



U.S. Department of Energy Categorical Exclusion Determination Form

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Proposed Action Title: Mead Substation Stage 15 - Foundation Rebuilds and Transformer Connections

Program or Field Office: Western Area Power Administration, Desert Southwest Region

Location(s) (City/County/State): Boulder City, Clark County, Nevada

Proposed Action Description:

Western Area Power Administration (Western) proposes to construct additions and modifications to the existing Mead Substation. The project is located on withdrawn federal lands (administered by Western) in Boulder City, Clark County, Nevada. The project is in Township 24 South, Range 63 East, Section 28 (Mount Diablo Baseline and Meridian). The concrete foundations for several CCVTs (coupling capacitor voltage transformers), CTs (current transformers), and other electrical equipment within the substation have become deteriorated, and the Mead 345-kilovolt (kV) transformer KU2A has exceeded its engineered lifespan. In addition, the existing electrical arrangement does not allow Western to take the KU2A transformer out of service to do routine maintenance work without also taking an outage on the Mead-Peacock 345-kV transmission line. Therefore, installing an additional transformer is needed to provide redundancy in the electrical arrangement of the substation. The purpose of the proposed project is to prevent structural or electrical failure within the substation, thereby ensuring the continued safe and reliable operation of the bulk electrical system.

SEE CONTINUATION SHEET

Categorical Exclusion(s) Applied:

B4.6 - Additions and modifications to transmission facilities

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of [10 CFR Part 1021](#).

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer:

Jana Maurer

Date Determined:

4.23.15

Mead Substation

Stage 15 – Foundation Replacements and Transformer Connections

Categorical Exclusion Continuation Sheet

Project Description

Western's scope of work for Mead Substation Stage 15 work includes the following:

- Install new 230-kV line bay and connections for a new 345/230-kV power transformer (KU2B), power circuit breakers, disconnect switches, instrument transformers, foundations, and other appurtenant equipment. Existing cable trenches will be extended, and cable and conduit added;
- Construct a temporary shoo-fly to bypass the KU2A transformer. The shoo-fly will consist of about 18 poles, 24 guy lines and anchors, bundled conductor, and other appurtenant equipment;
- Replace 21 concrete foundations and pedestals for instrument transformers throughout the 230-kV yard and remove one interrupting switch near the 345-kV series capacitor bank. The old foundations will be excavated and replaced in the same locations. New steel pedestals will be installed and the equipment re-mounted and re-connected. The interrupting switch will not be replaced;
- Relocate one set of instrument transformers to alleviate congestion within existing bays, and to minimize outage time associated with re-energizing power transformer KU2A. The existing cable trenches will be extended, and cable and conduit added, to support the relocated equipment.

All project activities will be conducted within previously disturbed areas of the existing fenced substation yards. The temporary shoo-fly may be installed, as needed, no sooner than April 1, 2015, and could take 10 to 14 days to construct. All other construction activities are expected to start no sooner than September 2015 and will take nine months to one year to complete. The replacement process for the equipment foundations will be completed in stages and may take up to four weeks per equipment bay.

Equipment used on-site may include aerial man lifts, hydraulic excavators, auger-type earth drills, concrete trucks, loaders & pickup trucks.

Access to Mead Substation is via Buchanan Boulevard, a surfaced and maintained roadway. No new rights-of-way or temporary construction easements are required for the proposed work.

Special Conditions

A. Prevention of Air Pollution:

1. The Contractor shall complete and submit a Dust Control Permit Application and applicable fees to Clark County Department of Air Quality before construction activities begin within Clark County. The Contractor shall submit copies of all permit applications and plans to Western's Contracting Officer's Representative (COR) 14 days prior to the start of on-site. Information on dust control permitting can be found at the following website:
http://www.clarkcountynv.gov/depts/AirQuality/Pages/Compliance_DustPermitting.aspx

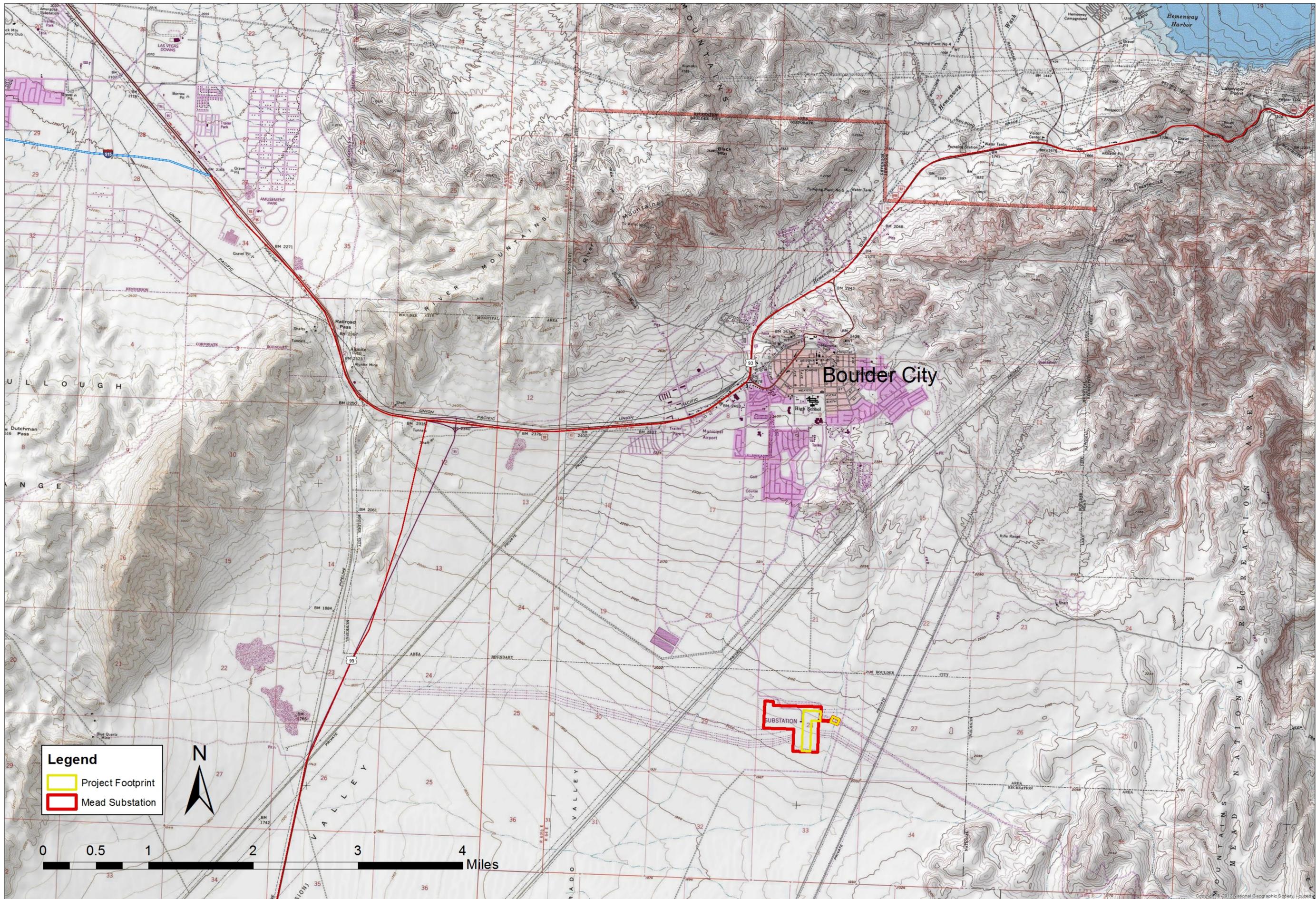
B. Conservation of Natural Resources:

1. All project personnel will complete biological pre-activity awareness training to ensure they are familiar with sensitive biological resources, including Mojave Desert tortoise, in the Mead substation area.
2. Project vehicles shall be restricted to designated access routes and approved work sites. Vehicle speeds will not exceed 25 mph on access and maintenance roads and 20 mph on unimproved access routes. Project vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas, to the maximum extent feasible.
3. At the end of each work day, the Contractor shall fence, cover, or fill excavations greater than 1 foot deep. Alternately, the contractor shall provide escape ramps (1:1 slope) in open excavations to prevent the entrapment of wildlife. The Contractor shall inspect open excavations for entrapped wildlife before excavations are filled. Any entrapped animals will be allowed to escape voluntarily before activities resume, or they may be removed by qualified personnel, under the direction of the COR, by a qualified biologist possessing the appropriate handling permit(s) if necessary.
4. At the end of each work day, all project personnel will remove food-related trash from the work site in closed containers for disposal. Workers will not feed wildlife.

Checklist for Categorical Exclusion Determination, revised Nov. 2011

Application of Categorical Exclusions (1021.410)	Disagree	Agree	Unknown
(b)(1) The proposal fits within a class of actions that is listed in appendix A or B to subpart D.		X	
(b)(2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerning alternate uses of available resources		X	
(b)(3) The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. The scope of a proposal must include the consideration of connected and cumulative actions, that is, the proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or § 1021.211 of this part concerning limitations on actions during EIS preparation.		X	
B. Conditions that are Integral Elements of the Classes of Actions in Appendix B. :	NO	YES	UNKNOWN
(1) Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety and health, or similar requirements of DOE or Executive Orders.	X		
(2) Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities;	X		
(3) Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases;	X		
(4) Have the potential to cause significant impacts on environmentally sensitive resources. An environmentally sensitive resource is typically a resource that has been identified as needing protection through Executive Order, statute, or regulation by Federal, state, or local government, or a federally recognized Indian tribe. An action may be categorically excluded if, although sensitive resources are present, the action would not have the potential to cause significant impacts on those resources (such as construction of a building with its foundation well above a sole-source aquifer or upland surface soil removal on a site that has wetlands). Environmentally sensitive resources include, but are not limited to:	X		

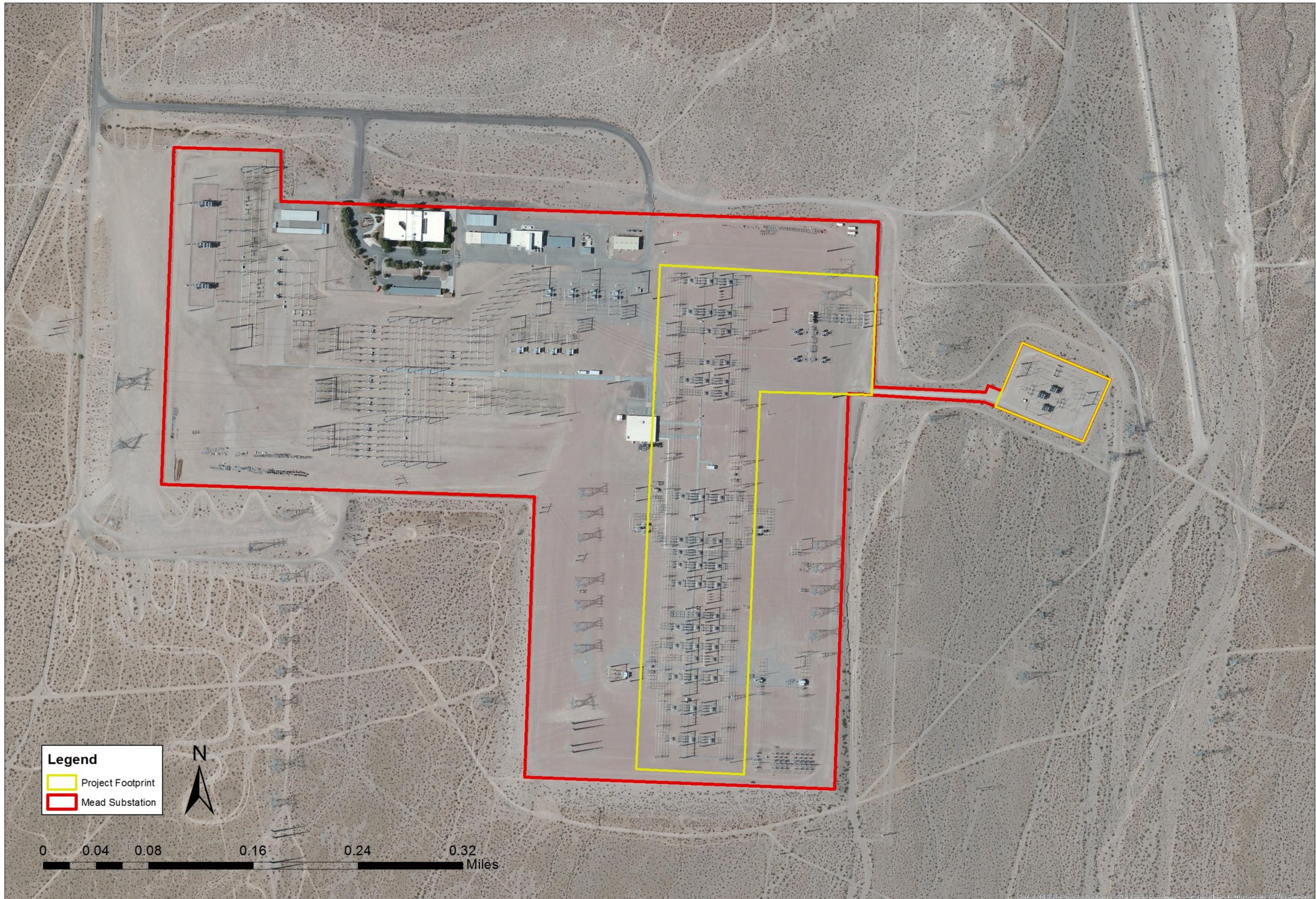
(i)	Property (such as sites, buildings, structures, and objects) of historic, archaeological, or architectural significance designated by a Federal, state, or local government, or property determined to be eligible for listing on the National Register of Historic Places;	X		
(ii)	Federally-listed threatened or endangered species or their habitat (including critical habitat) or Federally- proposed or candidate species or their habitat (Endangered Species Act); state-listed or state-proposed endangered or threatened species or their habitat; Federally-protected marine mammals and Essential Fish Habitat (Marine Mammal Protection Act; Magnuson-Stevens Fishery Conservation and Management Act); and otherwise Federally-protected species (such as under the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act);	X		
(iii)	Floodplains and wetlands (as defined in 10 CFR 1022.4, —Compliance with Floodplain and Wetland Environmental Review Requirements: “Definitions,” or its successor);	X		
(iv)	Areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national monuments, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, scenic areas (such as National Scenic and Historic Trails or National Scenic Areas), and marine sanctuaries;	X		
(v)	Prime or unique farmland, or other farmland of statewide or local importance, as defined at 7 CFR 658.2(a), —Farmland Protection Policy Act: Definitions, or its successor;	X		
(vi)	Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region); and	X		
(vii)	Tundra, coral reefs, or rain forests.; or	X		
(5)	Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.	X		



Legend
Project Footprint
Mead Substation



0 0.5 1 2 3 4 Miles



Legend
Project Footprint
Mead Substation



0 0.04 0.08 0.16 0.24 0.32 Miles