# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
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In Reply Refer To:
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Mr. Mike Monasmith
Project Manager
Siting, Transmission and Environmental Protection (STEP) Division
California Energy Commission
1516 Ninth Street, MS-2000
Sacramento, CA 95814

Dear Mr. Monasmith:

This letter transmits the water-related concerns of the California and Nevada offices, as well as the cultural resources concerns of the Nevada office of the Bureau of Land Management (BLM) resulting from our review of the California Energy Commission's (CEC) Final Staff Assessment and the applicant response to the assessment for the Hidden Hills Solar Electric Generating System (HHSEGS). Our comments are part of the BLM's ongoing effort to minimize or mitigate for impacts to BLM water-dependent public trust and cultural resources in Nevada and California and want the commissioners to take the information into consideration during the hearings and decision making process for permit authorization.

The BLM-Nevada is analyzing an associated right-of-way (ROW) application for a transmission line and a gas pipeline in Nevada, together called the Hidden Valley Electric Transmission Line (HVETL) Project. The HVETL Project will provide grid connection and natural gas for the HHSEGS located in California on private land along the Nevada state border.

The BLM understands that HHSEGS would require up to 140 acre-feet per year (afy) of water, pumped from the Pahrump Valley groundwater basin. As stated in our earlier two letters, the BLM is concerned that pumping from this water source, combined with the cumulative impacts of other groundwater pumping, will cause impacts to the Amargosa Wild and Scenic River (W&SR) located in Inyo County California, and to the Stump Spring Area of Critical Environmental Concern (ACEC) located in the Pahrump Valley Nevada.

The BLM continues to have concerns that activities resulting from the development of the HHSEGS will cause impacts to resources on public lands managed by the BLM. Hence, both the California Desert District and the Southern Nevada District of the BLM requests to be notified on a regular basis of any results from groundwater monitoring conducted by the operators of the HHSEGS, or their consultants. The BLM also requests to be consulted by the CEC's Compliance Project Manager on the interpretation of the monitoring results, performance standards as

outlined in Water Supply-4 and Bio-23, and to participate in identifying mitigation measures used to off-set impacts as defined by Water Supply-4.

Further, the BLM recommends the CEC clarify one of the mitigation options under Water Supply-4, namely the retirement (or off-set) of water rights. To have any impact as a mitigation measure, water rights to be retired as an off-set for active pumping by HHSEGS must be senior water rights that are currently (within the past five years) and actively being put to beneficial use, are consumptive in nature, and located near the project area. Three of these stipulations (senior, consumptive, and actively being put to beneficial use) are well defined by the Nevada State Engineer, who manages all water rights in Nevada. There are approximately 40,000 afy of inactive water rights in the Pahrump Valley the retirement of any of these will have no effect in mitigating impacts caused by the HHSEGS. Since water rights in the Pahrump Basin are over-appropriated by a ratio of approximately 3:1 (appropriated water rights: groundwater recharge) it is advisable to retire active senior, consumptive water rights at the same ratio to maximize the benefits of retiring water rights as a mitigation option.

Stump Spring, which is located in Clark County, Nevada, is believed to receive its water from more than one source, including snowmelt in the Spring Mountains, rather than solely from local precipitation events. This is based on both geochemical and water-level analysis of the Stump Spring monitoring well. The water-level data in the well shows an increase in water-level after the notably above average snow year of 2005 followed by a gradual drop in water levels overtime since, despite the precipitation pattern in the following years. Geochemical analysis performed by the United States Geological Survey (USGS) on the Stump Spring monitoring well indicates that 'water derived from Stump Spring Well is either derived from an entirely different source than the Spring Mountains recharge or contains an additional source component to Spring Mountains recharge' (Leigh Justet, personal communication, 1/24/2012). Surface water at Stump Spring, which is an intermittent water source, tends to be as little as one to three inches above ground surface for approximately two to three months out of the year. Therefore, even a drop of two inches in water levels could mean that surface water that was typically available for wildlife use may not be available at all and could result in impairment to the BLM's water rights on Stump spring.

Additionally, the BLM has concerns regarding the Mesquite bosques in Pahrump Valley, which are located in both Clark and Nye Counties. While mesquite trees often have roots that are deeper than 35 feet, it is difficult for new tree recruitment to occur when water levels are declining. There are only a few places where mesquite tree recruitment has been documented recently in the Pahrump Valley. With the locally dropping water levels, current Mesquite population become relic populations that are not sustainable and will eventually die off. This is one reason the BLM Southern Nevada District Office is analyzing expanding the existing Stump Spring ACEC and/or forming a new Mesquite ACEC in the revision of the current Resources Management Plan.

The lack of empirical data does not allow the BLM or others for that matter to determine the exact impacts the HHSEGS groundwater pumping will have on resources managed by the BLM, therefore, the BLM requests the mitigation of all reasonably and foreseeable impacts thereof. Ideally, BLM would require more in-depth scientific studies to gather data to determine impacts

and determine what triggers, if any, would be advisable. However, due to the absence of this information, the BLM advocates the triggers suggested by the CEC in the Final Staff Assessment (1-foot drop in groundwater levels at on-site HHSEGS monitoring wells or 6-inch drop in groundwater levels at the HHSEGS monitoring wells on BLM-managed land). Given the location of all of the suggested monitoring wells for this project as well as the potential use of other monitoring wells the project area, it is feasible to determine whether drops in groundwater levels are caused by the HHSEGS or other factors.

The BLM also advises the CEC to clarify adaptive management language regarding the Amargosa W&SR. Since Congress designated this section of W&SR, the BLM is mandated by law to manage for the established Outstandingly Remarkable Values (ORVs) in perpetuity. To support this, better understanding of groundwater flow paths in the area of the W&SR are needed and BLM is collaborating in several ongoing scientific studies and efforts. Stakeholders in this work include the BLM, the USGS, the US Fish and Wildlife Service, the Amargosa Conservancy, Nye County Nevada, and Inyo County California. With that in mind, Water Supply – 8 should include the potential for mitigation action if HHSEGS groundwater production is ever demonstrated to have an impact on base flow into the Amargosa River. While there continues to be uncertainty regarding such impacts, should they occur, even at some distant time in the future, those impacts could be catastrophic to this congressionally designated W&SR and those resources dependent upon its waters.

Regarding cultural resources, compliance with Section 106 of the National Historic Preservation Act (NHPA) and the Statewide Protocol Agreements between the BLM and the California and Nevada State Historic Preservation Officers (SHPO) requires the EIS to consider impacts to significant properties on both the public and private land portions of the project. The HHSEGS facility proposed on private land in California, as well as the transmission line and pipeline proposed on BLM-managed lands in Nevada would be constructed within the view shed of the Old Spanish National Historic Trail (OSNHT). This includes one segment of the OSNHT (Stump Springs) that is listed on the National Register of Historic Places. The BLM is aware of the inventory efforts completed to date, and the discussion of National Historic Trail resources and potential impacts to the OSNHT contained in the Final Staff Assessment. However, the BLM must follow federal law and policy related to determining impacts from the HHSEGS Project on the OSNHT, particularly the NHPA, National Trails System Act, and BLM Policy Manual 6280. In order to do this, the BLM Nevada State Office National Historic Trails Lead is planning to meet with our Southern Nevada District Office and the Nevada SHPO in April to establish the Area of Potential Effect (APE). This APE will be the area analyzed in the EIS to determine the extent of impacts to the resources, qualities, values, and associated settings of the OSNHT from each alternative to be analyzed. Because the APE has not yet been established, the BLM has not yet made a determination, in consultation with SHPO, of the adequacy of previous cultural resource inventories and the potential need of additional inventories. Once this occurs, and all the data have been inventoried and reported, BLM, in consultation with the SHPO and the Advisory Council on Historic Preservation (letter to BLM dated February 8, 2013, stating their intent to consult with BLM on this undertaking), will determine impacts to the OSNHT, as well as measures to be undertaken to take into account adverse effects.

The BLM appreciates having the opportunity to provide comments on the HHSEGS project. If you have any questions please contact Sarah Peterson, Nevada State Lead for Soil, Water, Air & Riparian programs at 775-861-6516; Dr. Boris Poff, District Hydrologist for the Southern Nevada District office at 702-515-5154; Peter Godfrey, Hydrologist, California Desert District, at 951-697-5385; Dr. Noel Ludwig, Hydrologist, California Desert District, at 951-697-5368; or Bryan Hockett, BLM Nevada State Lead for National Historic Trails, at 775-861-6546.

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