

RESOURCE PROTECTION MEASURES

This appendix includes all measures that will be employed during construction to avoid or limit impacts to natural and cultural resources. These include applicant-proposed measures that the Project Proponent (Vero Networks) built into their design of the Project, best management practices (BMPs) that construction contractors will generally employ as part of their operations, and avoidance and minimization measures (AMMs) that are prescribed per analysis of potential impacts to natural and cultural resources.

These measures are also found in the Project's Biological Evaluation (Appendix I of the Environmental Assessment/Initial Study [EA/IS]), Restoration Plan (Appendix J of the EA/IS), and Cultural Resources Inventory Report (Loftus et al. 2021). Some site-specific measures for cultural resources are left out of this appendix to keep specific site locations confidential. All measures from these reports, plus additional measures relevant to resources evaluated in the EA/IS, are compiled in this appendix. There are BMPs for some resources not analyzed in detail in the EA (see **Table 4** in the EA/IS).

The measures will be reformatted and presented in text form as handouts for crews, on maps, and/or as spatial data to ensure construction contractors easily understand and employ the measures.

Measure ID codes indicate what resource the measure is intended to protect, an identification number, and the general topic of what the measure covers. Additionally, each measure dictates where on the Project alignment it applies or if it applies Project wide.

Aesthetics/Visual Resources

- **VR-1. ILA Building Siting.** ILA buildings will not be located in areas of sensitive resources, including visual resources. Buildings will be placed within a cohesive viewshed comprised of like facilities and development.

Applicability: During siting of ILA buildings.

- **VR-2. ILA Building Light.** ILA buildings will be designed to utilize the minimum necessary outdoor lighting for safety and operations

Applicability: During ILA building design.

Air Quality

- **AQ-1. Fugitive Dust Control Measures.** The applicant shall implement the following dust-control measures during Project construction:
 - Water all exposed surfaces two times per day unless already wet from precipitation. Exposed surfaces include but are not limited to spoils piles, graded areas, unpaved parking areas, staging areas, and access roads.
 - Cover or maintain at least 2 feet of free-board space on haul trucks transporting soil, sand, or other loose material off-site. Any haul trucks that travel along freeways or major roadways should be covered.
 - Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

Applicability: Project wide, for the duration of construction.

- **AQ-2. Minimize Idling.** Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes, as required by California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485.

Applicability: Project wide, for the duration of construction.

- **AQ-3. Equipment Maintenance.** Maintain all construction equipment in proper working condition according to manufacturer specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before its first operation at a Project site as well as routinely checked thereafter.

Applicability: Project wide, for the duration of construction.

- **AQ-4. ILA Building Construction.** Air-quality-related resource protection measures listed in this appendix will be followed during construction of ILA buildings.

Applicability: During ILA building construction.

Biological Resources

- **AMM BIO-1. Biological Monitoring Requirements.** The Applicant shall designate one or more Project biologists. Project biologist refers to the qualified person assigned to ensure Project-wide biological measures identified in this document are followed and to document compliance with these measures. The Project biologist will also oversee other biologists and/or biological monitors. Biological monitor refers to a qualified person assigned to ensure biological measures are being implemented during construction activities.

Project biologist(s) or biological monitor(s) shall be on-site as needed according to AMMs. Project biologists and biological monitors shall be familiar with sensitive species and resources and the minimization measures for this Proposed Project. The Project biologist(s) shall be responsible for overseeing and training biological monitors; advising the applicant and contractor on compliance with biological measures; notifying the applicant of noncompliance with biological resources conditions; responding directly to inquiries of the lead agencies or resource agencies regarding biological resource issues; maintaining records of tasks related to compliance and reporting for biological resource measures; preparing monthly, annual, and final compliance reports; establishing and enforcing speed limits at Project work areas; and maintaining the ability for regular, direct communication with representatives of the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), U.S. Forest Service (USFS), and National Park Service (NPS), including notifying these agencies of dead or injured special-status species and reporting special-status species observations.

Daily logs—When on-site, the Project biologist(s) and/or biological monitor(s) shall maintain electronic records of daily activities, observations, and communications with the applicant or construction personnel. These records shall be made available for review to the lead agencies at any time during or following Project implementation.

Stop Work Authority—The Project biologist(s) and biological monitor(s) shall have written authority to require a halt to activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued.

Applicability: Project wide, where and when a monitor is needed.

- **AMM BIO-2. Environmental Awareness Training.** Key personnel (e.g., crew leads, foremen) will complete an environmental awareness training on the protected species in and around the Project route and on required environmental protection measures. Training shall explain the need for and implementation of minimization measures. The training shall include supporting written material and electronic media, including photographs of protected species; providing information regarding the locations and types of sensitive biological resources within the Project alignment and adjacent areas as well as explaining the reasons for protecting these resources; informing participants that no snakes, other reptiles, bats, or any other wildlife shall be harmed or harassed, with special emphasis on special-status species; and information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures; identifying the Project biologist(s) and biological monitor(s) for contact or further comments and questions about the material discussed in the program; educating crews on noxious plants known to occur near the Project alignment; directing trainees to report all observations of listed species and their sign to the Project biologist for inclusion in the compliance reports; a discussion of the Project biologists' and biological monitors' stop work authority; and a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines.

Applicability: Project wide.

- **AMM BIO-3. Restoration Plan.** During final Project design, a Restoration Plan will be developed that provides detailed plans for the restoration of temporarily disturbed waterways and vegetated areas. The plan will outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success. Restoration shall include seeding with locally sourced native species, erosion control measures, non-native plant control, and site monitoring of the restoration of temporarily disturbed waterways and vegetated areas, including riparian habitat, if impacted. This plan shall also be submitted to and approved by the U.S. Army Corps of Engineers (USACE), USFWS, NPS, and CDFW prior to initiating any mitigation activities.
- **AMM BIO-4. Intermittent Waterways & Ephemeral Drainages.** No trenching will occur in intermittent waterways or ephemeral drainages where water is present in these features. Following trenching, intermittent waterways and ephemeral drainages will be restored to their original condition and contours per the guidelines outlined in the Restoration Plan.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-5. Wetlands.** Prior to construction, a qualified biologist will flag the boundaries of wetland resources delineated in the Preliminary Jurisdictional Delineation Report (Appendix F of the EA). Project infrastructure will be designed to avoid these resources, including coastal willow thickets. Where willow thickets and wetlands have been identified, construction of the alignment via the horizontal directional drilling (HDD) method is required. During construction, crews will stage construction outside of the flagged areas. Manholes, handholes, and boring pits will be placed outside the flagged areas, at least 50 feet from wetland boundaries.

Applicability: Project wide.

- **AMM BIO-6. Riparian Areas.** Prior to construction, a qualified biologist will flag the boundaries of riparian resources delineated in the Preliminary Jurisdictional Delineation Report (Transcon

2021). Project infrastructure will be designed to avoid these resources to the greatest extent practicable. During construction, crews will limit construction activities to the extent practicable. Equipment staging and placement of manholes, handholes, and boring pits will all occur outside of flagged riparian resources. If construction activities fill or disturb riparian areas, then Vero will do the following:

- Vero Networks will obtain and comply with all necessary USACE, State Water Resources Control Board, CDFW, and California Coastal Commission permits.
- Impacted wetlands and/or riparian areas will be restored to pre-construction condition and monitored during and after disturbance. Restoration of temporarily impacted wetlands and riparian areas will be addressed in the Restoration Plan (AMM BIO-3).

Applicability: Project wide.

- **AMM BIO-7. Riparian Reserves (USFS and BLM lands only).** The following AMMs pertain to Riparian Reserves (defined as 320 feet either side of the channel or the outer edge of the 100-year floodplain or from the edge of the active channel to the top of the inner gorge, whichever is greater) areas on USFS and BLM lands:
 - No equipment or vehicles will be permitted to operate where soils are saturated or within the wetted perimeter within the Riparian Reserves unless staged on existing roads and turnout areas in adherence to all BMPs pertaining to containment and prevention of hazardous spills from reaching water bodies (e.g., absorbent pads, drip pans, and containment trays). Servicing of equipment will occur at existing staging areas located more than 25 feet from springs and wet areas. Drainage of existing staging areas will be directed and dispersed so that rainfall flows away from streams and prevents direct delivery.
 - The use of existing staging areas located outside Riparian Reserve buffer may require surface shaping and drainage structures if needed to direct and disperse flow away from Riparian Reserves and prevent direct delivery to waterbodies. All heavy equipment operations require approved erosion control plans when working outside of the normal operating season.
 - Splice boxes and barrel vaults will be designed, constructed, and operated outside Riparian Reserves to eliminate adverse effects that retard or prevent attainment of objectives from the Aquatic Conservation Strategy.

Applicability: USFS and BLM lands only: Suitable habitat along all segments (will be mapped for construction crews).

- **AMM BIO-8. Special-Status Plants.** Clearance surveys for special-status plant species will occur prior to construction in appropriate habitat during appropriate seasons when special-status plants are present and identifiable (typically in spring and summer). In areas affected by recent wildfire, surveys will be particularly thorough where occurrences of sensitive plants are mapped, due to the elevated potential for dormant plant populations to reappear following burns. If planned construction activities may result in an impact to special-status plant species, the following measures will be taken: 1) a minor re-route of the alignment would be made to avoid the plant(s) and a suitable buffer area to prevent root damage or other incidental damage or 2) in areas that cannot be avoided by a minor re-route, the Project biologist will contact the appropriate agency to discuss the potential for salvaging the affected plants. A biological monitor shall be responsible for designating an appropriate buffer area or bore depth to minimize potential adverse impacts to the plants and their roots. If re-alignment shall occur on BLM-, USFS-, or Whiskeytown National Recreation Area (NRA)-managed lands, the agency botanist must be contacted prior to work.

Applicability: Suitable habitat (will be mapped for construction crews). (Biology ID: AMM BIO-7)

- **AMM BIO-9. Invasive Species Prevention.** Contractor vehicles, equipment, tools, boots, and clothing will be cleaned inside and out prior to mobilization of Project segments on federal lands or California Department of Transportation (Caltrans) right-of-way (ROW) to limit the introduction on non-native species and pathogens (e.g., Port Orford cedar root fungus) on the Project corridor, including in areas potentially affected by recent wildfire.

The additional measures below will be applied on federal lands at the following locations:

- Segment 7 between Berry Summit and the mouth of Willow Creek
- Segment 8 between Mayfair Street and Brannan Mountain Road
- Segments 11 and 12 between South Fork and Hennessey Roads
- Segments 14, 15, 15A, and 16 between Underwood Mountain and Corral Bottom Roads
- Segments 14A and 17 between Underwood Mountain and East Fork Roads
- Segment 18A1 between Valdor and Canyon Creek Roads
- Segment 18 between East Fork Road and Highway 299
- Segment 21 between Little Browns and Browns Mountain Roads
- Segments 22, 23, and 24 between Deadwood and Trinity Mountain Roads
- Segment 25 on State Route (SR) 299 through Whiskeytown NRA

Exterior cleaning will consist of washing vehicles and equipment at an off-site location, with attention paid to the tracks, feet, and/or tires and on the undercarriage and with special emphasis on axles, frame, cross members, motor mounts, and on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out, and refuse will be disposed of in waste receptacles to be disposed of at an approved off-site location. Hand tools and boots will be washed and clothing laundered. The Contractor will inspect vehicles, equipment, tools, boots, and clothing to ensure that they are free of soil and debris capable of transporting non-native vegetation seeds, roots, or rhizomes. Seeds and plant parts that result from the cleaning will be collected and bagged for disposal at an approved off-site location. If noxious or invasive weeds are within the Construction Corridor, vehicles will be cleaned before moving on to areas that are weed free or any location affected by wildfire.

Contractors will avoid or minimize all types of off-road travel that may result in the collection and dispersion of non-native vegetation by construction vehicles and equipment.

Activity boundaries, including equipment staging and parking areas, shall avoid known noxious plant infestation. If unavoidable, prior to implementation of operations where invasive plants are present, invasive plant-infestations shall be bladed away from equipment and access routes before operations start. Removed invasive plants or shrubs should be located on the edge of the clearing out of the way of operations to avoid retrieval on equipment. Equipment/machinery shall be cleaned prior to leaving the infested area to operate in another non-contiguous area. Activity boundaries shall avoid areas recently burned by wildfire to the extent possible.

Prior to construction occurring at staging areas and where ground disturbing activities will take place on USFS and NPS lands, a botanist will consult invasive plant spatial data (i.e., Natural Resource Information System, California Invasive Plant Council/Calfora invasive plant layers, and

available federal agency data), survey for invasive plants, document invasive species present, and prescribe site-specific measures.

Rock, sand, or any material used for soil erosion control shall originate from a certified weed-free source if available. Rock source shall be inspected by staff trained in invasive plant identification. Permittee shall provide documentation that material is weed free. (see <https://www.cal-ipc.org/solutions/prevention/weedfreeforage/> and <https://www.cal-ipc.org/solutions/prevention/weedfreegravel/> for more information about weed-free erosion control and aggregate sources).

Applicability: Project wide.

- **AMM BIO-10. Marbled Murrelet.** The following measures will be observed between March 24 and August 5 per the USFWS Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (USFWS 2006):

At work areas adjacent to SR 299 (which has high ambient noise levels):

- Within 500 feet of suitable marbled murrelet habitat (see the BE and Appendix I of the EA), no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
- The limited operating period (LOP) may be lifted at a particular segment if a field survey determines that suitable marbled murrelet habitat is not present within 0.25 mile of it.

At work areas NOT adjacent to SR 299:

- Within 0.25 mile of suitable marbled murrelet nesting\roosting habitat (see the BE and Appendix I of the EA), no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
- The LOP may be lifted at a particular segment if a field survey determines that suitable marbled murrelet habitat is not present within 0.25 mile of it.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-11. Northern Spotted Owl.** The following measures will be observed between February 1 and July 9 per the USFWS Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (USFWS 2006):

At work areas adjacent to SR 299 (which has high ambient noise levels):

- Within 500 feet of suitable northern spotted owl nesting\roosting habitat (see the BE and Appendix I of the EA), no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
- If suitable nesting habitat is present, the LOP may be lifted if disturbance-only USFWS protocol-level surveys are conducted and determine that no northern spotted owl is nesting within 500 feet.

- This LOP may be lifted at a particular segment if a field survey determines that suitable northern spotted owl habitat is not present within 500 feet of it.
- If an active nest is identified within 500 feet of work, the LOP will be extended through September 15.

At work areas NOT adjacent to SR 299:

- Within 0.25 mile of suitable northern spotted owl nesting\roosting habitat (see the BE and Appendix I of the EA), no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
- If suitable nesting habitat is present, the LOP may be lifted if disturbance-only USFWS protocol-level surveys are conducted and determine that no northern spotted owl is nesting within 0.25 mile.
- This LOP may be lifted at a particular segment if a field survey determines that suitable northern spotted owl habitat is not present within 0.25 mile of it.
- If an active nest is identified within 500 feet of work, the LOP will be extended through September 15.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-12. Northern Spotted Owl.** At each discrete location in which vegetation is removed, removal is limited to 6-inch diameter at breast height (DBH) trees and an area less than 0.1 acre in size.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-13. Nesting Birds.** To avoid and minimize adverse effects to nesting birds, the following measures shall be implemented:
 - If work will occur during the nesting bird season (February 15 until August 31 OR January 1 until August 31 where there is potential for nesting eagles), nesting bird surveys will be conducted with standard nest-locating techniques within 7 days prior to the onset of construction by a Project biologist or biological monitor familiar with the species that may nest in the Action Area. Surveys will occur to a distance of 100 feet (for passerines) or 300 feet (for raptors) from the proposed work, access routes, and staging areas. In areas within 0.5 mile of suitable bald or golden eagle nesting habitat, nesting season begins January 1 and surveys will be performed within 2,640 feet of work. If an active nest is encountered in or adjacent to a work area, a no equipment/no activity buffer will be implemented around the nest (the size of which will be determined by the Project biologist and shall depend on the species' tolerance to human activity, location of the nest relative to the work area, any vegetation or other materials that may screen the nest from noise and view of work, the nature of the work, and other pertinent information), OR the active nest will be continuously monitored by a Project biologist or biological monitor for disturbance. If the monitoring biologist determines nesting may fail as a result of work activities, all work shall cease (except access along existing roadways) within the recommended avoidance area until the biologist determines the adults and young are no longer reliant on the nest site. If an active nest of a listed bird is found, a 500-foot buffer will be established around the nest. If construction activities are delayed or suspended for more than one week after the completion of the nesting surveys, surveys will be performed again.

- If active nests are identified on bridges or associated structures by a Project biologist or biological monitor during the nesting season (February 15 to August 31), work will not occur unless a biological monitor is present to monitor for disturbance.
- If work will occur on Segment 8 between January 1 and August 31, crews will contact Six Rivers National Forest Biologist Bryan Yost two weeks prior to the start of work to get updated nesting information for bald eagle.

Applicability: Project wide, including aerial attachments and last mile segments.

- **AMM BIO-14. Aquatic Resources / Fisheries.** To avoid and minimize adverse effects to federal-listed and special-status fish and wildlife, the following measures shall be implemented:
 - Avoid disruption of natural hydrologic flow paths, including diversion of streamflow and interception of surface and subsurface flow.
 - Conduct operations at water source developments in such a manner and timing as to avoid and minimize adverse effects to aquatic species and habitat from sedimentation.
 - No trenching or plowing activities are proposed to occur within perennial aquatic habitats. Perennial waterways will be crossed via one of three methods: 1) conduit attachment to existing bridge, 2) trenching to place conduit above a deep culvert, or 3) HDD.
 - For all trenching or plowing in intermittent and ephemeral streams, ground disturbance and sidecasting (i.e., the controlled depositing of excavated material) will be done in a manner that will minimize potential for off-site sediment input into stream channels. In addition, these waterways will be restored and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP), Restoration Plan, and any applicable agency permit requirements, which aim to minimize any loose material from entering and remove any loose material that does enter dry channels.
 - On USFS lands, coordinate with USFS fisheries biologists to restrict ground disturbance and sidecasting of excavated material to minimize potential for off-site sediment input into stream channels. Work within ephemeral and intermittent aquatic habitat or delineated wetlands will be coordinated with USFS fisheries biologists.
 - Within the Caltrans ROW, a contractor-supplied biologist will coordinate with a Caltrans biologist to restrict ground disturbance and sidecasting of excavated material to minimize potential for off-site sediment input into stream channels. Work within ephemeral and intermittent aquatic habitat or delineated wetlands will be coordinated with the Caltrans biologists
 - To avoid potential impacts to Upper Klamath/Trinity spring-run Chinook salmon, work will only occur during an LOP from November through April at all intermittent and perennial waterway crossings within the range of this population. This LOP applies to HDD work, not aerial or bridge crossings, and will be in effect at the following locations:

Primary alignment: Segments 7, 9, 11A, 13, 14A, 17, 18, 19, 20, 21, 22

Alternative segments: Segments 11, 14, 15, 15A, 15Alt, 16, 18A1, 18A2

From May through October, HDD may cross intermittent waterways only if no water is present in the channel within 100 feet of the crossing, as the lack of aquatic habitat will ensure that Upper Klamath/Trinity spring-run Chinook salmon will not be present and not susceptible to disturbance. A biologist will survey the crossing within 48 hours prior to work to verify the channel is dry. Perennial waterways are anticipated to hold water year-round and may only be crossed during the November-April LOP.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-15. Special-Status Amphibians.** When ground-disturbing work is occurring within 25 to 50 feet of waterways that have water present and that are suitable habitat for special-status amphibians, a qualified biologist will conduct a pre-disturbance survey for special-status amphibians (adults, subadults, tadpoles, or egg masses). The survey area will include suitable habitat within 50 feet of perennial and intermittent waterways, within 25 feet of ephemeral drainages, and at least 50 feet upstream and downstream of the work area. The biologist will conduct surveys for special-status amphibians prior to the start of ground-disturbing activities. If no special-status amphibians are detected, work may resume for 3 to 5 days before new surveys need to be conducted.

If a special-status amphibian is confirmed to be present, then a qualified biologist will move the individual to a suitable off-site location within the same waterway.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-16. Special-Status Bats.** To avoid and minimize adverse effects to bats, the following measures shall be implemented:
 - When work will occur during bat maternity (April 1 to September 15) or hibernation (November 1 to February 28) seasons, suitable habitat (mines, caves, tunnels, buildings, other manmade structures, and trees with a DBH of 45 inches or larger) within 100 feet of work areas will be surveyed by a qualified biologist for suitable roost locations and signs of roosting bat colonies. If suitable roost locations, roosting bat colonies, or sign are detected within 100 feet of a work area, the Project biologist will contact the CDFW (or relevant agency) to determine the best course of action. Surveys must occur a minimum of 7 days prior to construction.
 - Prior to initiating conduit installation on any bridge, the Project biologist will conduct pre-disturbance bat roost surveys at the bridge site. If roosting bats may be present, then the Project biologist shall identify the species and contact the CDFW to determine the best course of action. Where bridges may serve as maternity roosts, Project construction will be delayed until conclusion of the maternity season.

Applicability: All bridges and suitable habitat (will be mapped for construction crews).

- **AMM BIO-17. Special-Status Mammals.** To avoid and minimize adverse effects to mammals, the following measures shall be implemented:
 - If work is being conducted in suitable denning habitat during the denning mammal natal season (February 1 to July 15), the Project biologist or biological monitor will conduct pre-disturbance denning mammal surveys at den sites within the construction corridor in addition to a 50-foot buffer area. If any potentially active dens are detected, a no-work buffer will be established within 150 feet of the potential den until the Project biologist determines that the den is not active or that denning season is over.
 - If a special-status denning mammal species is detected or directly observed within 150 feet of a construction area, the biological monitor will be notified immediately. Any work that may result in direct disturbance to the animal will be temporarily halted until the mammal leaves. If it does not leave on its own, the biological monitor would contact the appropriate agency to determine the best course of action.

- Work within 0.25 mile of a known fisher den or unsurveyed dens will not occur between the fisher denning season (February 1 to July 15) unless surveys determine the site to be unoccupied.
- Prior to the commencement of work in suitable habitat, the Project biologist will coordinate with the CDFW to obtain up-to-date information regarding wolf activity.

Applicability: Suitable habitat (will be mapped for construction crews).

- **AMM BIO-18. Big Bar Hesperian.** Pre-disturbance surveys for Big Bar hesperian will be performed at work areas in riparian habitat at elevations below 3,000 feet. With USFS approval, the Project biologist may deem surveys unnecessary if work will only occur in dry areas on the upper two-thirds of a slope away from moist riparian vegetation. If the species is found during surveys, the Project biologist will contact the Shasta-Trinity National Forest biologist to determine the best course of action.

Applicability: Only within 100 feet of perennial waters (year-round) or within 100 feet of all waterways during the rainy season. Within range on USFS land only (will be mapped for construction crews).

- **AMM BIO-19. Blue-gray tailed dropper.** Pre-disturbance surveys for blue-gray tailed dropper will be performed at work areas in suitable habitat. Surveys will be conducted in accordance with the Mollusk Survey Protocol described in Duncan et. al 2003. With USFS approval, the Project biologist may deem surveys unnecessary if work will only occur in dry areas on the upper two-thirds of a slope away from moist riparian vegetation. If the species is found during surveys, the Project biologist will contact the appropriate agency biologist to determine the best course of action.

Applicability: Only within 100 feet of perennial waters (year-round) or within 100 feet of all waterways during the rainy season. Within range on USFS land only (will be mapped for construction crews).

- **AMM BIO-20. Trinity bristle snail.** To avoid and minimize adverse effects to the Trinity bristle snail (TBS), the following measures shall be implemented:
 - Work will be conducted during an LOP of June 16 through the start of the rainy season, when TBS will not be present. The end date of the LOP (i.e., the start of the rainy season) will be October 15 unless weather conditions prior to that date result in >0.5 inch of rain within a 3-day period. Operations shall not commence for 3 days following the cessation of rain or until the duff on top of the soil is thoroughly dry (< 10 percent moisture content) and the topsoil below the duff is thoroughly dry (<10 percent soil moisture) in the upper 3 inches of topsoil.
 - Within portions of the alignment with suitable habitat (see Section 4.9 of the Biological Evaluation for a description) for TBS:
 - All entry and exit vault locations and staging areas (“work locations”) will be located in habitat considered not suitable for TBS (e.g., unvegetated, gravel, or paved areas).
 - For associated foot traffic (e.g., pedestrian monitoring of the HDD alignment for frac-outs) that must occur in vegetated work areas in suitable habitat, a qualified biologist will conduct a pre-construction survey to flag areas that are suitable habitat for TBS for avoidance.

- All HDD at water crossings within 25 feet of suitable TBS habitat will be at a minimum depth of 15 feet below the bed of the stream.
- In the event of frac-out during HDD construction, a qualified biologist will identify access routes located outside of TBS habitat for the contractor/designated biologist to access the spill site. The biologist will have authority to stop work and designate activity-free buffers if there are potential impacts to TBS. Recovery activities will avoid impacting these areas and the CDFW will be contacted.
- In the event of an equipment failure or the boring drill breaks subsurface during HDD, the equipment will be backed out of the pilot hole to minimize ground disturbance. No additional excavations may occur to retrieve equipment within a bore. If retrieval of drill components via this method is not possible, equipment shall be left within the bore and agencies that have jurisdiction at that location shall be notified.

Applicability: Suitable habitat (will be mapped for construction crews).

Cultural and Tribal Resources

- **CR-1. Cultural Resources Awareness Training.** Prior to ground- and non-ground-disturbing construction activities, all construction crew personnel will complete Cultural Resource Awareness Training (CRAT). The CRAT will educate the construction crew and personnel about Environmentally Sensitive Areas (ESAs), measures, BMPs, Cultural Resource Protection Measures (CRPMs), Inadvertent Discovery Protocols, types of resources to be aware of in the field (e.g., prehistoric, historic, human remains), and how to flag unanticipated discoveries. Additionally, the construction crew(s) will be educated on the federal and state regulations that provide for protection of cultural and tribal resources, such as the Archaeological Resources Protection Act (ARPA), as well as the penalties that result from violations. Similar CRAT will be provided to the cultural resources team of professionals responsible for the protection and preservation of cultural and tribal resources. This will ensure successful execution of the Project in compliance with Section 106 of the National Historic Preservation Act and California Environmental Quality Act. Implementation of the BMPs, CRPMs, Inadvertent Discovery Protocols, and CRAT will be overseen by the principal investigator and cultural lead. The CRAT must be repeated annually and as needed for new construction personnel and cultural resources personnel. All participants must sign an agreement stating they have completed the training.

Applicability: Project wide, duration of Project.

- **CR-2. Guiding Principles—CRPMs, BMPs, and IDP for Cultural and Tribal Resources.** The guiding principles cultural resource protection are an amalgamation of the guidance documents provided by each federal and state agency, to include:
 - State Protocol Agreement Among the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer and the Nevada State Historic Preservation Officer regarding the Manner in Which the Bureau of Land Management Will Meet its Responsibilities under the National Historic Preservation Act and the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers
 - Nationwide Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act
 - Native American Graves Protection and Repatriation Act (NAGPRA) of 1990

- Bureau of Reclamation Protocol for NAGPRA Inadvertent Discoveries on Federal Land, California-Great Basin Region
- Manual 8100-The Foundations for Managing Cultural Resources
- Manual 8110-Identifying and Evaluating Cultural Resources
- Manual 8140-Protecting Cultural Resources
- Manual 8150-Permitting Uses of Cultural Resources
- Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92
- Standard Environmental Reference-Volume 2, Chapter 2

Applicability: Project wide, duration of Project.

- **CR-3. Cultural Resource and ESA Avoidance and Management.** Vero Networks shall implement the CRPMs with respect to known cultural resources and ESAs, as described in the Cultural Resources Inventory Report (Loftus et al. 2021).

Applicability: Project wide, duration of Project.

- **CR-4. Best Management Practice.** Prior to deviation for existing proposed construction method and cable placement location outside of the studied area of potential effects, Vero Networks shall notify the appropriate jurisdictional authority to consult regarding the potential effects from the revised cable placement location to historical resources and historic properties.

Applicability: Project wide, duration of Project.

- **CR-5. Best Management Practice.** Vero Networks shall avoid cultural resources, eligible or unevaluated for the National Register of Historic Places/California Register of Historic Resources.

Applicability: Project wide, duration of Project.

- **CR-6. Inadvertent Discovery Protocol.** Should inadvertent discovery of cultural resources occur, Vero Networks shall halt all ground-disturbing construction activity and flag the discovery for avoidance by 200 feet as an ESA, and a qualified archaeologist will be contacted for implementation of CRPMs, Treatment Plans, and potential mitigation measures in coordination with the jurisdictional agency and/or Tribal authority.

Applicability: Project wide, duration of Project.

- **CR-7. Inadvertent Discovery Protocol.** In the event that historic properties are inadvertently encountered, the vicinity of discovery will be flagged for avoidance from construction activities within 200 feet. Vero Networks will be responsible for notifying the appropriate jurisdictional authority, and the agency shall notify the State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO), federally recognized Indian Tribe(s) within 48 hours, or as soon as reasonably possible. The agency, in consultation with the SHPO/THPO, Indian Tribe(s), and Vero Networks, will make reasonable efforts to avoid, minimize, or mitigate adverse effects on those historic properties. If human remains or other cultural material that may fall under the provisions of NAGPRA are present, the agency will comply with NAGPRA and ARPA. The agency will ensure that any human remains are left in situ, are not exposed, and remain protected

while compliance with NAGPRA, ARPA, or other applicable federal, state, and/or local laws and procedures is undertaken. The protection measures will be determined in consultation with the appropriate land-managing agency, Tribe, and SHPO/THPO, but would likely include temporary exclusionary fencing to preclude unauthorized construction in the vicinity of the discovery and capping the remains with a protective layer of clean fill.

Applicability: Project wide, duration of Project.

- **CR-8. ILA Building Location.** ILA buildings will not be sited in areas of known sensitive cultural or tribal resources. Resource protection measures listed in this appendix will be followed during construction of ILA buildings.

Applicability: During ILA building siting.

- **CR-9. Inadvertent Discovery Protocol—Paleontological Resources.** The Project shall adhere to the requirements of the Paleontological Monitoring and Discovery Plan (PMDP). The PMDP includes a series of steps to be implemented in phases: 1) before the commencement of construction-related earthwork; 2) during construction-related earthwork; and 3) after the completion of construction-related earthwork in the event that fossils either are, or are not, discovered and salvaged.

Applicability: Project wide, duration of Project.

Hazards/Hazardous Material

- **HZ-1. Spill Prevention.** Vero Networks and the construction contractor will develop the following plans prior to construction:
 - Spill Prevention Plan to minimize potential for accidental spill or pollutant discharge
 - Hazardous Substance Control and Emergency Response Plan to provide protocol for managing hazardous substances during construction (e.g., refueling) and for responding to potential emergencies encountered in the field related to hazardous material.

Applicability: SWPPP and spill prevention plan will be employed Project wide.

- **HZ-2. ILA Building Construction.** The SWPPP and spill prevention plan will be followed during construction of ILA buildings.

Applicability: During ILA building construction.

Hydrology/Water Quality

- **HYD-1. Spill Prevention.** A Spill Prevention Plan will be developed and implemented during construction. The plan will contain spill prevention measures such as operation of equipment near water bodies, refueling operations, inspection of construction equipment for leaks, specific response procedures in the event of a spill, etc.
- **HYD-2. HDD Contingency Frac-Out Plan.** An HDD Contingency Frac-Out Plan will be developed and implemented during construction. The Plan will designate procedures, responsibilities, and reporting in the event of a drilling fluid release.

- **HYD-3. HDD Inspection.** During HDD drilling, visual inspection along the bore path of the alignment shall take place at all times—i.e., a crew member should be watching closely for potential issues such as a spill or frac-out. At stream crossings with flowing water, the stream shall be monitored upstream and downstream of the crossing.
- **HYD-4. Restoration.** A Restoration Plan will be developed and implemented during construction, as described under BIO-3. The Plan will detail restoration of temporarily disturbed natural areas, including stream banks disturbed by construction. Pre-construction surveys will document conditions prior to construction. Exposed or disturbed areas, including channels and stream banks, shall be returned to pre-existing contours and conditions. Native seed mixes will be applied to disturbed areas and subsequent monitoring of sites requiring restoration will occur.
- **HYD-5. Erosion BMPs.** Runoff control structures, roadside diversion ditches, erosion-control structures, and energy dissipaters will be cleaned, maintained, repaired, and replaced to meet the standards set by applicable permits and the SWPPP.

Noise

- **NOI-1. Equipment Noise Abatement Maintenance.** Ensure that all construction equipment has the manufacturers' recommended noise abatement measures, such as mufflers and engine enclosures, and is intact, in good condition, and operational.

Applicability: Project wide, for the duration of construction.

- **NOI-2. Equipment Idling.** Turn off idling equipment that is not imminently needed.

Applicability: Project wide, for the duration of construction.

- **NOI-3. Construction Timing.** Avoid construction during evening and nighttime hours (7:00 p.m. to 7:00 a.m.) and on weekends.

Applicability: Project-wide, for the duration of construction.

- **NOI-4. ILA Building Construction.** Noise-related Resource Protection Measures listed in this appendix will be followed during construction of ILA buildings.

Applicability: During ILA building construction.

Public Health and Safety

- **PH-1. Fire Prevention.** Vero Networks and the construction contractor shall develop and implement a Fire Prevention Plan, which will include a training program for all personnel about the measures to take in the event of a fire, including fire dangers, locations of extinguishers and equipment, emergency response, and individual responsibilities for fire prevention and suppression.

Applicability: Project wide, for the duration of construction.

- **PH-2. Fire Prevention.** All motor vehicles used during construction will carry specified fire prevention equipment, including shovels, water, and fire extinguishers.

Applicability: Project wide, for the duration of construction.

- **PH-3. ILA Building Construction.** The Fire Prevention Plan will be implemented during construction of ILA buildings.

Applicability: During ILA building construction.

- **PH-4. Naturally Occurring Asbestos.** In work areas where soils are underlain by ultramafic rock (see Section 3.2.4.1 of the Environmental Assessment), construction crews will implement the following AMMs to minimize the spread of dust and thereby minimize worker and public exposure to naturally occurring asbestos:
 - Construction vehicle speed within the work site will be limited to 15 mph or less.
 - Construction crews will install temporary wind barriers around the work site and/or limit excavation to periods of calm or low winds.
 - Construction crews will use water to moisten excavation sites prior to ground disturbance and will keep those areas continually moist to minimize the spread of dust.
 - Storage piles of excavated soil or rock will be wetted, treated with a chemical dust suppressant, or covered when not in use in order to minimize dust.

Applicability: During construction in areas underlain by ultramafic rock.

- **PH-5. ILA Building Generators.** ILA buildings will be equipped with generators to provide back-up energy for system regeneration in the event of a power outage. ILA buildings will be sited, designed, and maintained free from vegetation and brush that could spark fires from generator use. After power outage or other major weather events, Vero will inspect ILA buildings for safety or equipment issues.

Applicability: During ILA building construction and throughout ongoing operations and maintenance.

Recreation

- **RC-1. Hammond Trail.** If construction encroaches onto the pathway of Hammond Trail, the trail will be restored to previous conditions.

Applicability: During and after construction along Hammond Trail.

- **RC-2. Hammond Trail.** Appropriate signage will be used to alert recreation users of any closures limiting the use of Hammond Trail.

Applicability: Prior to and during construction along Hammond Trail.

- **RC-3. ILA Buildings.** ILA buildings will not be sited within the viewshed of designated recreation use areas.

Applicability: During ILA building siting.