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CA State Parks Comments on the Preliminary Staff Assessment and Draft Environmental Impact Statement (PSA/DEIS)

Additional submitted attachment is included below.



DEPARTMENT OF PARKS AND RECREATION

Major General Anthony L. Jackson, USMC (Ret), Director

Tehachapi District
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September 24, 2013

Mr. John Heiser
California Energy Commission
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Sacramento CA 95814-5512

Mr. Fred Pozzuto
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National Energy Technology Laboratory
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RE: Hydrogen Energy California Project (HECA). Preliminary Staff Assessment and Draft Environmental Impact Statement (PSA/DEIS)

Dear Mr. Heiser and Mr. Pozzuto:

The Tehachapi District of the California Department of Parks and Recreation (State Parks) appreciates the opportunity to comment on the Hydrogen Energy California Project (HECA), Preliminary Staff Assessment and Draft Environmental Impact Statement (PSA/DEIS) Docket Number (08-AFC-8A).

State Parks is a State Agency as defined by the California Environmental Quality Act (CEQA) § 21082.1, a Trustee Agency as used by CEQA, its Guidelines and as defined by CCR § 15386 for the resources affected by this proposed project. Our mission is to provide for the health, inspiration, and education of the people of California by helping preserve the state's extraordinary biodiversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality outdoor recreation.

As the governmental entity responsible for the stewardship of Tule Elk State Natural Reserve (Reserve), we have a strong interest and concern about contemplated alterations of land use adjacent to the park. The long-term health of the Reserve is dependent on the health of the area ecosystems because the biotic boundaries of the park extend beyond its jurisdictional boundaries and must be managed with an eye toward wildlife corridors and regional concerns.

In general, based on our review of the PSA/DEIS, we have found that the proposed project will result in significant and unavoidable impacts to the Reserve. The protected public lands of the Reserve represent a tremendous public investment in the protection and preservation of both cultural and natural resources. We do not believe that the mitigation measures in the report rescue the significant and unavoidable impacts from

overriding findings; in fact, most of the mitigation measures provided have no effect on the State Park property.

We have detailed our concerns and comments below.

BIOLOGICAL

Foraging Habitat - Fragmentation

The PSA/DEIS, shows that the Tule Elk Reserve is located less than one mile from the Integrated Gasification Combined Cycle (IGCC) main complex. The Department is concerned with the unavoidable adverse impacts of the loss of approximately 773 acres of land (453 acres for the IGCC facility, 91 acres for staging areas, and 229 acres for linear facilities), which will result in permanent and temporary impacts to vegetation communities that are currently being used and are occupied by special-status species including, but not limited to: San Joaquin kit fox, blunt-nosed leopard lizard, western spadefoot toad, American badger, Tipton kangaroo rat, giant kangaroo rat, San Joaquin antelope squirrel, short-nosed kangaroo rat, San Joaquin pocket mouse, western burrowing owl, Swainson's hawk, other birds and raptors protected by the Migratory Bird Treaty Act and various California Fish and Game Codes.

This habitat is extremely important due to its location of being just west the Reserve. These lands are used for foraging, dispersal and cover by small and large mammals, foraging raptors and other wildlife. We are concerned that this will significantly impact the Reserve. In addition, construction and operation impacts as a result of encounters with vehicles and/or heavy equipment will result in the direct mortality, injury, or harassment of these special-status species, which we believe will result in habitat loss, decreased wildlife movement, loss of genetic exchange and fragmentation of the Reserve and other higher quality preserve lands including, but not limited to: the Kern Water Bank, Lokern Natural Area, and Buttonwillow Ecological Reserve. This is a significant and unavoidable impact. Additional land should be purchased to partially mitigate these concerns, or the existing Reserve should be enhanced by the provision of an additional water supply. Otherwise, this is a significant impact that cannot be adequately mitigated.

We believe the approach should be the following. The provision of water to this Reserve would assist in making sure that the Reserve can support the rare and endangered species in the area, which may otherwise be displaced by the use of the project property. In addition, the purchase of additional property in the area would assist in keeping the Reserve a viable ecological resource.

Fencing

Based on our review of the PSA/DEIS, we are concerned about use of fencing to control access at the proposed project site, specifically the fencing of 653 acres of land that is being proposed as a buffer zone adjacent to the IGCC and the manufacturing complex. We believe that the fencing of this buffer zone will further exacerbate and will contribute to overall habitat fragmentation of the area. It is our expert opinion that properly designed fences enable wildlife to use, or

move through, an area with limited impediment, helping to keep areas of land biologically connected. The ideal fence from a wildlife standpoint is one that can be seen easily and can be leapt over or scurried under without injury. We recommended all fencing be designed and placed with wildlife in mind. A fencing plan should be developed prior to construction to reduce impacts on habitat connectivity to the Reserve and other higher quality preserve lands within the surrounding area.

Noise

The proposed construction of HECA project would last approximately four years, starting in September/October 2013 and ending in September 2017. The estimated average and peak hour trip generation construction analysis states that there would be a peak daily workforce of 2,460 trips, truck deliveries 300, soil fill truck deliveries 900 for a total 3660 vehicle/truck trips.

The PSA/DEIS states, "the construction of HECA is expected to be typical of large scale industrial projects in terms of equipment used and other types of activities, the construction period would extend beyond what is reasonably considered "a temporary phenomenon" (approximately 3.5 years). "We are greatly concerned that the proposed project will be audible over long distances and will be audible to park visitors at several locations within the Reserve, including the main interpretative trail, scenic vista points and at the Tule Elk Visitor Center. We look forward to working with the Lead Agency and project proponent to ensure that the appropriate mitigation measures, and compensation are implemented to reduce traffic and construction noise impacts within the Reserve.

The PSA/DEIS, states that the project will result in significant noise impacts that may affect the elk and other wildlife species within the Reserve. These impacts could directly affect the elk during two sensitive time periods, during the rut season (roughly June through November) and calving season (roughly March through July) which could result in a disruption of breeding behaviors and be detrimental to elk calf growth.

These significant noise intrusions will significantly affect other special-status species within the Reserve. Studies have shown that loud noise resulting from construction activities, including the proposed stream blows and pile driving activities will cause hearing damage in wildlife and reduce wildlife populations. Animals are dependent on their hearing to escape from predators, find mates, and communicate with their young. If an animal's hearing is damaged, that animal may fail to reproduce or may be unable to escape predators and die prematurely.

Dozens of studies have shown that construction and operational noise may negatively effects wildlife populations, and those effects can extend up to 2 miles away. The proposed project would be located less than a mile from the Reserve. Special-status species populations could decline throughout the park because of theses significant noise impacts. This is a significant impact that cannot be adequately mitigated. Partial mitigation may be obtained by enhancing the Reserve's ability to accommodate rare and endangered species and providing additional land in the immediate area prior to the construction of the Project.

Impact to Trees

Based on our review of PSA/DEIS we are concerned that the use of 7,500 AF/y of groundwater by the proposed project could potentially exacerbate overdraft conditions in the Kern County sub-basin and create a significant adverse impact on the resources within the Reserve. A decrease in groundwater level may lead to a decrease in the water supply to the Reserve's tree root system, which could result in canopy dieback, limb failure and eventually tree failure or mortality of trees within the Reserve. This impact would have a direct impact on the elk, and other wildlife including birds and raptors such as the Swainson's hawk that use trees within the Reserve as nesting habitat. This is a significant impact that cannot be adequately mitigated. Enhancing water supply to the Reserve would partially mitigate this impact.

Lighting and Glare

The Department has concerns regarding the disruption of breeding and habitat use associated with potential impacts from the migration of light and glare from the project site. We believe that these impacts could affect the Reserve resulting in light pollution from the migration of off-site lighting and glare being admitted from the IGCC project site. The PSA/DEIS, states that "the project's lighting would be designed to directionally orient, shield, and hood lighting to minimize off-site migration of light. While the project may slightly add to existing lighting, the project will not significantly contribute to ambient night lighting in the project area due to the design features discussed above. With the incorporation of these design measures into the project's lighting plan and implementation of staff's Condition of Certification **BIO-6** to minimize lighting impacts which would be monitored and reported on during construction, staff concludes there will be no significant impacts to wildlife from the night lighting associated with operation of the new facility." The Department appreciates the use of monitoring, pre-construction den surveys, etc., and BMPs the proponents will implement to minimize and prevent the potential for impacts to wildlife from migrating lighting and glare and requests. The Department looks forward to working with the project proponent to ensure the measures put forth, as stated above, to reduce light and glare off-site of the IGCC project area.

Noxious Weed Spread and Nitrogen Deposition

We are concerned that construction activities and soil disturbance could introduce new noxious weeds that may spread to the Reserve. Resource management policies for State Parks direct us to preserve and restore indigenous plants and animals, while systematically removing populations of exotics. We believe that the spread of invasive plants such as Bermuda grass (*Cynodon dactylon*), erodium, Mediterranean barley (*Hordeum marinum*), fescue (*Vulpia* spp.), Mediterranean grass, Russian thistle (*Salsola tragus*), and red brome from the proposed project could be a major threat to the Reserve that could affect many special-status plant and wildlife species within the Reserve.

Additionally, we are concerned that the sources of NO_x emissions from the proposed project could result in a nitrogen deposition plume which could impact sensitive species that could result in changes in toxicity, changes in species composition among native plants and enhancement of invasive species. As a sensitive biological resource area we believe that the PSA/DEIS should have completed nitrogen deposition modeling to ensure that NO_x emissions from the proposed project will not impact sensitive resources within the Reserve. This modeling should be done and the DEIS recirculated to allow review of this data. Otherwise, this is a significant impact that cannot be adequately mitigated.

Mitigation

The PSA/DEIS, states “The applicant has proposed to mitigate for permanent and temporary habitat impacts to federally and state listed species at a 0.1:1 and 2.1:1 ratio.” We concur with Energy Commission staff, the California Department Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) that this ratio is not sufficient to mitigate the impacts to special-status species within the project area and the surrounding area including the protected lands of the Reserve.

Furthermore, purchasing habitat credits from the Kern Water Bank as mitigation for the project does not sufficiently mitigate HECA’s impacts to special-status wildlife species. We believe that these significant unavoidable impacts will directly impact the Reserve including the loss of habitat, decreased wildlife movement, loss of genetic exchange, fragmentation and disruption of elk breeding behavior. The Lead Agency and project proponent must work with State Parks to address these concerns prior to approval of the project, to make sure that the appropriate mitigation measures, and compensation are implemented within the Reserve to reduce and avoid these significant unavoidable impacts.

AIR QUALITY – ODOR IMPACTS

The Reserve is considered a sensitive land use receptor area per the San Joaquin Valley Air Pollution Control District and the Kern County Air Pollution Control District.

According to the air quality analysis “HECA would emit several substances in high enough concentrations that they could possibly cause offensive odors. Specifically, the substances of concern for HECA would be hydrogen sulfide (H₂S), carbonyl sulfide (COS), carbon disulfide (CS₂), and ammonia (NH₃). Energy Commission staff believes that there is the potential for H₂S odors from HECA emissions sources to be “perceived beyond the fence line”.

As a steward for natural resources, as a sensitive land use receptor area and an adjacent property owner, these potential offensive air pollutants will significantly impact the park visitor’s experience by creating an objectionable odor at certain times, which may affect a substantial number of people, including the elderly, school groups and families with young children. In order to ascertain the severity of the impacts, an air monitoring station at the Reserve or near the Reserve shall be installed to ensure that air quality from HECA is not impacting the Reserve and/or the park visitors, with results submitted on a quarterly basis to the Department, the local air pollution control district

and the County. It is possible that the air quality and odors may also affect the Tule elk. If indications appear, monitoring of the elk herd shall also be provided for, including blood analysis until it is clear that there is no impact on the animals or that there is an impact, which shall be addressed by the proposed project, at no cost to State Parks.

CULTURAL RESOURCES

The historic structure "Tule Elk Caretaker's Cottage and Garage" should be included and evaluated within the project area of analysis (PAA) and/or area of potential effects (APE).

The PSA/DEIS states "Ground disturbance accompanying construction at a proposed plant site, along proposed linear facilities, and related facilities has the potential to directly impact archaeological resources. The potential direct, physical impacts of the proposed construction on unknown archaeological resources are commensurate with the extent of ground disturbance entailed in the particular mode of construction. This varies with each component of the proposed project. Placing the proposed plant into this particular setting could have a direct impact on the integrity of association, setting, and feeling of nearby standing historic structures."

Under CEQA, a resource is generally considered to be historically significant if it meets the criteria for listing in the California Register of Historical Resources, which are essentially the same as the eligibility criteria for the National Register of Historic Places. State Park' cultural resource specialists consider the historic structure "Caretaker's Cottage and Garage" to have statewide historic significance as a unique CCC adobe building associated with a New Deal Era wildlife conservation program and that it may be eligible for the National and California Registers. The "Tule Elk Caretaker's Cottage and Garage" is one of the first and only remaining examples of Civilian Conservation Corps (CCC) adobe architecture in central California and is an outstanding example of the Park Rustic design.

The proposed project may cause significant impacts to the historic structure's physical integrity by project-related construction vibrations, such as from pile driving, and may cause significant impacts to the structure's integrity of association by the project's physical proximity to the structure.

The Lead Agency and project proponent must work with State Parks to make sure that the appropriate mitigation measures are implemented to ensure that this historic resource is protected by reducing and/or avoiding any and all impacts to the historic structure. Otherwise, this is a significant impact that cannot be adequately mitigated.

LAND USE

We are concerned that proposed project may be incompatible with the Reserve.

Public Resource Code Section 5019.65 identifies State Natural Reserves as, areas embracing outstanding natural or scenic characteristics or areas containing outstanding cultural resources of statewide.

The purpose of a State Reserve is to preserve its native ecological associations, unique faunal or floral characteristics, geologic features, and scenic qualities in a condition of undisturbed integrity. Resource manipulation shall be restricted to the minimum required to negate the deleterious influence of man.

As indicated in the PSA/DEIS, the proposed project will significantly impact 773 acres of land that will adversely impact several special-status species, that will result in habitat loss, decreased wildlife movement, loss of genetic exchange and fragmentation of the Reserve.

In addition, the proposed project may potentially exacerbate and may create unmitigated impacts to noise, dust, public health, traffic and aesthetics that could preclude, interfere with, or unduly restrict existing or future uses. We believe and concur with staff that if these impacts cannot be fully mitigated, then the proposed project would not be compatible with existing, planned land uses and/or the Reserve. Enhancing the viability of the Reserve with additional water and providing additional property in the area or elsewhere would help reduce the significant and unavoidable impact. The Lead Agency and project proponent shall work with State Parks to implement an approach that may help reduce the significant impacts.

TRANSPORTATION AND TRAFFIC

The PSA/DEIS states that the HECA project could result in significant impacts to the traffic and transportation system within the surrounding community, including vehicles trying to access the Reserve. We agree with staff that the proposed project will significantly impact and increase traffic levels on farming roads not currently intended for heavy truck traffic and heavy load capacities. We also concur with staff that this substantial increase in traffic could have the potential to impact traffic and potentially resulting in safety issues and increased accidents to the public. Please see our suggestion below of moving the access away from the entrance to the Reserve.

Operations

The estimated average and peak hour trip generation operational with rail spur analysis states that there would be a peak daily workforce of 308 trips, process materials and byproduct 426 trips and feedstock material delivery 330 trips for a total of 1064 vehicle/truck trips.

The estimated average and peak hour trip generation operational without rail spur analysis states that there would be a peak daily workforce of 308 trips, process materials and byproduct 798 trips and feedstock material delivery 1,800 trips for a total of 2906 vehicle/truck trips.

We are concerned that these significant impacts will directly impact the park visitors who are trying to access the Reserve. We believe that the amount of traffic congestion as a result of the proposed project will significantly impact the regional transportation system. Stockdale Highway is a main east-west highway that provides a connection from I-5 for park visitors trying to access the Reserve. Morris Road is a north-south

connection that provides access to Station Road where the main entrance of the Reserve is located. We believe that the traffic congestion may prevent and discourage some park visitors from visiting the Reserve, which could result in a drop or decrease in visitation and revenue for the Reserve even after the proposed mitigation measures have been implemented.

The proposed mitigation measure proposed for the intersection of Morris Road and Stockdale Highway to construct a separate left-turn lane on the westbound approach of Stockdale Highway, and a separate right-turn lane on the northbound approach of Morris Road and installed a three-way-stop intersection with flashing lights may exacerbate the problem. We are concerned that this will create long delays and back up traffic on Stockdale Highway, which may result in construction and operational traffic accessing Morris Road to Station Road to avoid traffic delays on Stockdale Highway, which may impact the Reserve by increasing traffic and creating noise impacts to the Reserve from vehicles travel along Station Road.

The Lead Agency and project proponent shall work with State Parks to make sure that the appropriate mitigation measures are implemented to reduce and avoid these significant traffic and construction impacts around the Reserve. Compensation should be set up for impacts during construction if the number of visitors drops during that period.

Hazardous Materials

The PSA/DEIS has identified the Reserve as a sensitive land use receptor area as a public park that attracts a variety of park visitor's including the elderly, school groups and families with young children. As a sensitive land use receptor area, we are concerned about the transporting of hazardous materials including large volumes of sodium hydroxide, liquid sulfur and methanol, In addition to the large amounts of degassed liquid sulfur along with urea ammonium nitrate fertilizer that will transported off site.

The proposed transportation route for hazardous materials delivery will be using Stockdale Highway to Morris Road to Station Road to the proposed project site as per the proposed Condition of Certification **HAZ-6**; this route has been designated as the preferred and only route for hazardous materials delivery.

The main entrance to the Reserve is located on Station Road. The majority of park visitors access the Reserve by using Stockdale Highway to Morris Road to Station Road. We are concerned about the potential and/or risk of accidental exposure of significant concentrations of hazardous material being released as a result of vehicle conflicts and/or vehicle accidents.

The Lead Agency and project proponent shall identify an alternative that would reroute hazardous materials deliveries away from the Reserve to ensure that the transporting of hazardous materials will not impact the Reserve and/or the park visitors. Otherwise, this is a significant impact that cannot be adequately mitigated.

We could not find a discussion of the possibility of explosion at this site. While a chart in the document provides a discussion of what has happened with other similar plants and addresses those situations in the current project proposal, there is still no risk analysis that tells us what risk the Elk, the rare and endangered species and the staff and the public face with the proposed project as a neighbor.

VISUAL RESOURCES

The PSA/DEIS states that the HECA project will cause substantial degradation of the existing visual character of the site and its surroundings, which will have a direct significant impact to visual resources of the Reserve. As an adjacent landowner the Reserve is approximately 1700 feet west of the proposed project, which will result in unscreened views of the proposed project site from several locations within the Reserve, including the main interpretative trail, scenic vista points and at the Tule Elk Visitor Center.

We concur with Energy Commission staff that the HECA project does not comply with all applicable visual resource standards under CEQA and/or LORS, and creates a significant unavoidable impact to visual resources of the Reserve and the surrounding area.

The proposed project will significantly impact the landscape surrounding the Reserve. The proposed project will forever alter the natural terrain changing the views that park visitors see as they enter the Reserve. The proposed project will introduce an urban modern commercial landscape that will include structures and towers that would be 100 to 300 feet tall. Massive plumes emanating from the proposed project's cooling towers will billow up hundreds feet into the atmosphere. The overall mass of the built structures will dominate views of the project site and surrounding area, including the Reserve.

We concur with staff that "the presence and movement of heavy construction equipment and construction-related generation of dust will have the potential to degrade the existing visual character and quality of views within the area." These visual impacts will not only affect the park visitors but motorists on local roadways and highways, occupants of rural residences, local businesses within the area.

Additionally, significant visual impacts from the proposed project will result in light and glare (during its construction and operational phases, which may be 24 hours per day, 7 days per week) that could adversely affect the daytime and nighttime views from the Reserve. We need a typical measure here that says that light at night will be minimized, no light escape to our property or off their property and landscaping to minimize the impact.

The installation of the proposed transmission line and the power poles (some which may be as tall as 115 feet tall) will significantly impact views from the Reserve. These unobstructed views of the transmission line and power poles will be clearly visible from the Reserve, including the visitor center and day use areas.

The proposed transmission line should be undergrounded in the immediate area to help reduce at least one significant visual impact to the Reserve and the surrounding area. If the lines are not undergrounded, this is a significant and unavoidable impact on the Reserve, and compensation would be sought.

MANDATORY FINDINGS OF SIGNIFICANCE

We concur with the findings that the proposed project has a great potential to significantly impact the environment, create significant cumulative impacts, and have adverse impacts to humans. We encourage the DOE and California Energy Commission to thoroughly explore these issues in the draft PSA/DEIS.

Once again, we appreciate the opportunity to comment on the proposed project. As we have outlined in our comments, there are a number of significant issues related to Tule Elk State Natural Reserve. It is important that all land use decisions adjacent to Tule Elk State Natural Reserve be compatible with the preservation of the tremendous resources found there. For further discussion, please feel free to contact or Russ Dingman, Staff Environmental Planner, at (661) 724-2380.

Sincerely,



Kathy Weatherman
District Superintendent

cc: Christopher Conlin, Deputy Director OHMVR, DPR
Steve Lehman, Deputy Director, Park Operations, DPR
Jay Chamberlin, Chief Natural Resources, DPR
Kathryn J. Tobias, Senior Staff Counsel, DPR