

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk

County of: Inyo

PO Box F

Independence, CA 93526

From: (Public Agency): Los Angeles Department of Water and Power
111 N. Hope St., Room 1044
Los Angeles, CA 90012

(Address)

Project Title: Proposed Upgrade to the Expanded Owens Valley Solar Array Project

Project Applicant: New Jersey Institute of Technology (NJIT)

Project Location - Specific:

100 Leighton Ln, Big Pine, CA 93513 (GPS 37.231911, -118.295519)

Project Location - City: Unincorporated Project Location - County: Inyo

Description of Nature, Purpose and Beneficiaries of Project:

The proposed project will be funded by the National Science Foundation (NSF) and will involve adding two new antenna sites and performing maintenance upgrades to existing sites where the Owens Valley Solar Array was initially enhanced in 2010 to the current Expanded Owens Valley Solar Array. See attachment for additional details.

Name of Public Agency Approving Project: Los Angeles Department of Water and Power

Name of Person or Agency Carrying Out Project: NJIT

Exempt Status: **(check one):**

- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3); 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption. State type and section number: 15301 Class 1, 15303 Class 3, 15311 Class 11
- Statutory Exemptions. State code number: _____

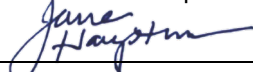
Reasons why project is exempt:

Categorical Exemption 15301 Class 1 consists of the operation, repair, maintenance, or minor alteration of existing public or private structures, facilities, or mechanical equipment involving negligible or no expansion of its existing or former use. Categorical Exemption 15303 Class 3 consists of construction and location of limited numbers of new, small facilities or structures; and the installation of small new equipment and facilities in small structures. Categorical Exemption 15311 Class 11 consists of the construction, or replacement of minor structures accessory to (appurtenant to) existing commercial, industrial, or institutional facilities.

Lead Agency James R. Howe Area Code/Telephone/Extension: (213) 367-0414
Contact Person: _____

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature:  Date: 10/15/2024 Title: Manager of Environmental Planning and Assessment

▪ Signed by Lead Agency Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

PROJECT SUMMARY: PROPOSED UPGRADE TO THE EXPANDED OWENS VALLEY SOLAR ARRAY PROJECT

OWENS VALLEY RADIO OBSERVATORY, BIG PINE, CALIFORNIA

PROJECT BACKGROUND

The New Jersey Institute of Technology (NJIT) proposes to upgrade the Expanded Owens Valley Solar Array (EOVSA) at the Owens Valley Radio Observatory (OVRO), located northeast of the town of Big Pine, in Inyo County, California (Figure 1). Established for scientific research purposes in the 1950s, the OVRO operates under a lease from the Los Angeles Department of Water and Power (LADWP). The OVRO site is leased to the California Institute of Technology (Caltech), with NJIT as an approved subletter.

The proposed project will be funded by the National Science Foundation (NSF) and will involve adding two new antenna sites and performing maintenance upgrades to existing sites where the Owens Valley Solar Array was initially enhanced in 2010 to the current EOVSA (Figure 2). The main purpose of the EOVSA is to study activities on the Sun. Project approval will be contingent on a Letter of Permission from the landowner LADWP, who will be the Lead Agency under the California Environmental Quality Act (CEQA) due to the primary discretionary approval. NSF, as the funding agency, will be the lead agency with respect to the National Environmental Protection Act (NEPA) compliance.

PROJECT DESCRIPTION

The existing EOVSA consists of 13 antennas, as shown in Figure 2. Proposed upgrades to the EOVSA include performing maintenance/upgrades on four existing antennas (Antennas 9, 10, 11, and 13) and installing two new antennas (Antennas 14 and 15). The following activities are being proposed:

- **Antennas 9, 10, 11, 13:** Upgrades to existing solar arrays will involve removing and replacing antenna on existing concrete pads and will not involve any new ground disturbance. Existing roads will be used to access antenna sites.
- **Antennas 14 and 15:** Work includes the construction of two concrete pads each measuring approximately 5 x 5 meters (m) (16 x 16 feet (ft)), installation of a chain link fence immediately around each concrete pad, and the construction of two trenches approximately 24 inches (in) deep and 12 to 18in wide, for an approximate linear length of 350-1000ft. Fiber optic and power cables, contained in 2in conduit, will be placed within trenches.

The primary ground disturbance will be associated with the installation of the concrete antenna pads and fiber optic and copper power cables to link the antennas to existing data collection stations. To minimize new ground disturbance, the trenches will follow existing

roads to the extent feasible. The proposed antenna and trench locations may vary by several feet in any direction to avoid sensitive cultural or biological resources. A trenching machine, approximately 6ft wide, will be used to dig the trenches for the cable. Where not on existing access roads, trench paths will be left to return to natural vegetation.

The chain link fences will be installed immediately around the concrete pads. Vegetation will need to be cleared around each proposed concrete pad, to allow for construction equipment and vehicular access for ongoing operation and maintenance. Approximately 10ft of clearance around each pad is anticipated. See Figures 3 and 4 for proposed locations of Antennas 14 and 15 and approximate disturbance areas.

CONSTRUCTION

Site photos are provided to illustrate the construction activities anticipated. Work includes the construction of two concrete pads each measuring approximately 5 x 5m (16 x 16 ft) (Photograph A), installation of a chain link fence immediately around each concrete pad (Photograph B), and the construction of two trenches approximately 24in deep and 12 to 18in wide, for an approximate linear length of 350ft (Photograph C). Fiber optic and power cables, contained in 2in conduit, will be placed within trenches. See Photographs D and E for approximate locations of Antennas 14 and 15.

Antennas 14 and 15 are commercial, lightweight satellite dishes and are very small (2m diameter) in comparison to the large structures already on site. Caltech personnel will transport the antennas to the proposed upgrade sites on existing roads where possible using small pickup-sized trucks. The EOVSA antennas are made of aluminum and fiberglass and are approximately four-feet tall (Photograph F). The antennas will be installed on a 5 x 5m concrete pad. Cable, buried 24in deep, will link each antenna to a main line. This line will tie into an existing electronics storage unit which houses the electronics required by the project. Both the existing and proposed EOVSA antennas are passive radio-wave receptors that receive and monitor radio waves. The array does not produce emissions, and all antennas are fixed to the ground. The proposed project will make no improvements or changes to the existing road system at the OVRO.

Work on the proposed project will take place at six locations throughout the OVRO lease area (Antennas 9, 10, 11, 13, 14 and 15), however the area of new project-related disturbance is estimated to be less than 0.2 acre (ac) in total. For Antenna 14, if the existing conduit is not sufficient to pull the cables required, an additional trench may be necessary (for a linear distance no longer than approximately 650ft) but would be placed fully within the existing road footprint.

The following equipment is anticipated to be used during construction of the proposed project: utility and light trucks, trenchers, a small tractor or backhoe, a grader (for access route maintenance), auger, mechanized hand tools, and other small tools necessary to complete the construction described above.

SCHEDULE AND OPERATIONS

Construction for the proposed project is expected to occur over a two-month period from September 15 through November 15, 2024. It is anticipated that the construction of the concrete pads and fence installations will take approximately one week. The trenching activities will follow and are anticipated to be completed in one to three weeks.

During the proposed project's operational phase, radio frequency data will be collected from the antennas. Site management, oversight of daily operations, and routine maintenance will be conducted by project staff either remotely or using existing OVRO infrastructure (office buildings). During the operations phase, no additional environmental impacts are anticipated.

ENVIRONMENTAL BACKGROUND

Environmental studies for previous OVRO projects were conducted in the proposed project area, and sensitive cultural and biological resources were documented. In 2010, TEAM assisted with the preparation of an Initial Study (IS) and an Environmental Assessment (EA) for the Expanded OVSA, which resulted in an IS Mitigated Negative Declaration (MND) and an EA Finding of No Significant Impact (FONSI). Cultural and biological resource surveys for other OVRO projects including a Notice of Exemption (NOE) for the Long Wavelength Array (LWA) in 2012, expansion in 2014 and again in 2019 and Deep Synoptic Array (DSA) expansions, were also completed in 2019, by TEAM.

CULTURAL RESOURCES

Cultural resource surveys have been conducted on the majority of the OVRO lease area, in support of the EOVSAs and other astronomy projects. Together, the previously cultural resource surveys encompassed over 980ac and resulted in the recording of 41 cultural resource sites, 37 of which reflect indigenous occupation of the area, three of which are irrigation ditches that date to the nineteenth or early twentieth century, and the OVRO facility itself. The results from previous surveys will be utilized to assure no cultural resources are impacted by the currently proposed project.

NSF has taken the lead in ensuring compliance with the National Historic Preservation Act (NHPA). An offer of Tribal Consultation was extended to five Native American Tribes who have traditional ties to the OVRO area on March 20, 2024.

Tribal Historic Preservation Officers (THPOs) of the Big Pine Tribe of Owens Valley, Bishop Paiute Tribe, and Fort Independence Indian Reservation confirmed their respective Tribal Nation's cultural connection to the area and the need for Tribal Nation monitoring of ground disturbance. THPOs of Bishop Paiute Tribe and the Fort Independence confirmed that Big Pine Paiute Tribe of Owens Valley may be the primary contact for monitoring due to their proximity and expertise on the resources. Big Pine Paiute Tribe THPO Danelle Gutierrez requested a field visit to walk the locations of the proposed new antennas, to confirm that any resources in this area may be avoided, and that monitoring is appropriate.

The field visit occurred on July 19, 2024. Both proposed antenna locations and cable routes were inspected briefly. Gutierrez indicated that monitoring would be appropriate, and that she would return with one of her Tribal Monitors to do more field inspection.

As requested by Danelle Gutierrez on behalf of the Big Pine Tribe of the Owens Valley, NJIT will hire a tribal representative to monitor trench excavation and ground disturbance, as an additional precaution against disturbing potential buried cultural resources that are not evident on the ground surface. Caltech has utilized Tribal Monitors from the Big Pine Paiute Tribe for previous ground-disturbing activities and is committed to supporting NJIT with this avoidance measure if requested by Big Pine or other tribes.

After the field visit with tribal representatives, NSF summarized their consultation efforts in a letter to the SHPO dated July 31, 2024. Pending SHPO concurrence, NSF will consider the Tribal Consultation complete with respect to Section 106 (NEPA) and AB 52 (CEQA).

BIOLOGICAL RESOURCES

Biological resource assessments were conducted during 2010 to 2019 for other projects at OVRO. Based on the results of previous surveys and analysis, and the very small areas of impact to undisturbed ground proposed for this project, no endangered or protected species are anticipated to be impacted.

The rare plant Nevada oryctes (*Oryctes nevadensis*) was observed in 2019 while performing biological surveys for the LWA and DSA projects. One occurrence of the species was documented approximately 300-ft from the proposed location for Antenna 15 but is not within the project impact area for the proposed project. The project impact area has not been surveyed for rare plants.

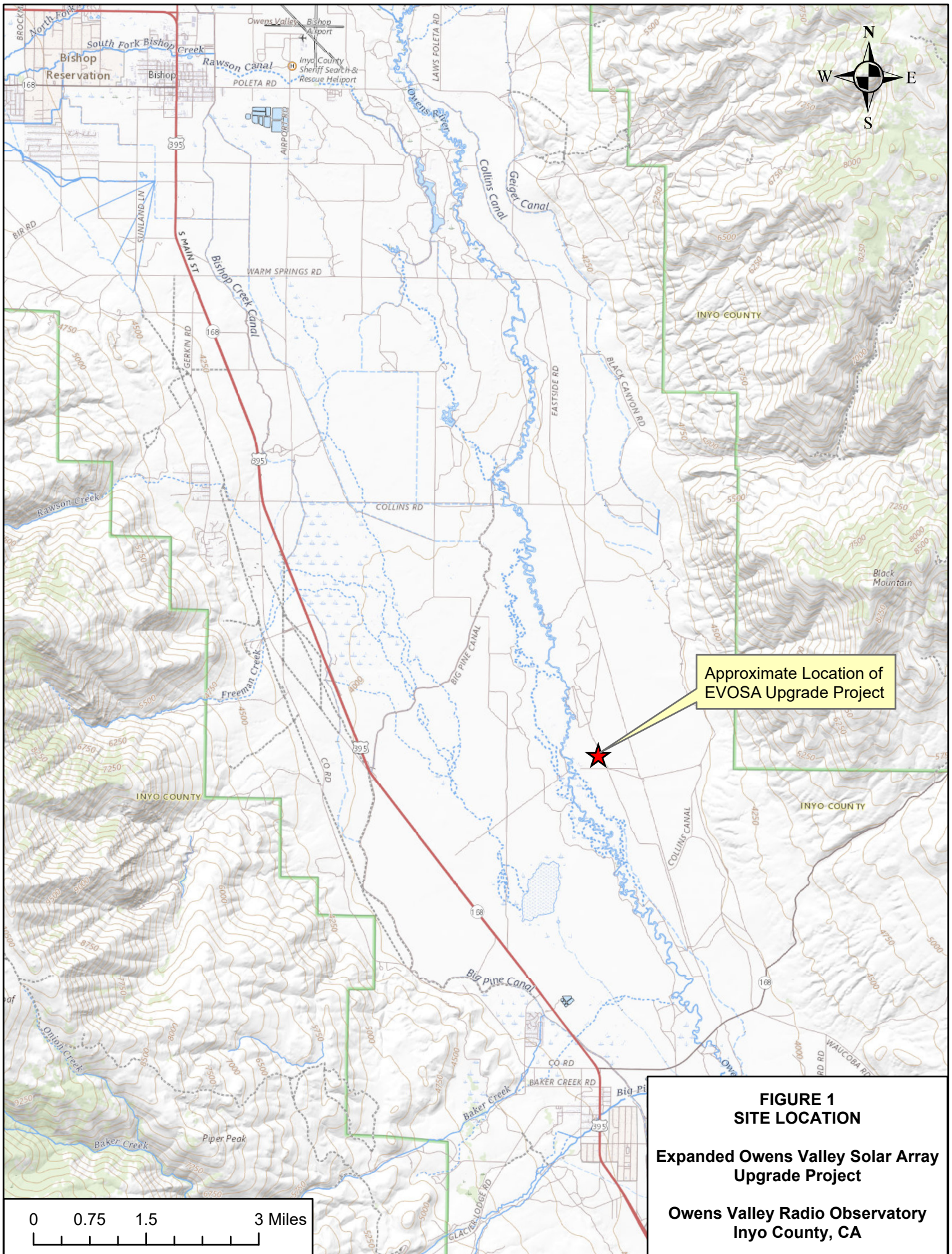
With the implementation of minor modifications to the design (e.g. specific location(s) of ground disturbance during trenching activities) as well as seasonal avoidance to avoid peak botanical blooming periods, the proposed project will avoid impacts to sensitive plants.

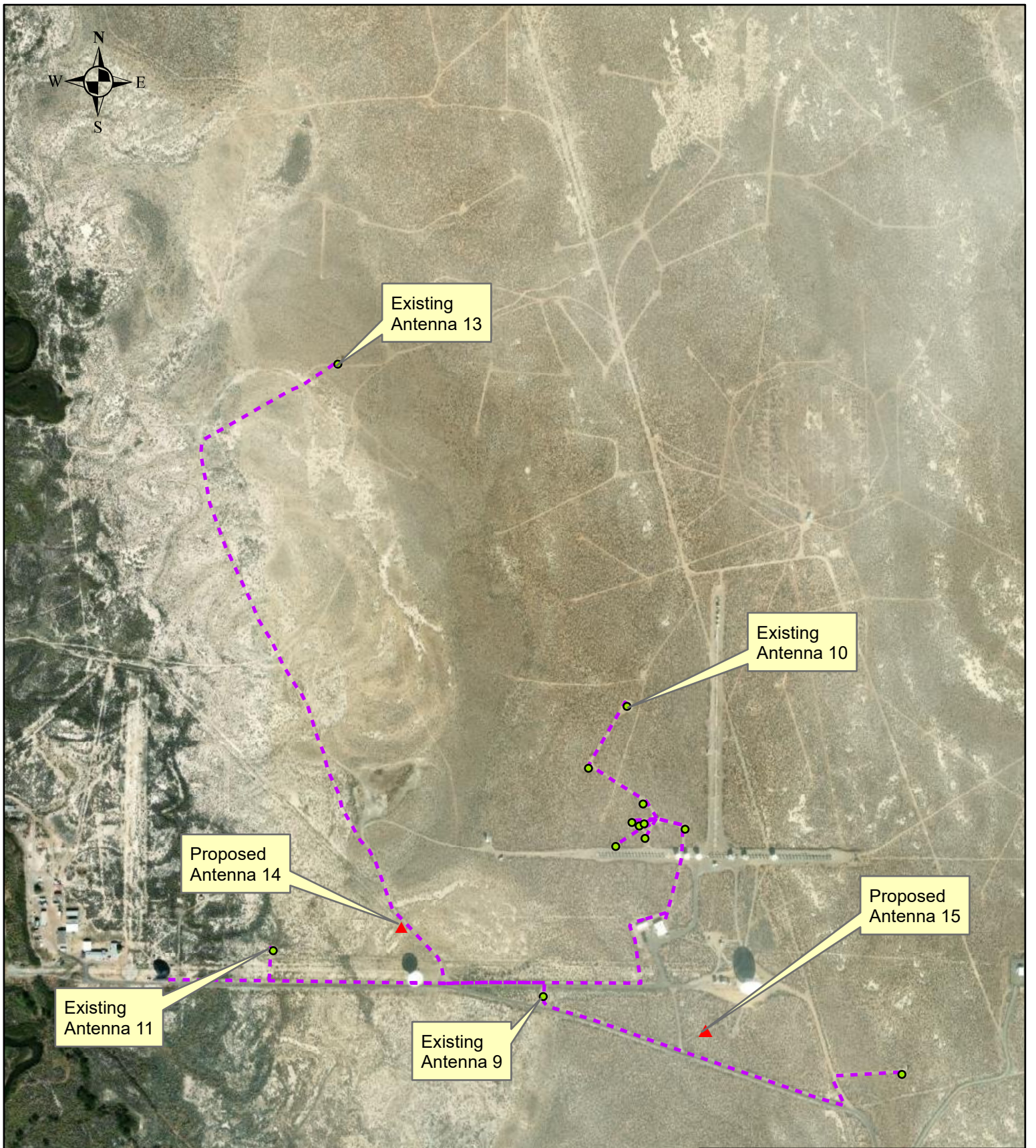
According to the 2019 Biological Resource Assessments for Caltech's Deep Synoptic Array and Long Wavelength Array Stage III (TEAM, 2019), if Nevada oryctes occurs within the project impact area(s) and can't be avoided, it is recommended that construction should occur after life cycle completion or during the dormant season (generally late July through March). The Biological Resource Assessments can be referenced for more information about Nevada oryctes and suggested construction windows if this plant is found within the proposed project and avoidance measures are needed.

PROPOSED MINIMIZATION MEASURES

Because of the traditional, cultural, and archaeological significance of the Indigenous sites in the OVRO, several impact minimization measures have been recommended to reduce impacts:

1. Trenches and other ground disturbance have been designed to avoid archaeological sites. These locations should be verified during a field inspection conducted by OVSA personnel, the Big Pine THPO, and an archaeologist. Adjustments to the proposed disturbed areas should be made, if requested by the THPO or archaeologist.
2. Ground disturbance (for example, trenching for cables, excavation for concrete pads for the two new antennas) should be monitored by a Tribal Representative to ensure no human remains or buried cultural resources are disturbed. Notice to tribal monitors will be given no less than 7 days prior to the pad construction and trenching activities,
3. An archaeologist should be available on-call so that if the monitor encounters cultural material, or suspected cultural material, they can request assistance in evaluation and recording.





LEGEND

- - Existing OVSA Antenna
- - - - Existing in Ground Conduit/Cables
- ▲ - Proposed Additional Antenna

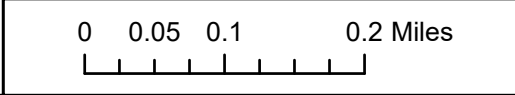


FIGURE 2
EXISTING ARRAY WITH PROPOSED
TWO ANTENNA ADDITION

Expanded Owens Valley Solar Array Upgrade Project

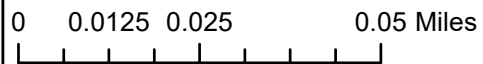
Owens Valley Radio Observatory
Inyo County, CA



Proposed New Antenna 14

LEGEND

- Approximate Disturbance Area
- Potential Additional Trench (~650ft)
- Existing in Ground Conduit/Cables
- Proposed Additional Antenna



**FIGURE 3
PROPOSED NEW ANTENNA 14
WITH APPROXIMATE DISTURBANCE
AREA**

**Expanded Owens Valley Solar Array
Upgrade Project**

**Owens Valley Radio Observatory
Inyo County, CA**

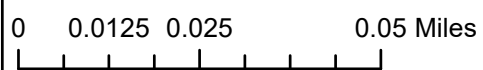


Proposed New Antenna 15

Leighton Lane

LEGEND

- Approximate Disturbance Area
- Existing in Ground Conduit/Cables
- Proposed Additional Antenna



**FIGURE 4
PROPOSED NEW ANTENNA 15
WITH APPROXIMATE DISTURBANCE
AREA**

**Expanded Owens Valley Solar Array
Upgrade Project**

**Owens Valley Radio Observatory
Inyo County, CA**