONITORING AND REPORTING PROGRAM NO. 93-18 A2

| DATE | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|------------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TOTAL EFFLUENT TO LADOA SITE |
| JAN | 8.11 | 11.6 | 8.73 |
| FEB | 8.53 | 12.0 | 8.82 |
| MAR | 8.07 | 11.7 | 7.89 |
| APR | 7.98 | 11.2 | 7.81 |
| MAY | 7.95 | 11.5 | 7.21 |
| JUN | 8.09 | 11.3 | 6.49 |
| JUL | 8.29 | 11.3 | 7.49 |
| AUG | 8.58 | 11.5 | 8.12 |
| SEP | 8.77 | 11.9 | 8.91 |
| OCT | 8.64 | 12.0 | 8.89 |
| NOV | 8.50 | 12.0 | 9.02 |
| DEC | 8.35 | 11.5 | 8.81 |
| MEAN | 8.32 | 11.6 | 8.18 |
| MAX | 8.77 | 12.0 | 9.02 |
| MIN | 7.95 | 11.2 | 6.49 |
| LIMITS: | | | |
| MEAN | 15.0 | | |
| MAX | | 37.5 | |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 PALMDALE WATER RECLAMATION PLANT

1999 MONITORING DATA
 WQCB ORDER NO. 6-93-18
 MONITORING AND REPORTING PROGRAM NO. 93-18 A2

| MONTH | PLANT FLOWS (MGD) | | |
|-------------------------------|---|----------------------------------|-----------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TOTAL EFFLUENT TO LAWA SITE |
| JAN | 8.34 | 11.7 | 7.86 |
| FEB | 8.30 | 11.7 | 7.40 |
| MAR | 8.08 | 11.4 | 7.40 |
| APR | 8.19 | 11.5 | 7.38 |
| MAY | 8.34 | 11.6 | 7.31 |
| JUN | 8.51 | 11.6 | 6.88 |
| JUL | 8.81 | 11.8 | 7.22 |
| AUG | 8.98 | 12.1 | 7.56 |
| SEP | 8.94 | 12.4 | 8.47 |
| OCT | 8.85 | 12.3 | 8.75 |
| NOV | 8.77 | 12.1 | 8.98 |
| DEC | 8.69 | 12.0 | 8.38 |
| MEAN | 8.57 | 11.9 | 7.80 |
| MAX | 8.98 | 12.4 | 8.98 |
| MIN | 8.08 | 11.4 | 6.88 |
| LIMITS: MEAN MAX MIN | 15.0 | 37.5 | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 PALMDALE WATER RECLAMATION PLANT

2000 MONITORING DATA
 MONTHLY AVERAGES
 WQCB ORDER NO. 6-00-57
 MONITORING AND REPORTING PROGRAM NO. 00-57

| MONTH | PLANT FLOWS (MGD) | | |
|-------------------------------|---|----------------------------------|-----------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TOTAL EFFLUENT TO LAWA SITE |
| JAN | 8.77 | 12.0 | 8.33 |
| FEB | 8.73 | 11.7 | 8.21 |
| MAR | 8.58 | 11.7 | 8.03 |
| APR | 8.71 | 12.1 | 7.75 |
| MAY | 8.83 | 12.1 | 7.41 |
| JUN | 9.21 | 12.3 | 7.62 |
| JUL | 9.25 | 12.3 | 7.87 |
| AUG | 9.39 | 12.4 | 8.14 |
| SEP | 9.39 | 12.7 | 8.44 |
| OCT | 9.39 | 12.6 | 8.88 |
| NOV | 9.29 | 12.6 | 9.36 |
| DEC | 9.21 | 12.6 | 9.34 |
| MEAN | 9.06 | 12.3 | 8.28 |
| MAX | 9.39 | 12.7 | 9.36 |
| MIN | 8.58 | 11.7 | 7.41 |
| LIMITS: MEAN MAX MIN | 15.0 | 37.5 | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
 MONTHLY AVERAGES
 WQCB ORDER NO. 6-00-57
 MONITORING AND REPORTING PROGRAM NO. 00-57

| PLANT FLOWS (MGD) | | | |
|-------------------------------|---|----------------------------------|-----------------------------------|
| MONTH | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TOTAL EFFLUENT TO LAWA SITE |
| JAN | 9.03 | 12.3 | 9.43 |
| FEB | 8.96 | 12.3 | 9.44 |
| MAR | 8.77 | 12.1 | 8.26 |
| APR | 8.86 | 12.3 | 7.89 |
| MAY | 8.92 | 12.6 | 7.47 |
| JUN | 9.10 | 12.4 | 7.63 |
| JUL | 9.36 | 12.8 | 8.21 |
| AUG | 9.37 | 13.1 | 8.15 |
| SEP | 9.50 | 13.2 | 8.65 |
| OCT | 9.39 | 13.7 | 8.47 |
| NOV | 9.39 | 12.9 | 8.63 |
| DEC | 9.36 | 13.3 | 9.07 |
| MEAN | 9.17 | 12.7 | 8.44 |
| MAX | 9.50 | 13.7 | 9.44 |
| MIN | 8.77 | 12.1 | 7.47 |
| LIMITS: MEAN MAX MIN | 15.0 | 37.5 | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
OPERATIONAL DATA
PALMDALE WATER RECLAMATION PLANT

2002 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

| PLANT FLOWS (MGD) | | | |
|-------------------------------|---|----------------------------------|-----------------------------------|
| MONTH | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TOTAL EFFLUENT TO LAWA SITE |
| JAN | 9.08 | 13.0 | 9.14 |
| FEB | 8.87 | 12.8 | 8.63 |
| MAR | 8.80 | 12.6 | 8.06 |
| APR | 8.81 | 12.6 | 7.53 |
| MAY | 9.03 | 12.5 | 7.22 |
| JUN | 8.81 | 13.2 | 6.83 |
| JUL | 8.74 | 13.0 | 7.15 |
| AUG | 8.74 | 12.7 | 7.22 |
| SEP | 9.04 | 12.7 | 7.85 |
| OCT | 8.94 | 12.6 | 8.21 |
| NOV | 8.98 | 12.3 | 7.81 |
| DEC | 8.97 | 12.7 | 7.84 |
| MEAN | 8.90 | 12.7 | 7.79 |
| MAX | 9.08 | 13.2 | 9.14 |
| MIN | 8.74 | 12.3 | 6.83 |
| LIMITS: MEAN MAX MIN | 15.0 | 37.5 | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4.1
PALMDALE WATER RECLAMATION PLANT
2003 INFLUENT AND EFFLUENT FLOWS

| Month | INFLUENT ¹ | | | EFFLUENT | | | | | | | | | | |
|-----------|-----------------------|-----------------------------|---------------------|--------------------|------------|--------------------|------------|------------|----------------------------|------------|------------|--------------------|------------|------------|
| | Monthly Mean (MGD) | Maximum Instantaneous (MGD) | Total Influent (MG) | TO LAWA | | REUSE | | | LAND APPLICATION with CROP | | | LAND APPLICATION | | |
| | | | | Monthly Mean (MGD) | Total (MG) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) |
| January | 8.86 | 14.6 | 274.72 | 7.44 | 230.59 | 1.5 | 46.72 | 20.3% | 0.0 | 1.2 | 0.5% | 5.9 | 182.7 | 79.2% |
| February | 9.04 | 18.2 | 253.15 | 8.63 | 241.55 | 2.4 | 67.67 | 28.0% | 1.0 | 28.0 | 11.6% | 5.2 | 145.9 | 60.4% |
| March | 8.93 | 14.0 | 276.96 | 7.87 | 244.02 | 2.2 | 67.31 | 27.6% | 1.0 | 32.2 | 13.2% | 4.7 | 144.5 | 59.2% |
| April | 8.79 | 14.2 | 263.56 | 8.09 | 242.71 | 3.6 | 107.3 | 44.2% | 1.5 | 45.2 | 18.6% | 3.0 | 90.2 | 37.2% |
| May | 8.97 | 15.8 | 278.01 | 7.80 | 241.85 | 2.5 | 78.58 | 32.5% | 1.8 | 55.9 | 23.1% | 3.5 | 107.4 | 44.4% |
| June | 9.00 | 13.3 | 270.04 | 7.26 | 217.81 | 2.7 | 80.33 | 36.9% | 0.4 | 13.4 | 6.2% | 4.1 | 124.1 | 57.0% |
| July | 9.25 | 14.6 | 286.69 | 7.53 | 233.56 | 4.9 | 152.3 | 65.2% | 1.5 | 46.3 | 19.8% | 1.1 | 34.9 | 15.0% |
| August | 9.27 | 14.5 | 287.40 | 7.75 | 240.28 | 4.1 | 127.74 | 53.2% | 0.9 | 27.5 | 11.4% | 2.7 | 85.0 | 35.4% |
| September | 9.53 | 14.5 | 285.86 | 8.58 | 257.27 | 4.3 | 129.03 | 50.2% | 1.1 | 32.1 | 12.5% | 3.2 | 96.1 | 37.4% |
| October | 9.53 | 14.6 | 285.75 | 9.09 | 281.73 | 4.2 | 129.38 | 45.9% | 1.1 | 32.7 | 11.6% | 3.9 | 119.7 | 42.5% |
| November | 9.70 | 18.0 | 291.10 | 9.67 | 290.16 | 1.0 | 29.72 | 10.2% | 1.5 | 45.6 | 15.7% | 7.2 | 214.8 | 74.0% |
| December | 9.54 | 15.5 | 295.59 | 8.36 | 259.19 | 1.0 | 31.41 | 12.1% | 1.9 | 60.0 | 23.1% | 5.4 | 167.8 | 64.7% |
| Mean | 9.2 | 15.2 | 279.1 | 8.2 | 248.4 | 2.9 | 87.3 | 35.5% | 1.1 | 35.0 | 14.0% | 4.2 | 126.1 | 50.5% |
| Max | 9.7 | 18.2 | 295.6 | 9.7 | 290.2 | 4.9 | 152.3 | 65.2% | 1.9 | 60.0 | 23.1% | 7.2 | 214.8 | 79.2% |
| Min | 8.8 | 13.3 | 253.2 | 7.3 | 217.8 | 1.0 | 29.7 | 10.2% | 0.0 | 1.2 | 0.5% | 1.1 | 34.9 | 15.0% |
| Total | | | 3,348.8 | | 2,980.7 | | 1,047.5 | | | 420.1 | | | 1,513.1 | |
| Limits | 15.5 | 37.5 | | | | | | | | | | | | |

¹ Represents influent to secondary treatment.

TABLE 3.1
PALMDALE WATER RECLAMATION PLANT
2004 INFLUENT AND EFFLUENT FLOWS

| 2004 | INFLUENT ¹ | | | EFFLUENT | | | | | | | | | | | |
|-----------|-----------------------|--------------------------------|------------------------|-----------------------|---------------|-----------------------|---------------|---------------|----------------------------|---------------|---------------|-----------------------|---------------|---------------|--|
| | | | | TO LAWA | | REUSE | | | LAND APPLICATION with CROP | | | LAND APPLICATION | | | |
| Month | Monthly Mean (MGD) | Maximum Instantaneous (MGD) | Total Influent (MG) | Monthly Mean (MGD) | Total (MG) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | |
| January | 9.2 | 10.0 | 284.9 | 9.1 | 282.2 | 1.4 | 42.8 | 15.1% | 1.6 | 48.5 | 17.2% | 6.2 | 191.0 | 67.7% | |
| February | 9.3 | 10.1 | 268.7 | 8.4 | 244.7 | 1.0 | 28.0 | 11.4% | 0.6 | 18.6 | 7.6% | 6.8 | 198.1 | 81.0% | |
| March | 9.1 | 10.1 | 283.0 | 8.9 | 274.6 | 2.2 | 67.3 | 24.5% | 1.4 | 44.1 | 16.0% | 5.3 | 163.3 | 59.5% | |
| April | 8.8 | 9.5 | 264.6 | 7.8 | 233.4 | 3.1 | 93.3 | 40.0% | 1.5 | 44.5 | 19.1% | 3.2 | 95.5 | 40.9% | |
| May | 8.9 | 10.3 | 276.8 | 7.8 | 241.4 | 2.8 | 87.6 | 36.3% | 0.9 | 29.3 | 12.1% | 4.0 | 124.5 | 51.6% | |
| June | 8.8 | 9.7 | 264.5 | 7.6 | 227.1 | 3.0 | 89.3 | 39.3% | 0.8 | 23.2 | 10.2% | 3.8 | 114.6 | 50.5% | |
| July | 8.9 | 9.4 | 274.9 | 7.4 | 228.4 | 3.4 | 105.3 | 46.1% | 1.8 | 54.5 | 23.8% | 2.2 | 68.6 | 30.0% | |
| August | 9.3 | 10.0 | 287.9 | 8.9 | 274.9 | 5.5 | 169.3 | 61.6% | 1.3 | 41.1 | 15.0% | 2.1 | 64.5 | 23.5% | |
| September | 10.0 | 11.3 | 298.8 | 7.3 | 220.2 | 6.1 | 181.6 | 82.4% | 1.1 | 32.0 | 14.5% | 0.2 | 6.6 | 3.0% | |
| October | 10.3 | 11.3 | 319.9 | 8.9 | 274.8 | 4.4 | 136.9 | 49.8% | 1.2 | 36.4 | 13.3% | 3.3 | 101.5 | 36.9% | |
| November | 10.2 | 11.8 | 306.4 | 8.6 | 256.5 | 2.1 | 62.0 | 24.2% | 0.0 | 0.7 | 0.3% | 6.5 | 193.9 | 75.6% | |
| December | 10.3 | 14.4 | 320.7 | 9.0 | 280.1 | 3.4 | 104.0 | 37.1% | 0.2 | 4.7 | 1.7% | 5.5 | 171.4 | 61.2% | |
| Mean | 9.4 | 10.7 | 287.6 | 8.3 | 253.2 | 3.2 | 97.3 | | 1.0 | 31.5 | | 4.1 | 124.5 | | |
| Max | 10.3 | 14.4 | 320.7 | 9.1 | 282.2 | 6.1 | 181.6 | | 1.8 | 54.5 | | 6.8 | 198.1 | | |
| Min | 8.8 | 9.4 | 264.5 | 7.3 | 220.2 | 1.0 | 28.0 | | 0.0 | 0.7 | | 0.2 | 6.6 | | |
| Total | | | 3450.8 | | 3038.3 | | 1167.2 | 38.4% | | 377.7 | 12.4% | | 1493.5 | 49.2% | |
| Limits | 15.5 | 37.5 | | | | | | | | | | | | | |

¹Represents influent to secondary treatment.

TABLE 3.1
PALMDALE WATER RECLAMATION PLANT
2005 INFLUENT AND EFFLUENT FLOWS

| Month | INFLUENT ¹ | | | EFFLUENT | | | | | | | | | | | | | |
|-----------|-----------------------|--------------------------------|------------------------|-----------------------|---------------|-----------------------|---------------|---------------|--------------------------------------|---------------|---------------|----------------------------|---------------|---------------|-----------------------|---------------|---------------|
| | Monthly Mean (MGD) | Maximum Instantaneous (MGD) | Total Influent (MG) | TO LAWA ² | | REUSE | | | REUSE (ABOVE AGRONOMIC) ³ | | | LAND APPLICATION with CROP | | | LAND APPLICATION | | |
| | | | | Monthly Mean (MGD) | Total (MG) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) |
| January | 10.3 | 20.0 | 319.1 | 10.1 | 312.1 | 0.0 | 0.0 | 0.0% | 2.9 | 88.6 | 28.4% | 1.3 | 41.2 | 13.2% | 5.9 | 182.3 | 58.4% |
| February | 10.4 | 20.0 | 289.9 | 8.5 | 238.9 | 0.0 | 0.0 | 0.0% | 3.8 | 107.3 | 44.9% | 1.4 | 37.9 | 15.8% | 3.3 | 93.8 | 39.2% |
| March | 9.9 | 14.6 | 305.3 | 8.8 | 271.7 | 4.5 | 139.3 | 51.3% | 0.5 | 16.9 | 6.2% | 1.1 | 32.9 | 12.1% | 2.7 | 82.6 | 30.4% |
| April | 9.5 | 14.6 | 284.8 | 9.1 | 272.8 | 6.2 | 187.5 | 68.7% | 0.0 | 0.0 | 0.0% | 1.4 | 41.1 | 15.1% | 1.5 | 44.1 | 16.2% |
| May | 9.6 | 14.6 | 296.2 | 6.5 | 201.8 | 4.5 | 138.0 | 68.4% | 0.4 | 11.5 | 5.7% | 0.7 | 22.1 | 11.0% | 1.0 | 30.2 | 15.0% |
| June | 9.7 | 14.4 | 291.5 | 7.0 | 211.3 | 5.0 | 151.3 | 71.6% | 0.4 | 13.0 | 6.2% | 1.3 | 37.8 | 17.9% | 0.3 | 9.2 | 4.4% |
| July | 9.6 | 20.0 | 298.5 | 8.4 | 261.2 | 6.6 | 203.6 | 77.9% | 0.0 | 0.0 | 0.0% | 1.3 | 41.5 | 15.9% | 0.5 | 16.1 | 6.2% |
| August | 9.5 | 15.8 | 295.0 | 8.3 | 258.2 | 6.4 | 198.5 | 76.9% | 0.0 | 0.0 | 0.0% | 1.4 | 44.8 | 17.3% | 0.5 | 14.9 | 5.8% |
| September | 9.5 | 17.2 | 285.0 | 8.4 | 252.8 | 6.2 | 185.3 | 73.3% | 0.0 | 0.0 | 0.0% | 1.2 | 37.3 | 14.7% | 1.0 | 30.2 | 12.0% |
| October | 9.7 | 16.0 | 299.5 | 7.9 | 244.9 | 3.2 | 100.5 | 41.0% | 2.3 | 71.8 | 29.3% | 2.0 | 61.2 | 25.0% | 0.4 | 11.4 | 4.7% |
| November | 9.7 | 20.0 | 290.1 | 8.0 | 241.4 | 4.8 | 145.0 | 60.1% | 0.8 | 23.0 | 9.5% | 1.2 | 34.8 | 14.4% | 1.3 | 38.6 | 16.0% |
| December | 9.5 | 14.6 | 294.7 | 9.8 | 302.6 | 2.3 | 71.0 | 23.5% | 4.9 | 152.2 | 50.3% | 2.3 | 70.1 | 23.2% | 0.3 | 9.2 | 3.1% |
| Mean | 9.7 | 16.8 | 295.8 | 8.4 | 255.8 | 4.1 | 126.7 | | 1.3 | 40.4 | | 1.4 | 41.9 | | 1.6 | 46.9 | |
| Max. | 10.4 | 20.0 | 319.1 | 10.1 | 312.1 | 6.6 | 203.6 | | 4.9 | 152.2 | | 2.3 | 70.1 | | 5.9 | 182.3 | |
| Min. | 9.5 | 14.4 | 284.8 | 6.5 | 201.8 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.7 | 22.1 | | 0.3 | 9.2 | |
| Total | | | 3,550 | 8.4 | 3,070 | | 1,520 | 49.5% | | 484 | 15.8% | | 503 | 16.4% | | 563 | 18.3% |
| Limits | 15.5 | 37.5 | | | | | | | | | | | | | | | |

¹ Represents influent to secondary treatment

² Total Effluent to LAWA is estimated using Effluent Pump Station meter (Jan to Sept) and sum of individual meters (Oct to Dec)

³ Reuse above agronomic rates is estimated

TABLE 3.1

PALMDALE WATER RECLAMATION PLANT

2006 INFLUENT AND EFFLUENT FLOWS

| Month | INFLUENT ¹ | | | EFFLUENT | | | | | | | | | | |
|-----------|-----------------------|-----------------------------|---------------------|--------------------|------------|--------------------|------------|------------|---|------------|------------|--------------------|------------|-----------|
| | Monthly Mean (MGD) | Maximum Instantaneous (MGD) | Total Influent (MG) | TO LAWA | | REUSE | | | LAND APPLICATION with CROP ² | | | LAND APPLICATION | | |
| | | | | Monthly Mean (MGD) | Total (MG) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | %Flow (%) |
| January | 9.68 | 14.0 | 299.97 | 8.25 | 255.88 | 3.57 | 110.8 | 43.3 | 4.68 | 145.1 | 56.7 | 0 | 0.0 | 0 |
| February | 9.77 | 14.1 | 273.56 | 8.80 | 246.53 | 5.81 | 162.6 | 66.0 | 3.0 | 83.9 | 34.0 | 0 | 0.0 | 0 |
| March | 10.17 | 14.1 | 315.39 | 8.25 | 255.67 | 6.56 | 203.4 | 79.6 | 1.7 | 52.3 | 20.4 | 0 | 0.0 | 0 |
| April | 10.11 | 13.8 | 303.24 | 8.48 | 254.41 | 6.76 | 202.9 | 79.8 | 1.7 | 51.5 | 20.2 | 0 | 0.0 | 0 |
| | 10.36 | 13.9 | 321.18 | 6.74 | 208.83 | 6.47 | 200.5 | 96.0 | 0.3 | 8.3 | 4.0 | 0 | 0.0 | 0 |
| June | 10.42 | 13.9 | 312.45 | 7.88 | 236.41 | 7.70 | 231.1 | 97.8 | 0.2 | 5.3 | 2.2 | 0 | 0.0 | 0 |
| July | 10.07 | 13.7 | 312.09 | 7.20 | 223.34 | 7.01 | 217.3 | 97.3 | 0.2 | 6.0 | 2.7 | 0 | 0.0 | 0 |
| August | 10.00 | 13.8 | 310.15 | 8.03 | 248.90 | 6.96 | 215.9 | 86.7 | 1.1 | 33.0 | 13.3 | 0 | 0.0 | 0 |
| September | 9.6 | 14.1 | 289.22 | 8.44 | 253.30 | 7.35 | 220.5 | 87.1 | 1.1 | 32.8 | 12.9 | 0 | 0.0 | 0 |
| October | 9.27 | 13.9 | 287.48 | 7.72 | 239.21 | 6.45 | 200.1 | 83.7 | 1.3 | 39.1 | 16.3 | 0 | 0.0 | 0 |
| November | 9.16 | 13.7 | 274.86 | 8.82 | 264.56 | 7.11 | 213.4 | 80.7 | 1.7 | 51.2 | 19.3 | 0 | 0.0 | 0 |
| December | 9.71 | 14.2 | 301.05 | 7.95 | 246.50 | 5.40 | 167.5 | 68.0 | 2.5 | 79.0 | 32.0 | 0 | 0.0 | 0 |
| Mean | 9.86 | 13.9 | 300.05 | 8.0 | 244.46 | 6.4 | 195.5 | | 1.6 | 49.0 | | 0.0 | 0.0 | |
| Max. | 10.42 | 14.2 | 321.18 | 8.82 | 264.56 | 7.7 | 231.1 | | 4.68 | 145.08 | | 0 | 0 | |
| Min. | 9.16 | 13.7 | 273.56 | 6.74 | 208.83 | 3.6 | 110.8 | | 0.2 | 5.3 | | 0.0 | 0.0 | |
| Total | | | 3600.64 | | 2933.5 | | 2346.0 | 80.0 | | 587.54 | 20.0 | | 0.0 | 0.0 |
| Limits | 15.5 | 37.5 | | | | | | | | | | | | |

¹ Represents influent to secondary treatment

² Includes Reuse Above Agronomic Rate Per WQCB's Request.

TABLE 3.1

PALMDALE WATER RECLAMATION PLANT

2007 INFLUENT AND EFFLUENT FLOWS

| Month | INFLUENT ¹ | | | EFFLUENT ³ | | | | | | | |
|-----------|-----------------------|-----------------------------|---------------------|-----------------------|------------|--------------------|------------|------------|---|------------|------------|
| | Monthly Mean (MGD) | Maximum Instantaneous (MGD) | Total Influent (MG) | TO LAWA | | REUSE | | | LAND APPLICATION with CROP ² | | |
| | | | | Monthly Mean (MGD) | Total (MG) | Monthly Mean (MGD) | Total (MG) | % Flow (%) | Monthly Mean (MGD) | Total (MG) | % Flow (%) |
| January | 9.68 | 14.3 | 300.15 | 8.54 | 264.75 | 6.05 | 187.5 | 70.8 | 2.5 | 77.3 | 29.2 |
| February | 10.26 | 14.4 | 287.21 | 8.88 | 248.65 | 6.56 | 183.8 | 73.9 | 2.3 | 64.9 | 26.1 |
| March | 10.14 | 14.0 | 314.27 | 8.01 | 248.27 | 6.67 | 206.8 | 83.3 | 1.3 | 41.5 | 16.7 |
| April | 10.11 | 13.9 | 303.36 | 8.71 | 261.41 | 7.52 | 225.6 | 86.3 | 1.2 | 35.8 | 13.7 |
| May | 9.42 | 14.0 | 291.93 | 7.69 | 238.4 | 6.50 | 201.4 | 84.5 | 1.2 | 37.0 | 15.5 |
| June | 9.65 | 14.0 | 289.38 | 8.27 | 248.16 | 6.73 | 201.8 | 81.3 | 1.5 | 46.4 | 18.7 |
| July | 9.74 | 13.7 | 301.97 | 7.99 | 247.65 | 6.34 | 196.6 | 79.4 | 1.6 | 51.1 | 20.6 |
| August | 9.26 | 13.3 | 287.02 | 7.58 | 234.84 | 5.70 | 176.6 | 75.2 | 1.9 | 58.2 | 24.8 |
| September | 9.39 | 14.2 | 281.82 | 8.80 | 263.98 | 7.68 | 230.4 | 87.3 | 1.1 | 33.6 | 12.7 |
| October | 8.97 | 13.6 | 277.94 | 8.04 | 249.17 | 6.48 | 200.8 | 80.6 | 1.6 | 48.4 | 19.4 |
| November | 9.95 | 13.9 | 298.52 | 8.35 | 250.52 | 7.40 | 222.1 | 88.6 | 0.9 | 28.5 | 11.4 |
| December | 9.83 | 13.8 | 304.81 | 7.86 | 243.59 | 5.79 | 179.6 | 73.7 | 2.1 | 64.0 | 26.3 |
| Mean | 9.70 | 13.9 | 294.87 | 8.23 | 249.95 | 6.62 | 201.1 | | 1.6 | 48.9 | |
| Max. | 10.26 | 14.4 | 314.27 | 8.88 | 264.75 | 7.68 | 230.4 | | 2.5 | 77.3 | |
| Min. | 8.97 | 13.3 | 277.94 | 7.58 | 234.84 | 5.70 | 176.6 | | 0.9 | 28.5 | |
| Total | | | 3538.38 | | 2999.39 | | 2412.8 | 80.4 | | 586.6 | 19.6 |
| Limits | 15.5 | 37.5 | | | | | | | | | |

¹ Represents influent to secondary treatment

² Includes Reuse Above Agronomic Rate Per WQCB's Request.

³ Since 2006, all land application site have been converted to land application with crop.

Attachment DR 50b
Lancaster Water Reclamation Plant
Monthly Total Recycled Water Volume
1997-2007

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
LANCASTER WATER RECLAMATION PLANT
ANNUAL MONITORING REPORT, 1997

OPERATIONS SUMMARY - MONTHLY AVERAGES

WQCB ORDER NO. 6-93-75

(REUSE)

MONITORING AND REPORTING PROGRAM NO. 93-75 A2

| DATE | PLANT FLOWS (MGD) | | |
|-------------------------------|---|----------------------------------|-------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TERTIARY PLANT INFLUENT |
| JAN | 9.9 | 14.7 | 0.00 |
| FEB | 9.8 | 15.0 | 0.00 |
| MAR | 9.8 | 14.6 | 0.00 |
| APR | 9.7 | 14.1 | 0.00 |
| MAY | 10.0 | 15.1 | 0.25 |
| JUN | 10.3 | 15.5 | 0.50 |
| JUL | 10.0 | 15.1 | 0.29 |
| AUG | 10.3 | 15.1 | 0.33 |
| SEP | 10.4 | 15.5 | 0.27 |
| OCT | 10.3 | 15.4 | 0.28 |
| NOV | 10.1 | 15.1 | 0.05 |
| DEC | 10.3 | 15.6 | 0.00 |
| MEAN | 10.1 | 15.1 | 0.16 |
| MAX | 10.4 | 15.6 | 0.50 |
| MIN | 9.7 | 14.1 | 0.00 |
| LIMITS: MEAN MAX MIN | 16.0 | 40.0 | 0.6 |

NOTE: 1. Represents influent to secondary treatment.

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
LANCASTER WATER RECLAMATION PLANT
ANNUAL MONITORING REPORT, 1998

OPERATIONS SUMMARY - MONTHLY AVERAGES

WQCB ORDER NO. 6-93-75

(REUSE)

MONITORING AND REPORTING PROGRAM NO. 93-75 A2

| DATE | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|-------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TERTIARY PLANT INFLUENT |
| JAN | 10.4 | 16.2 | 0.00 |
| FEB | 11.0 | 17.3 | 0.00 |
| MAR | 10.6 | 17.1 | 0.00 |
| APR | 10.5 | 16.1 | 0.09 |
| MAY | 11.0 | 17.2 | 0.25 |
| JUN | 11.4 | 17.3 | 0.25 |
| JUL | 11.7 | 17.3 | 0.24 |
| AUG | 11.9 | 17.8 | 0.36 |
| SEP | 11.9 | 17.0 | 0.12 |
| OCT | 11.9 | 17.9 | 0.42 |
| NOV | 11.5 | 17.3 | 0.06 |
| DEC | 11.5 | 16.6 | 0.00 |
| MEAN | 11.3 | 17.1 | 0.15 |
| MAX | 11.9 | 17.9 | 0.42 |
| MIN | 10.4 | 16.1 | 0.00 |
| LIMITS: | | | |
| MEAN | 16.0 | | |
| MAX | | 40.0 | 0.6 |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

1999 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 MONITORING AND REPORTING PROGRAM NO. 93-75 A2

| MONTH | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|-------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TERTIARY PLANT INFLUENT |
| JAN | 11.3 | 16.6 | 0.00 |
| FEB | 11.2 | 16.0 | 0.00 |
| MAR | 11.3 | 16.0 | 0.00 |
| APR | 11.5 | 16.2 | 0.06 |
| MAY | 11.9 | 17.2 | 0.47 |
| JUN | 11.9 | 17.2 | 0.43 |
| JUL | 12.0 | 17.3 | 0.42 |
| AUG | 12.1 | 17.0 | 0.38 |
| SEP | 12.2 | 17.7 | 0.39 |
| OCT | 12.2 | 18.1 | 0.37 |
| NOV | 12.1 | 19.0 | 0.18 |
| DEC | 12.1 | 17.8 | 0.00 |
| MEAN | 11.8 | 17.2 | 0.22 |
| MAX | 12.2 | 19.0 | 0.47 |
| MIN | 11.2 | 16.0 | 0.00 |
| LIMITS: | | | |
| MEAN | 16.0 | | |
| MAX | | 40.0 | 0.6 |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2000 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 MONITORING AND REPORTING PROGRAM NO. 93-75 A2

| MONTH | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|-------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TERTIARY PLANT INFLUENT |
| JAN | 12.0 | 17.2 | 0.00 |
| FEB | 12.0 | 17.0 | 0.00 |
| MAR | 11.7 | 17.1 | 0.00 |
| APR | 11.8 | 17.1 | 0.01 |
| MAY | 12.2 | 18.1 | 0.40 |
| JUN | 12.5 | 17.6 | 0.46 |
| JUL | 12.5 | 17.5 | 0.40 |
| AUG | 12.5 | 18.3 | 0.35 |
| SEP | 12.7 | 18.7 | 0.32 |
| OCT | 12.7 | 18.3 | 0.28 |
| NOV | 12.4 | 18.6 | 0.00 |
| DEC | 12.3 | 18.0 | 0.00 |
| MEAN | 12.3 | 17.8 | 0.19 |
| MAX | 12.7 | 18.7 | 0.46 |
| MIN | 11.7 | 17.0 | 0.00 |
| LIMITS: | | | |
| MEAN | 16.0 | | |
| MAX | | 40.0 | 0.6 |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2001 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 MONITORING AND REPORTING PROGRAM NO. 93-75 A2

| MONTH | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|-------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TERTIARY PLANT INFLUENT |
| JAN | 12.3 | 18.4 | 0.00 |
| FEB | 12.3 | 17.2 | 0.00 |
| MAR | 12.1 | 17.6 | 0.00 |
| APR | 11.9 | 17.6 | 0.22 |
| MAY | 11.8 | 17.6 | 0.36 |
| JUN | 12.6 | 18.2 | 0.35 |
| JUL | 12.6 | 18.6 | 0.44 |
| AUG | 12.9 | 18.8 | 0.43 |
| SEP | 12.8 | 18.0 | 0.47 |
| OCT | 12.7 | 17.4 | 0.42 |
| NOV | 12.5 | 17.9 | 0.12 |
| DEC | 12.6 | 17.9 | 0.00 |
| MEAN | 12.4 | 17.9 | 0.23 |
| MAX | 12.9 | 18.8 | 0.47 |
| MIN | 11.8 | 17.2 | 0.00 |
| LIMITS: | | | |
| MEAN | 16.0 | | |
| MAX | | 40.0 | 0.6 |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

| MONTH | PLANT FLOWS (MGD) | | |
|---------|---|----------------------------------|-------------------------------|
| | TOTAL PLANT INFLUENT ¹ | MAXIMUM INFLUENT ¹ | TERTIARY PLANT INFLUENT |
| JAN | 12.4 | 17.2 | 0.00 |
| FEB | 12.3 | 17.4 | 0.00 |
| MAR | 12.1 | 17.3 | 0.00 |
| APR | 12.3 | 17.5 | 0.18 |
| MAY | 12.6 | 17.8 | 0.33 |
| JUN | 12.9 | 17.9 | 0.43 |
| JUL | 13.1 | 18.2 | 0.49 |
| AUG | 13.3 | 18.8 | 0.46 |
| SEP | 13.3 | 18.5 | 0.33 |
| OCT | 13.1 | 18.2 | 0.40 |
| NOV | 12.7 | 18.2 | 0.00 |
| DEC | 13.1 | 18.7 | 0.00 |
| MEAN | 12.8 | 18.0 | 0.22 |
| MAX | 13.3 | 18.8 | 0.49 |
| MIN | 12.1 | 17.2 | 0.00 |
| LIMITS: | | | |
| MEAN | 16.0 | | |
| MAX | | 40.0 | 0.6 |
| MIN | | | |

NOTE: 1. Represents influent to secondary treatment.

TABLE 4.1
LANCASTER WATER RECLAMATION PLANT
2003 INFLUENT FLOWS

| MONTH | SECONDARY TREATMENT ¹ | | | TERTIARY TREATMENT | | |
|-------|----------------------------------|----------------------------------|---------------------|--------------------|--------------------------|---------------------|
| | MEAN FLOW (MGD) | MAXIMUM INSTANTANEOUS FLOW (MGD) | TOTAL INFLUENT (MG) | MEAN FLOW (MGD) | DAILY MAXIMUM FLOW (MGD) | TOTAL INFLUENT (MG) |
| JAN. | 12.8 | 21.0 | 397.7 | 0.00 | 0.00 | 0.00 |
| FEB. | 13.3 | 24.6 | 371.5 | 0.00 | 0.00 | 0.00 |
| MAR. | 12.7 | 20.6 | 394.5 | 0.00 | 0.00 | 0.00 |
| APR. | 12.6 | 21.0 | 378.4 | 0.21 | 0.45 | 6.40 |
| MAY | 13.0 | 20.6 | 402.1 | 0.36 | 0.47 | 11.27 |
| JUNE | 13.3 | 21.2 | 398.7 | 0.31 | 0.35 | 9.26 |
| JULY | 13.5 | 20.6 | 417.0 | 0.26 | 0.49 | 8.11 |
| AUG. | 13.5 | 22.2 | 418.6 | 0.41 | 0.50 | 12.64 |
| SEP. | 13.5 | 21.2 | 405.9 | 0.34 | 0.53 | 10.10 |
| OCT. | 13.4 | 22.5 | 416.7 | 0.30 | 0.38 | 9.23 |
| NOV. | 13.5 | 22.0 | 403.7 | 0.09 | 0.36 | 2.56 |
| DEC. | 13.3 | 20.6 | 413.7 | 0.00 | 0.00 | 0.00 |
| MEAN | 13.2 | 21.5 | 401.5 | 0.2 | 0.3 | 5.8 |
| MAX | 13.5 | 24.6 | 418.6 | 0.4 | 0.5 | 12.6 |
| MIN | 12.6 | 20.6 | 371.5 | 0.0 | 0.0 | 0.0 |
| LIMIT | 16.0 | 40.0 | | | 0.60 | |

¹ Flows represent influent to secondary treatment

TABLE 4.1
LANCASTER WATER RECLAMATION PLANT
2004 INFLUENT FLOWS

| MONTH | SECONDARY TREATMENT ¹ | | | TERTIARY TREATMENT | | |
|--------|----------------------------------|----------------------------------|---------------------|--------------------|----------------------------|---------------------|
| | MEAN FLOW (MGD) | MAXIMUM INSTANTANEOUS FLOW (MGD) | TOTAL INFLUENT (MG) | MEAN FLOW (MGD) | 24-HOUR MAXIMUM FLOW (MGD) | TOTAL INFLUENT (MG) |
| Jan-04 | 13.0 | 21.3 | 403.3 | 0.00 | 0.00 | 0.00 |
| Feb-04 | 13.3 | 20.5 | 386.8 | 0.00 | 0.00 | 0.00 |
| Mar-04 | 13.0 | 21.7 | 402.3 | 0.00 | 0.00 | 0.00 |
| Apr-04 | 12.9 | 20.9 | 388.3 | 0.30 | 0.50 | 9.00 |
| May-04 | 13.3 | 21.5 | 413.3 | 0.42 | 0.60 | 13.02 |
| Jun-04 | 13.4 | 20.5 | 401.7 | 0.42 | 0.60 | 12.57 |
| Jul-04 | 13.6 | 21.3 | 422.1 | 0.47 | 0.54 | 14.47 |
| Aug-04 | 13.6 | 21.1 | 422.2 | 0.43 | 0.57 | 13.37 |
| Sep-04 | 13.5 | 21.7 | 405.5 | 0.46 | 0.51 | 13.91 |
| Oct-04 | 13.4 | 20.5 | 415.3 | 0.42 | 0.49 | 12.94 |
| Nov-04 | 13.0 | 22.2 | 390.6 | 0.07 | 0.34 | 2.18 |
| Dec-04 | 13.9 | 25.0 | 430.4 | 0.08 | 0.50 | 2.36 |
| MEAN | 13.3 | 21.5 | 406.8 | 0.26 | 0.39 | 7.82 |
| MAX | 13.9 | 25.0 | 430.4 | 0.47 | 0.60 | 14.47 |
| MIN | 12.9 | 20.5 | 386.8 | 0.00 | 0.00 | 0.00 |
| TOTAL | | | 4881.8 | | | 93.82 |
| LIMIT | 16.0 | 40.0 | | | 0.60 | |

¹ Flows represent influent to secondary treatment

TABLE 4.1
LANCASTER WATER RECLAMATION PLANT
2005 INFLUENT FLOWS

| MONTH | SECONDARY TREATMENT ¹ | | | TERTIARY TREATMENT | | |
|--------|----------------------------------|----------------------------------|---------------------|--------------------|----------------------------|---------------------|
| | MEAN FLOW (MGD) | MAXIMUM INSTANTANEOUS FLOW (MGD) | TOTAL INFLUENT (MG) | MEAN FLOW (MGD) | 24-HOUR MAXIMUM FLOW (MGD) | TOTAL INFLUENT (MG) |
| | Jan-05 | 13.8 | 27.7 | 426.4 | 0.00 | 0.00 |
| Feb-05 | 13.8 | 21.1 | 385.0 | 0.00 | 0.00 | 0.00 |
| Mar-05 | 13.1 | 21.0 | 407.0 | 0.20 | 0.65 | 6.21 |
| Apr-05 | 13.3 | 21.1 | 399.8 | 0.33 | 0.50 | 9.92 |
| May-05 | 13.2 | 20.3 | 408.8 | 0.44 | 0.53 | 13.57 |
| Jun-05 | 13.1 | 19.6 | 393.5 | 0.52 | 0.61 | 15.57 |
| Jul-05 | 13.3 | 22.0 | 411.3 | 0.53 | 0.60 | 16.32 |
| Aug-05 | 12.6 | 20.0 | 392.0 | 0.42 | 0.62 | 13.16 |
| Sep-05 | 12.9 | 20.3 | 386.4 | 0.52 | 0.64 | 15.55 |
| Oct-05 | 13.0 | 21.6 | 402.0 | 0.34 | 0.47 | 10.48 |
| Nov-05 | 16.0 | 24.7 | 478.8 | 0.26 | 0.53 | 7.73 |
| Dec-05 | 15.7 | 25.8 | 486.6 | 0.15 | 0.46 | 4.51 |
| MEAN | 13.6 | 22.1 | 414.8 | 0.31 | 0.47 | 9.4 |
| MAX | 16.0 | 27.7 | 486.6 | 0.53 | 0.65 | 16.3 |
| MIN | 12.6 | 19.6 | 385.0 | 0.0 | 0.00 | 0.0 |
| TOTAL | | | 4977.6 | | | 113.0 |
| LIMIT | 16.0 | 40.0 | | | 0.6 | |

¹ Flows represent influent to secondary treatment

TABLE 4.1
LANCASTER WATER RECLAMATION PLANT
2006 INFLUENT FLOWS

| MONTH | SECONDARY TREATMENT ¹ | | | TERTIARY TREATMENT | | |
|--------|----------------------------------|----------------------------------|---------------------|--------------------|----------------------------|---------------------|
| | MEAN FLOW (MGD) | MAXIMUM INSTANTANEOUS FLOW (MGD) | TOTAL INFLUENT (MG) | MEAN FLOW (MGD) | 24-HOUR MAXIMUM FLOW (MGD) | TOTAL INFLUENT (MG) |
| Jan-06 | 14.8 | 26.0 | 459.7 | 0.16 | 0.58 | 4.92 |
| Feb-06 | 15.1 | 24.3 | 423.6 | 0.30 | 0.70 | 8.39 |
| Mar-06 | 15.0 | 21.5 | 465.3 | 0.38 | 0.62 | 11.71 |
| Apr-06 | 15.6 | 23.8 | 468.6 | 0.17 | 0.62 | 5.20 |
| May-06 | 14.8 | 25.7 | 458.4 | 0.49 | 0.62 | 15.28 |
| Jun-06 | 14.4 | 22.6 | 431.3 | 0.56 | 0.59 | 16.93 |
| Jul-06 | 14.9 | 23.5 | 461.8 | 0.42 | 0.60 | 13.03 |
| Aug-06 | 14.9 | 25.0 | 460.7 | 0.53 | 0.60 | 16.32 |
| Sep-06 | 14.7 | 25.0 | 442.4 | 0.34 | 0.60 | 10.33 |
| Oct-06 | 14.2 | 24.9 | 440.8 | 0.28 | 0.43 | 8.78 |
| Nov-06 | 14.8 | 30.1 | 443.8 | 0.35 | 0.52 | 10.40 |
| Dec-06 | 15.6 | 27.0 | 483.9 | 0.52 | 0.59 | 16.00 |
| MEAN | 14.9 | 25.0 | 453.4 | 0.38 | 0.59 | 11.44 |
| MAX | 15.6 | 30.1 | 483.9 | 0.56 | 0.70 | 16.93 |
| MIN | 14.2 | 21.5 | 423.6 | 0.16 | 0.43 | 4.92 |
| TOTAL | | | 5440.3 | | | 137.29 |
| LIMIT | 16.0 | 40.0 | | | 0.6 | |

¹ Flows represent influent to secondary treatment

TABLE 4.1
LANCASTER WATER RECLAMATION PLANT
2007 INFLUENT AND TOTAL EFFLUENT FLOWS

| MONTH | LWRP INFLUENT FLOWS | | | | | | | | | | | | TOTAL EFFLUENT ³ | |
|--------------|---------------------|------------------|------------------|---------------------------|--------------------|------------------|------------------|---------------------------|------------------|------------------------|------------------|---------------------------|-----------------------------|------------------|
| | LWRP | | | | AVTTP ¹ | | | | MBR ² | | | | TOTAL (MG) | MEAN DAILY (MGD) |
| | TOTAL (MG) | MEAN DAILY (MGD) | MAX. DAILY (MGD) | MAX. INSTANT. DAILY (MGD) | TOTAL (MG) | MEAN DAILY (MGD) | MAX. DAILY (MGD) | MAX. INSTANT. DAILY (MGD) | TOTAL (MG) | MEAN DAILY (MGD) | MAX. DAILY (MGD) | MAX. INSTANT. DAILY (MGD) | | |
| Jan-07 | 484.1 | 15.6 | 17.1 | 26.6 | 13.12 | 0.42 | 0.60 | | 0.00 | 0.00 | 0.00 | | 437.4 | 14.1 |
| Feb-07 | 424.9 | 15.2 | 16.3 | 26.5 | 15.38 | 0.55 | 0.60 | | 8.00 | 0.29 | 1.15 | | 517.0 | 18.5 |
| Mar-07 | 469.8 | 15.2 | 16.0 | 25.9 | 18.13 | 0.58 | 0.62 | | 30.78 | 0.99 | 1.15 | | 520.9 | 16.8 |
| Apr-07 | 450.4 | 15.0 | 15.8 | 26.2 | 13.00 | 0.43 | 0.60 | | 32.03 | 1.07 | 1.18 | | 265.4 | 8.8 |
| May-07 | 461.3 | 14.9 | 15.8 | 25.5 | 17.95 | 0.58 | 0.60 | 0.64 | 18.93 | 0.61 | 1.15 | 1.50 | 313.3 | 10.1 |
| Jun-07 | 471.3 | 15.7 | 16.4 | 26.7 | 17.47 | 0.58 | 0.60 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 281.3 | 9.4 |
| Jul-07 | 502.1 | 16.2 | 16.5 | 31.8 | 18.19 | 0.59 | 0.60 | 0.62 | 14.19 | 0.46 | 0.91 | 1.44 | 375.6 | 12.1 |
| Aug-07 | 507.0 | 16.4 | 17.1 | 27.1 | 17.72 | 0.57 | 0.62 | 0.64 | 36.98 | 1.19 | 1.42 | 1.50 | 374.5 | 12.1 |
| Sep-07 | 455.7 | 15.2 | 16.5 | 36.7 | 18.01 | 0.60 | 0.62 | 0.67 | 24.89 | 0.83 | 1.15 | 1.83 | 356.2 | 11.9 |
| Oct-07 | 455.8 | 14.7 | 15.5 | 25.2 | 17.56 | 0.57 | 0.62 | 0.75 | 25.54 | 0.82 | 1.15 | 1.36 | 394.3 | 12.7 |
| Nov-07 | 427.0 | 14.2 | 15.0 | 26.0 | 17.52 | 0.58 | 0.61 | 0.64 | 17.78 | 0.59 | 1.01 | 1.09 | 240.5 | 8.0 |
| Dec-07 | 429.0 | 13.8 | 14.9 | 25.2 | 18.79 | 0.61 | 0.63 | 0.72 | 29.74 | 0.96 | 1.01 | 1.52 | 416.9 | 13.4 |
| TOTAL | 5538.4 | | | | 202.84 | | | | 238.86 | | | | 4493.3 | |
| MEAN | 461.5 | 15.2 | 16.1 | 27.5 | 16.90 | 0.56 | 0.61 | 0.66 | 19.90 | 0.65 | 0.94 | 1.28 | 374.4 | 12.3 |
| MAX | 507.0 | 16.4 | 17.1 | 36.7 | 18.79 | 0.61 | 0.63 | 0.75 | 36.98 | 1.19 | 1.42 | 1.83 | 520.9 | 18.5 |
| MIN | 424.9 | 13.8 | 14.9 | 25.2 | 13.00 | 0.42 | 0.60 | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 | 240.5 | 8.0 |
| LIMIT | | | 16.0 | 40.0 | | | 0.6 | | | 1.0⁴ | 1.75 | | | |

¹ Receives secondary LWRP effluent.

² Receives primary LWRP effluent.

³ Total effluent from LWRP + MBR + AVTTP.

⁴ Limit for a 12-month period.

District No. 14 Planning Area Projected Wastewater Flow

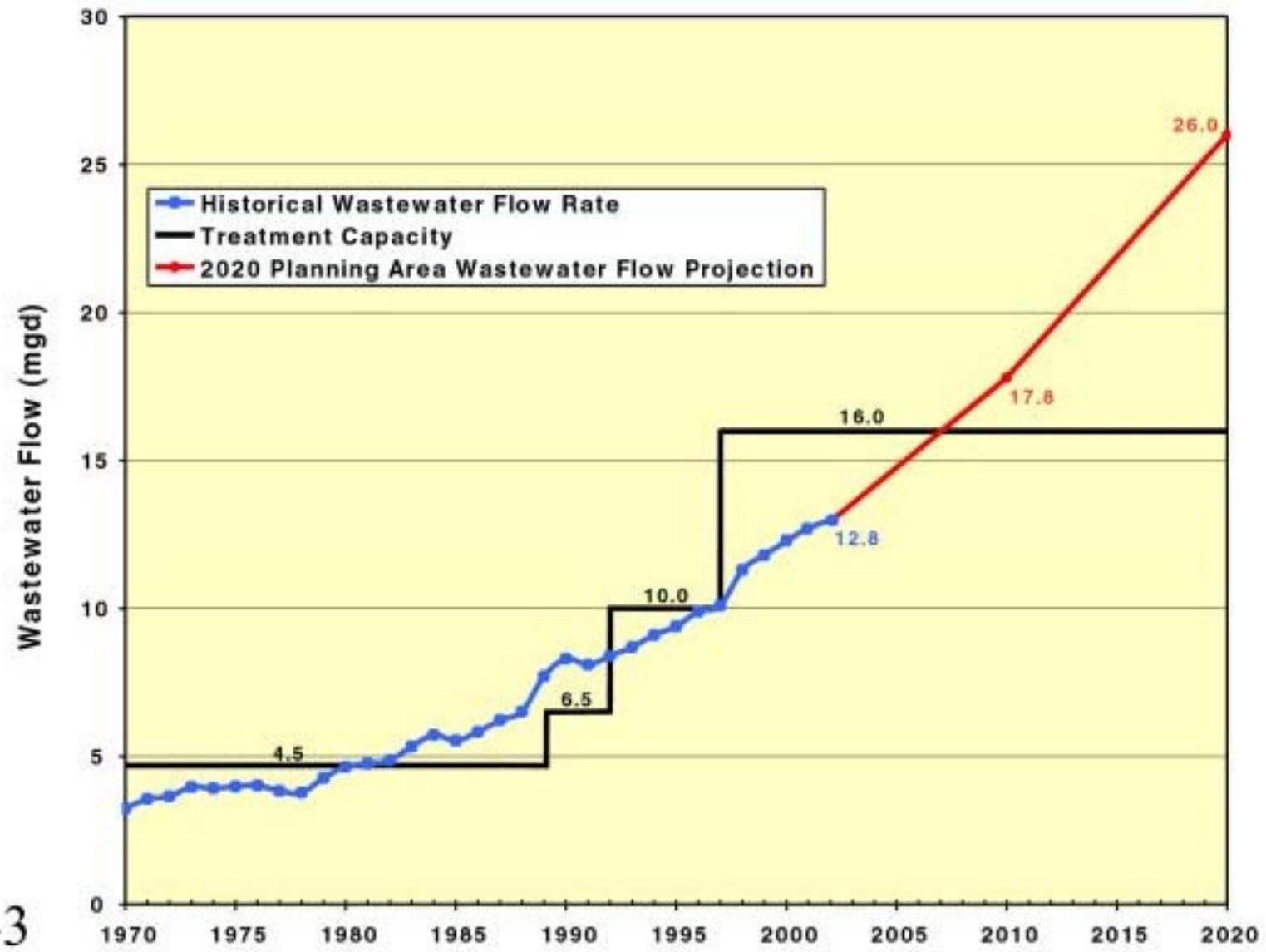
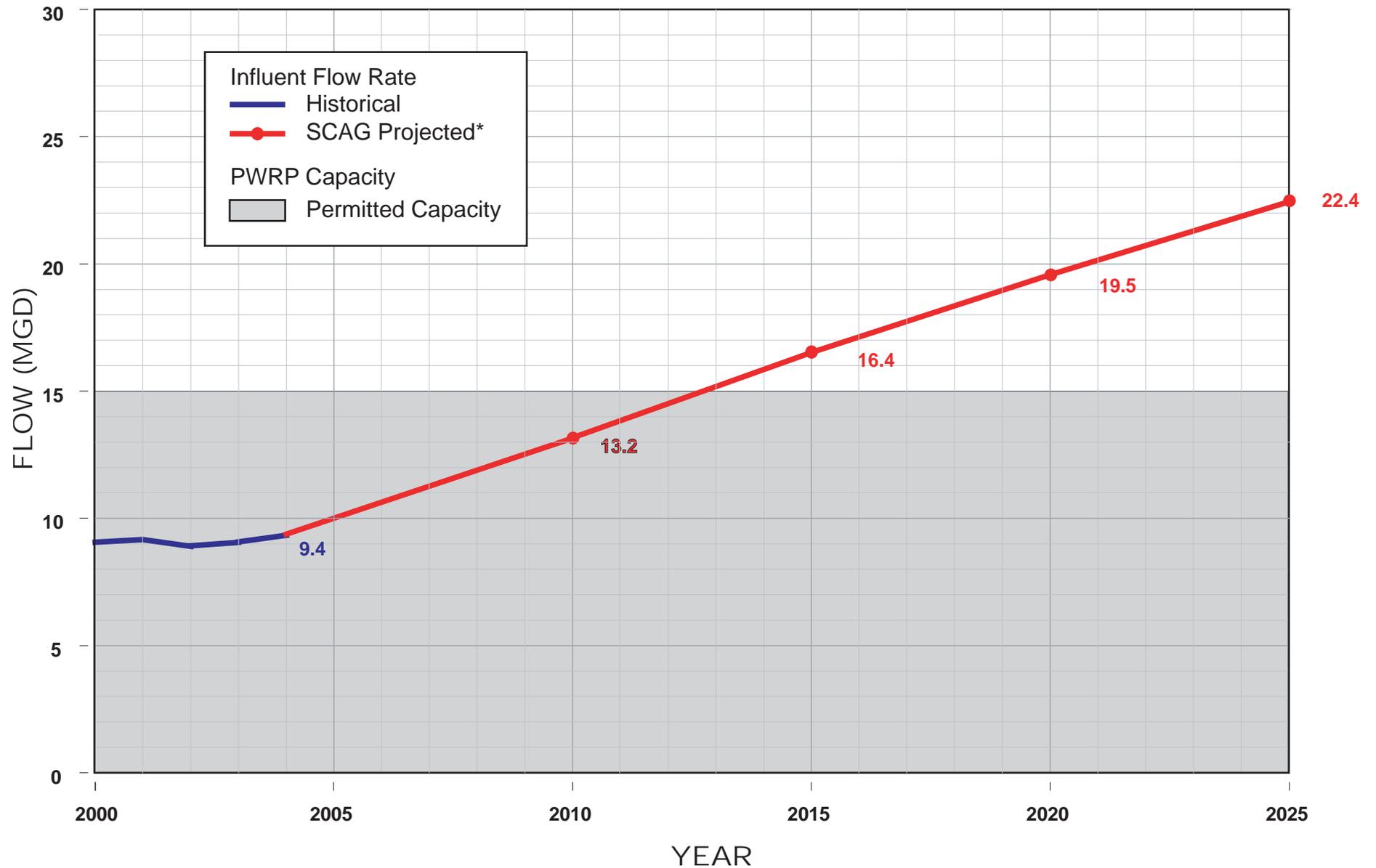


Figure 5-3



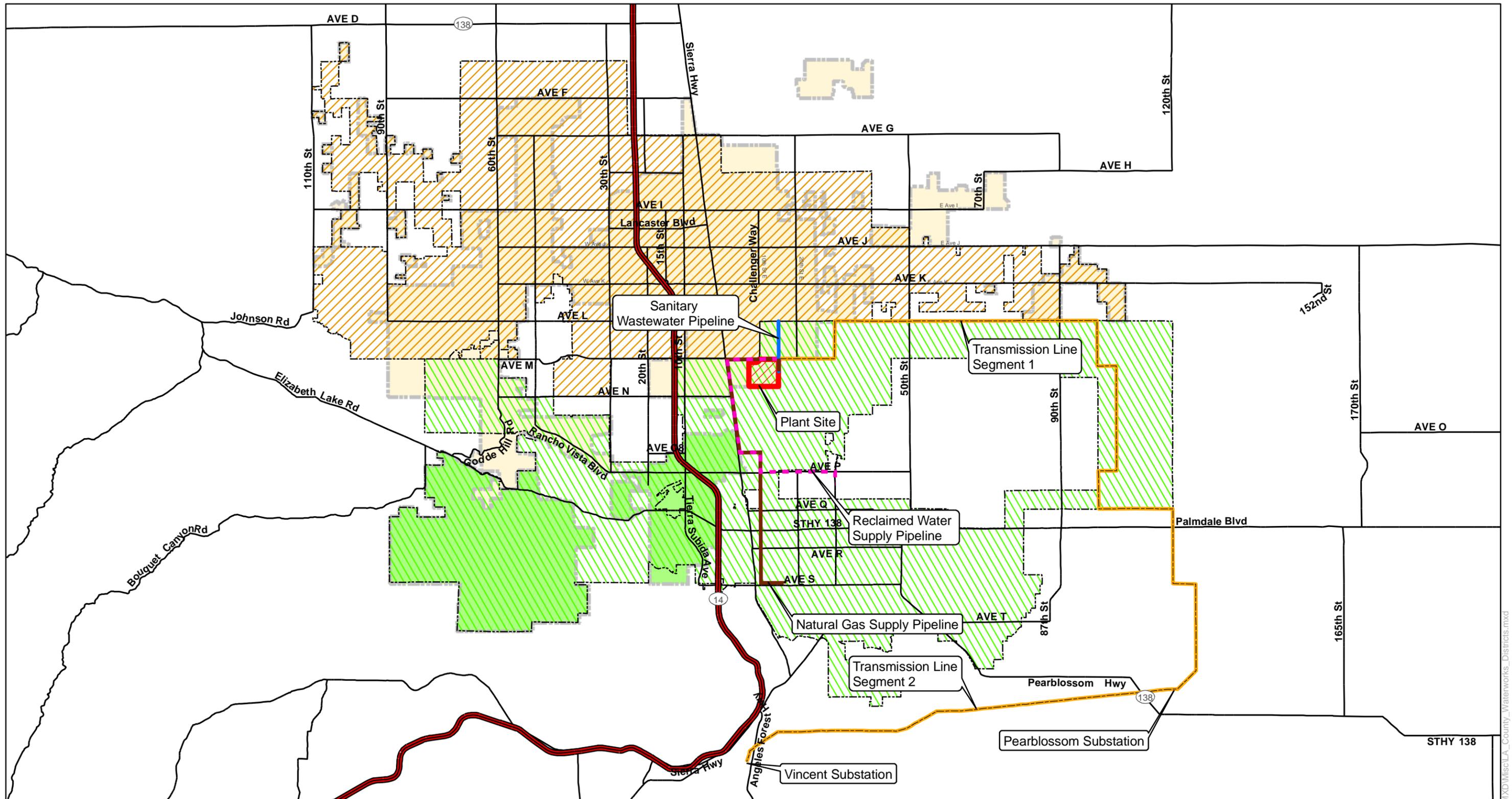
* Projected flow rate based on 2004 RTP SCAG projections approved by the Cities of Palmdale and Lancaster.

Final PWRP 2025 Facilities Plan and EIR

Figure 5-7

Projected Wastewater Flow for the District No. 20 Planning Area





Legend

- Plant Site
- Natural Gas Supply Pipeline
- Reclaimed Water Supply Pipeline
- Sanitary Wastewater Pipeline
- Transmission Line

LA County Waterworks District

- 40-04
- 40-34

City Boundary

- PALMDALE
- LANCASTER

Scale: 1:160,000
0 1 2 4 Miles

Palmdale Hybrid Power Project

Figure DR-58
Los Angeles County Waterworks Districts in Project Vicinity

Project: 10855-002
Date: January 2009

I:\Projects\InlandEnergy\Palmdale\WXD\Misc\LA_County_Waterworks_Districts.mxd

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 67-72**

Technical Area: Socioeconomics

Response Date: January 12, 2009

Data Request 67:

In the Application for Certification (AFC), capital costs for the PPHP are in 2011 dollars but please indicate the year for all economic estimates (e.g., IMPLAN economic impact analysis, school impact fees, construction and operation sales tax, property taxes etc.).

Response:

The tax rates and school impact fees (e.g., tax percentages and school fees) provided by the school districts and the County of Los Angeles are for 2008. The IMPLAN economic analysis was reported in 2011 dollars, utilizing the 2011 PPHP estimates of capital costs.

Data Request 68:

Please provide an estimate of the number of rooms and vacancy rates for 14 hotel/motels in Palmdale and 16 hotel/motels in Lancaster cited in the AFC that might accommodate construction workers who may temporarily relocate.

Response:

Based on information available from the California Hotel and Lodging Association (CHLA), the nearest California Lodging Industry Performance areas are Pasadena/Glendale/Burbank and Los Angeles-Long Beach. According to information provided by the CHLA in December 2008, there are currently 20 hotels/motels in Lancaster and 14 in Palmdale, compared with the 16 in Lancaster and 14 in Palmdale which were documented in the AFC. Based on data from the CHLA and contact with the motels in the area, there are approximately 2,970 rooms available within the cities of Palmdale and Lancaster, as specified below.

Lancaster: (Number of Rooms)

Desert Inn: 140

Oxford Inn & Suites: 180

E-Z 8 Motel: 102

Best Western Antelope Valley Inn: 144

Inn of Lancaster: 102

Sands Motel: 18

Regalodge Motel: 21

Sahara Motel: Unavailable

Townhouse Motel Lancaster: 70

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 67-72**

Technical Area: Socioeconomics

Response Date: January 12, 2009

Camelot Motel: 41
Comfort Inn & Suites: 58
Motel 6 Lancaster: 72
Holiday Inn Express: 73
Lancaster Spectrum Hotel: 104
Hampton Inn & Suites: 85
Homewood Suites Hotel: 93
Springhill Suites Lancaster/Palmdale: 94
Bon Aire Motel: 25
Tropic Motel: 21
Essex House & Convention Center: 175

Palmdale: (Number of Rooms)

Days Inn: 100
Holiday Inn Palmdale/Lancaster: 149
Malhi's Inn: 49
Ramada Inn: 135
Super 8 Motel: 93
Palmdale Residence Inn: 90
Palmdale Courtyard: 90
Best Western John Jay Inn & Suites: 63
E-Z 8 Palmdale: 112
Motel 6 Palmdale: 103
Hampton Inn & Suites: 85
Hilton Garden Inn: 107
Embassy Suites – Palmdale: 150
Sherwood Motel: 23

Total Number of Rooms: 2,967

For 2008, the occupancy rate for hotels within the Pasadena/Glendale/Burbank and Los Angeles-Long Beach areas were 65.9% and 74.6%, respectively. These numbers show a slight decline from 2007 occupancy rates which were 72.9% and 77.1%, respectively. The CHLA did not have data available specifically for the Cities of Palmdale and Lancaster; however, the number of

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 67-72**

Technical Area: Socioeconomics

Response Date: January 12, 2009

available rooms was calculated using the occupancy rates for the Pasadena/Glendale/Burbank and Los Angeles-Long Beach areas. Using 65.9% and 74.6% occupancy with the number of local rooms, the average number of hotel rooms available for visiting construction workers would be between 1,011 and 753. The average number of construction workers over the 27-month construction phase is 367, with a peak number of 767 construction workers. Due to the proximity to the Los Angeles and Bakersfield areas, a large percentage of the construction workers are expected to commute daily to the project site, so only a portion of the total workers at any given time will need to use temporary lodging. As the peak number of workers is only slightly above the lowest number of rooms available last year, it is expected that enough hotel rooms should be available for all construction workers.

Data Request 69:

Is the local purchase of materials, supplies, equipment, and services just for Los Angeles County or does it also include San Bernardino and Kern Counties (the three-county area) since that has been used in the context of defining local?

Response:

The IMPLAN assessment was based on the Tri-County area of Los Angeles, Kern, and San Bernardino Counties, because the Project will draw workers from all three counties. However, with regard to local purchases of materials, supplies, equipment, and services, it was assumed that purchases will only be made from within Los Angeles County. Los Angeles County has a much broader and more diverse selection of vendors from which to purchase goods and services when compared to the surrounding counties. For incidental needs, PHPP will purchase goods and services from within the City of Palmdale, which is located in Los Angeles County.

Data Request 70:

If multiple counties are local (the three-county area), then a weighted average of sales taxes from the three-county area might be used to calculate local sales taxes for the PHPP or by impacted county or some other method. If appropriate, please provide a revised sales tax estimate.

Response:

As stated above, we defined the project area for local purchases as Los Angeles County and, as a result, calculated sales tax revenue based on Los Angeles County rates.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 67-72**

Technical Area: Socioeconomics

Response Date: January 12, 2009

Data Request 71:

If you believe that your original estimate for Los Angeles County total sales tax for the PHPP is a reasonable estimate, then please explain why?

Response:

As explained in our response to Data Request 69, it is highly likely that most, if not all, of the local purchases of goods and services will be made within Los Angeles County and, as a result, the use of Los Angeles County sales tax rates is a reasonable method for estimating the revenue generated by the local purchase of goods and services.

Data Request 72:

Were total (permanent and short-term contract) operation workers used to run the IMPLAN model to estimate secondary impacts? If complete workforce estimates were not used then please recalculate the operation secondary employment impacts or explain the rationale for not doing it including using numeric information to bound the economic impacts.

Response:

Yes, all operational employees (36 total) were included in the IMPLAN assessment for the operation of the PHPP. This number includes all permanent and short-term contract workers.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 73-79**

Technical Area: Transmission System Engineering

Response Date: January 12, 2009

Data Request 73:

Provide a one-line diagram for the existing SCE Vincent Substation before the interconnection of the Palmdale project.

Response:

Please see extension request filed December 30, 2008.

Data Request 74:

Provide a one-line diagram for the SCE Vincent Substation after the addition of the project. Show all equipment ratings including bay arrangement of the breakers, disconnect switches, buses, and etc. which are required for the addition of the Palmdale project.

Response:

Please see extension request filed December 30, 2008.

Data Request 75:

The existing 230 kV transmission lines from Vincent Substation to Pearblossom Substation feed the California Department of Water Resource (CDWR) water pumping plant. This circuit will be moved and placed on the new PPHP steel poles. Provide evidence showing that CDWR is informed of and supports the proposed changes, and that CDWR can accept any possible interruption to the normal operation of the pumping plant.

Response:

Please see extension request filed December 30, 2008.

Data Request 76:

Clarify if any existing poles that are supporting the above Vincent – Pearblossom 230 kV line will be removed after relocating the transmission lines.

Response:

Please see extension request filed December 30, 2008.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 73-79

Technical Area: Transmission System Engineering

Response Date: January 12, 2009

Data Request 77:

Provide the rating of the disconnect switch which is connecting the project switchyard and the generation tie-line (see Figure 2-10 of the AFC).

Response:

The conceptual rating for the project switchyard disconnect switch is 2000A.

Data Request 78:

Provide the Facility Study Plan.

Response:

Please see extension request filed December 30, 2008.

Data Request 79:

Provide the Facility Study Report.

Response:

Please see extension request filed December 30, 2008.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 80**

Technical Area: Visual

Response Date: January 12, 2009

Data Request 80:

Please provide the Conceptual Landscaping Plan (Figure 5.15-10) on 11-inch by 17"-inch paper.

Response:

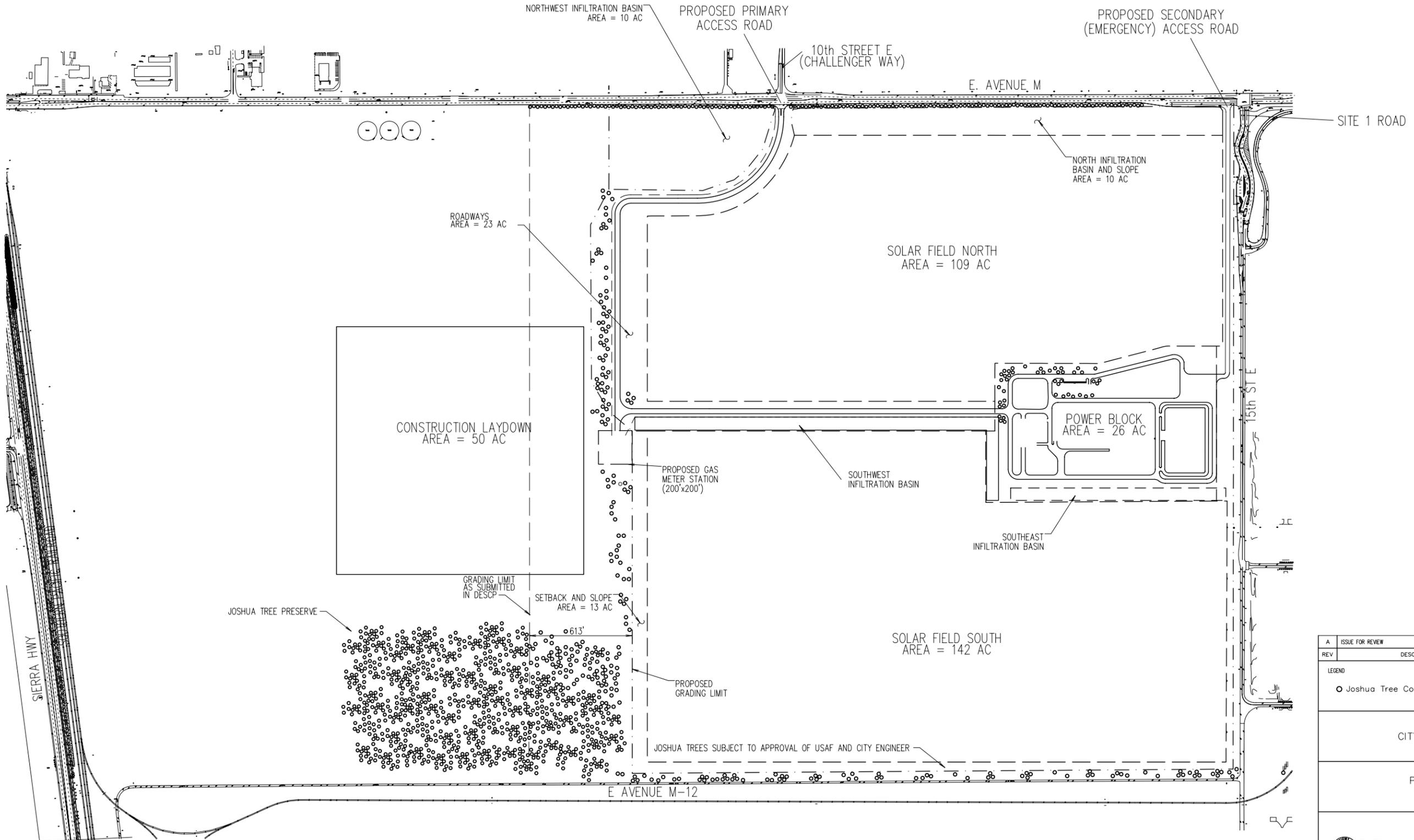
The Conceptual Landscaping Plan of Figure 5.15-10 in the specified size is provided as Attachment DR-80 at the end of this section. In addition to making this figure larger, other updates, such as the latest site plan showing access roads and Joshua tree relocations, have been incorporated. These updates were discussed and coordinated with the City of Palmdale.

In addition, the City wishes to provide a revision to Table 5.15-2 as follows:

Table 5.15-2R Agencies and Agency Contacts

| Agency Contact | Phone/E-mail | Permit/Issue |
|--|---|---|
| Connie Brown Senior Engineering Landscape Technician City of Palmdale, 38250 Sierra Highway Palmdale, CA 93550 | (661) 267-5265 cbrown@cityofpalmdale.org | Conformance to Native Desert Vegetation Ordinance |

Attachment DR 80
Conceptual Site Layout



| REV | ISSUE FOR REVIEW | SJS | DWN | CHK | APP | DATE |
|-----|------------------|-----|-----|-----|-----|----------|
| A | ISSUE FOR REVIEW | | | | | 12-17-08 |

LEGEND
 ○ Joshua Tree Conceptual Location

CITY OF PALMDALE

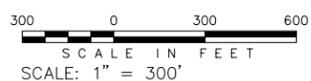
PALMDALE HYBRID POWER PROJECT



Kiewit Power
 8455 Leroux Drive
 Lenexa, Kansas 66214

Conceptual Landscape Plan

| DESIGNED | by | date | DRAWING NUMBER |
|----------|-----|----------|----------------|
| DRAWN | MDM | 01-09-09 | |
| CHECKED | MDM | 01-09-09 | |
| APPROVED | | | |



**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 81-87**

Technical Area: Waste Management

Response Date: January 12, 2009

Data Request 81:

Please confirm that the project owner or their representative will be responsible for construction wastes, and that the project owner will obtain an EPA identification number for these wastes. Also, pursuant to the above, please identify whether the project owner or their representative will then be responsible for preparing a construction waste management plan.

Response:

As stated in Section 5.16.1.5 (page 5.16-7) of the AFC, "As a generator of hazardous waste, the Project will be required to obtain an EPA identification number..." The project owner will obtain an EPA identification number prior to beginning construction on the Project and will be responsible for ensuring construction wastes are handled according to applicable LORS.

As stated in Section 5.16.3.1 (page 5.16-11), paragraph 3, "each contractor will be required to prepare a written summary of how they plan to appropriately handle construction-related wastes" and stated in Section 5.16.4 (Page 5.16-16), WM-2, "...the Project will require each contractor to provide a written summary of how they will appropriately handle and dispose of construction-generated hazardous materials during and following construction." The project owner will prepare a construction waste management plan to ensure construction wastes are managed in accordance with applicable LORS. The construction waste management plan will incorporate the written waste management summaries from each contractor.

Data Request 82:

For each waste stream where AFC Tables 5.16-5 and 5.16-6 identified onsite management as "none," please provide more information regarding the onsite management of the wastes or state why no onsite management is required.

Response:

Table 5.16-5R and Table 5.16-6R within the AFC document have been updated herein to specify onsite management for hazardous and non-hazardous waste streams accumulated during construction and operation of the facility. One waste stream, sanitary wastes, was identified as no onsite management required since the waste is discharged to the sanitary sewer. Onsite waste management activities will comply with applicable LORS for the temporary storage of hazardous and non-hazardous waste streams. Generally, wastes accumulated on the Project site will be containerized, properly marked/labeled, stored in designated areas, and removed from the Project site by a qualified waste management company.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST81-87**

Technical Area: Waste Management

Response Date: January 12, 2009

Table 5.16-5R Summary of Construction Waste Streams and Management Methods

| Waste Stream and Classification ¹ | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|--|-------------------------------------|-------------------------------|-----------------------------------|--|--|
| | | | | On site | Off site |
| Construction waste – Hazardous | Empty hazardous material containers | 1 cubic yard per week (cy/wk) | Intermittent | Accumulate on site for <90 days Store in designated area(s) | Return to vendor or dispose at permitted hazardous waste disposal facility |
| Construction waste – Hazardous | Solvents, used oil, and paint | 175 gal | Every 90 days | Accumulate on site for <90 days Containerized and stored in designated hazardous waste area(s) until removed by a licensed hazardous waste hauler | Recycle or use for energy recovery |
| Construction waste - Hazardous | Rags with oils and solvents | 1 drum per week | Intermittent | Accumulate on site for <90 days Containerized and shipped with the rag supplier | Clean and recycle for reuse |
| HRSG cleaning waste – Hazardous | Chelant type solution | 60,000 gal | One time event | Removed at time of activity Collect rinse solution and remove by a licensed hazardous waste hauler | Dispose to permitted hazardous waste disposal facility or recycle |
| Spent batteries - Universal | Lead acid, alkaline type | 20 in 2 years | Intermittent | Accumulate on site for <90 days Containerized and stored within designated hazardous waste area(s) until removed by a licensed waste hauler | Recycle |

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST81-87**

Technical Area: Waste Management

Response Date: January 12, 2009

Table 5.16-5R Summary of Construction Waste Streams and Management Methods

| Waste Stream and Classification ¹ | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|--|--|------------------|---|---|--|
| | | | | On site | Off site |
| Construction waste – Non-hazardous | Scrap wood, concrete, steel, glass, plastic, paper | 40 cy/wk | Intermittent | Remove as needed Containerized within designated areas until removed by licensed waste hauler | Dispose to Class III landfill or recycle |
| Construction waste – Non-hazardous | Spent compressed gas cylinders | 4 cyl/wk | Intermittent | Remove as needed Secured/stored within designated area(s) until removal by the compressed gas supplier | Recycle |
| Sanitary waste – Non-hazardous | Portable Chemical Toilets - Sanitary Waste | 200 gals/day | Periodically pumped to tanker truck by licensed contractors | Remove as needed Stored within each unit, pumped, and waste removed from site by service provider | Ship to sanitary wastewater treatment facility |
| Office waste – Non-hazardous | Paper, aluminum, food | 3 cu yd/wk | Intermittent | Remove as needed Containerized within solid waste dumpster area and removed by hauler | Recycle or dispose to Class III landfill |

Table 5.16-6R Summary of Operation Waste Streams and Management Methods

| Waste Stream and Classification ¹ | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|---|---|------------------|-----------------------------------|--|----------|
| | | | | On site | Off site |
| Used hydraulic fluid, oils and grease, oily filters – Hazardous | Turbines and other users of hydraulic actuators | <5 gals/day | Intermittent | Accumulated of < 90 days Containerized and stored within designated hazardous waste area(s) until removed by a licensed waste hauler. | Recycle |

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST81-87**

Technical Area: Waste Management

Response Date: January 12, 2009

Table 5.16-6R Summary of Operation Waste Streams and Management Methods

| Waste Stream and Classification ¹ | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|--|---|---------------------------------|---|---|--|
| | | | | On site | Off site |
| Effluent from oily water separation system – Hazardous | Plant wash down area/oily water separation system | 3,000 gals/year | Intermittent | Remove as needed Pumped from the oily water system and hauled by a licensed hazardous waste hauler | Recycle |
| Oily rags, oil absorbent, and oil filters – Hazardous | Various | 55 gals volume/month | Intermittent | Accumulated of < 90 days Containerized and stored within designated hazardous waste area(s) until removed by a licensed waste hauler | Sent off site for recycling/recovery or disposed at a Class I landfill |
| Spent SCR catalyst - Hazardous | HRSG, Heavy metals | 20,000 ft ³ | Intermittent Once every 3 to 5 years | Accumulated of < 90 days Containerized within designated hazardous waste area(s) until removed by a licensed hazardous waste hauler | Recycle |
| Spent batteries – Hazardous | Lead acid | 20 every 2 years | Intermittent | Accumulated for <90 days Stored in designated area(s) until removed by a battery supplier | Recycle |
| Soil contaminated with Heat Transfer Fluid (HTF) > 10,000 mg/kg – Non-RCRA Hazardous | Solar array equipment leaks | 10 cubic yards per year (cy/yr) | Intermittent | Accumulated of < 90 days Containerized and stored within designated hazardous waste area(s) until removed by licensed hazardous waste hauler | Sent off site for disposal at a Class I landfill |
| Spent batteries – Universal | Rechargeable and household types | <10/month | Intermittent | Accumulate for <1 year Containerized and stored within designated hazardous waste area(s) until removed by licensed waste hauler | Recycle |
| Spent demineralizer resin – Nonhazardous | Demineralizer | 10 ft ³ | Once every 3 years | Removed as needed Containerized and stored in designated area(s) prior to shipment by supplier | Recycle |

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST81-87**

Technical Area: Waste Management

Response Date: January 12, 2009

Table 5.16-6R Summary of Operation Waste Streams and Management Methods

| Waste Stream and Classification ¹ | Origin and Composition | Estimated Amount | Estimated Frequency of Generation | Waste Management Method | |
|---|--|---------------------|-----------------------------------|---|--|
| | | | | On site | Off site |
| Spent fluorescent bulbs – Universal | Facility lighting | < 50 per year | Intermittent | Accumulate for <1 year Containerized and stored within designated hazardous waste area(s) until removed by a licensed waste hauler | Recycle |
| Soil contaminated with HTF (< 10,000 mg/kg – Non-hazardous) | Solar array equipment leaks | 750 cy/yr | Intermittent | Moved to the bioremediation unit and subsequently used as fill material on site once concentrations meet permit conditions | None - soil will be recycled on site for use as fill material. |
| Anthracite & sand, filter, media – Non-hazardous | Media Filter | 100 ft ³ | Once every 3 years | Removed as needed Containerized and stored in designated area(s) prior to shipment by supplier | Recycle |
| Used air filters – Non-hazardous | CTG inlet | 2,100 filters | Every 5 yrs | Removed as needed Containerized and stored in designated area(s) prior to shipment by supplier | Recycle |
| Cooling tower basin sludge – Non-hazardous | Cooling tower | 2 tons/year | Annually | Removed as needed Containerized and stored in designated area(s) prior to shipment by supplier | Dispose to waste management facility |
| Spent softener resin – Non-hazardous | Softener | 100 ft ³ | Once every 3 years | Removed as needed Containerized and stored in designated area(s) prior to shipment by supplier | Recycle |
| Water Treatment Solids (Including cooling tower waste water treatment solids) – Non-hazardous | Filter press solids, dewatered sludge cake | 1,200 lbs per hour | Continuous | Removed as needed Containerized and stored in designated area(s) prior to shipment by supplier | Dispose to waste management facility |
| Sanitary wastewater - Non-hazardous | Toilets, washrooms | 5,400 gals/day | Continuous | None - POTW system | Dispose – POTW |

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 81-87**

Technical Area: Waste Management

Response Date: January 12, 2009

Data Request 83:

Please provide information on the waste transport, recycling, and waste transfer facilities/services that may be used to transport, recycle or otherwise manage project wastes. The information provided should include, as appropriate, the following:

- a) Facility/company name;
- b) Phone number;
- c) Location;
- d) Class and/or type of service;
- e) Materials accepted;
- f) Permit or license for activity;
- g) Recycling methods used;
- h) Which project wastes will potentially be managed by the facility/service;
- i) Permitted capacity;
- j) Annual usage;
- k) Remaining capacity;
- l) Estimated closure date;
- m) Expiration date for permit or license;
- n) Approximate distance from site (in miles); and
- o) Any special conditions or other comments pertinent to the facility or service.

Response:

The revised AFC Tables 5.16-5R and 5.16-6R (provided in response to Data Request 82, previously), list recycling as the offsite management methods for several hazardous and non-hazardous waste streams. Table 5.16-4R lists several Class I, II, and III landfills where waste may be disposed from construction and operation of the Project. AFC Table 5.16-4R was updated with readily available information as provided in the response to Data Request 83.

PALMDALE HYBRID POWER PROJECT (08-AFC-09)

CEC STAFF SET 1 DATA REQUESTS 81 – 87

Technical Area: Waste Management

Response Date: January 12, 2009

Table 5.16-4R Solid and Hazardous Waste Disposal Facilities

| Waste Disposal Site | Title 23 Class | Materials Accepted | Maximum Permitted Capacity | Current Operating Capacity | Remaining Capacity | Estimated Closure Date | Enforcement Action Taken? |
|--|----------------|---|----------------------------|----------------------------|------------------------|------------------------|---------------------------|
| Scholl Canyon Sanitary Landfill 3001 Scholl Canyon Road Glendale, CA (562) 699-7411 CWIS # 19-AA-0012 ~33 Miles South | Class III | Inert, Construction, Demolition, Industrial, Mixed Municipal, Manure, Tires | 69,200,000 cubic yards | 3,400 tons/day | 10,804,900 cubic yards | 2019 | No |
| Burbank Landfill Site No. 3 1600 Lockheed View Drive, Burbank, CA (818) 238-3915 CWIS # 19-AA-0040 ~32 Miles South | Class III | Mixed Municipal, Construction, Demolition, Industrial, Inert | 5,933,365 cubic yards | 240 tons/day | 5,107,465 cubic yards | 2053 | No |
| Azusa Land Reclamation Co. Landfill 1211 West Gladstone Street Azusa, CA (626) 705-8521 CWIS # 19-AA-0013 ~37 Miles South | Class III | Asbestos, Asbestos, Friable, Inert, Tires; Tires, Cut; Contaminated Soil | 66,670,000 cubic yards | 6,500 tons/day | 34,100,000 cubic yards | 2025 | No |

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| Waste Disposal Site | Title 23 Class | Materials Accepted | Maximum Permitted Capacity | Current Operating Capacity | Remaining Capacity | Estimated Closure Date | Enforcement Action Taken? |
|--|-----------------------|---|-----------------------------------|-----------------------------------|---------------------------|-------------------------------|----------------------------------|
| Chiquita Canyon Sanitary Landfill 29201 Henry Mayo Drive Castaic, CA (925) 447-0491 CWIS # 19-AA-0052 ~32 miles Southwest | Class II and III | Mixed Municipal, Green Materials, Construction, Demolition, Industrial, Inert | 63,900,000 cubic yards | 6,000 tons/day | 35,800,000 cubic yards | 2019 | No |
| Puente Hills Landfill 13130 Crossroads Pkwy South Industry, CA (562) 699-7411 CWIS # 19-AA-0053 ~42 Miles South | Class III | Agricultural, Ash, Construction, Demolition, Industrial, Mixed Municipal, Sludge (BioSolids), Tires | 106,400,000 cubic yards | 13,200 tons/day | 49,348,500 cubic yards | 2013 | No |
| Antelope Valley Public Landfill II 1200 West City Ranch Road Palmdale, CA (661) 947-7197 CWIS # 19-AA-5624 ~5 Miles South | Class III | Agricultural, Industrial, Mixed Municipal, Green Materials, Construction, Demolition, Inert | 8,206,000 cubic yards | 1,800 tons/day | 8,206,000 | 2008 | No |

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| Waste Disposal Site | Title 23 Class | Materials Accepted | Maximum Permitted Capacity | Current Operating Capacity | Remaining Capacity | Estimated Closure Date | Enforcement Action Taken? |
|---|-----------------------|---|-----------------------------------|-----------------------------------|---------------------------|-------------------------------|----------------------------------|
| Lancaster Landfill and Recycling Center 600 East Avenue F Lancaster, CA (661) 223-3437 CWIS # 19-AA-0050 ~7 Miles North | Class III | Agricultural, Construction, Demolition, Industrial, Mixed Municipal, Tires, Inert, Green Materials, Asbestos, Sludge (BioSolids), Contaminated Soil | 26,665,000 cubic yards | 1,700 tons/day | 19,088,739 | 2012 | No |
| Calabasas Sanitary Landfill 5300 Lost Hills Road Agoura, CA (562) 699-7411 CWIS # 19-AA-0056 ~48 Miles Southwest | Class III | Construction, Demolition, Industrial, Mixed Municipal, Tires, Green Materials | 69,700,000 cubic yards | 3,500 tons/day | 16,900,400 cubic yards | 2028 | No |
| Clean Harbors Buttonwillow LLC 2500 West Lokern Road Buttonwillow, CA (661) 762-6200 CWIS # 15-AA-0257 ~96 Miles Northwest | Class I | Contaminated Soil, Industrial | 14,293,760 cubic yards | 10,482 tons/day | 9,500,000 cubic yards | 2040 | No |

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CEC STAFF SET 1 DATA REQUESTS 81 – 87**

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| Waste Disposal Site | Title 23 Class | Materials Accepted | Maximum Permitted Capacity | Current Operating Capacity | Remaining Capacity | Estimated Closure Date | Enforcement Action Taken? |
|---|-----------------------|--|-----------------------------------|-----------------------------------|---------------------------|-------------------------------|----------------------------------|
| Kettleman Hills - B18 Nonhazardous Codisposal 35251 Old Skyline Road Kettleman City, CA (559) 386-9711 CWIS # 16-AA-0023 ~140 Miles Northwest | Class I and II | Contaminated Soil, Industrial | 10,700,000 cubic yards | 8,000 tons/day | 6,000,000 cubic yards | N/A | No |
| Pebbly Beach (Avalon) Disposal Site 1 Dump Road, Avalon, CA (562) 663-3400 CWIS # 19-AA-0061 ~ 91 Miles South, on Santa Catalina Island | Class III | Ash, Mixed Municipal, Sludge (BioSolids), Green Materials, Inert, Metals | 143,142 cubic yards | 49 tons/day | 104,100 cubic yards | 2033 | No |

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
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The Applicant is unable to provide information on the waste transportation, recycling, and other treatment, storage, and disposal facilities (TSDFs) that may be used for the PHPP. At this early stage of the Project, the Applicant has not selected or identified contractors to provide various services, including waste hauling and construction materials. Part of the construction waste management plan will include the waste streams, waste characterization, disposal method, waste management company, and other pertinent details to adequately manage waste in accordance with applicable waste management LORS. At this time, several waste haulers and material suppliers operate in the vicinity of the Project location. Specific identification of waste recycling facilities, transfer facilities, and disposal facilities is difficult because these services are dependent on the contractor(s) selected. Each waste management company uses preferred transporters (some are owner and operated by the waste management company others use subcontractors). Waste management companies also use preferred recycling and disposal facilities or they own recycling and/or disposal facilities. For instance, a provider of rags for maintenance functions typically delivers clean rags and removes oily rags for cleaning and recycling at their own facility.

The Applicant will use licensed, financially secure, and established waste management firms to characterize and transport construction and operational waste from the Project site for recycling or disposal at licensed facilities. As discussed in AFC Section 5.16.2.1, "Non-hazardous solid waste generated at the Project site during both construction and operation phases will be taken off site for recycling or disposal to a permitted Class III landfill." Additionally, as discussed in AFC Section 5.16.2.2, "Hazardous waste generated at the facility will be taken off site for recycling or disposal by a licensed and permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility (e.g., Class I landfill)."

Data Request 84:

Please indicate whether either the city of Palmdale or county of Los Angeles operates a Construction and Demolition Waste Diversion Program.

Response:

The City of Palmdale does not operate a formal Construction and Demolition (C&D) Waste Diversion Program. There is no current ordinance; however, the City maintains a franchising agreement with Waste Management Inc. to provide such services to the City or to private contractors operating on behalf of the City.

Los Angeles County operates a construction and demolition (C&D) waste diversion program that requires projects in unincorporated areas to recycle or reuse 50 percent of the generated debris. The county passed a construction and demolition ordinance on January 4, 2005, that applies to:

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- 1) Any project requiring a construction permit which is valued at over \$100,000 (does not apply to single-family or two-family residential structures unless they are part of a development).
- 2) Any project requiring a demolition permit, regardless of value.
- 3) Any project requiring a grading permit, regardless of value.
- 4) Any project which requires one or more of the above permits.

The ordinance amends Title 20 – Utilities of the Los Angeles County Code by adding Chapter 20.87 – Construction and Demolition Debris Recycling and Reuse. Requirements of the ordinance (# 2005-0004) are outlined in the response to Data Request 85, provided below. The Los Angeles County C&D ordinance will apply to C&D wastes generated at PHPP linear facilities outside the City of Palmdale's jurisdiction, i.e., within unincorporated areas of Los Angeles County. While the power block and solar arrays are all located within the Palmdale city limits, the only PHPP facilities located in the unincorporated areas of Los Angeles County include portions of the electrical transmission lines.

Data Request 85:

Please describe how operators of the Palmdale Hybrid Power Project will meet each of the requirements of the program cited in the previous data request.

Response:

According to the Los Angeles County Code, all applicants for covered projects must submit a recycling and reuse plan (RRP) demonstrating how they will divert at least 50 percent of all soil, rock, and gravel, and at least 50 percent of all C&D debris, excluding inert material. Inert material may comprise no more than 2/3 of the project's C&D debris for the purpose of meeting the 50 percent requirement unless it is determined the project will not generate enough other C&D debris to meet the requirement. No permits for covered projects will be issued unless and until the project has an approved RRP.

Project applicants must submit an initial progress report no later than 90 days after issuance of the permit. Annual progress reports must be submitted thereafter until the completion of the project. Within 45 days of project completion, the permit applicant must submit a final compliance report and proper documentation regarding the amount of debris generated and diverted.

The PHPP Applicant will meet each of the above Los Angeles County requirements in the following manner:

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- 1) Management and disposal of construction and demolition wastes will be the responsibility of the PHPP construction contractor(s). Construction contracts will contain legally-enforceable language that will require the contractor to comply with all of the requirements of Los Angeles County's C&D recycling and reuse ordinance.
- 2) PHPP construction contractors will be required to contact the Los Angeles County Building and Safety Department (Alhambra, CA) to begin the C&D permitting process. The contractor(s) will prepare and submit an RRP via forms that are available online for this purpose. The contractor(s) will inform the Building and Safety Department of any changes in the proposed facilities, or requests for additional time to complete the project.
- 3) All PHPP construction contractors will be required to abide by the Applicant's PHPP Debris Management Plan (DMP) as part of the overall strategy for reducing, reusing, recycling, transporting, and disposing of construction debris generated at Project sites, with the ultimate goal of achieving the maximum amount of diversion away from landfilling, and ensuring the project is constructed in an environmentally responsible manner. The DMP will be made available to all key construction contractors and their staff for reference during construction of the project and will include planning, execution, monitoring, and reporting elements. The DMP will include, but will not be limited to, the following major components:
 - Education and training of management and workers.
 - Contract and procurement requirements, including purchase of recycled content products and agreements to assure conformance by contractors and subcontractors with PHPP recycling goals and procedures.
 - Waste profile and target materials for recovery at each construction jobsite.
 - Recovery and disposal options, including a comprehensive listing and explanation of applicable Best Management Practices (BMPs).
 - Projections, including project economics, waste generation, diversion potential and goal, and disposal cost estimates.
 - Monitoring and evaluation (including limitations, potential problems, and solutions).
 - Permitting and reporting requirements.
- 4) If required by the Los Angeles County Building and Safety Department, PHPP construction contractors will submit a 90-Day Report to the C&D Unit no later than 90 days after issuance of the first permit for the project.
- 5) If required, PHPP construction contractors will submit an Annual Progress Report to the C&D Unit on or before March 1 of every year, until project completion. An Annual Progress Report is not required if the County has been notified that a Final Compliance Report will be submitted on or before May 30 of the same year.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
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- 6) PHPP construction contractors will be required to submit a Final Compliance Report to the C&D Unit within 45 days of project completion. It is understood that failure to file a Final Compliance Report upon completion of a project may lead to a violation.

While it is not an enforceable requirement, PHPP construction contractors working within the Palmdale city limits will be encouraged to coordinate with the City of Palmdale Public Works Department and utilize the existing recycling and reuse resources available to City contractors via their franchising agreement with Waste Management Inc. and other local recycling contractors, agencies, and service organizations. In order to encourage these efforts, the Applicant will employ the following strategies, where feasible, for recovering construction and demolition materials:

- Incorporation of C&D recovery plans and BMPs in the project design, where practical.
- Inclusion of recovery requirements and goals in project specifications and contracts.
- Education of contractors and crew on materials recovery and reuse techniques.
- Provision of employee and contractor incentives for recovery.
- Coordination with local agencies and materials exchanges to maximize recovery of C&D reusable materials.

Data Request 86:

Please provide a Phase I ESA for the 8.7-mile natural gas pipeline, 7.4-mile reclaimed water pipeline, 1.0-mile potable water pipeline, 1.0-mile sewer connection, and 35.6-mile 230 kV transmission line interconnection route which, according to ASTM 2000 guidelines, need to evaluate if the project crosses the following:

- a) Property where contamination is known, or suspected at an up-gradient or adjoining site.
- b) Property, which is, or has been used for industrial/manufacturing purposes. Adjoining property with this type of usage should also be included in the investigation.
- c) Property for which any prior environmental investigation indicated the potential for contamination.
- d) Property displaying evidence of hazardous waste storage on site, whether permitted or not. For example, the existence of a former dry cleaner or gas station, which utilized underground or above ground storage tanks. Agricultural properties, where pesticides were stored/mixed and potentially released, should also be investigated.
- e) Property with visible staining.
- f) Property where contaminants exceeding drinking water standards have been detected.
- g) Property where state / federal agency notices of violation have been issued.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
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- h) Property on which equipment containing PCBs was stored.
- i) Property where fill dirt has been brought that has, or may have originated from a contaminated site.
- j) Property with known or suspected discharges of wastewater (other than storm-water and sanitary waste) into a storm water drain.
- k) Property with an environmental lien on it (imposed either by CERCLA 42USC / 9607(1) or similar state and local laws).
- l) Property along existing or past railroad tracks.
- m) For agricultural areas, please provide a representative sample (at least 10 percent) of all parcels randomly selected for a Determination of Pesticide Use assessment.

Response:

Please see extension request and objection filed on December 30, 2008.

Data Request 87:

The Phase I ESA shall identify the type of crops grown over as long a period as records indicate, the historical use and identity of pesticides (including organic and inorganic pesticides as well as herbicides), and a statement of the likelihood of finding levels of pesticides along the pipeline/transmission route that might present a risk to pipeline workers and/or the public.

Response:

Please see extension request and objection filed on December 30, 2008.

**PALMDALE HYBRID POWER PROJECT (08-AFC-09)
CEC STAFF SET 1 DATA REQUEST 88**

Technical Area: Worker Safety and Fire Protection

Response Date: January 12, 2009

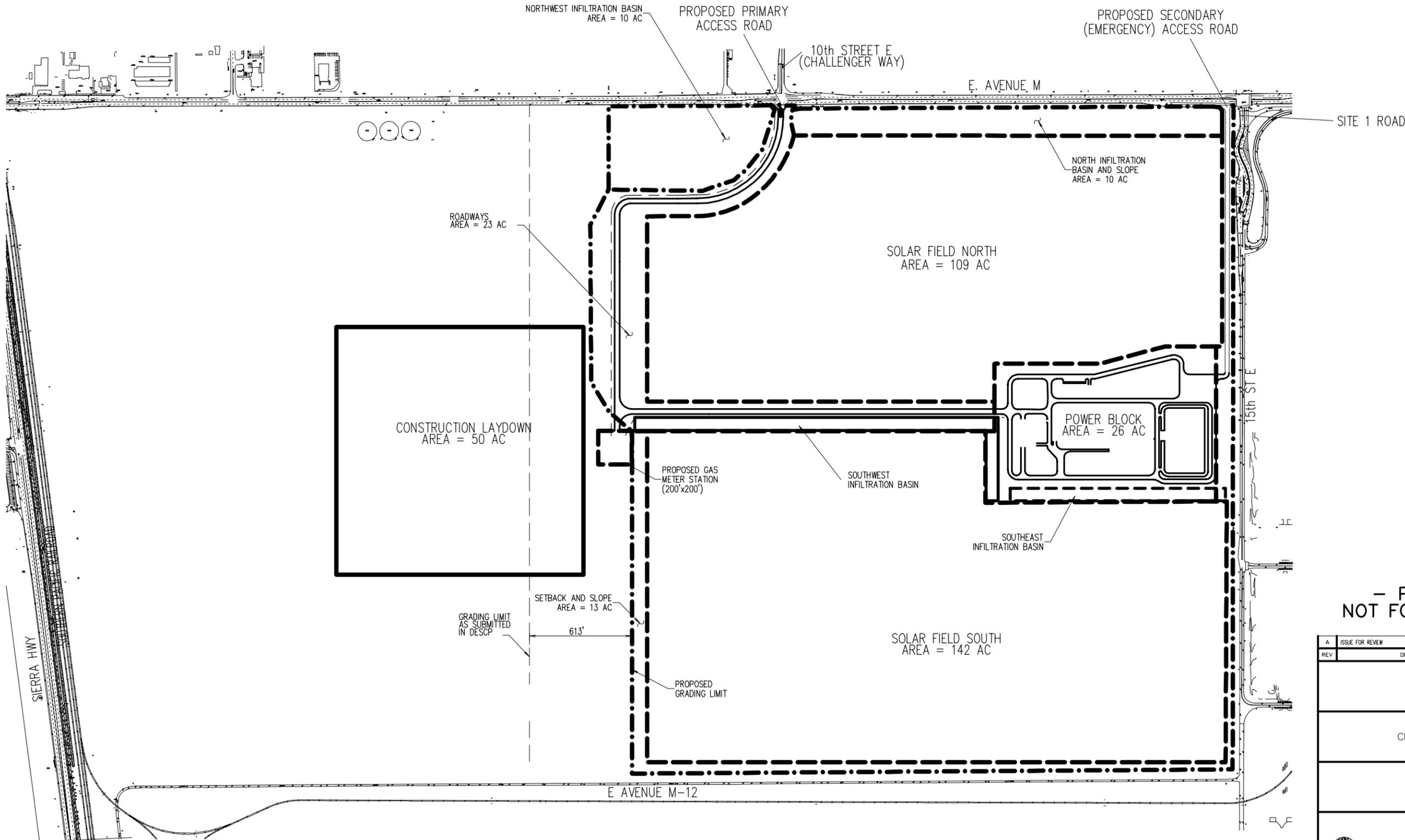
Data Request 88:

Please provide a narrative description and a map showing primary and secondary access points and gates to the project site. The secondary access point can be one restricted to the use of emergency response personnel.

Response:

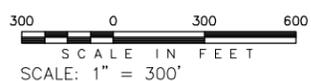
The primary access to the PHPP site is proposed to be located off East Avenue M (Columbia Way), directly south and opposite of 10th Street East (Challenger Way). This access point would be signalized and complete the four way intersection. This arrangement would add a new signal between the existing regulated intersections at East Avenue M and Sierra Highway and East Avenue M and Site 1 Road, the entrance to Air Force Plant 42. The entire PHPP site will be fenced and the primary access road off East Avenue M will be gated for additional security.

The City of Palmdale is in discussions with Air Force Plant 42 regarding additional access to the proposed PHPP site for emergency response purposes. They are currently consulting with traffic engineers but are tentatively proposing a gated access road along East Avenue M. This access point is proposed approximately 100 feet west of the intersection of East Avenue M and Site 1 Road, i.e., an access road to Air Force Plant 42. This secondary access road would parallel Site 1 Road and turn west into the parking lot for the power block and administration buildings at the facility. This road would provide additional access from the east side of the PHPP site. A tentative map identifying the proposed locations of both proposed access roads is provided in Figure DR-88.



- PRELIMINARY -
NOT FOR CONSTRUCTION

| REV | ISSUE FOR REVIEW | SJS | DWN | CHK | APP | DATE |
|-----------------------------------|------------------|--|--------------------|-----|-----|----------|
| A | ISSUE FOR REVIEW | | | | | 12-17-08 |
| CITY OF PALMDALE | | | | | | |
| PALMDALE HYBRID POWER PROJECT | | | | | | |
| | | Kiewit Power 8455 Levea Drive Lenexa, Kansas 66214 | | | | |
| FIGURE DR-88 PHPP ACCESS ROADS | | | | | | |
| DESIGNED | by | date | DRAWING NUMBER | | | |
| DRAWN | MDM | 01-06-09 | 2007-021-CM-010609 | | | |
| CHECKED | MDM | 01-06-09 | | | | |
| APPROVED | | | | | | |



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

In the Matter of:) Docket No. 08-AFC-9
)
Application for Certification,)
for the CITY OF PALMDALE HYBRID) **ELECTRONIC PROOF OF SERVICE**
POWER PLANT PROJECT) **LIST**
)
) (Revised August 4, 2008)
)
_____)

Transmission by depositing one original signed document and twelve (12) copies with an overnight mail delivery service at Camarillo, California with delivery fees thereon fully prepaid and addressed to the following:

DOCKET UNIT

CALIFORNIA ENERGY COMMISSION

Attn: DOCKET NO. 08-AFC-9
1516 Ninth Street, MS-15
Sacramento, California 95814-5512
docket@energy.state.ca.us

Transmission via overnight mail delivery to the following:

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

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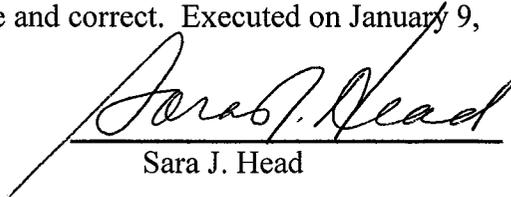
DECLARATION OF SERVICE

I, Sara J. Head, declare that on January 9, 2009, I deposited a copy of the attached:

**APPLICANT'S RESPONSES TO CALIFORNIA ENERGY COMMISSION DATA
REQUESTS, SET 1 (#s 1-88)**

with an overnight mail delivery service at Camarillo, California with delivery fees thereon fully prepaid and addressed to the California Energy Commission and to those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 9, 2009, at Camarillo, California.


Sara J. Head