Project title:	**Carr-Keswick Tower 4/4 Replacement Project**				
Requested By:	Wes Peters	Mail Code:	N5700	Phone:	916-353-4553
Date Submitted:	4-7-20		Date Required:	4-10-20	

Description of the Project

The Western Area Power Administration (WAPA), Sierra Nevada Region (SN), proposes to replace tower 4/4 on the Carr-Keswick #1 and #2 (CAR-KE) transmission lines. The CAR-KE tower 4/4 requires replacement due to continual structural deformation. The lattice tower is located in Whiskeytown National Park on the northeastern flank of Monarch Mountain at an elevation of 1750 feet.

WAPA SN's Line Crew have repaired or replaced several structural steel members to tower 4/4 over the past 10-20 years. As of now, additional steel members must once again be repaired or replaced. The ground around tower 4/4 has been subjected to an overly eroded drainage swell due to excessive rains during the spring of 2017 and 2019. Due to the over erosion, the southwest foundation appears to have settled and the tower is seeing additional bent, torn and twisted steel members in addition to actual tower twisting and leaning that has been noticed in the past. The Carr Fire during the summer of 2018 compounded the issue leaving burnt vegetation and increased erosion from faster moving water flows from winter and spring rainfall.

WAPA SN will replace the existing lattice tower with a new steel monopole structure. The CAR-KE transmission lines are Trinity Public Utilities District's only source of power in the Trinity/Weaverville area, a large majority of TPUD's service area, which does not allow WAPA to obtain a lengthy outage to complete any work on these circuits. In order to replace the existing structure, WAPA will construct a shoo-fly (temporary transmission line segment) in order to keep one of the two transmission lines in-service for the duration of the structure replacement. The shoo-fly will consist of the direct imbed installation of three temporary towers. A truck mounted drill-rig will be used for installation of these towers. These towers will be removed upon project completion. Installation of the shoo-fly will require clearing of an abandoned logging road, including approximately 120 feet of grading, and the use of approximately 600 feet of temporary overland travel. Overland travel will be conducted using a rubber tired tracked vehicle and trips will be minimized to as few as possible to complete the work. The area impacted by overland travel will be restored to pre-project conditions as much as feasible and the abandoned logging road will be blocked for use upon project completion. The old access road near tower 4/4 damaged from winter erosional flows will be decommissioned and the channel restored. Tree removal and trimming along the shoo-fly will be required. The outage duration, once structures for the shoo-fly are erected, is estimated at 1-2 days. The complete project is expected to take approximately four weeks.

The access road to tower 4/4 doesn't allow for large equipment access due to steep and narrow grades and switchbacks. Access road repair and widening will be required in order to conduct the project. The use of helicopters will be required to complete nearly all of the work, from hauling concrete for the foundation to stringing wire. WAPA anticipates that the following helicopter trips will be required for project construction:

Description	#of Heavy Lift Trips
Rebar Cage	2 trips

Concrete	40 trips
Mono-pole	8 trips
Misc. Equip.	5 trips
Total	55 trips

When the concrete is poured for the foundation, approximately 40 helicopter trips will be made in a single day in order to avoid setting of the concrete between trips and the development of weakness in the tower footing. WAPA anticipates the use of two to three helicopters on the day that concrete is poured. WAPA expects the helicopters will be Erickson Skycranes or similar due to the required lifting capacity. The landing zone for the helicopters and staging area for the project will be in a paved parking area, approximately 1.3 miles northwest of CAR-KE tower 4/4. Approximately 12 concrete trucks would be needed to deliver the concrete to the helicopter landing zone. A construction trailer with a 55 horsepower or less generator will be located at the staging area.

The new tower landing (pad) will be approximately 1/10th of an acre and will allow for a flat parking area for future tower maintenance. A large truck mounted drill rig will be required for drilling the foundation location for the new tower.

The old tower 4/4 (including at least the top five feet of the foundations) will be removed and the tower pad and spur road leading to the tower pad will be restored as feasible to pre-project conditions. The channel adjacent to the tower footings will be restored to pre-project conditions. California Clean Water Act (CWA) permits necessary for the restoration of the channel will be obtained.

☐ **Map(s)**
See attached Maps
☐ **Figures(s)**
See attached Figures
☒ **Work Order Number** - 100448801

To be completed by Environment Only

Action taken

Note: All Documentation is Attached

☒ Categorical Exclusion (CX)	☒ Integral Elements
☐ Environmental Assessment (EA)	☒ NEPA Attachment Sheet
☐ Environmental Impact Statement (EIS)	☐ Environmental Requirements/Mitigation
☐ Other Determinations: Biological Assessment	☐ Maps/Figures

Determination: Based on my review of information provided to me concerning the proposed action as NEPA Compliance Officer, I have determined that the proposed action meets the requirements for the categorical exclusion listed above. Therefore, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation.

GERALD ROBBINS
Digitally signed by GERALD ROBBINS
Date: 2020.04.09 14:51:53 -07'00'

Gerald Robbins, Environment Manager

Date Approved

bcc:	File Code:	Assigned to: Tish Saare	Project #:	Environmental Specialist Tish Saare

Western Area Power Administration Sierra Nevada Region	CATEGORICAL EXCLUSION (CX) DETERMINATION	Project Number 100448801

Integral Elements

Carr-Keswick Tower 4/4 Replacement Project

B1.3 ROUTINE MAINTENANCE. Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (including, but not limited to, pathways, roads, and railroads), vehicles and equipment, and localized vegetation and pest control, during which operations may be suspended and resumed, provided that the activities would be conducted in a manner in accordance with applicable requirements. Custodial services are activities to preserve facility appearance, working conditions, and sanitation (such as cleaning, window washing, lawn mowing, trash collection, painting, and snow removal). Routine maintenance activities, corrective (that is, repair), preventive, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such maintenance may occur as a result of severe weather (such as hurricanes, floods, and tornados), wildfires, and other such events. Routine maintenance may result in replacement to the extent that replacement is in-kind and is not a substantial upgrade or improvement. In-kind replacement includes installation of new components to replace outmoded components, provided that the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the originally intended useful life of a facility (for example, it does not include the replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to:

a. Repair or replacement of facility equipment, such as lathes, mills, pumps, and presses;
b. Door and window repair or replacement;
c. Wall, ceiling, or floor repair or replacement;
d. Reroofing;
e. Plumbing, electrical utility, lighting, and telephone service repair or replacement;
f. Routine replacement of high-efficiency particulate air filters;
g. Inspection and/or treatment of currently installed utility poles;
h. Repair of road embankments;
i. Repair or replacement of fire protection sprinkler systems;
j. Road and parking area resurfacing, including construction of temporary access to facilitate resurfacing, and scraping and grading of unpaved surfaces;
k. Erosion control and soil stabilization measures (such as reseeding, gabions, grading, and revegetation);
l. Surveillance and maintenance of surplus facilities in accordance with DOE Order 435.1, “Radioactive Waste Management,” or its successor;

m. Repair and maintenance of transmission facilities, such as replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors, crossarms, insulators, and downed powerlines, in accordance, where appropriate, with 40 CFR part 761 ("Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions") or its successor;
n. Routine testing and calibration of facility components, subsystems, or portable equipment (such as control valves, in-core monitoring devices, transformers, capacitors, monitoring wells, lysimeters, weather stations, and flumes);
o. Routine decontamination of the surfaces of equipment, rooms, hot cells, or other interior surfaces of buildings (by such activities as wiping with rags, using strippable latex, and minor vacuuming), and removal of contaminated intact equipment and other material (not including spent nuclear fuel or special nuclear material in nuclear reactors); and
p. Removal of debris.

Regulatory Requirements for a Categorical Exclusion Determination: The Department of Energy (DOE), National Environmental Policy Act (NEPA) Implementing Procedures, 10 CFR 1021.410(b) require the following determinations be made in order for a proposed action to be categorically excluded (see full text in regulation).

1. The proposed action fits within a class of actions listed in Appendices A and B to Subpart D. For classes of actions listed in Appendix B, the following conditions are integral elements; i.e., to fit within a class, the proposal must not:

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

    b. Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include categorically excluded facilities;

    c. 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 un-permitted releases; or

    d. 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;

    e. 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 which may affect the significance of the environmental effects of the proposal;

2. The proposal has not been segmented to meet the definition of a categorical exclusion. The proposal is not connected 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 requiring preparation of an environmental impact statement.

Results of Review: In accordance with DOE environmental regulations (10 CFR 1021), WAPA has reviewed the proposed action in terms of the level of NEPA review needed. Based on this review, WAPA has determined the proposal is encompassed within a class of actions listed in Appendix B to Subpart D (10 CFR 1021.410) which do not require preparation of either an environmental impact statement (EIS) or an environmental assessment (EA).

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.

Western Area Power Administration,
SIERRA NEVADA REGION
NEPA Attachment Sheet

Project Number
100448801

PROJECT TITLE:
Carr-Keswick Tower 4/4 Replacement Project

REVIEW ACTION:
The Western Area Power Administration (WAPA), Sierra Nevada Region (SN), proposes to replace tower 4/4 on the Carr-Keswick #1 and #2 (CAR-KE) transmission lines. The CAR-KE tower 4/4 requires replacement due to continual structural deformation.

AFFECTED ENVIRONMENT:
The lattice tower is located in Whiskeytown National Park on the northeastern flank of Monarch Mountain at an elevation of 1750 feet. This area has a Mediterranean climate, which is characterized by hot, dry summers and damp to wet, mild winters. The vicinity of the tower is composed of steep mountainous terrain above Whiskeytown Reservoir.

CULTURAL AND HISTORIC RESULTS:
Prior to construction activities, an intensive pedestrian survey of the Carr-Keswick 230-kV ROW from tower 4/2 to tower 4/4 including the proposed shoo-fly area and proposed temporary access roads that are northeast and southwest of the ROW (project map) will be required. The purpose of this survey is to determine whether historic properties (cultural resources) exist in these areas. The survey will be an intensive pedestrian survey (15 meter transects where possible) and extend 20 feet on either side of the ROW. Survey width of the proposed temporary access roads is 20 feet and approximately 1900 feet in length.

A records check will be required at the appropriate CHRIS information center and possibly at NPS in Whiskeytown for the project area. Archaeologist will be required to coordinate and obtain an Archaeological Resources Protection Act (ARPA) permit from the National Park Service Whiskeytown NRA prior to conducting the survey.

A cultural resource report must be completed, submitted and approved prior to construction activities.

If cultural resource sites are recorded in the project area but can be avoided, then this action is covered under the, "Programmatic Agreement Among WAPA the Advisory Council on Historic Preservation, and the California State Historic Preservation Officer Concerning Emergency and Routine Maintenance Activities and Other Routine Activities at WAPA Facilities in California," revised March, 2010.

- This action will be included in WAPA's annual report.

If cultural resource sites are recorded but cannot be avoided to the extent that there would be no adverse effect to the sites, then consultation with the SHPO under the standard procedures for Section 106 of the NHPA will be required prior to construction activities. Such consultation could take two to three months to complete.

- Natural Resources will be contacted immediately if archeological, paleontological, or historic evidence is found.

BIOLOGICAL RESULTS:

- Studies conducted, in order to evaluate potential impacts of the proposed project on special status species and/or their habitats, included background research to determine which special-status species and their habitats may occur within the project area and a review of habitat types in the project area.

- Areas which have not been surveyed in the past will be surveyed for biological resources. Much of the project area was affected by the Carr Fire, so habitat value for special status species is severely compromised. No federally-protected special status species are anticipated in the project area. The project area does contain suitable habitat for three state-protected species and two California Native Plant Society rare plants. WAPA will employ the below protective conservation measures to avoid potential impacts to biological resources.

- Migratory Bird Treaty Act: Under the Migratory Bird Treaty Act of 1918, migratory bird species and their nests and eggs are protected from injury or death. Impacts to migratory bird nests shall be avoided during the nesting season (defined as January 1 through September 15 in this area). If project activities occur during the nesting season, WAPA will survey the project area for migratory bird nests prior to project activities and establish appropriate buffers around any active nests that may potentially be disturbed. If work must be conducted within these buffers, a WAPA-supplied biological monitor will be on site for project activities within the buffers. If the biological monitor determines that activities are likely to cause nest impacts or nest abandonment, then project activities in the area shall be postponed or adjusted until nestlings have fledged, the nest is no longer active, or the activities are not likely to cause nest impacts or nest abandonment.

- Wetlands: Vehicle access will only be permitted on well-established roads unless soils are dry. Soils will be considered sufficiently dry for vehicle access when they resist compaction, and after annual plants have set seed (generally June 1 to September 30, or as determined by a qualified biologist based on personal observation of the soils). Only overland travel approved in advance by NPS and WAPA Environmental is permitted.

  When feasible, all maintenance activities will be routed around wet areas while ensuring that the route does not cross sensitive resource areas.

  If vegetation management activities are proposed within 250 feet of a seasonal wetland a biological monitor will be present and/or a qualified biologist will clearly mark the limits of the feature(s) or appropriate buffers. A qualified biologist will clearly flag a 50 foot buffer around all seasonal wetland features if work is proposed during the wet season (generally October 1 to May 31) or flag the feature if work is proposed during the dry season (generally June 1 to September 30).

  Mixing or application of pesticides, herbicides, or other potentially toxic chemicals will be prohibited within 250 feet of seasonal wetland features.

  Manual clearing of vegetation (chainsaw, axe, clippers) will be allowed up to the edge of the pool or seasonal wetland in the wet season; a buffer will not be necessary in the dry season.

  Mechanical clearing of vegetation (heavy-duty mowers, crawler tractors, or chippers) will be prohibited within 100 feet in the wet season; a buffer will not be necessary in the dry season.

All equipment will be stored, fueled, and maintained in a vehicle staging area 300 feet or the maximum distance possible from any seasonal wetland, and no closer than 200 feet unless a bermed (no ground disturbance) and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.

Vehicles will be inspected daily for fluid leaks before leaving the staging area.

- Waters: The following activities will be prohibited at all times within 100 feet of a seep, spring, or stream and their associated habitats:

    - Vehicle access, except on existing access and maintenance roads
    - Dumping, stockpiling, or burying of any material
    - Mixing of pesticides, herbicides, or other potentially toxic chemicals
    - Open petroleum products

  Equipment will be stored, fueled, and maintained in a vehicle staging area 300 feet or the maximum distance possible from any seep, spring, stream, or their associated habitats. Vehicles will be inspected daily for fluid leaks before leaving resource area.

  For vegetation management or maintenance within 100 feet of any seep, spring, stream, or any of their associated habitats, the following work-area limits will be provided:

    - Only manual-clearing of vegetation will be permitted.

  When feasible, all maintenance activities will be routed around wet areas while ensuring that the route does not cross sensitive resource areas.

- Pacific Fisher: Between February 1 and August 1, off-road vehicle travel and activity will be avoided to the extent possible. If off-road travel or ground disturbance is required in potential fisher habitat (closed canopy, old-growth forests) at any time of year, disturbance to existing downfall, snags, downed trees/logs, and stumps will be minimized. Existing snags, downfall, and stumps will never be moved or removed unless they are a specific safety concern.

- Foothill Yellow-legged Frog (FYLF): A WAPA-supplied biologist will identify potential FYLF breeding habitat and will flag a 500-foot buffer. The following restrictions apply within the buffer:

    - Vehicles must remain on existing access roads and maintain a speed limit of 15 mph;
    - Only manual vegetation removal is allowed;
    - Only direct (e.g. injection and cut-stump) herbicide application methods are allowed, except when otherwise restricted;
    - No ground disturbance (e.g. digging or auguring); and
    - Erosion-control devices will be of a material that will not entrap amphibians.

  If it is not possible to follow the above-stated measures, a pre-activity survey will be conducted no more than 24 hours before project activities begin. A WAPA supplied biologist will remain on site during all activities to ensure protection of FYLF.

- Bats: Noisy or disturbing activities (e.g., power saws, mechanical chippers) will be minimized to the extent possible. Snags and live trees will be left standing to the maximum extent possible.

- Environmental will be contacted immediately if there is a "take" of a special status species or action affecting their critical habitat.

- If used, survey stakes will be removed as a part of the final clean up.

- Unknown Occurrence of Protected Species or Habitat: If evidence of a protected species is found in the project area, the contractor shall immediately notify the COR and provide the location and nature of the findings. The contractor shall stop all activity in the vicinity of the protected species or habitat and not proceed until directed to do so by the COR.

Prevention of Water Quality Impacts:

- **Clean Water Act Section 401 and 404:** The project is anticipated to intersect 2 potentially jurisdictional ephemeral or intermittent waterways under the jurisdiction of the US Army Corps of Engineers and /or State of California. Permit applications are being prepared and will be secured before project construction begins.

The below best management practices shall be employed to prevent erosion and negative effects on water quality:

- Control runoff from excavated areas and piles of excavated material (to include truck washing and concrete wastes, oil, grease, and fuels).

- The washing of concrete trucks or disposal of excess concrete is not permitted in any ditch, canal, stream, lake or other surface water.

- All rock material shall be obtained from the Crystal Creek Aggregate quarry in the Whiskeytown vicinity.

- Equipment and ground disturbance shall be limited to the project footprint.

- Topsoil shall not be imported into Whiskeytown National Recreation area.

- All haul trucks bringing fill materials (excluding asphalt) from outside the parks will be covered to prevent seed transport and dust deposition along the road corridor.

- Before any equipment is brought into the park, it will be pressure or steam washed in order to remove non-native seeds. Cleaning shall consist of the removal of all dirt, grease, debris, and materials that may harbor noxious weeds and their seeds. Cleaning shall occur off the project site. Examples of equipment are backhoes, tractors, loaders, excavators, dozers, bobcats, wheeled compressors, or trucks and trailers that have traveled off-road.

- Project materials will be free of invasive weed seeds or other propagative plant parts, such materials include boulders, soil, sand, gravel, rock, roadbase, coir products, and silt and erosion control materials. Weed-free status may be ensured by pressure washing, steam washing, fumigation, heat sterilization, or certification from the supplier. Eliminating invasive plant seeds may raise the cost of some projects, but will prevent much more costly and prolonged invasive plant control efforts in the future.

- Revegetate disturbed areas or cover bare soil with local litter and duff mulch as soon as possible. This mulch will provide a source of seeds to reestablish native vegetation and reduce the risk of non-native seeds germinating. Ideally, the litter and duff should be collected from surrounding areas, but do not denude the collection area. Leave at least 50 percent of the material in place and don't disturb vegetation.

- Hydroseeding will not be permitted.

- Coir products are to be utilized instead of straw. Erosion control materials, such as jute netting shall be free of all synthetic materials that will persist on the ground longer than the organic product.

COMPLIANCE

Recycled Materials Quantities: All materials generated from the project that can be recycled, shall be recycled. Submit quantities of all recycled material by category to the COR within 30 days of recycling and prior to submittal of final invoice. Record quantities of material by category that is salvaged, recycled, reused, or reprocessed.

Disposal of Waste Material: Waste materials will be disposed in accordance with applicable Federal, State, and local regulations and ordinances. The project manager will coordinate with the COR and WAPA Environmental regarding sampling and signatures on manifests for waste materials if required.

Any wood waste treated with a preservative must be properly disposed or recycled in accordance with California regulations. It is not acceptable to place TWW in a commercial dumpster. TWW includes: poles, cross arms, pilings, fence posts, lumber, and support timbers. The TWW must go to a licensed landfill or recycling facility with a Consumer Information Document and be reported to the California Department of Toxic Substances Control within 30-days of disposal.

Prevention of Air Pollution: Federal law requires the protection of air quality under the Clean Air Act. All activities on this project shall be compliant with Federal, State, and local regulations. In particular, California Air Resources Board regulations apply to diesel equipment and trucks as well as fleets of large spark ignition equipment. Also, the project is located within the Shasta County Air District jurisdiction and is subject to the local rules from that agency. Due to site conditions, the Project will require the use of helicopters to assist Tower construction. Light or medium duty vehicles and equipment will be used to support the Project. Federal law requires the protection of air quality under the Clean Air Act. All activities on this project would be compliant with Federal, State, and local regulations.

General Conformity Appendix B: Since the cited categorical exclusion is listed in Appendix B to 10 CFR Part 1021, Subpart D, a general conformity review is required for this project, pursuant to Clean Air Act General Conformity Requirements and the National Environmental Policy Act Process guidance document published by Department of Energy in April, 2000.

The Project is exempt from federal General Conformity Analysis and Determination due to Shasta County's attainment status for criteria pollutants. Shasta County Air Quality Management District (Shasta County AQMD) has adopted rules regarding air quality and criteria pollutant significance thresholds for new and modified stationary sources (Rule 2:1). The rules do not have provisions that would apply to short-term construction activity. Therefore, the Shasta County AQMD rules do not directly apply to the Project.

CalEEMod (version 2016.3.2) and the Swiss Confederation Guidance of the Determination of Helicopter Emissions were used to calculate the emissions output for the Project. Although the Project would create criteria pollutant emissions, they would be for a short duration, and would not affect long-term air quality standards. Additionally, WAPA would implement the following standard operating procedures to reduce air pollution.

Air Quality Standard Operating Procedures:

- WAPA will adhere to all applicable requirements of those agencies having jurisdiction over air quality matters, and any necessary permits for O&M will be obtained;
- Machinery and vehicles will be kept in good operating condition and older equipment will be replaced with equipment meeting applicable emission standards; appropriate emissions-control equipment will be maintained for vehicles and equipment, per EPA and/or Western air emission requirements;
- Idle equipment will be shut down when not in active use; visible emissions from stationary generators will be controlled;
- Dust-control measures will be implemented in road construction and maintenance, as needed. Trucks transporting loose material will be covered or maintain at least two feet of freeboard and will not create any visible dust emissions;
- There will be no open burning of construction trash;
- Grading activities will cease during periods of high winds (as determined by local air quality management districts);
- Major operations will be avoided on days when the local Air Quality Index is expected to exceed 150; and
- On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.

Compliance Regulatory Requirements:

- Erosion control measures to be taken to prevent sediment from reaching waterways.
- No violations of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders will be permitted.

- To avoid adversely affecting environmentally sensitive resources, there will be no uncontrolled or un-permitted releases of hazardous substances, pollutants, contaminants, or petroleum and natural gas products.

- In the event of a hazardous material/waste spill, Environment and the COR will be contacted, WAPA Dispatch notified, and the appropriate Federal, State, and local regulating authority notified depending on the type and size of the spill.

- Ensure proper management and disposal of hazardous materials/waste (i.e., fuel, concrete and pavement-related materials and waste, etc.). All spills of fuel or hydraulic fluid would be immediately cleaned up according to WAPA's guidelines for hazardous material handling.

Noise:

Project noise-generating activity would occur within the WNRA, in a remote area where noise generating activity (vessels) is common. Noise would be produced primarily by helicopter activity. The proposed helicopter landing pad located near Brandy Creek Beach is adjacent to several recreational sensitive receptors including the Brandy Creek Marina (1,500 feet), Brandy Creek Campground (2,000 feet), and Dry Creek Group Campground (4,000 feet). The nearest other sensitive receptor (school) within the WNRA is more than 6,000 feet from noise-generating activity. The nearest residential sensitive receptor within the Redding vicinity is roughly 14,000 feet from noise generating activity.

The City of Redding noise ordinance threshold during daytime hours is 55 dB (hourly L_{eq}). Noise levels of an Erickson S-64 Sky-Crane range from 95-105 dB at 300 feet. Assuming a noise level of 100 dB for six minutes every hour (10% usage factor), the hourly L_{eq} would be less than 55 dB at the nearest residence (~ 14,000 feet). WNRA vessel operation is restricted to 75 dBA (moving vessels) and 88 dBA (stationary vessels). Due to attenuation, noise levels at sensitive receptors within WNRA would not exceed the stationary vessel 88 dBA threshold. Therefore, Project construction activity, including helicopter operations, would not impact sensitive receptors and would be less than significant.
