

SCREENING FORM FOR LOW-EFFECT HCP DETERMINATIONS

Valley Electric Association, Inc.
Proposed Community Solar Project HCP
Nye County, Nevada

I. Project Information

- A. Project name:** Valley Electric Association
Community Solar Project
Pahrump, Nye County, Nevada
- B. Affected species:** Mojave desert tortoise (*Gopherus agassizii*)
Listed as Threatened under the Endangered Species Act
Classified as Protected, Threatened by the State of Nevada
- C. Project size (in stream miles and acres):** 80.65 acres
- D. Brief project description including minimization and mitigation plans:**

Project Description

Valley Electric Association, Inc. (VEA, project proponent) is applying for an incidental take permit under section 10(a)(1)(B) of the Endangered Species Act (ESA) for activities proposed in association with the development of 80 acres of vacant land in Pahrump, Nevada, for construction of a Community Solar Project. The project proponent has developed a habitat conservation plan in support of their permit application. The HCP describes activities associated with development of the solar field, the effects of those activities on the Mojave desert tortoise, and measures the project proponent would take to avoid, minimize, and mitigate the effects.

The purpose of the project is to construct, operate, and maintain a photovoltaic solar facility with 54,864 fixed panels within an 80-acre parcel of land located in the northeast part of the town of Pahrump that would provide power to VEA's members within their service area located mainly along the Nevada-California border. The project would provide a source of clean energy to be used by VEA members and would create additional job opportunities in the community. The project proponent is applying for an incidental take permit because the project is located within desert tortoise habitat and take would be unavoidable as a result of constructing and operating the solar facility on the project site.

The project is located within the town limits of Pahrump in T 19 S, R 53 E, Section 25. In addition, an associated distribution line and access road would be constructed within a 2,640-foot x 20-foot easement in T 19 S, R 53 E, Sections 24 and 25. The project area is approximately 1.4 miles east of Highway 160 and immediately south of Simkins Road.

The duration of construction activities is expected to last approximately 8 months and the project is anticipated to be in service for 30 years, which is the requested duration of the permit term. Construction of the solar field would include the following:

- Installation of 30 degree fixed tilt, ground mounted solar PV panels capable of producing 15 MWAC of power. The panels would be installed in twelve groupings each containing 4,572 315-watt panels (54,864 panels in total). Each panel would measure 39 inches x 79 inches, with the leading edge about 42 inches above the ground. The panels would be blue-black in color and would be composed of the least reflective glass available.
- Construction of a 40-foot wide by 2,642-foot long gravel access road down the east-west center of the site.
- Installation of 10 inverter stations (12 feet x 40 feet x 7.1 feet tall) adjacent to the access road.
- Construction of a 0.4-acre switchyard area in the northeast corner of the site, which would include a parking area, a 500 square foot prefabricated building for housing system monitoring equipment and for use as a visitor center, and a switchgear cabinet containing system project equipment, metering, telecommunications equipment, and switches to be mounted on a concrete pad.
- Conduit and wire that would be buried approximately 4 feet deep between the panels and inverter station and switchgear.
- Grading and leveling a 0.5-acre area in the northwest corner of the site to be used as a future well site.
- Placement of rip-rap and culverts in the large wash located in the southern portion of the site.
- Containment of staging and temporary work areas within the 80-acre site.
- Installation of a 6-foot tall chain-link perimeter fence around the 80-acre site along with secured access gates. The fence would have barbed wire on top for security purposes. The fence would also include openings along the bottom that are at least 10 inches high and 7 inches wide and spaced approximately 260 feet apart to allow desert tortoise ingress and egress at the site after construction activities are completed.
- Construction of a 2,640-foot 24.9kV distribution line and 10-foot wide access road that would connect to an existing power line located east of the project site.

The project would use between 500,000 and 600,000 gallons of water during construction. The water would be obtained off-site from an existing local area water utility and trucked to the project site. After construction, it is not anticipated that the panels would need to be washed. However, should washing become necessary, water would be trucked in to the project site. Any water used for washing would be contained within the project site (i.e., no run-off). Also, the prefabricated building would ultimately have water supplied by a small well and a sewer system. VEA owns one-half acre-foot

per year of water rights to use for the building. All water from the future well would be used for the prefabricated building only and not within the solar array or other facilities.

VEA would manage and control noxious weeds and invasive plant species consistent with applicable regulations. The introduction of noxious weeds and invasive plants would be addressed through the use of certified weed-free seed and mulching; cleaning of vehicles to avoid introducing invasive weeds; and education of personnel on weed identification, the manner in which weeds spread, and methods for treating infestations. Regarding the cleaning of vehicles, a controlled inspection and cleaning area would be established to visually inspect construction equipment arriving at the project site and to remove and collect seeds that may be adhering to tires and other equipment surfaces. Equipment would also be cleaned any time thereafter if the equipment leaves the project site, is used on another project, and reenters the project site. Further, to prevent the spread of invasive species, project developers would determine whether a pre-activity survey is warranted and, if so, to conduct the survey. Were noxious weeds or invasive plants to be introduced to the project site as a result of the project, VEA would use principles of integrated pest management to prevent the spread of invasive species.

Rather than grading, tilling, and leveling the entire 80-acre project site, the project proponent would leave most of the vegetation intact, and would crush, mow, or trim vegetation to avoid interfering with the solar panels. Solar panels would be elevated to a height of 42 inches at the bottom leading edge, which is about 18 inches higher than the current industry standard, to promote vegetation to persist beneath the solar array by allowing more light to reach the vegetation left below the solar panels.

Two solar panel spacing configurations would be designed within the 80-acre project site:

1. Industry Standard: The northern 40 acres of the project site would have an inner row spacing (i.e., distance between the upper trailing edge of a panel and the bottom leading edge of the panel behind it) of 14 feet.
2. Modified Configuration: The southern 40 acres of the project site would have an inner row spacing of 20 feet in order to allow for more light to reach the ground and encourage vegetation growth and break up the pattern of the solar panels in an effort to reduce the potential for impacts to migratory birds.

The project includes operation and maintenance of the solar fields, which would be accessed primarily along the center access road mostly using lightweight off-highway vehicles. Operation and maintenance activities include but are not limited to: visual inspections, cleaning of the front screens and rear louvers, cleaning of the air intake filter, verification of electrical connections, and verification of signal connections. Within the PV array, activities would include visual inspections of the PV modules, racking system, electrical wiring, weather stations, and the perimeter fence. Cleaning or washing of PV modules is not expected, but if needed, would be performed with warm water and an

environmentally friendly soap that would not harm wildlife or vegetation. Equipment would be replaced as necessary and would be performed on foot whenever possible.

Upon retirement of the facility, all equipment would be removed, including fencing, and disturbance reclaimed (holes filled in and raked to match the surrounding topography). The area would then be allowed to recover naturally.

In addition, the project proponent would develop and implement an Avian Protection and Monitoring (APM) Plan to minimize and monitor potential impacts to migratory birds from the solar facility. The solar array is designed to determine if different configurations of solar panels may break up the appearance of a lake-like effect from a bird's perspective. The project proponent would use a qualified third-party contractor to design a monitoring protocol to track any differences in effects to migratory birds and incorporate the protocol into the APM Plan.

The project would result in the long-term loss of approximately 4 acres of desert tortoise habitat (2.4 acres from construction of the on-site gravel access road, 0.4 acre associated with the switchyard, 0.5 acre associated with the well site, and 0.65 acre from construction of the distribution line and associated access road). Vegetation within the remaining acreage on the 80-acre project site would be left intact, subject to crushing, mowing, and trimming as necessary, and the facility would remain available for desert tortoises to access and occupy the site.

Conservation Measures and Monitoring

The project proponent would install a temporary desert tortoise exclusion fence and access gates along the perimeter of the 80-acre project site prior to commencement of construction activities and perform desert tortoise clearance surveys to temporarily move resident tortoises out of harm's way during construction of the facility. Based on results from desert tortoise presence / absence surveys conducted on the project site in April of 2015, an estimate of 2 to 4 tortoises may occupy the project site. Tortoises found during clearance surveys would be moved to a tortoise-fenced enclosure on property owned by the project proponent and located 2,000 feet east of the project site. The project proponent would follow all protocols and approved methodologies for handling and care of desert tortoises. Upon completion of construction activities, tortoises would be individually marked, fitted with tracking devices, returned to the project site and released, and the temporary tortoise exclusion fence would be removed.

The permanent security fence around the perimeter of the solar project area would have tortoise access points constructed to allow tortoises to access and occupy the project site after construction is completed.

Vegetation would not be bladed and would be left intact, but mowed, clipped, or crushed within the solar project site to maintain root structure of vegetation and to keep the existing seed bed.

PV panels would be mounted on driven piers to minimize site disturbance by avoiding the need for excavation and concrete placement.

PV panels would be elevated to a minimum height of 42 inches, which is about 18 inches above the current industry standard, and spacing increased in a portion of the array to accommodate tortoise movement and vegetation growth beneath arrays.

Combiner boxes would be relocated to the center roadway to minimize trenching.

Overall, ground disturbance would be kept to the minimum required.

Desert tortoise exclusion fencing would be constructed along the perimeter of the switchyard and the well site for the lifetime of the project to prevent tortoises from accessing these two high activity areas.

The on-site access road would be posted with a 15-MPH speed limit once the facility is put into service, and utility terrain vehicles (UTVs) would mostly be used along the route in order to have maximized ground view to watch for tortoises. When use of larger vehicles is required, ground guides would be utilized to walk in front of vehicles to ensure the road is free of tortoises.

Desert tortoise surveys would be conducted one week prior to the start of construction of the distribution line and associated access road. Tortoise burrows would be flagged and construction modified to avoid impacts. An authorized desert tortoise biologist would be present during construction. If a tortoise is found within the construction area, activities would cease until the desert tortoise moves out of harm's way or is moved out of harm's way by an authorized desert tortoise biologist. Relocation would be the minimum distance possible (with a maximum of 500 meters) within appropriate habitat to ensure its safety from death, injury, or collection associated with the Project or other activities. Other measures would be implemented to minimize impacts to desert tortoise as listed in Appendix D in the HCP and in accordance with the most current Service-approved protocols (currently the Service's 2009 Desert Tortoise Field Manual).

All employees and contractors involved with the project would be required to complete a sensitive resources education program approved by the Service. The program would cover the distribution, general behavior, and ecology of listed species; sensitivity to human activities; legal protections; penalties for violation of state and Federal laws; reporting requirements; and minimization measures.

The project proponent would use qualified third-party contractors to design and implement research and monitoring studies to evaluate the impact of the two solar panel configurations on vegetation and migratory birds. Specific to desert tortoise, the studies would be designed to address the following questions:

- 1) How does vegetation left underneath the solar panels respond to the two configurations?
- 2) Can seeding areas under the panels with the native annual *Plantago ovata* help stabilize soil and provide forage for desert tortoise? Can beavertail cactus plants or cuttings persist in the solar field to supplement existing desert tortoise forage species?
- 3) How do soil conditions (e.g., soil temperature, soil water balance, microbial community, and biotic soil crust) change underneath solar panels following construction of a solar field when vegetation is left in place?

II. Does the HCP fit the following low-effect criteria? *The answer must be “yes” to all three questions below for a positive determination. Each response should include an explanation.*

A. Are the effects of the HCP minor or negligible on federally listed, proposed, or candidate species and their habitats covered under the HCP prior to implementation of the minimization and mitigation measures?

Yes. The project would impact 80.65 acres of occupied desert tortoise habitat on privately-owned land in Pahrump Valley. The proposed project would result in the long-term loss of approximately 4 acres of habitat that would be graded within high-use areas, and the temporary loss of approximately 76 acres of habitat resulting from crushing and trimming vegetation to prevent interference with the solar panels. The proposed project is located on the northeast side of the valley, at the lower end of a bajada leading from the western side of the Spring Mountains, surrounded by other private property. Based on the results of presence/absence surveys conducted in April 2015, approximately 2 to 4 desert tortoises may be present within the project area. Clearance surveys would be conducted prior to commencement of construction activities to move desert tortoises out of harm's way. Tortoises would be temporarily placed in pens and monitored during construction of the project and returned to the project site once construction activities are completed. An unknown number of juveniles and nests with eggs may be undetected during presence/absence and clearance surveys and may be crushed during construction activities. In terms of negligible effects to the species, the temporary removal and penning of 2 to 4 adult tortoises, loss of undetected juveniles and eggs within the 80-acre project site, and crushing and cutting of some of the vegetation within the project site rather than blading, tilling, and leveling the site is considered negligible when compared to the desert tortoise population (24,664) and amount of modeled habitat (3,968,694 acres) available in the Eastern Mojave Recovery Unit, within which the proposed project occurs. No other listed species, species proposed for listing, or candidate species are known to occur within the project site.

B. Are the effects of the HCP minor or negligible on other environmental values or resources (e.g. air quality, geology and soils, water quality and quantity, socio-economic, cultural resources, recreation, visual resources, etc.) prior to implementation of the minimization and mitigation measures?

Yes. The project would have minor or negligible effects on air quality, geology, and soils because most of the project site would not be graded, tilled, and leveled, and most of the vegetation would be left in place. In addition, Nye County requires the development of a dust control plan provided by the project proponent that describes measures that would be implemented to control dust. The project would have negligible effects on water quality and quantity because water for construction purposes would be obtained from an existing local water utility and trucked to the project site, operation of the facility only requires the use of one-half acre-foot per year of water rights owned by the project proponent, and it is not anticipated that the solar panels would need to be washed. There would be no known socio-economic impacts because the project would be constructed on vacant land with a Special Project Overlay zone for a renewable energy project approved by Nye County. A cultural resource survey was conducted and found no cultural or tribal resources on the project site. There are no permitted recreational activities on the property, and the project is located within an undeveloped area on the northeast edge of town, so there would be negligible effects to visual resources.

C. Would the impacts of this HCP, considered together with the impacts of other past, present and reasonably foreseeable similarly situated projects not result, over time, in cumulative effects to environmental values or resources which would be considered significant?

Yes. No significant cumulative effects are expected to occur as a result of project implementation. The permanent loss of about 4 acres of desert tortoise habitat and temporary disturbance to the remaining habitat from crushing, mowing, or trimming vegetation at the project site is minor when compared to the total amount of available desert tortoise habitat rangewide, and would not result in significant cumulative effects to the species.

III. Do any of the exceptions to categorical exclusions apply to this HCP? (form 516 DM 2, Appendix 2) *If the answer is “yes” to any of the questions below, the project cannot be categorically excluded from NEPA. Each “no” response should include an explanation.*

Would implementation of the HCP:

A. Have significant adverse effects on public health or safety?

No. A security fence would be installed along the boundary of the facility and the facility would be producing electricity from green non-polluting energy.

B. Have adverse effects on such unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (EO 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas?

Cultural resources: No. A cultural resource survey was conducted by the project proponent and no cultural resources were detected on the project site.

Park, recreation, or refuge lands: No. These lands do not occur on the property.

Wilderness areas: No. The property is not located within a wilderness area.

Wild or scenic rivers: No. Wild or scenic rivers do not occur within the property.

National natural landmarks: No. There are no national natural landmarks within the property.

Sole or principal drinking water aquifers: No. There are no sole or principal drinking water aquifers designated in the state of Nevada.

Prime farmlands: No. There are no prime farmlands designated within the property.

Wetlands: No. There are no wetlands that occur within the property.

Floodplains: No. The property does not occur within a designated floodplain.

National monuments: No. There are no national monuments designated within the property.

Migratory birds: No. This solar facility is small when compared to other utility-sized solar facilities. The project proponent has modified the design by using the lowest reflective glass available for solar panels, and has spaced panels farther apart on one-half of the project site to break up the pattern and reduce the potential for impacts to migratory birds. Also, the project proponent is preparing an Avian Protection and Monitoring Plan to monitor impacts to migratory birds and if necessary, install bird deterrent devices to further minimize potential impacts to migratory birds.

Other ecologically significant or critical areas: No. There are no other ecologically significant or critical areas that occur within the property.

C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102(2)(E)]?

No. Given the limited nature of the impacts, there is no scientific controversy over potential environmental effects.

D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?

No. The proposed solar facility does not pose highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. The short time frame during which construction would occur, and the small acreage that would be affected all contribute to precluding unknown risks. Environmental effects are not expected to be significant because the project proponent would implement actions to maintain vegetation underneath the solar panels, such as increasing the height of the panels, increasing distance

between rows of panels, and allowing resident desert tortoise to remain on the project site during project operations.

E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?

No. Each HCP is unique and is evaluated on its own merits. The action taken for this project follows established procedures. Therefore, no precedent is set for future actions.

F. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects?

No. Implementation of the HCP is not directly related to other actions with significant cumulative environmental effects.

G. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places?

No. The project proponent performed a cultural survey and no cultural resources were detected on the project site.

H. Have significant impacts on species, listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on Designated Critical Habitat for these species? Consider the degree or amount of take and the impact of the take on the species. Although take may occur under project implementation, it may be so minor as to result in negligible effects. The same concept applies when considering effects to critical habitat.

No. See section II.A. above.

I. Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.

No. Incidental take permits for HCPs are only effective for otherwise lawful activities. We are not aware of any Federal, State, local, or tribal law that would be violated as a result of the proposed project.

J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898).

No. The project may have a beneficial effect by providing jobs and a clean and affordable source of energy for the local community.

K. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO13007).

No. No Indian sacred sites occur within the vicinity of the property.

L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and EO 13112).

No. The majority of the project site would not be graded, tilled, and leveled. Most of the vegetation would be left in place and crushed or cut to a height that would not interfere with the solar panels. Leaving vegetation in place and avoiding the need for significant soil disturbance would assist with controlling the establishment and spread of weeds within the project site. Construction, operation, and maintenance activities associated with the project would also conform to best management practices and would use the principles of integrated pest management to prevent the establishment and spread of weeds.

IV. ENVIRONMENTAL ACTION STATEMENT

Based on the analysis above, the Habitat Conservation Plan for the Valley Electric Association Community Solar Project in Pahrump, Nye County, Nevada qualifies for a categorical exclusion as defined in the U.S. Fish and Wildlife Service *Habitat Conservation Planning Handbook*. Therefore, this action is categorically excluded from further NEPA documentation as provided by 516 DM 2, Appendix 1; 516 DM 6, Appendix 1; and 516 DM 8.5(C)(2).

Other supporting documents: Habitat Conservation Plan for the Valley Electric Association Community Solar Project, Pahrump, Nye County, Nevada

Concurrence:

Field Supervisor

Date