STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

In the Matter of: Application for Certification for the Palmdale Hybrid Power Project	Docket No. 08-AFC-9

Energy Commission Staff's Rebuttal Testimony

On January 19, 2011, Center for Biological Diversity submitted opening testimony stating their opinion that the Final Staff Assessment (FSA) failed to adequately analyze the potential environmental impacts of applicant's proposal to pave several road segments to satisfy air quality requirements. Staff concurs that applicant's road paving proposal can be considered part of the whole of the action of the Palmdale Hybrid Power Project and should, therefore, be analyzed. Staff hereby provides this analysis in the attached.

DATED: January 21, 2011

Respectfully submitted,

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PALMDALE ENERGY PROJECT (08-AFC-9)
ENERGY COMMISSION STAFF'S REBUTTAL TESTIMONY

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INTRODUCTION

The applicant has proposed to pave roads in the vicinity of PHPP to generate particulate matter less than 10 microns (PM10) emission reduction credits (ERCs) to mitigate impacts to air quality and satisfy air quality requirements. (Applicant Responses to CEC Data Request Set 2 & Supplemental Responses # 4, 05/01/09, Data Response #103.) The applicant has identified eleven existing unpaved road segments, totaling about 22 miles they believe would be the most cost effective candidates for paving.

Street	From	To	Miles
Avenue B	90th Street West	30th Street West	6
Avenue S-2	96th Street East	106th Street East	1
110th Street East	Avenue L	Columbia Way / Avenue M	1
40th Street West	Avenue N	Avenue N-8	0.5
Avenue Q	90th Street East	110th Street East	2
Avenue S-6	96th Street East	106th Street East	1
Barrel Springs Road	Sierra Highway	25th Street East	1.5
Avenue T-10	87th Street East	96th Street East	1
Avenue N-8	Bolz Ranch Road	30th Street West	1.5
Avenue G	90th Street East	120th Street East	3
Carson Mesa Road	El Sastre	Vincent View Road	4

The applicant has indicated that four or five of these would need to be paved in order to obtain the quantity of offsets needed for air quality purposes, but has not specified which ones would be selected. To staff's knowledge, the applicant has not evaluated any of these roads for purposes of determining their potential for environmental impacts. Because the proposal to pave roads can be considered part of the whole of the action of the PHPP, staff believes an analysis of potential impacts from the road paving proposal based on information currently available is warranted.

Staff reviewed the applicant's proposal and concluded that additional discussion and analysis was necessary in the following technical areas: Biological Resources, Cultural Resources, Hazardous Materials Management, Public Health and Safety, Land Use, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Waste Management, and Geology, Paleontology and Minerals.

BIOLOGICAL RESOURCES
IMPACTS FROM ROAD PAVING MITIGATION

Testimony of Chris Huntley

INTRODUCTION

As a component of proposed Air Quality Conditions of Certification the applicant has proposed to pave segments of roads in the vicinity of the (Palmdale Hybrid Power Project) PHPP to reduce PM 10 emissions that would offset project emissions. Information provided in this document addresses potential impacts to biological resources that may occur in the proposed road paving area. This analysis describes the biological resources that have the potential to occur at or near the proposed road segments.

Road paving activities can involve both temporary and permanent impacts to vegetation and wildlife that occur on or adjacent to the proposed work area. As most of the existing roadways proposed for paving occur in relatively disturbed areas (i.e., light residential, agricultural, disturbed, and some natural lands) these types of impacts would be expected to be short term, minimal, and not result in the permanent loss of important habitat for sensitive species. However, it is possible construction activities associated with road paving could result in increased risk of road kill, or indirect impacts to species that occur in adjacent habitat for roads in the more rural areas. As discussed in the Biological Resources section of the PHPP Final Staff Assessment (FSA), staff's proposed conditions of certification include a suite of conditions to avoid and minimize impacts to biological resources.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

The applicant will need to abide by the same laws, ordinances, regulations, and standards (LORS) during road paving activities that were identified in the **Biological Resources Table 1** of the FSA.

EXISTING CONDITIONS

The applicant has identified 11 existing unpaved roads within the city of Palmdale and in areas of unincorporated Los Angeles County and could potentially pave four or five of these to satisfy air quality requirements (refer to Maps 1-3 for the specific locations and length of the segments). Habitat in these areas varies and is described below in **Biological Resources Table Rebuttal-1 Road Locations and Existing Conditions.**

Biological Resources Table Rebuttal-1
Road Locations and Existing Conditions

Road Number/ Street	Existing Conditions	Potential for Sensitive Species	Expected Right of Way Width
1 - Avenue B	Low density rural residences, fallow and active agricultural lands, desert scrub, and various ephemeral drainages	Moderate	40 feet
2 - Avenue S-2	Residential development on approximately one-acre lots. Landscape vegetation, ruderal fields, and disturbed areas	Low	40 feet
3 - 110th Street East	Primarily natural lands, road appears to be within active channel of seasonal drainage.	Moderate	92 feet
4 - 40th Street West	Urban residential lands. Landscaped areas.	Low	40 feet
5 - Avenue Q	Low density rural residences, desert scrub, and various ephemeral drainages	Moderate	92 feet
6 - Avenue S-6	Residential development on approximately one-acre lots. Landscape vegetation, ruderal fields, and disturbed areas	Low	40 feet
7 - Barrel Springs Road	Primarily natural lands with sparse rural residences. Supports various scrub communities, juniper woodland, and several drainages. Close to Una Lake, known to support nesting vireos.	Moderate	92 feet
8 - Avenue T-10	Residential development on approximately one-acre lots. Landscape vegetation, ruderal fields, and disturbed areas	Low	40 feet
9 - Avenue N-8	Urban residential lands. Landscaped areas.	Low	60 feet
10 - Avenue G	Primarily fallow agricultural lands likely supporting rabbit bush scrub, various desert scrub, and several ephemeral drainages	Moderate	40 feet
11 - Carson Mesa Road	Primarily natural lands with various scrub communities, juniper woodland, and small ephemeral drainages. Generally parallels a railroad ROW and Highway 14	Moderate	40 feet

Vegetation and Wildlife

Most of the roads that have been proposed for paving consist of compacted earth roadways that are currently subject to routine road traffic that support access to existing residences and connect with other arterial roadways. However, some roads including road number-3 likely are more characterized by sandy alluvial soils. Depending on their location these roads cross a variety of natural, disturbed, or manmade vegetation communities and their ability to support sensitive wildlife varies considerably depending on their location. Descriptions of the vegetation expected to occur along the road sections are described in the FSA.

As described in **Biological Resources Table Rebuttal-1,** proposed road sections 2,4,6,8, 9, and 11 are located within urban areas characterized by large lot residential communities supporting single family homes, landscaping, and open ruderal fields where homes have either not been developed or have been removed. Similarly, road sections 1 and 5, while in more rural areas support scattered residences, fallow agricultural lands, and natural desert scrub communities. Active farming occurs along portions of road section 5. Road section 11, while largely supporting natural lands is located adjacent to the railroad and parallels Highway 14.

Road sections 3, 7, and 10 are located in more isolated areas supporting various native and non-native plant communities. For example, road section 3 appears to be a lightly travelled road that appears to be within the active portion of an ephemeral drainage. This area is bordered by large tracts of natural lands to the east and scattered rural residences to the west. Road section 7 (Barrel springs Road) also passes through native habitat in close proximity to Una Lake. Several small drainages also appear to bisect this road.

Sensitive Vegetation Communities

Sensitive vegetation communities are described in the FSA. Based on an aerial review of the proposed road segments it is possible that Joshua tree and juniper woodland habitats could occur adjacent to the proposed road paving areas particularly road segments 7 and 11.

Jurisdictional Waters

A jurisdictional delineation of Waters of the State has not been completed for the proposed road paving sections. It is likely based on the numerous washes that cross the roads that many of these would meet the definition of Waters of the State. For example, road section 3 appears to be within the active portion of an ephemeral drainage.

Wildlife

Many of the same species of wildlife identified in the FSA have the potential to occur in the general vicinity of the road paving sections. However, it should be recognized that because of the urban setting and traffic that occurs along some of these roads, many sensitive species have a limited potential to occur. However, more rural road sections may support the same suite of sensitive species as the proposed project.

Special-Status Species

The same special status species described in the FSA have the potential to occur in portions of the road paving sections. These areas would be limited to areas outside of urban locations. Please refer to **Biological Resources Table 3** of the FSA for a list of the special-status species that are known to occur or could potentially occur in the project area and vicinity. Special status surveys have not been completed for the proposed road paving sections.

ASSESSMENT OF IMPACTS AND DISCUSSION OF MITIGATION

Energy Commission staff has analyzed the potential impacts from road paving to determine consistency with applicable biological resources LORS and the potential to have significant adverse biological resources-related impacts.

Method and Thresholds for Determining Significance

The method and thresholds used for determining significance of impacts for road paving are the same as were used for the proposed project. See **Section 4.2, Biological Resources** of the FSA for a description of CEQA thresholds for determining significance of impacts to biological resources.

Impacts to Vegetation

Construction associated with the road paving would result in the permanent loss of native and non-native vegetation depending on which road section was selected and would likely result in the loss of vegetation from road expansion to meet county and city requirements. **Biological Resources Table Rebuttal-1** contains the expected widths associated with road paving activities. It is also possible that additional lands would be required for staging, material stockpiling, or for construction yards.

As described above in the **Setting and Existing Conditions**, most of the habitat associated with these roads has been subject to repeated disturbance; however portions of some roads (i.e., road sections 1, 3, 5, 7, 10, and 11) traverse a variety of native habitats. The most intact native habitat appears to be the disturbed rabbit bush scrub, saltbush scrub, and Joshua tree woodlands, and juniper woodlands that border the roadways along road sections 1, 3, 5, 7, 10, and 11.

Impacts to native vegetation from road paving are expected to be minimal, based on the existing disturbed road shoulders and ROWs, and adjacent native vegetation communities have largely been subject to historic and ongoing disturbance in many of these areas.

Nonetheless impacts to native vegetation would be considered significant absent mitigation. Impacts to ruderal or highly disturbed habitat located in urban areas would be considered less than significant. Specifically, compensatory mitigation would be required for native habitat that occurs on road sections 1, 3, 5, 7, 10, and 11.

Direct and indirect construction impacts to vegetation would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Invasive and Noxious Weeds/Fugitive Dust

Road paving of existing dirt roads has been proposed to reduce long term fugitive dust emissions from road traffic. However, during construction activities dust and noxious weeds could further degrade habitat in the remaining natural areas. For natural areas, particularly adjacent to road sections 1, 3, 5, 7, 10, and 11 these impacts would be considered significant absent mitigation. Direct and indirect construction impacts from dust and weeds would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Impacts to Special-Status Plants

Floristic surveys for rare plants have not been conducted for the proposed road paving sections. The potential for rare plants is low and is a function of the proposed road locations. In urban areas (i.e., road sections 2,4,6,8, 9) rare plants are not likely to occur. Conversely portions of road sections 1, 3, 5, 7, 10, and 11may support habitat for some rare plants in adjacent habitat; however, most of these areas appear to be subject to ongoing disturbance. Therefore, the potential for rare plants to occur along the road paving sections is considered low. However, impacts to rare plants, should they occur, would be similar to those discussed in the FSA.

Direct and indirect construction impacts to rare plants would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Impacts to Common Wildlife

Direct and indirect impacts to common wildlife would be the same as described in the FSA. Common wildlife are expected to occur along portions of the road paving sections in low densities, largely associated with road sections 1,3,5,7,10, and 11. As many native species of wildlife are not well adapted to persist in urban areas or have reduced survivorship/ reproductive output when

found in developed and urbanized regions the overall impacts to common wildlife for road sections 2,4,6,8, and 9 are expected to be low.

Direct and indirect construction impacts to common wildlife would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Special-Status Wildlife

Impacts to Special-Status Invertebrates

Impacts to special status invertebrates are not expected to occur from road paving. Habitat for the San Emigdio blue butterfly has limited potential to occur in the road paving areas. Direct and indirect construction impacts to this species, if present, would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Impacts to Special-Status Amphibians

Impacts to special status amphibians are not expected to occur from road paving activities. As discussed in **Section 4.2** of the FSA, several rare amphibian species have been documented in the region, including arroyo toad, mountain yellow-legged frog, and spadefoot toad. Habitat for arroyo toads and mountain yellow-legged frogs are not present along or near the proposed road paving sections. Therefore, no impacts to these special-status amphibians would occur and no mitigation is required.

Spadefoot toads may have limited potential to occur along off road areas near Barrel Springs Road. Direct and indirect construction impacts to this species, if present, would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Impacts to Special-Status Reptiles

As discussed in **Section 4.2** of the FSA, six special-status reptile species have been reported from the vicinity of the project. These include desert tortoise, silvery legless lizard, San Diego coast horned lizard, California coast horned lizard, southwestern pond turtle, and two-striped garter snake.

Southwestern pond turtle and two-striped garter snake are riparian associated species and are not expected to occur on the road segments. These species may occur in adjacent habitat along road segment 7 (Barrel Springs Road) at nearby Una Lake. Coast horned lizards and silvery legless lizards have a low potential to occur within the urban portions of the proposed road paving areas. However, more rural areas associated with road sections 1,3,5,7,10, and 11 could support coast horned lizards. Direct and indirect construction impacts to these species, if present, would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Desert Tortoise

Surveys for desert tortoises have not been conducted for the proposed road sections and this species may occur along portions of road sections 1,3,5, and10. However, habitat in many of these roads appears to be compromised from urban development. Tortoises are not expected to occur within urban areas.

If present within the proposed road paving sections, impacts to this species would be the same as described in the FSA. Direct and indirect construction impacts to this species, if present, would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Regional Approach to Raven Control

The regional approach to raven management is described in the FSA. Because many of the roads proposed for paving occur in urban areas staff does not consider these areas to contribute to the tortoise predation risk. For the purposes of this analysis staff proposes that compensatory mitigation be required for road sections 1,3,5, and10. The final amount of lands required for compensatory mitigation would only apply to natural lands lost to road development.

Implementation of the conditions identified in the FSA would reduce impacts to desert tortoise, if present, to less-than-significant levels and would also satisfy the California Department of Fish and Game's requirements under Fish and Game Code Section 2081.

Impacts to Migratory/Special-Status Bird Species

Focused surveys for birds were not conducted for the proposed road paving sections. While sensitive birds likely occur in some of these areas such as near road section 7, which is adjacent to Una Lake; most sensitive birds have a lower level of tolerance for disturbance and construction would occur largely within disturbed habitat and existing road shoulders. Nonetheless, impacts to sensitive birds could occur absent mitigation.

Direct and indirect impacts to nesting birds or raptors would be the same as described in the FSA and these impacts would be considered significant absent mitigation. However, it is recognized that because of the proximity to existing roadways and developed areas the potential for direct impacts to most species is low. Direct and indirect construction impacts would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA.

Swainson's Hawk

Protocol surveys for the Swainson's hawk (state-listed Threatened) have not been completed for the proposed road paving sections. Suitable foraging habitat occurs within agricultural lands and scrub communities adjacent to road sections 1, 3, and 10 and within natural lands adjacent to road section 5. Urban areas

associated with road sections 2, 4, 6, 8, and 9 are not expected to support foraging but large trees could support nesting for this species in isolated locations. At least two recorded nests occur within three miles of road section 1 (Avenue B). In addition, both road section 10 (Avenue G) and road section 3 (110th Street East) are close to historic nest sites. This nest site is identified in the FSA.

By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts to Swainson's hawk would be reduced to less-than-significant levels and the project would be in compliance with the California Department of Fish and Game's requirements to fully mitigate under section 2081 of California's Fish and Game Code.

Burrowing Owls

Surveys for burrowing owl have not been completed for the proposed road paving sections. Habitat for burrowing owls occurs along many of the road sections particularly along road sections 1, 3, 5, 7, and 10. Agricultural lands associated with road section 1 are often known to support burrowing owls. Urban areas associated with road sections 2, 4, 6, 8, and 9 are likely to have a lower potential to support burrowing owls. By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts to burrowing owls would be reduced to less-than-significant levels

Golden Eagles

Golden eagles may occur along portions of the proposed road paving sections particularly in more rural areas associated with road sections 10 and 3 or near Una Lake (road section 7). Because of the urban development this species is not expected to be a frequent visitor along the urban areas associated with road sections 2, 4, 6, 8, and 9.

Impacts to golden eagles are described in the FSA. The implementation of staff's proposed Conditions of Certification identified in the FSA would be expected to reduce potential impacts to golden eagles to less-than-significant levels under CEQA, and the project would be compliance with the California Department of Fish and Game's provision for no take of the State Fully Protected Species under Section 3511 of California's Fish and Game Code.

Impacts to Special-Status Mammals

Mohave Ground Squirrel

Surveys for Mohave ground squirrel have not been conducted for the proposed road paving sections. Potential habitat for the Mohave ground squirrel is located along portions of road sections 1, 3, 5, and 10. However portions of these areas are highly disturbed or support rabbit bush scrub, agricultural lands, and other ruderal communities; habitat that typically is not associated with this species. This species is not expected to occur along road sections 2, 4, 6, 7, 8, 9, and 11.

Impacts to Mohave ground squirrel have been described in the FSA and would be considered significant, if present. By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts to Mohave ground squirrel would be reduced to less-than-significant levels and the project would be in compliance with the California Department of Fish and Game's requirements to fully mitigate under section 2081 of California's Fish and Game Code.

American Badger and Desert Kit Fox

Habitat for American badgers and desert kit fox may occur in the proposed road paving sections. Impacts to these species would be the same as described in the FSA and would be significant absent mitigation. By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts to these species would be reduced to less-than-significant.

Pallid San Diego Pocket Mouse and Southern Grasshopper Mouse

Impacts to the Pallid San Diego pocket mouse and southern grasshopper mouse would be the same as described in Section 4.2 of the FSA. However, these species have a limited potential to occur along most of the roadways identified in **Biological Resources Table Rebuttal-1**. These species are likely not associated with urban areas and disturbed road edges associated with road sections 2, 4, 6, 7, 8, and 9. However, suitable habitat occurs to a limited degree adjacent to the proposed alignment and there is potential for direct loss of these species. Impacts to these species would be the same as described in the FSA and would be significant absent mitigation By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts to these species would be reduced to less-than-significant.

Special-Status Bats

Impacts to special status bats would be the same as described in Section 4.2 of the FSA. Bats have limited potential to occur along road paving areas as these sites do not support large rock outcrops, bridges, or tunnels. It is possible that some bats may be associated with large urban trees and that foraging bats may occur along portions of the road paving sections near Una Lake and the desert scrub communities associated with road sections 1, 3, 5, and 10.

Impacts to Wildlife Movement Corridors or Native Wildlife Nursery Sites

Impacts to wildlife movement corridors or native nursery sites from the proposed road paving would be the same as described in Section 4.2 of the FSA and are considered less than significant. The proposed roads would not pose a permanent barrier to wildlife and in many instances the roads occur in urban settings.

Impacts to Waters of the State

A jurisdictional delineation for the proposed road paving sections has not been conducted. A review of aerial photography of the proposed alignment identified a series of potential State jurisdictional waters. Most of these features are ephemeral, lack riparian vegetation and consist of small swales, gullies, culverts, and drainages that cross existing access roads. In one instance, road section 3 appears to be almost wholly confined within the bed and banks of an ephemeral drainage for the entire one mile length of the road. Work in this area would likely require the construction of a new channel for the drainage. This would necessitate the completion of the jurisdictional delineation to quantify the loss of State waters. Small drainages that support riparian vegetation were also noted near Barrel Springs Road near Una Lake.

Direct and indirect construction impacts to jurisdictional habitats would be reduced to less-than-significant levels with implementation of the same Conditions of Certification identified in the FSA. This condition would require the completion of a jurisdictional delineation to fulfill the requirements of CDFG's Lake and Streambed Alteration Agreement program pursuant to Fish and Game Code Section 1600 et seq. The USACE has indicated that although waters of the United States do occur, the proposed project would not be regulated provided work is conducted outside the ordinary high water mark for areas designated as waters of the United States.

Operation Impacts and Mitigation

Potential impacts to biological resources from the operation of the project include increased risk of raven predation on desert tortoise and wildlife, increased levels of traffic and disturbance, potential collisions with structures, and lighting. These impacts are discussed below.

Ravens

The operational impacts to desert tortoise are described in the FSA for the proposed project.

Cumulative/Regional Impacts of Ravens

The regional impacts from ravens are the same as described in the FSA. However, most of the roads are located in close proximity to urban areas and the risk of further subsidies to ravens is considered low. For rural portions of the alignment road paving could increase raven subsidies through increased traffic and roadkill. By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts from raven subsidies would be reduced to less-than-significant levels under CEQA.

Other Predators

Most of the road paving alignment is located in close proximity to urban areas and tortoises are not expected to occur. However, dogs may range several miles

into the desert and have been found digging up and killing desert tortoises (USFWS 1994; Evans 2001). By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts from other predators would be reduced to less-than-significant levels under CEQA.

Increased Risk from Roads/Traffic

Road paving may result in increased road use and higher traffic speeds. If roads are paved in areas supporting desert tortoise this could result in elevated road mortality. Direct and indirect impacts to from increased road traffic would be the same as described in the FSA. However, wildlife use along existing access roads is currently subject to high levels of vehicle traffic in some areas and many roads occur within an urban setting. Therefore, the overall impacts from increased road traffic are expected to be low. By the implementation of staff's proposed Conditions of Certification identified in the FSA potential impacts from increased road traffic would be reduced to less-than-significant levels under CEQA.

Noise

Road paving activities are not expected to result in operational noise impacts; although paving may increase use of the roads by the public. However, the impact on operational noise is expected to be less than significant.

Bird Collisions and Electrocution

Road paving activities are not expected to result in collision or electrocution risk for birds.

Lighting

Road paving activities are not expected to result in operational lighting impacts. However, paving may increase nighttime use of the roads by the public.

Glare

Road paving activities are not expected to result in operational impacts from glare.

NO NEW REFERENCES ADDED

CULTURAL RESOURCES ASSESSMENT FOR THE PROPOSED ROADWAY PAVING ACTIVITIES

Testimony of Sarah Allred

The applicant has identified eleven existing unpaved road segments (totaling about 22 miles), a subset of which they are proposing to improve and pave as part of an effort to receive PM10 emission reduction credits (ERCs) to mitigate for air quality impacts for the PHPP. The applicant has estimated that four or five of these segments would need to be improved and paved in order to qualify for the necessary quantity of ERCs. The roadwork would need to be designed and constructed to meet Los Angeles County specifications. The construction requirements for converting the existing unpaved roads to paved roads would entail ground disturbances, including but not limited to equipment movement, grading, road widening, and other activities that have the potential to affect cultural resources.

With the exception of one (segment no. 5), the candidate roadway segments do not occur within the PHPP study area; therefore, there is currently no site-specific information available for the quantity and/or types of cultural resources that occur within the limits of work necessary to complete the proposed roadway paving activities. Based on staff's involvement in the project AFC process and the information provided from the California Historic Resources Information System (CHRIS) database, staff is able to provide a preliminary assessment of the nature and types of cultural resources that are expected to be encountered and potentially affected by the proposed roadway paving activities.

The PHPP project study area includes a 377-acre plant site, 50-acre laydown area, and more than 65 miles of linear facility corridors. The analyses of these areas and their corresponding buffers provide a substantial sample of the cultural resources that occur within the Palmdale area and provide a reliable indication of the types of cultural resources that could be encountered within the study limits of the candidate road segments. Based on the cultural resources identified from both the CHRIS database search and the recent field inventories that have occurred for the PHPP, there is greater sensitivity in the Palmdale area for historic-era cultural resources than for prehistoric archaeological resources. For instance, among the 71 resources identified from the initial CHRIS database search for the PHPP, only nine (12%) were prehistoric, while the remaining were historic-era resources (WSA 2008a, p. 42). Historic/modern-era trash deposits comprise the overwhelming majority of cultural resources observed and recorded in and around the Palmdale area; however, other historic-era resources include former homestead sites and built-environment resources, such as the Palmdale Ditch, the California Aqueduct, and the Southern Pacific Railroad. The few prehistoric sites identified in the Palmdale area appear primarily to be comprised of sparse discrete lithic and/or milling tool scatters (WSA 2008a, Attachments 8 and 9).

It is likely that one or more of the resource types described above could be present within the project limits of the proposed roadway paving work. In order to accurately assess the quantity, type, and significance of cultural resources within each of the

candidate road segments, a cultural resources investigation (archaeological and built-environment), involving a background literature review, a field survey/inventory, an evaluation of resource significance, and if necessary, a resolution of project effects (mitigation), would be required. Before such an investigation could occur, detailed information regarding the nature and extent of the proposed roadway paving work and the establishment of well-defined construction limits and corresponding study areas would be necessary.

If the applicant proceeds with the proposed roadway paving work at some or all of the eleven candidate road segments, significant impacts to potential CRHR-eligible cultural resources are possible. Staff, therefore, recommends a new cultural resources Condition of Certification (CUL-9) to mitigate potential impacts to a less-than-significant level.

CUL-9 Prior to the initiation of any ground disturbance related to the paving of any City of Palmdale and/or Los Angeles County road segments to Los Angeles County standards, in accordance with AQ-SC19, the project owner shall have the CRS provide the following:

1. A literature search meeting the specifications in Energy Commission Siting Regulations, Appendix B ,(g) (2) (B) (2007 version); the project owner shall provide the required copies of forms and maps to the CPM;
2. A pedestrian archaeological field survey and a "windshield" built-environment survey meeting the specifications in Energy Commission Siting Regulations, Appendix B ,(g) (2) (C) (2007 version), and completion of Department of Parks and Recreation 523 forms for all identified resources; no technical report is required, but the project owner shall provide to the CPM the forms and map(s) specified in Energy Commission Siting Regulations, Appendix B, (g) (2) (C) (iii) and Appendix B, (g) (2) (C) (iv) (2007 version); and
3. A letter report conveying to the CPM the results of the survey and CRHR-eligibility recommendations for all cultural resources on which the paving activities may have impacts.

If the CPM determines that historical resources that cannot be avoided would be impacted by road paving, the project owner shall mitigate these impacts by means of data recovery (as provided in CUL-7 [clause 4 and verification 3] for archaeological resources) or recordation determined in consultation by the CRS and CPM (for built-environment or ethnographic resources). No road paving shall occur prior to the CPM determining that the significance of impacts to historical resources, if any, has been reduced to less than significant, unless such activities are specifically approved by the CPM.

If road paving is done episodically, the project owner shall have the CRS carry out the steps above for each episode.

The CRS shall report on the methods and results of all surveys conducted under this condition in the final CRR.

Verification:

1. At least 90 days prior to the start of road paving related to obtaining ERCs, the project owner shall direct the CRS to carry out the steps outlined in this Condition.
2. At least 10 days prior to the start of any cultural resources field survey, the project owner shall notify the CPM when and where the survey will be carried out.
3. No later than 30 days after a cultural resources survey under this condition has been completed, the project owner shall provide all required information and a letter report to the CPM, along with a proposed start date for the paving.
4. No later than 90 days prior to the proposed start date for any road paving under this condition, the project owner shall submit to the CPM a data recovery or recordation plan for any CRHR-eligible (as determined by the CPM) resources significantly impacted by the road paving.
5. No later than 60 days prior to the proposed start date for any road paving, the project owner shall implement the CPM-approved data recovery and/or recordation plans (if any).
6. Information regarding the methods and results of all surveys conducted, as required by this condition of certification, shall be included in the final CRR for this project.

References Cited

WSA 2008a – William Self Associates, Inc. *Cultural Resources Technical Report, Palmdale Hybrid Power Project, Palmdale, California*. Submitted with AFC (under request for confidentiality) to CEC Dockets Unit, August 4, 2008.

GEOLOGY AND PALEONTOLOGY

Testimony of Patrick Pilling, Ph.D., P.E, G.E., D.GE.

Staff has reviewed the applicant's proposal to pave some or all the roads identified to generate the appropriate tons of PM10 ERCs, as reflected in data response #103. The existing roads exhibit a disturbed surface and because the value of paleontologic resources is associated with their discovery within a specific geologic host unit, the surface of these areas hold little promise for production of scientifically significant fossil remains. In addition, no viable geologic or mineral resources are known to exist in the area. Finally, potential impacts from geologic hazards on the proposed paved roads remain the same as currently exist for the unpaved roads. As a result, Staff concludes that such proposal would not result in any impacts to **Geologic, Mineral and Paleontologic Resources**, and there are no additional geologic hazards that require mitigation. Therefore, no additional conditions of certification are required.

HAZARDOUS MATERIALS MANAGEMENT

Testimony of Alvin Greenberg, Ph.D.

Staff has reviewed the applicant's proposal to pave some or all the roads identified to generate the appropriate tons of PM10 ERCs, as reflected in data response #103, and concludes that such proposal would not result in any impacts in the area of **Hazardous Materials Management**. While certain limited quantities of hazardous materials would be used during road paving, the short duration and the standard precautions utilized by a road paving company would limit impacts to below a level of significance. Therefore, no additional conditions of certification are required.

LAND USE

Testimony of Negar Vahidi and Susanne Huerta

Setting and Existing Conditions

The applicant has proposed to pave segments of 11 existing unpaved roads within the city of Palmdale and in areas of unincorporated Los Angeles County (refer to Maps 1-3 for the specific locations and length of the segments). Nine of the proposed road segments are existing unpaved roads within a street grid (this does not include the segments of Barrel Springs Road and Carson Mesa Road), which indicates that they have already been included as a part of the regional road plan. **LAND USE Table Rebuttal-1** describes the existing land uses and the Farmland Mapping and Monitoring Program (FMMP) designations for the proposed roads, as identified in Maps 1-3.

LAND USE Table Rebuttal-1
Existing Land Use Conditions

Map Number/ Street	Jurisdiction	Existing Land Use	FMMP Designations[1]
1 - Avenue B	Unincorporated L.A. County	Predominantly vacant land with dispersed residences and agriculture	Other Land, Prime Farmland, Statewide
2 - Avenue S-2	Unincorporated L.A. County	Single-family residential development on approximately one-acre lots	Urban and Built-Up Land
3 - 110th Street East	City of Palmdale	Predominantly vacant land; one residence at the corner of Avenue M and 110th Street E	Other Land
4 - 40th Street West	Unincorporated L.A. County	Single-family residential development on approximately 2.5-acre lots; directly north of high density residential development	Urban and Built-Up Land, Other Land
5 - Avenue Q	Unincorporated L.A. County / City of Palmdale	Predominantly vacant land with dispersed residences and agriculture	Other Land, Urban and Built-Up Land, Grazing Land
6 - Avenue S-6	Unincorporated L.A. County	Single-family residential development on approximately one-acre lots	Urban and Built-Up Land
7 - Barrel Springs Road	City of Palmdale	Predominantly vacant land with dispersed residences; City of Palmdale's Barrel Springs Trail and Arena	Other Land
8 - Avenue T-10	Unincorporated	Single-family residential development on	Urban and Built-

[1] Other Land is "land not included in any other mapping category... [including] vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land."
Prime Farmland includes lands with "the best combination of physical and chemical features able to sustain long-term agricultural production."
Farmland of Statewide Importance (Statewide) is "similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture."
Urban and Built-Up Land is "land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel."
Grazing Land is "land on which the existing vegetation is suited to the grazing of livestock. (CDC 2008).

Map Number/ Street	Jurisdiction	Existing Land Use	FMMP Designations[1]
	L.A. County	approximately one-acre lots	Up Land
9 - Avenue N-8	Unincorporated L.A. County / City of Palmdale	Dense residential development	Urban and Built-Up Land, Other Land
10 - Avenue G	Unincorporated L.A. County	Predominantly vacant land with dispersed agriculture	Other Land
11 - Carson Mesa Road	Unincorporated L.A. County	Predominantly vacant land with dispersed residences; generally parallels a railroad ROW and Highway 14	Other Land, Urban and Built-Up Land

Laws, Ordinances, Regulations, and Standards (LORS)

Land use LORS directly applicable to the roads proposed for paving include the following documents:

- City of Palmdale General Plan (City of Palmdale 1993)
- City of Palmdale Zoning Ordinance (City of Palmdale 1994)
- County of Los Angeles General Plan (LAC 1980)
- Antelope Valley Areawide General Plan, 1986 (LAC 1986)
- County of Los Angeles – County Code, Title 22 Planning and Zoning (LAC 2009)

Refer to **LAND USE Table 1** in the FSA which provides a general description of these land use LORS documents.

Assessment of Impacts and Discussion of Mitigation

Energy Commission staff has reviewed the applicable LORS documents to determine if any specific LORS are applicable to the proposed road paving activities, and any potential for these activities to have any significant adverse land use-related impacts. The significance criteria used for this analysis are the same as those used for analysis of the proposed project's impacts in the **Land Use** section of the FSA.

Conversion of Farmland

According to the FMMP and as noted in **LAND USE Table Rebuttal-1**, most of the proposed roads are predominantly surrounded by land designated as "Other Land" and "Urban and Built-Up Land." However, approximately three miles of the proposed six-mile paving at Avenue B (Map Number 1) would be adjacent to what appears to be agricultural land (based on aerial photographs). The FMMP designations for this road consist of approximately two miles of "Prime Farmland," one mile of "Farmland of Statewide Importance," and the remainder is "Other Land." In addition, at Avenue Q (Map Number 5), the proposed road would traverse approximately 0.75-mile of land designated as "Grazing Land" by the FMMP. The proposed paving activities for these two roads would occur on disturbed land that is currently in use as unpaved roadways.

Therefore, construction of the line would not result in a conversion of Important Farmland.

Permanent impacts would occur along the Avenue B and Avenue Q segments if the proposed paving would result in road widening that would convert adjacent agricultural lands to road ROW. According to the **Traffic and Transportation** analysis for the proposed paving, Avenue B is a country road that would have a maximum right-of-way (ROW) width of 40 feet. Based on online aerial photography, it appears that the unpaved segment of Avenue B is currently about 36 feet wide with an adjacent drainage ditch that results in a total width of approximately 40 feet. Therefore, the maximum ROW width for the proposed paving would not exceed the existing unpaved width; and there would be no impacts associated with the conversion of agricultural lands along Avenue B.

Avenue Q is designated as a secondary arterial roadway that would have an anticipated overall ROW width of 92 feet. Based on online aerial photography, Avenue Q currently ranges between 32 and 50 feet wide. However, it is unlikely that the road would be expanded to a 92-foot ROW since the existing paved portions of Avenue Q, which are located westward within a highly developed area of the city of Palmdale, are also approximately 50 feet wide (consisting of a 20-foot travel lane and two 15-foot shoulders). Therefore, it is not likely that proposed paving would result in a significant conversion of agricultural lands along Avenue Q, and the impacts would be less than significant.

As discussed below, the applicable land use LORS documents do not regulate for the paving of roads. As such, road paving activities would not conflict with agricultural zoning designations. In addition, the proposed roads would not be located in an area that is under a Williamson Act contract, and therefore, would not result in the conversion of Williamson Act lands to a non-agricultural use.

Physical Disruption or Division of an Existing Community

Existing land uses along the majority of the proposed roads include vacant land with dispersed areas of residential development and/or agricultural activities. However, there is medium- to high-density residential development along Avenue S-2, 40th Street West, Avenue S-6, Avenue T-10, and Avenue N-8 (Map Numbers 2, 4, 6, 8 and 9, respectively). Road paving activities may cause temporary physical disruptions to existing communities along the roads. However, the proposed roads are existing unpaved roads and impacts from construction would be temporary and short-term. Therefore, impacts to the existing surrounding communities would be less than significant.

Conflict with Any Applicable Land Use Plan, Policy, or Regulation

Based on review of the applicable LORS documents (as identified in the LORS setting above), staff has not identified any land use LORS directly applicable to the paving of roadways. As noted above, nine of the proposed road segments are existing unpaved roads within established street grid systems (this does not include the segments of Barrel Springs Road and Carson Mesa Road), which indicates that they have already

been included as a part of local and regional road planning activities of the affected jurisdictions, because street grids normally indicate that future land uses needing access would be developed along these roadways. In addition, based on the online interactive GIS mapping systems for the city of Palmdale and Los Angeles County, road rights-of-way are adjacent to zones, but are not actually within zoning designations. Therefore, zoning designations are not applicable to the proposed road segments; and thus, the proposal to pave roads would not conflict with any existing zoning designations.

Land Use Compatibility

Land use compatibility refers to the physical compatibility of planned and existing land uses. The sites for the proposed roads are existing linear unpaved roads. As for the surrounding land uses, the proposed roads associated with Map Numbers 1, 3, 5, 7, 10 and 11 are located in rural areas with dispersed residential and/or agricultural development, and the proposed roads associated with Map Numbers 2, 4, 6, 8 and 9 are located in medium- to high-density residential neighborhoods. Given that the roads have been previously disturbed, and currently are in use as roadways, the paving of the roads would be compatible with the existing use of the roadways, as well as the surrounding land uses. In addition, in the event that roads other than those identified are chosen, land use impacts are expected to be the same assuming the road paving would occur on existing unpaved roads located within the Antelope Valley area of Los Angeles County or in the city of Palmdale, and therefore, would be located in areas with similar land use patterns and would be subject to the same LORS.

Sensitive Receptors

There is medium- to high-density residential development along the proposed roads at Avenue S-2, 40th Street West, Avenue S-6, Avenue T-10, and Avenue N-8, (Map Numbers 2, 4, 6, 8 and 9, respectively). Construction activities may cause temporary disruptions to existing residences along these existing unpaved roads. However, since the paving activities would be conducted on existing roads, the road paving proposal would result in short-term disruptions. Given the temporary nature of construction activities along any given roadway segment, disruptions to sensitive receptors would be less than significant.

The remaining proposed roads (Map Numbers 1, 3, 5, 7, 10, and 11) are also existing unpaved roads located in rural areas with few residential and agricultural developments in the vicinity. As such, construction activities associated with the road paving would have less temporary impacts than the roads discussed above (Map Numbers 2, 4, 6, 8 and 9), and therefore, would not be significant.

From a land use perspective, staff has found no significant impacts regarding land use compatibility; therefore paving of the proposed roads would be compatible with nearby surrounding sensitive receptors. The **Air Quality, Noise, Public Health, Traffic and Transportation,** and **Visual Resources** sections provide detailed analyses of the noise, dust, public health hazards or nuisance and adverse traffic or visual impacts on surrounding sensitive receptors such as residential uses.

Conclusions

- The road paving proposal would not result in a significant conversion of Important Farmland (as classified by the FMMP) to non-agricultural use or conflict with existing agricultural zoning or Williamson Act contracts.
- The road paving proposal would not divide the physical arrangement of an established community; however, construction activities may cause short-term and temporary physical disruptions to existing communities along the proposed roads, but these impacts would be less than significant.
- The road paving proposal would not conflict with any applicable land use LORS.
- The road paving proposal would be compatible with existing land uses since the proposed paving would occur on existing unpaved roads.
- Construction activities may result in temporary impacts to sensitive receptors surrounding the proposed roads. Although the impacts would not be significant, the proposed roads associated with Map Numbers 1, 3, 5, 7, 10 and 11 are located in rural areas with dispersed residential development and would have fewer impacts than the roads associated with Map Numbers 2, 4, 6, 8 and 9, which are located in medium- to high-density residential neighborhoods.

References

CDC 2008. California Department of Conservation, Farmland Mapping and Monitoring Program, Los Angeles Important Farmland 2008. Site accessed at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/los08.pdf. January 10, 2011.

City of Palmdale 1994. City of Palmdale Planning – Zoning Ordinance, adopted December 14, 1994. Site accessed at: http://www.cityofpalmdale.org/departments/planning/zoning/index.html. January 10, 2011.

City of Palmdale 1993. City of Palmdale Planning – General Plan, adopted January 25, 1993. Site accessed at: http://www.cityofpalmdale.org/departments/planning/general_plan/index.html. January 10, 2011.

LAC 2009. Los Angeles County Department of Regional Planning – Title 22 Planning and Zoning. Site accessed at: http://ordlink.com/codes/lacounty/. January 10, 2011.

LAC 1986. Los Angeles County Department of Regional Planning – Antelope Valley Areawide general Plan. Site accessed at: http://planning.lacounty.gov/assets/upl/data/pd_antelope-valley.pdf. January 10, 2011.

LAC 1980. Los Angeles County Department of Regional Planning – General Plan. Site accessed at: http://planning.lacounty.gov/generalplan#gp-existing. January 10, 2011.

PUBLIC HEALTH

Testimony of Alvin Greenberg, Ph.D

Staff has reviewed the applicant's proposal to pave some or all the roads identified to generate the appropriate tons of PM10 ERCs, as reflected in data response #103, and concludes that such proposal would not result in any impacts in the area of **Public Health**. In fact, the paving of roads would have a beneficial impact on public health in that paving would reduce the generation of PM10 and PM2.5, thus reducing the risk of impacts on the respiratory system caused by the inhalation of these ultra-fine particulates. Therefore, no additional conditions of certification are required.

SOCIOECONOMICS

Testimony of Kristin Ford

The applicant has proposed to pave roads in the vicinity of the PHPP to generate particulate matter less than 10 microns (PM10) emission reduction credits (ERCs) to mitigate impacts to air quality and satisfy state and federal air quality requirements. The applicant has identified eleven existing unpaved road segments, totaling approximately 22 miles. Four or five road segments would need to be paved in order to obtain the quantity of offsets needed for air quality purposes. The applicant has not specified which of the eleven existing unpaved road segments would be selected. Staff has proposed condition of certification **AQ-SC19** to require that an Antelope Valley Air Quality Management District (AVAQMD) rule be in place before the project could use PM10 emission reduction credits generated from road paving.

Staff has reviewed the applicant's proposal to pave some or all the roads identified to generate the appropriate tons of PM10 ERCs, as reflected in data response #103. The proposal would create a small number of jobs and would contribute to the local benefits staff described in its Socioeconomics PSA due to the spending of workers hired for road paving. Staff concludes that the proposal would not result in any impacts to Socioeconomics. Therefore, no additional conditions of certification are required.

SOIL AND WATER RESOURCES

Testimony of Marylou Taylor

Environmental Setting

The applicant has proposed to pave roads in the vicinity of PHPP, outside of the proposed project footprint, to generate particulate matter less than 10 microns (PM10) emission reduction credits (ERCs) to mitigate impacts to air quality and satisfy state and federal air quality requirements. The applicant has identified eleven existing unpaved road segments located within the City of Palmdale and the surrounding unincorporated areas of Los Angeles County, totaling about 22 miles. They believe these locations would be the most cost effective candidates for paving. The applicant has indicated that four or five of these would need to be paved in order to obtain the quantity of offsets needed for air quality purposes, but has not specified which ones would be selected.

Impacts of Paving Existing Unpaved Road Segments

Construction activities to pave existing unpaved roads typically involve earthwork, placement and compaction of road base material, and laying of final pavement material. In addition, storm water drainage and erosion control measures are implemented to protect traveling vehicles, the roadway, and the surrounding area. Potential impacts to soil and water include: increased erosion due to disturbed soil; discharge of eroded sediments into nearby surface water; release of hazardous materials from construction equipment and materials; increased storm water runoff flow and possible flooding due to compacting and paving existing permeable surfaces; and possible adverse change to groundwater or surface water quality due to water use.

Because the applicant has not provided any pavement plans or identified which road segments would be paved, the amount of expected soil disturbance is currently unknown. Standard road widths in this vicinity vary from 14 to 20 feet, depending on the street's classification and traffic volumes. A conservative estimate of potential soil disturbance for roadway construction, including shoulders and drainage features, is about 8 acres for each mile of roadway. In other words, paving 10 miles of roadway could result in about 80 acres of soil disturbance during construction. Disturbed soil is more susceptible to erosion from water and wind, and eroded sediments could flow into nearby surface water to degrade water quality.

Although the existing unpaved roads contain compacted soil from repeated vehicle use, they are still able to absorb some amount of storm water. Paving will make these surfaces impervious, and in some locations could result in larger impervious areas if widening is required to meet roadway design standards. As a result, storm water runoff flows will intensify. The increased amounts will depend on several factors such as slope and final area, but runoff quantities could increase to four times or even ten times due to the difference in permeability between asphalt and soil. The increased runoff

could cause localized flooding or transport eroded sediments and hazardous substances to nearby surface water.

Water use during construction activities would typically be needed for dust suppression, soil compaction, drinking, and sanitation. Portable sanitation facilities would also be required. The applicant has not identified the source or amount of water use during roadway construction. Portable sanitation facilities would have to be serviced regularly, with sanitation waste disposed at a local treatment facility.

Impact Minimization Measures

Roadway construction is a routine activity performed by most, if not all, cities and counties throughout California. These local agencies must minimize the impacts mentioned above and comply with the same applicable State and Federal LORS mentioned in the final staff assessment **Soil and Water** section. As a result, many of these requirements are integrated into their Local LORS. For example, Los Angeles County adopted a storm water and runoff pollution control ordinance, and Palmdale included a Storm Water Management Plan requirement as part of their excavation and grading provisions. Both local agencies require use of Best Management Practices (BMPs) to help avoid and minimize potential impacts to soil and water resources.

Staff is confident that by complying with the following conditions, the project owner can avoid and minimize potential impacts.

Because construction of these roadways is not likely to occur at the same time as construction of the PHPP facility, this Condition of Certification is separate from **SOIL&WATER-2** (in the **Soil and Water** section of the final staff assessment).

SOIL&WATER-10: Construction General Permit

The project owner shall fulfill the requirements contained in State Water Resources Control Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWG, NPDES No. CAS000002* ("Construction General Permit") and all subsequent revisions and amendments. The project owner shall develop and implement a construction Storm Water Pollution Prevention Plan (SWPPP) for the construction of the paved roadways.

Verification: No later than thirty (30) days prior to construction of city/county roadway pavement work, the project owner shall submit to the CPM documentation from the Lahontan Regional Water Quality Control Board showing approval to perform work under the Construction General Permit (or documentation that this permit is not required). If an approved construction SWPPP is required, a copy of it shall be kept accessible onsite at all times.

SOIL&WATER-11: Compliance with Local Requirements

The project owner shall comply with the City of Palmdale Municipal Code and the Los Angeles County Code of Ordinances, as applicable, regarding roadway construction.

Verification: The project owner shall ensure compliance with applicable local requirements regarding roadway construction.

1. Pre-Construction: The project owner shall submit a construction packet in accordance with City of Palmdale and Los Angeles County, as applicable, containing the documentation, plans, and fees normally required for roadway construction. No later than thirty (30) days prior to construction, the project owner shall submit to the CPM documentation from City of Palmdale and/or Los Angeles County showing approval to start construction.
2. Post-Construction: No later than sixty (60) days after roadway construction is complete, the project owner shall provide to the CPM documentation from City of Palmdale and/or Los Angeles County that roadway construction has been properly completed. The project owner shall also provide documentation showing the City of Palmdale and/or Los Angeles County will take ownership of the paved roadways and operate and maintain them in accordance with the intent of the mitigation program

Conclusion

The applicant can avoid and reduce environmental impacts to soil and water resources to levels that are less than significant by complying with state and local requirements regarding roadway construction. The above Conditions of Certification were developed to ensure the project owner follows applicable LORS.

TRAFFIC AND TRANSPORTATION
IMPACTS FOR ROAD PAVING MITIGATION

Testimony of Eric Veerkamp and James Adams

INTRODUCTION

The applicant has proposed to pave segments of roads in the vicinity of the Palmdale Hybrid Power Project (PHPP) to reduce PM 10 emissions that would offset project emissions. Staff has conducted a traffic and transportation analysis to determine the impacts of the proposed road paving.

In general, road paving activities can involve temporary lane or road closures, encroachment on public or private rights-of-way, and construction signage and flag personnel. In most power plant siting cases road paving or other alterations (gravel) is usually done for onsite access, installation of water or gas lines, or repair of construction related damage to roadways. As discussed in the Traffic and Transportation section of the PHPP FSA, staff's proposed conditions of certification include a traffic control plan that requires a project owner to work with a city or county to ensure that project impacts do not have a significant impact on local roads, and all ministerial permits and approvals are acquired. Staff has reviewed engineering design standards for roadway improvements for the county of Los Angeles and the City of Palmdale.

ANALYSIS

PAVING AND ANCILLARY IMPROVEMENTS

Staff has relied primarily on the City of Palmdale Engineering/Design Standards, dated January 1991, to analyze the projected roadway dimensions and determined projected roadway footprints. For each road section (**see Traffic and Transportation Figure 1**), the City of Palmdale, in consultation with L.A. County, where appropriate, will determine if additional underground infrastructure such as water, wastewater, and storm drainage are needed. Subsequent to excavation, installation of infrastructure, and road base preparation, roadway sections will be widened and paved according to the specifications for each roadway type. City of Palmdale staff will make a future determination regarding the acquisition of ROW needed and the inclusion of beautification/safety features including landscaping and street lighting.

ROADWAY TYPES

In the generally accepted streets hierarchy, freeways carry the highest volume and are the widest road type; local streets and rural lanes are usually the narrowest, and carry the lowest traffic volumes, other street types fall somewhere in between the two extremes. The three street types that are involved with the proposed Palmdale roadway paving are secondary arterial, local interior street and rural county road. All road sections being considered for paving are shown in **Traffic and Transportation Table 1**. The labeled street segments shown in the figure correspond to the segments listed in the table.

Traffic and Transportation Table 1
Road Segments Considered for Paving (PM10 Reduction)

Street Segment	From	To	Jurisdic-tion	Street Type	Segment Length (Mi.)	ROW Req.	Segment Footprint (Acre)
Ave. B	90th Street W	30th Street W	L.A. County	County Road	Approx. 6.0	40 Ft.	29.1
Ave. S-2	96th Street E	106th Street E	L.A. County	County Road	Approx. 1.0	40 Ft.	4.85
110th Street E	Ave. L	Columbia Way /Avenue M	City of Palmdale	Secondary Arterial	Approx. 1.0	92 Ft.	11.15
40th Street W	Ave. N	Ave N-8	L.A. County	County Road	Approx. 0.5	40 Ft.	1.94
Ave. Q	90th Street E	110th Street E	City of Palmdale	Secondary Arterial	Approx. 2.0	92 Ft.	22.3
Ave. S-6	96th Street E	106th Street E	L.A. County	County Road	Approx. 1.0	40 Ft.	4.85
Barrel Springs Road	Sierra Highway	25th Street E	City of Palmdale	Secondary Arterial	Approx. 1.5	92 Ft.	17.84
Ave. T-10	87th Street E	96th Street E	L.A. County	County Road	Approx. 1.0	40 Ft.	4.85
Ave. N-8	Bolz Ranch Road	30th Street W	City of Palmdale	Local Interior St.	Approx. 1.5	60 Ft.	10.91
Ave. G	90th Street E	120th Street E	L.A. County	County Road	Approx. 3.0	40 Ft.	9.70
Carson Mesa Road	El Sastre	Vincent View Road	L.A. County	County Road.	Approx. 1.85	40 Ft.	8.24

Secondary Arterial

A secondary arterial roadway is typically designed to deliver traffic from lower volume local streets to higher volume major arterials. They can also provide access directly to collectors, and may serve destination uses such as local mixed-use shopping and other commercial uses, as well as industrial users. The City of Palmdale Circulation Plan identifies the following roads as secondary arterials, portions or all of which are proposed to be paved to meet PM10 reduction targets.

110TH Street E

This unpaved roadway is located in the northeast quadrant of the City of Palmdale. Surrounding land use designations are overwhelmingly industrial and planned industrial; the bulk of land directly adjacent to the roadway on both the east and west sides is currently undeveloped. Traffic counts can be expected to be similar to those identified for 90th Street E[1], which is in the same vicinity, near the intersection with Avenue M. Traffic counts are in the range of 3,057 to 3,165 ADT, as of April, 2006.

According to the Circulation Plan, this secondary arterial would have an anticipated overall ROW width of 92-feet, with two 25-foot travel lanes (if bike lanes are included, each lane would be expanded to 29-feet), an 18-foot median, and two 8-foot shoulders.

[1] 90th Street E is designated a major arterial

Avenue Q

This unpaved roadway is located in the southeast quadrant of the City of Palmdale. Avenue Q constitutes the boundary limit line between the City of Palmdale and Los Angeles County. Surrounding land use designations are overwhelmingly industrial and planned industrial; the bulk of land directly adjacent to the roadway on both the east and west sides is currently undeveloped. Traffic counts can be expected to be similar to those identified for Avenue M east of 90th Street E, also in the industrial area. Traffic counts are in the range of 3,057 to 3,165 ADT, as of April, 2006.

This secondary arterial would also have an anticipated overall ROW width of 92-feet, with two 25-foot travel lanes, an 18-foot median, and two 8-foot shoulders.

Barrel Springs Road

Barrel Springs Road, also known as Old Harold Road, is located in the south central part of the City of Palmdale, east of Sierra Highway and is currently unpaved. Land use designations to the north and south of Barrel Springs Road are predominately residential; the bulk of the land in the vicinity is undeveloped. Traffic counts can be expected to be similar to those identified for the fully improved segment of Barrel Springs Road[2] west of Sierra Highway. Traffic counts are in the range of 1,541 ADT, as of September, 2008.

Barrel Springs Road, also a secondary arterial, would also have an anticipated overall ROW width of 92-feet, with two 25-foot travel lanes, an 18-foot median, and two 8-foot shoulders.

Local Interior Street

Local streets typically carry lower traffic volumes at the neighborhood level and provide a link to collectors, which eventually provide access to arterials and thoroughfares carrying traffic to other parts of the city.

Avenue N-8

Avenue N-8 is located in the west central portion of the City of Palmdale and constitutes the boundary limit line between city and county. Avenue N-8 west of Bolz Ranch Road (located in the city) is paved, while the segment east of Bolz Ranch Road is dirt. Land use to the south consists of a developed specific plan with golf course/residential (city), uses to north consist of large lot residential (L.A. County) with a macro-grid street pattern. Traffic counts west of Bolz Ranch Road are 607ADT, measured in November, 2007. Levels of traffic on the section of Avenue N-8 east of the intersection are expected to be in this range.

Portions of Avenue N-8 in the city are currently developed to the local interior street standard, with an approximate overall ROW of 60-feet; the extension of Avenue N-8 should follow this pattern of development, in accordance with the City of Palmdale Circulation Plan.

[2] Barrel Springs Road west of Sierra Highway is in Los Angeles County

County Roads

Rural county roadways typically carry lower volume traffic between places, and also provide a link to other higher volume streets, which eventually provide access to regional arterials, and/or highways.

Avenue B

Avenue B is located roughly one-half mile west of Highway 138, approximately three miles north of the City of Lancaster in unincorporated Los Angeles County. Avenue B is currently a dirt lane surrounded by predominately undeveloped scrub lands. Staff has estimated that L.A. County rural roadway standards would likely be applied if Avenue B were to be paved. Under this scenario, the road would have a maximum ROW of 40-feet, with two 12-foot travel lanes and two eight foot shoulders.

Avenue S-2, Avenue S-6, and Avenue T-10

These three unpaved roadways are part of a large-lot residential development in unincorporated Los Angeles County. The rural county enclave is located south and east of the existing Palmdale city limits. Staff has estimated that L.A. County rural roadway standards would likely be applied if these roadways were to be paved. Under this scenario, the roads would have a maximum ROW of 40-feet, with two 12-foot travel lanes and two eight foot shoulders.

40th Street W

This unpaved roadway is located in an unincorporated peninsula west of the City of Palmdale. The land use pattern is a large lot residential L.A County development. Across the intersection with Avenue N-8, at the southern end of 40th Street W is land in the City of Palmdale (golf course/residential). Traffic counts can be expected to be similar to those identified for 45th Street W, with a similar zoning and development pattern. Traffic counts are 4,295 ADT, as of May 2004. This county road will also have an anticipated overall ROW width of 40-feet (two-lane rural road).

Avenue G

Avenue G is located approximately 11 miles east of Highway 138, and approximately three and one-half miles north of the City of Lancaster in unincorporated Los Angeles County. Avenue G is currently a dirt lane surrounded by predominately undeveloped scrub lands. Rural county roadway standards would likely be applied if Avenue B were to be paved, and the road would have a maximum ROW of 40-feet, with two 12-foot travel lanes and two eight foot shoulders.

Carson Mesa Road

Carson Mesa Road is located in Los Angeles County approximately two and one-half miles south and west of the City of Palmdale. The unpaved county road runs parallel to Highway 14 and carries rural residential traffic, and can also serve as an alternative route to the paved highway. Surrounding land uses consist mostly of undeveloped low rolling hills, with some scattered residences. Rural county roadway standards would likely be applied if Carson Mesa Road were to be paved. The road would have a maximum ROW of 40-feet, with two 12-foot travel lanes and two eight foot shoulders, with the possible addition of eight-foot bike lanes.

REVISED TRAFFIC AND TRANSPORTATION CONDITION OF CERTIFICATION TRANS-1

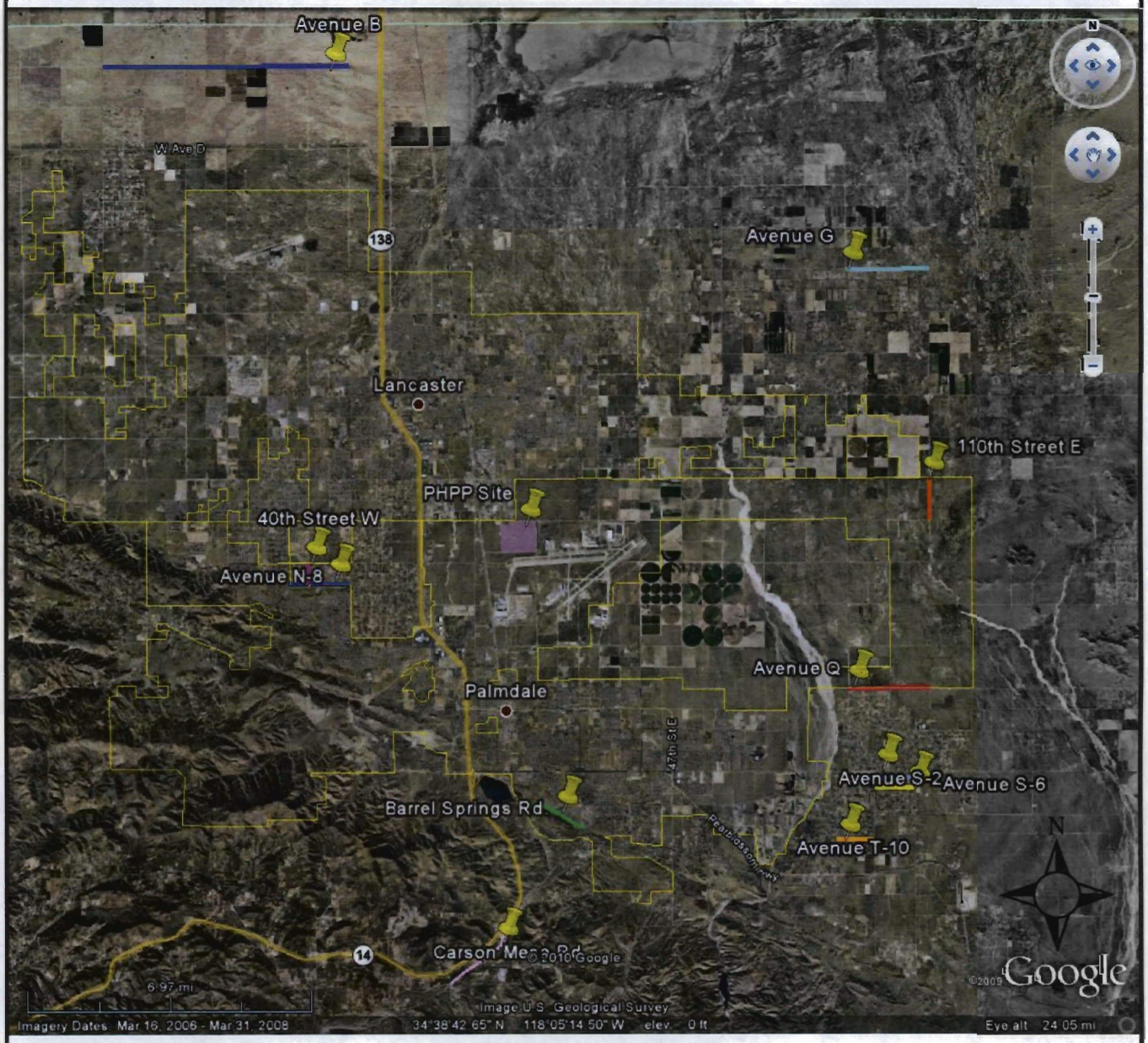
Staff is proposing one additional bullet be added to Condition of Certification **TRANS-1** regarding the preparation and implementation of a construction traffic control plan;

- All road paving activities shall comply with engineering design standards for road development pursuant to guidelines mandated by the Public Works Departments of the City of Palmdale and the County of Los Angeles as appropriate.

With this additional bullet to Condition of Certification **TRANS-1**, staff believes that the proposed road paving activities would not have a significant traffic and transportation impact on the applicable roads.

TRAFFIC AND TRANSPORTATION - FIGURE 1

Palmdale Hybrid Power Project - Potential Road Segments for Paving



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION

SOURCE: CEC Staff

WORKER SAFETY AND FIRE PROTECTION

Testimony of Alvin Greenberg, Ph.D.

Staff has reviewed the applicant's proposal to pave some or all the roads identified to generate the appropriate tons of PM10 ERCs, as reflected in data response #103, and concludes that such proposal would not result in any impacts in the area of **Worker Safety and Fire Protection**. While certain limited specific safety risks exist during road paving operations, the short duration and the standard precautions utilized by a road paving company during this rather routine effort would limit impacts to workers to below a level of significance. Similarly, the risk of a fire or the need for other emergency response during road paving is also very limited for this routine effort. Therefore, no additional conditions of certification are required.

DECLARATIONS AND RESUME

DECLARATION OF
James Adams

I, James Adams declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Office of the Siting, Transmission, and Environmental Protection Division as a Planner II.

2. I prepared staff testimony related to Traffic and Transportation impacts for road paving for the Rebuttal Testimony for the Palmdale Hybrid Power Project (08-AFC-9) based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 1/19/11 Signed: _____

At: Sacramento, California

DECLARATION OF
Sarah Allred

I, Sarah Allred, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Office of the Siting, Transmission and Environmental Protection Division as a Cultural Resources Specialist.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony related to the rebuttal on the road paving analysis for **Cultural Resources** for the Palmdale Hybrid Power Project based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 1/19/11 Signed: _____

At: Sacramento, California

DECLARATION OF
Kristin Ford, Planner I

I, Kristin Ford, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Office of the Siting, Transmission & Environmental Protection Division as a Planner I.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I helped prepare the road paving testimony on Socioeconomics for the Palmdale Hybrid Power Plant Project based on my independent analysis of the data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 1/18/11 Signed: _____

At: Sacramento, California

DECLARATION OF
Alvin J. Greenberg, Ph.D.

I, **Alvin J. Greenberg, Ph.D.** declare as follows:

1. I am presently a consultant to the California Energy Commission, Energy Facilities Siting and Environmental Protection Division.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the **Rebuttal Testimony related to Road Paving Analysis** and the **Response to Applicant's Comments on Public Health, Hazardous Materials Management,** and **Worker Safety/Fire Protection** for the **Palmdale Hybrid Power Project** based on my independent analysis of the application for certification, supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Jan. 19, 2011 Signed: _____

At: Sacramento, California

DECLARATION OF
Testimony of Susanne Huerta

I, Susanne Huerta, declare as follows:

1. I am presently employed by Aspen Environmental Group, a contractor to the California Energy Commission, Siting, Transmission and Environmental Protection Division, as a **Land Use Technical Specialist**.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Land Use** in Energy Commission Staff's Final Staff Assessment (Section 4.5 and Alternatives Appendix A) and Rebuttal Testimony for the **City of Palmdale Hybrid Power Plant Project** based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: January 18, 2011 Signed: _____

At: Agoura Hills, California

DECLARATION OF
Testimony of Chris Huntley

I, **Chris Huntley,** declare as follows:

1. I am presently employed by Aspen Environmental Group, a contractor to the California Energy Commission's Siting, Transmission and Environmental Protection Division, as a senior associate in biological resources.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I helped prepare the staff testimony on **Biological Resources** for the **Palmdale Hybrid Power Project Road Paving Analysis** based on my independent analysis of from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: January 19, 2011 Signed: _____

At: Agoura Hills, California

DECLARATION OF
Patrick A. Pilling, Ph.D., P.E., G.E., D.GE.

I, **Patrick A. Pilling**, declare as follows:

1. I am presently employed as a subcontractor to Aspen Environmental Group, a contractor to the California Energy Commission, Systems Assessment and Facilities Siting Division, as a Geotechnical Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff rebuttal testimony on **Geology and Paleontology**, for the **Palmdale Hybrid Power Project (PHPP)** road paving project based on my independent analysis of the Application for Certification, supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: January 19, 2011 Signed: _____

At: Reno, Nevada

DECLARATION OF
Marylou Taylor, PE

I, **Marylou Taylor**, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Siting Office of the Siting Transmission& Environmental Protection Division as an Associate Civil Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I helped prepare the staff rebuttal testimony on Soil and Water Resources for the Palmdale Hybrid Power Plant Project road paving air quality mitigation option based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Jan. 19, 2011 Signed: Marylou Taylor

At: Sacramento, California

MARYLOU P. TAYLOR

[redacted]

ASSOCIATE CIVIL ENGINEER

Engineering & Corridor Designation Office – Water, Soils, and Waste Unit

QUALIFICATIONS and SKILLS

- California PE License # C64353
- Experienced in Drainage Design, Storm Water Management, Technical Analysis, Report Writing, and Coordination of an interdisciplinary team
- Balance the independent goals of designing a project within time and cost restraints while complying with regulatory requirements
- Effective communication skills with both technical and non-technical groups
- Continually produce high quality work in a timely manner, working alone or in a team environment
- Ability and flexibility to travel and to work extended hours when needed

PROFESSIONAL EXPERIENCE

Calif. Department of Transportation (Caltrans) **2000 – present**
Sacramento, CA
Transportation Engineer, Civil

Design – Lake Tahoe EIP (Apr'05 – present)

- The Lake Tahoe Environmental Improvement Program (EIP) is a cooperative effort to preserve and enhance the unique natural environment and cultural resources of the Lake Tahoe region. As Project Engineer, identified storm water quality issues along Hwy 50 within the Tahoe area and designed appropriate BMPs.
- Prepared a Project Study Report (PSR) to initiate a project by evaluating alternatives and proposing a design concept and scope for development and programming.
- Prepared Project Reports (PRs) to recommend that a project's Preferred Alternative proceed to the design phase after public comment and completion of the Final Environmental Document.
- Prepared Storm Water Data Reports (SWDRs) to document the selection, location, and design of BMPs deployed on the project site, as required in Caltrans' Storm Water Management Plan and approved by the Regional Water Quality Control Board.

Environmental Engineering Rotation (Dec'03 – Jun'04)

- Assisted the Caltrans' NPDES Coordinator in supporting District Divisions in implementing storm water management activities. Duties include: reviewing SWDRs of proposed roadway construction projects throughout the district; gathering information for the Water Quality Technical Report portion of Caltrans' environmental documents; tracking data to incorporate into Caltrans' Annual Report to the State Water Resources Control Board; and participating in updating the NPDES Program's Work Plan.

Roadway Construction Rotations (Jun'01 – Sep'01, and Jun'03 – Dec'03)

- Performed engineering inspections of State contract construction projects and enforced contractor's compliance with plans and State specifications. Duties include: assisting Resident Engineer in re-designing areas where the contract plans conflicted with field conditions; performing inspections of construction site BMPs; and managing problems that develop in the field.

Design – Drainage (Jun'00 –Jun'01, and Sep'01 – Jun'03, and Jun'04 – Apr'05)

- Designed drainage systems to comply with Caltrans standards. Duties include: analysis of site hydrology and hydraulic design; storm water management near impaired water bodies; and preparing layouts and construction details for contract plans.

Calif. Integrated Waste Management Board (CIWMB) **1995 – 2000**
Sacramento, CA

Waste Management Engineer (Sep'97 – Jun'00)

- Reviewed and analyzed construction and demolition (C&D) waste handling, processing, and treatment technologies to minimize waste disposal and increase the use of recycled material into useful products. Organized outreach (workshops, conference booth, fact sheets) of C&D programs to industry audiences.
- Contract Manager of statewide training on C&D waste management. Duties include: developing scope of work, schedule, and budget; preparing and presenting Board agenda items; monitoring progress and quality of work; reviewing and approving invoices for payment; and managing any problems that develop.
- Developed technical information to the public and other government agencies.

Waste Management Specialist (Sep'95 – Sep'97)

- Helped lead the Shipping & Distribution Partnership, an effort to work with private industry to source-reduce and recycle transportation packaging material. Duties include: preparing and presenting Board agenda items; meeting regularly with all levels of CIWMB management; making presentations to trade associations and private businesses; and planning and organizing of a stakeholders' workshop.
- Created and maintained websites for Market Development Resources and the Shipping & Distribution Partnership workshop.
- Developed technical information to the public and other government agencies.

EDUCATION

B.S. Civil Engineering. December 1994
University of California, Davis
Scholarship: Chevron Top 25 Program

Course work included:
- Engineering Hydrology
- Environmental Geotechnology
- Water Quality Mgmt Systems Design
- Soil Mechanics

Computer Skills:
- Microsoft Office: Word, Excel, Access, Project
- Engineering/Design: Caice, HEC-2, FlowMaster
- Drafting: AutoCAD, MicroStation

DECLARATION OF
Ellen Townsend-Hough, REA

I, **Ellen Townsend-Hough** declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Siting Office of the Siting Transmission& Environmental Protection Division as an Associate Mechanical Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I helped prepare the staff testimony on Waste Management for the Palmdale Hybrid Power Plant Project road paving air quality mitigation option based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: January 18, 2011 Signed: Ellen Townsend-Hough

At: Sacramento, California

DECLARATION OF
Testimony of Negar Vahidi

I, Negar Vahidi, declare as follows:

1. I am presently employed by Aspen Environmental Group, a contractor to the California Energy Commission, Siting, Transmission and Environmental Protection Division, as a **Senior Project Manager/Senior Land Use Technical Specialist**.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Land Use** in Energy Commission Staff's Final Staff Assessment (Section 4.5 and Alternatives Appendix A) and Rebuttal Testimony for the **City of Palmdale Hybrid Power Plant Project** based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: January 18, 2011 Signed: _____

At: Agoura Hills, California

DECLARATION OF
ERIC VEERKAMP

I, **ERIC VEERKAMP** declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Protection Office of the Siting, Transmission, and Environmental Protection Division as a Planner II.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I helped prepare the staff rebuttal testimony on **TRAFFIC AND TRANSPORTATION** for the **PHPP Road Segment Paving Analysis**, based on my independent analysis of the Application for Certification, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: January 19, 2011

Signed: _____

At: Sacramento, California

ERIC W. VEERKAMP, AICP
Planner II

EDUCATION
B.S. Business Administration (Human Resources Mgmt.); Minor in Environmental Studies

PROF. AFFILIATIONS
American Institute of Certified Planners (AICP), American Planning Association (APA), Association of Professionals (AEP), Toastmaster International (past member)

COMMUNITY INVOLVEMENT
Leadership Lodi representative, 2000 Salvation Army-Lodi Corps, Advisory Board Member, 2003-2004, California Academic Decathlon volunteer, 2009

Mr. Veerkamp has over 20 years of Planning and Environmental experience.

PLANNER II
California Energy Commission (September 2010 – Present)

Mr Veerkamp drafted the Land Use Preliminary Staff Assessment for the Hydrogen Energy, California (HECA) project, and the Final Staff Assessment for the Transmission Line Alternatives Analysis, supplementing the Traffic and Transportation Section for the Palmdale Hybrid Power Plant (PHPP). Mr Veerkamp has also been assigned Traffic and Transportation and Visual compliance responsibilities for G.W. Tracy and Land Use and Socioeconomic compliance for Sutter.

INDEPENDENT CONTRACTOR
EData Corporation. (2010)

Draft CEQA sections for proposed Jamul Indian Village commercial project in San Diego County, including Traffic and Transportation Alternatives Analysis, Visual Resources, and Land Use. Review and respond to public agency comments on NEPA EIS for proposed Soboba Tribal gaming facility, also in San Diego County.

SENIOR ASSOCIATE
Raney Planning & Management, Inc. (2006 – 2010)

With Raney Planning & Management, Inc., Mr. Veerkamp served as Housing Element Project Manager. Clients included the Cities of Calexico, El Centro, Brawley, Colfax, Hollister, and Oroville. Mr. Veerkamp also assisted with preparation of CEQA environmental documents, served the City of Wheatland as contract planning staff; and managed prevailing wage contracts for Laurin Associates (a division of Raney). Accomplishments include preparing an award winning City-wide Visioning document for the City of Wheatland, and a growth management rating system for the City of Hollister.

CITY PLANNER
City of Isleton (2005 – 2006)

Mr. Veerkamp served as the City Planner, where he was the liaison to the Planning Commission and the City Council on all Planning Department matters. Mr. Veerkamp was responsible for all day-to-day Planning Department functions, including redevelopment agency activities, growth and development applications, tracking of consultant EIR contracts, and writing Zoning Ordinance updates. Highlights of Mr. Veerkamp's accomplishments include guiding the preparation of an amendment to an EIR, a Development Agreement and Owner Participation agreement for the 50-acre "Village on the Delta" mixed-use project, and co-leading along with Sacramento County LAFCO, a 44-acre Sphere of Influence amendment and annexation.

SENIOR PLANNER
City of Galt, CA (2003 –2004)

As a Senior Planner for the City of Galt, Mr. Veerkamp provided customer service interacting with the general public to answer questions regarding Zoning and General Plan matters, and development regulations. Mr. Veerkamp facilitated workshops in conjunction with the Sacramento County SACOG regional Blueprint project. Mr. Veerkamp reviewed CEQA environmental documents in partnership with consultants, managed redevelopment funded housing program records for the City, and processed the development of an eight-acre regional waste transfer station for California Waste Recovery Systems.

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

APPLICATION FOR CERTIFICATION
For the *PALMDALE HYBRID POWER PROJECT*

Docket No. 08-AFC-9

PROOF OF SERVICE
(Revised 1/14/2011)

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*indicates change

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publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I,**Rhea Moyer** declare that on, **January 21, 2011**, I served and filed copies of the attached **Energy Commission Staff's Rebuttal Testimony**, dated **January 21, 2011**. The original document filed with the Docket Unit is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [http://www.energy.ca.gov/sitingcases/palmdale/index.html]. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

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

_____ by personal delivery;

__x__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

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

OR

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

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-9
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Rhea Moyer

Rhea Moyer

*indicates change