Categorical Exclusion Determination

Western Area Power Administration
Department of Energy

Proposed Action: 2025 Sierra Nevada Region LiDAR and Orthophotography Project

Project No.: 2025_03

Project Manager: Ricardo Velarde

Location: Entire SNR transmission line system, which extends from the Malin and Captain Jack substations in Klamath County, Oregon to the Gates substation in Fresno County, California

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B3.2: Aviation Activities: Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations

Description of the Proposed Action:

The Western Area Power Administration (WAPA) markets and delivers reliable, cost-based hydroelectric power and related services within a 15-state region of the central and western United States. Within its Sierra Nevada Region (SNR), WAPA owns, operates, and maintains 115-kilovolt (kV), 230-kV, and 500-kV transmission lines in Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Lassen, Merced, Modoc, Sacramento, San Joaquin, Shasta, Siskiyou, Solano, Sutter, Tehama, Trinity, Yolo, and Yuba Counties, California, and Klamath County, Oregon. To comply with the National Electric Safety Code, Western States Coordinating Council and WAPA directives for protecting human safety and maintaining the reliable operation of the transmission system, the Western Area Power Administration (WAPA) is proposing to perform aerial Light Detection and Ranging (LiDAR) surveys to obtain accurate and complete horizontal and vertical controls to provide digital topographical/feature mapping and aerial imagery of the SNR system.

The project will consist of aerial LiDAR surveys and collection of orthophotographic plan images of the transmission and distribution lines, substations, microwave, power plant facilities, and rights-of-way, and placement of control markers throughout the SNR system. WAPA will be employing LiDAR as well as other remote-sensing tools to assess ROW conditions. LiDAR uses light and radar to create a 3D model of ground conditions. This data is used to classify vegetation types,encroachments onto the line, potential fall-in hazards, and other information to help WAPA prioritize maintenance operations. Overflights are expected to be conducted with a Bell 206 helicopter at an elevation of 800’ above ground level (AGL) and with a Cessna 206 airplane at an elevation of 7000’ AGL. Target points placed on the ground have very minimal to no impact.

Findings:

WAPA follows the regulations at 40 C.F.R. Parts 1500-1508, in addition to the Department of Energy's (DOE) regulations implementing National Environmental Policy Act (NEPA) at 10 C.F.R. Part 1021 to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq. In accordance with Section 1021.410(b) DOE's NEPA Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, Jul. 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), WAPA has determined that the proposed action:

(1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
(2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
(3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, WAPA finds that the proposed action is categorically excluded from further NEPA review.

Signed: KRISTEN DALLDORF Digitally signed by KRISTEN DALLDORF Date: 2025.02.25 13:58:01 -08'00'

Name: Kristen Dalldorf

Title: Environmental Manager

Attachment: Environmental Checklist

Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

Proposed Action: 2025 Sierra Nevada Region LiDAR and Orthophotography Project

---

Project Site Description

The Western Area Power Administration (WAPA) is proposing to perform aerial Light Detection and Ranging (LiDAR) surveys to obtain accurate and complete horizontal and vertical controls to provide digital topographical/feature mapping and aerial imagery of the Sierra Nevada Region (SNR) system. The project will consist of aerial LiDAR surveys, collection of orthophotographic plan images, collection of digital video and still photography of the transmission and distribution lines, substations, microwave, power plant facilities, and rights-of-way, and temporary placement of control markers throughout the SNR system. SNR has transmission facilities in Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Lassen, Merced, Modoc, Sacramento, San Joaquin, Shasta, Siskiyou, Solano, Sutter, Tehama, Trinity, Yolo, and Yuba Counties, California, and Klamath County, Oregon. Habitat varies widely throughout the region.

Control marker locations will be reviewed by the Environment Department prior to work via desktop or field review. Those markers proposed for biologically or culturally sensitive locations were removed from the work plan or relocated. Flights are conducted with small aircraft at a sufficient altitude such that disturbance or "take" of sensitive species will not occur. Conservation measures are prescribed for biological and cultural features below.

Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. Historic and Cultural Resources		
Explanation:	☑	☐

A cultural review for this exact project was completed in 2019. Each LiDAR ground target point was evaluated to ensure all known archaeological resources were avoided within the proposed area of potential effect (APE). This project would have no adverse effect to historic properties.

2. Geology and Soils

Explanation:

☑ ☐

Soil disturbance for this project is minimal. Temporary control point markers consist of applying spray paint on pavement/asphalt surfaces or placing 18 inch rebar in dirt/grass areas.

3. Plants
(including Federal/state special-status species and habitats)

Explanation:

☐ ☑

The affected environment may contain habitat for various sensitive species. However, the areas chosen for ground control target placement are in developed areas or existing road prisms to the extent possible.

Avoidance Measures:
Although ground control target sites are planned to be in developed areas or road prisms to the extent possible, all sites as well as their access routes are subject to review by a WAPA biologist. In areas where the proposed target sites or access routes have potential to conflict with sensitive resources, the biologist will have the discretion to a) mark and/or buffer resources for avoidance, b) monitor project activities on-site, and/or c) reject proposed target sites.

4. **Wildlife**
(including Federal/state special-status species and habitats)

Explanation:

☐ ☑

The affected environment may contain habitat for various sensitive species. However, the areas chosen for ground control target placement are in developed areas or existing road prisms to the extent possible.

Avoidance Measures:
Although ground control target sites are planned to be in developed areas or road prisms to the extent possible, all sites as well as their access routes are subject to review by a WAPA biologist. In areas where the proposed target sites or access routes have potential to conflict with sensitive resources, the biologist will have the discretion to a) mark and/or buffer resources for avoidance, b) monitor project activities on-site, and/or c) reject proposed target sites.

5. Water Bodies, Floodplains, and Fish

(including Federal/state special-status species, ESUs, and habitats)

Explanation:

☐ ☐

WAPA determined through desktop review that the project will not have impacts to waterbodies or fish. No markers will be placed in water features, and the project will be using environmentally friendly paint as a marker, where needed.

6. Wetlands

Explanation:

☐ ☐

WAPA determined through desktop review that the project will not impact wetlands. No wetlands or waters of the United States shall be disturbed. Markers being used are pre-determined and would have no impact on wetlands if they needed to be replaced.

7. Groundwater and Aquifers

Explanation:

☑ ☐

There is no reasonably foreseeable effect to groundwater or aquifers in this project.

8. Land Use and Specially-Designated Areas

Explanation:

☑ ☐

This project will not result in any changes of land use.
While many specially-designated areas exist within WAPA's footprint, no changes are planned, nor are any effects anticipated, as a result of this aerial survey effort.

9. Visual Quality

Explanation:

☑ ☐

Viewsheds will not be significantly affected by the project. Overflights are very short in duration, and temporary control point markers consist of applying spray paint on pavement/asphalt surfaces or placing 18 inch rebar in dirt/ grass areas.

10. Air Quality

Explanation:

☑ ☐

The Project extends from Klamath County Oregon to Fresno County, California. Emissions would be dispersed across twenty counties and would not greatly impact any one county or air district. Aerial emissions would be consistent with the aerial inspections evaluated in the Environmental Assessments prepared for each ROW maintenance region.

Support trucks used to place targets for LiDAR aircraft would contribute minimal emissions to any one air district. Light or medium duty vehicles would be used to support aircraft and place/retrieve targets. Support trucks would travel an estimated 51,600 miles total over 45 workdays. Support trucks would adhere to speed restrictions (15 mph) when on unpaved access roads to minimize fugitive dust per Standard Operating Procedures. Total emissions associated with support trucks are expected to be less than those annual on-road emissions calculated for the San Joaquin Valley Maintenance ROW EA SA (SJV SA), which considered 282,000 miles annually; however, average daily mileage would be about 1,147 miles per day, exceeding the estimated 812 miles per day examined in the SJV SA. The SJV SA estimated daily emissions of criteria pollutants, which considered heavy duty and diesel vehicles in addition to light and medium duty vehicles. These estimated SJV SA emissions are well below half of the strictest air district daily thresholds for the Project (25 lb/day Butte County Air Pollution Control District). Based on this previous modeling and the fact that the Project's daily mileage would only increase by about 40% while not using heavy duty or diesel vehicles, the Project emissions from support vehicles are not expected to exceed applicable thresholds of significance. Therefore, it is not anticipated that this project would significantly impact air quality.

The following SNR Standard Operating Procedure is applicable to this project:
• On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.

11. Noise

Explanation:

☑ ☐

Noise effects are temporary in nature and are largely characterized as a single overflight of an aircraft. Flights are at an estimated 800' or 7000' above ground level.

12. Human Health and Safety

Explanation:

☑ ☐

No particular concerns are identified for this area of interest. Contractors and personnel involved would comply with relevant laws and regulations from the FAA, OSHA, and other relevant regulatory agencies.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

☑ Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation, if necessary: None provided

☑ Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation, if necessary: None provided

☑ Disturb hazardous substances, pollutants, contaminants, or CERCLA excluded petroleum and naturral gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.

Explanation, if necessary: None provided

☑ 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.

Explanation, if necessary: None provided

Landowner Notification, Involvement, or Coordination

Description:

WAPA will work closely with the landowners to provide adequate notification of project activities.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts to any environmentally sensitive resource.

Signed: KRISTEN DALLDORF Digitally signed by KRISTEN DALLDORF Date: 2025.02.25 13:59:04 -08'00'

Name: Kristen Dalldorf

Title: Environmental Manager