

Appendix B
Mitigation Monitoring and
Reporting Program

Appendix B - Mitigation Monitoring and Reporting Program

Category	Committed Protection Measure	Effectiveness Criteria	Timing
<i>Right-of-Way Construction</i>			
ROW-1 PSREC BMP	All design; material; and construction, operation, maintenance, and termination practices would be in accordance with safe and proven engineering practices.	Follow safe construction procedures	During construction
ROW-2 PSREC BMP	PSREC would survey and clearly mark the centerline and/or exterior limits of the ROW, where applicable. On federally administered lands, this may be determined by the respective authorized officer.	Adhere to ROW boundaries by construction equipment	During construction
ROW-3	Access routes would be flagged with a highly visible marker. The route must be approved by the landowner or authorized officer in advance of use. All construction vehicle movement outside of the ROW would be restricted to pre-designated access routes, contractor-acquired access routes, or public roads.	Adhere to ROW boundaries by construction equipment	During construction
ROW-4 PSREC BMP	The limits of construction activities would be pre-determined, with activity restricted to those limits. No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits. The access route would be flagged to avoid environmentally sensitive areas.	Adhere to ROW boundaries by construction equipment	During construction
ROW-5 PSREC BMP	PSREC would limit excavation to the areas of construction. No borrow areas for fill material would be excavated on the ROW. Waste material resulting from construction, operation, or maintenance would be removed from the site.	Minimize surface disturbance and refuse	During construction
ROW-6 PSREC BMP	Waste rock from vault construction would be used onsite.	Minimize offsite transport of materials	During construction
ROW-7 PSREC BMP	PSREC would ensure the safety of the public entering the ROW. This would include, but would not be limited to, barricades for open trenches, and flagmen with communication systems for single-lane roads without visible turnouts.	Follow safe construction procedures	During construction
ROW-8 PSREC BMP	PSREC would protect all survey monuments found within the ROW. Survey monuments include, but are not limited to, General Land Office, USFS, and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of disturbance or destruction of any of the features summarized above, PSREC would report the incident, in writing, to the federal or state authorized officer and the respective installing authority, if known. If General Land Office, USFS, or BLM ROW monuments or references were damaged during operations, PSREC would secure the services of a registered land surveyor or a federal cadastral surveyor to restore the disturbed	Minimize surface disturbance and associated features	During construction

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	monuments and references using surveying procedures from the <i>Manual of Surveying Instructions for the Survey of the Public Lands of the United States</i> , latest edition. PSREC would record such survey in the appropriate county and forward a copy to the USFS or BLM authorized officer, if on USFS or BLM lands. If the USFS or BLM cadastral surveyors or other federal surveyors were used to restore a disturbed survey monument, PSREC would be responsible for the survey cost.		
ROW-9	Prior to construction, all construction personnel would be instructed on protection of cultural and ecological resources. To assist in this effort, the construction contract would address (a) federal and state laws on antiquities, fossils, plants, and wildlife, including collection and removal and (b) the importance of these resources and the need to protect them.	Minimize or prevent impacts to cultural and ecological resources	Prior to and during construction
ROW-10	Where warranted, modified vault or underground conduit design would be utilized to minimize ground disturbance, operational conflicts, visual contrast, or avian conflicts.	Minimize potential project impacts to biological and human resources	During construction and operation
ROW-11	In designated areas, vaults would be placed to avoid sensitive features such as riparian areas, water courses, and cultural sites; placement would minimize the amount of disturbance to sensitive features.	Minimize potential project impacts to biological and human resources	During construction and operation
ROW-12	During construction, operation, or maintenance, the ROW would be maintained free of construction-related, non-biodegradable debris generated by PSREC-related activities.	Ensure refuse is collected and transported off site	During construction and operation
ROW-13	All existing roads would be left in a condition equal to, or better than, their condition before construction.	Ensure roads and transportation are not impacted	During operation
ROW-14	Fences and gates, if damaged or destroyed by construction activities, would be repaired or replaced to their original pre-disturbed condition, as required by the landowner or land management agency. Temporary gates would be installed only with permission of the landowner or the land management agency.	Ensure no damage to fences and gates	During construction
ROW-15	Existing roads and trails on federal or state lands that would be blocked as a result of construction would be rerouted as directed by the applicable authorizing officer.	Ensure roads and transportation are not impacted	During construction
ROW-16	The agency's authorized officer or the landowner would be consulted from construction through rehabilitation and reclamation.	Facilitate reclamation and revegetation	During and after construction

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<i>Reclamation</i>			
Reclamation-1 PSREC BMP	In construction areas where re-contouring is not required and as requested by the landowner, vegetation would be left in place wherever possible to avoid excessive root damage and allow for re-sprouting.	Minimize surface disturbance and impacts to vegetation	During construction
Reclamation-2 PSREC BMP	In construction areas where ground disturbance requires more extensive re-contouring and surface restoration, PSREC would communicate with the landowner or land management agency on the techniques to be used before ground-disturbance activities begin. The method of restoration typically consists of returning disturbed areas to their natural contour (to the extent practical), installing cross drains for erosion control, placing water bars in the road, and filling ditches.	Minimize surface disturbance and facilitate reclamation and revegetation	Before and during construction
Reclamation-3 PSREC BMP	At HDD or vault locations, disturbed areas to be reclaimed would be stabilized by redistribution of topsoil, reseeded, and placement of a chopped, certified weed-free straw, reinforced with paper or synthetic netting to hold the matting in place.	Minimize surface disturbance and facilitate reclamation and revegetation	During construction
Reclamation-4 PSREC BMP	A silt fence would be installed along the perimeter of temporary topsoil stockpile areas where runoff from a storm would be filtered for sediment prior to its release into a natural drainage. It is anticipated that no material would be spoiled or hauled off site. Excavated materials would be re-graded to maintain the general drainage profile.	Minimize surface disturbance and ensure no off-site transport of soils	During construction
Reclamation-5 PSREC BMP	Following construction, PSREC would minimize residual rubble or debris that could provide microhabitats for small and medium-sized mammals. This measure would limit the potential increase in the site's prey base that may attract raptors or other predators.	Minimize future predation on small mammals by aerial predators	After construction
Reclamation-6 PSREC BMP	PSREC would uniformly spread topsoil over disturbed areas for site reclamation. Spreading would not be done when the ground or topsoil is frozen or wet.	Facilitate reclamation and revegetation	During construction
Reclamation-7 PSREC BMP	As part of PSREC's project reclamation plan, local native seed would be used to the extent possible for surface reclamation following construction activities. There would be no primary or secondary noxious weed seed allowed in the seed mixture. Commercial seed would be either certified or registered seed. The seed mixture container would be tagged in accordance with state law(s) and available for inspection by the federal and state authorized officers.	Facilitate reclamation and revegetation	During construction
Reclamation-8 PSREC BMP	Seed would be planted in an economic and efficient manner, using techniques such as hydroseeding, broadcasting, or pre-planted seed mats. The seed	Facilitate reclamation and revegetation	During and after construction

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	<p>mixture would be evenly and uniformly distributed over the disturbed area. When broadcasting, the pounds per acre noted below would be doubled. On federal and state lands, the authorized officer would be notified at least 14 days prior to seeding.</p>		
<p>Reclamation-9</p>	<p>PSREC would develop a construction environmental monitoring program per communications with the applicable landowner or land management agency that includes:</p> <ul style="list-style-type: none"> • Ensuring compliance with the requirements of the project EA, the mitigation measures and BMPs proposed by PSREC, and other environmental permits and approvals. • Identifying, documenting, and overseeing corrective actions, as necessary, to bring an activity back into compliance. • Verifying that the limits of all authorized construction work areas and locations of access roads are properly marked before clearing. • Verifying the location of signs and highly visible flagging that mark the boundaries of sensitive resource areas, drainages, water bodies, or areas with special requirements along the construction work area. • Identifying erosion/sediment control and soil stabilization needs in all areas. • Ensuring that subsoil and topsoil are tested to measure compaction and determine the need for corrective action. • Advising the construction contractor when conditions (such as wet weather) make it advisable to restrict construction activities to avoid excessive vehicle rutting. • Ensuring restoration of contours, replacement of topsoil, and monitoring of revegetation efforts. • Verifying that any soils or materials imported for use have been certified free of noxious weeds. • Determining the need for erosion control measures and ensuring that these measures are properly installed, as necessary, to prevent sediment flow into drainages, water bodies, and sensitive areas and on to roads. • Inspecting and ensuring the maintenance of temporary erosion control measures at least: <ul style="list-style-type: none"> · on a daily basis in areas of active construction or equipment 	<p>Minimize potential soil erosion and facilitate reclamation and revegetation</p>	<p>Prior to, during, and after construction</p>

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	<ul style="list-style-type: none"> · operation; · on a weekly basis in areas with no construction or equipment operation; and · within 24 hours of each 0.5-inch rainfall. • Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification. • Identifying areas that should be given special attention to ensure stabilization and restoration after the construction phase. 		
Air Quality			
Air Quality-1	All requirements of the applicable Counties' Air Pollution Control District and the Washoe County District Health Department, Air Quality Division, in Nevada, as applicable, would be followed and any necessary permits for construction activities would be obtained.	Minimize exhaust emissions	Prior to and during construction
Air Quality-2 PSREC BMP	PSREC would furnish and apply water on construction areas for dust control.	Minimize fugitive dust	During construction
Air Quality-3 PSREC BMP	<p>PSREC would be responsible for controlling dust by reducing travel speed and/or applying dust suppressants (e.g., magnesium chloride or other materials approved by the landowners or land managers). Dust would be considered a nuisance or hazard when a visible dust plume extends more than 300 feet from the source and has an estimated opacity exceeding 20% (objects are partially obscured). Additional methods of dust control that may be used by PSREC include, but are not limited to:</p> <ul style="list-style-type: none"> • Application of water or magnesium chloride to access roads or sections of the ROW. • Application of water to specific activities on the ROW that generate dust plumes (i.e., trenching or blasting). • Curtailing of dust-generating activities during high winds. • Implementation of speed limits on vehicles using access roads or traveling the ROW. • Limitation of number of vehicles allowed on the ROW. 	Minimize fugitive dust	During construction
Air Quality-4	Open burning of construction debris (cleared brush, etc.) would not be allowed.	Minimize effects to air quality	Prior to and during construction
Air Quality-5 LCAPCD BMP	<p>Reasonable precautions would be taken to prevent particulate matter from becoming airborne including, but not limited to, the following provisions:</p> <ul style="list-style-type: none"> • Covering open-bodied trucks when used for transporting materials 	Minimize exhaust emissions	During construction

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	<p>likely to cause airborne dust.</p> <ul style="list-style-type: none"> • Installation and use of hoods, fans, and other fabric filters to enclose and vent the handling of dusty materials. Containment methods may be employed during sandblasting and other similar operations. • The application of asphalt, oil, water, or suitable chemicals to dirt roads, material stockpiles, land-clearing activities, excavation, grading, or other surfaces that can give rise to airborne dusts. • The prompt removal of earth or other material from paved streets that have been deposited by earth-moving equipment, water, or other means. 		
Cultural Resources			
Cultural-1	Prior to ground disturbance, an intensive pedestrian cultural resources inventory will be conducted along the eight miles in Caltrans US395 and one mile in NDOT US395 ROW..	Ensure that cultural resources are protected and properly managed	Prior to construction
Cultural-2	As appropriate and required by the CA and/or NV SHPO, a Programmatic Agreement (PA) has been developed that identifies the protocol and treatment of inadvertent discoveries of cultural and historic properties. See Appendix F.	Ensure that cultural resources are protected and properly managed	Prior to and during construction
Cultural-3 PSREC BMP	If an area proposed to be disturbed by construction or other ancillary project activity has not been surveyed for cultural resources, an inventory would be conducted before construction activities begin. PSREC will retain qualified archaeologists that meet Secretary of the Interior standards to conduct the pre-construction inventories. A monitoring program would be developed for this project to ensure avoidance of known historic properties (NRHP-eligible cultural resources) and on landscapes with a potential for buried cultural resources.	Ensure that cultural resources are protected and properly managed	During construction
Cultural-4 PSREC BMP	Any cultural resources inadvertently discovered during construction by PSREC or any person working on PSREC's behalf on private, state, or federal land would be reported immediately to the authorized officer and environmental monitor; the protocol of the PA would be followed. If human remains are discovered, PSREC would suspend construction, notify the county coroner, notify the applicable landowner or land	Ensure that cultural resources are protected and properly managed	During construction

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	management agency, and follow the applicable Federal or California/Nevada state law. If Native American remains are suspected, the Native American Heritage Commission and local tribe(s) also would be notified and PSREC would suspend operations in the area until an evaluation is completed. See Appendix F for inadvertent discovery plan.		
Cultural-5 PSREC BMP	No surface disturbance or construction activity would be allowed within 100 feet of any NRHP-eligible cultural sites, as specified by the federal or state authorized officer. Any deviation from this requirement would be negotiated with the authorized officer per the terms of the proposed PA.	Ensure that cultural resources are protected and properly managed	During construction
<i>Soils</i>			
Soils-1 PSREC BMP	As applicable, temporary erosion and sediment control devices, including sediment barriers, would be installed promptly after soil disturbance, in accordance with the NPDES requirements. These devices would be inspected on a daily basis in areas of active construction; on a weekly basis in areas with no active construction; and within 24 hours of each 0.5-inch or greater rainfall. PSREC would install temporary sediment barriers (e.g., staked straw bales) on either side of a water body channel, and around spoil and topsoil stockpiles. Sediment barriers would be maintained, as necessary, to ensure effectiveness during construction. Temporary slope breakers consisting of wattles or compacted soil would be installed across the underground construction site, as necessary.	Minimize soil erosion	During construction
Soils-2	Following vault placement, PSREC would replace fill using the soil excavated from the vault holes. Most of the soil would be used on site; the remaining amount would be spread in the ROW so as to not destroy any existing vegetation.	Minimize effects to soils and vegetation	During construction
Soils-3	In site-specific areas where soils are sensitive to disturbance, no widening or upgrading of existing access roads would occur during project construction or operation, except for repairs necessary to make roads passable.	Minimize effects to soils	During construction
Soils-4 PSREC BMP	No construction activities would be performed when the soil is too wet to adequately support construction equipment. If equipment creates ruts more than 6 inches deep, the soil would be deemed too wet and construction would cease in that area.	Prevent soil compaction	During construction

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Soils-5 PSREC BMP	No soil removal is anticipated. If soil removal is deemed necessary, however, before soils are removed, PSREC would ensure soil storage sites are located within the appropriate areas along the ROW to prevent impacts to cultural and biological resources.	Minimize effects to cultural and biological resources	Prior to and during construction
<i>Water Resources</i>			
Water-1 PSREC BMP	If damaged or destroyed by construction activities, water sources or facilities (e.g., tanks, developed springs, water lines, wells) would be repaired or replaced to their pre-disturbed condition, as required by the landowner or land management agency.	Protect water features	During construction
Water-2 PSREC BMP	All construction and maintenance activities would be conducted to minimize disturbance to vegetation, drainage channels, and intermittent and perennial stream banks.	Minimize impacts to vegetation and natural water sources	During construction
Water-3 PSREC BMP	Surface water quality would be protected from construction impacts by use of sediment barriers that would be maintained until satisfactory reclamation is established.	Protect water quality	During construction
Water-4 PSREC BMP	PSREC would not refuel equipment within 500 feet of any live water source.	Prevent water contamination	During construction
<i>Noise</i>			
Noise-1 PSREC BMP	Construction activities would occur during daylight hours, or from 7 a.m. to 7 p.m.	Reduce impacts to sensitive residential receptors by ensuring compliance with local noise ordinances	During construction
Noise-2 PSREC BMP	Residents located along the project ROW would be notified 5 days prior to construction occurring within 500 feet of their residence.	Reduce impacts to sensitive residential receptors by ensuring compliance with local noise ordinances	During construction
<i>Hazardous Materials and Waste</i>			
Hazardous Materials-1 PSREC BMP	Construction sites would be maintained in a sanitary condition at all times; waste materials at those sites would be disposed of promptly at an appropriate and the nearest county waste disposal site. 'Waste' means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.	Ensure refuse is collected and transported off site	During construction and operation
Hazardous Materials-2 PSREC BMP	Totally enclosed containment would be provided for all trash and hazardous materials (if needed). All construction waste including trash, litter, garbage, other solid waste, petroleum products, and other potentially hazardous	Ensure refuse is collected and transported off site	During construction and operation

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	materials would be removed to the nearest county waste disposal site.		
Hazardous Materials-3 PSREC BMP	PSREC would comply with all applicable federal, state, and local laws and regulations, existing or hereafter enacted or promulgated, with regard to any hazardous materials, as defined in this paragraph, that would be used, produced, transported or stored on or within the ROW or any of the ROW facilities or used in the construction, operation, maintenance, or termination of the ROW or any of its facilities. "Hazardous material" means any substance, pollutant, or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste," as defined in the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, 42 U.S.C. 6901 et seq. and its regulations. The term "hazardous material" also includes any nuclear material or byproduct as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.	Reduces potential for unauthorized or accidental release or contact with hazards	Prior to and during construction
Hazardous Materials-4 PSREC BMP	PSREC, as cited by existing Grant ROW, agrees to indemnify the U.S. against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined by CERCLA or RCRA) on the ROW unless the release or threatened release is wholly unrelated to PSREC's activity on the ROW. This agreement applies without regard to whether a release is caused by PSREC, its agent, or third parties.	Removes liability for unauthorized or accidental release or contact with hazards	Prior to and during construction
Vegetation			
Vegetation-1 PSREC BMP	PSREC would ensure the appropriate biological resource surveys have been conducted before construction begins, per coordination with the federal agencies.	Identify sensitive plant resources	Prior to construction
Vegetation-2 PSREC BMP	Where possible, PSREC would trim (rather than cut) brush, and would cut (rather than blade) brush. Blading would be allowed only if terrain and brush present a clear hazard to personnel and equipment.	Minimize vegetation removal and disturbance	During construction
Vegetation-3 PSREC BMP	To minimize the potential to spread invasive weeds, PSREC would clean off-road equipment (power or high-pressure cleaning) of all mud, dirt, and plant parts before moving equipment onto the project lands.	Minimize spreading of noxious weeds or other invasive species	During construction

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Vegetation-4 PSREC BMP	In site-specific areas where vegetation is sensitive to disturbance (and has been identified as such by the landowner or land manager, prior to construction), no widening or upgrading of existing access roads would occur during project construction, except for repairs necessary to make roads passable.	Minimize vegetation removal and disturbance	Prior to and during construction
Vegetation-5 PSREC BMP	The BLM's Eagle Lake Field Office pamphlet on noxious weeds (BLM 2000) would be provided to all contractors and PSREC personnel. The terms and conditions of the USFS Special Use Permit also would be met relative to minimizing the potential spread of invasive plant species.	Minimize spreading of noxious weeds or other invasive species	During construction
Vegetation-6 PSREC BMP	<p>The project shall implement the following avoidance and minimization efforts for invasive plants/noxious weeds:</p> <ol style="list-style-type: none"> a. Prior to construction, discrete occurrences of noxious weeds shall be mapped (including areas previously surveyed on public lands) during botanical surveys. Vast areas of common noxious weeds, such as cheat grass in big sagebrush scrub, will be noted, but not mapped. b. Weeds rated A, B, or Q by CDFA (2010) for the parts of the project area in CA, or rated A or B by NDA (2010) for the parts of the project area in Nevada, shall be reported to the appropriate state or County Agricultural officer. c. The results of the botanical surveys and weed mapping, shall be reported to USFS and BLM for their lands. d. Construction equipment used in the project area shall be cleaned (power or high-pressure cleaning) of all mud, debris, and plant parts before arriving at the project area. e. Boots and clothing of project personnel shall be cleaned of seed before entering the project area. f. Mapped weed locations will be avoided with equipment and vehicles if possible. If avoidance is not possible, the equipment, vehicles, and any contaminated clothing or footwear will be cleaned immediately adjacent to the existing infestation before leaving the that area of the project area. If avoidance is not possible for mapped weeds on USFS or BLM land, the agency will be contacted prior to work for approval of cleaning methods and locations. 	Minimize spreading of noxious weeds or other invasive species	Prior to and during construction
<i>Biological</i>			

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Biological-1 PSREC BMP	PSREC would ensure the appropriate biological resource surveys have been conducted prior to the initiation of construction, per coordination with the federal agencies.	Identify sensitive wildlife resources	Prior to construction
Biological-2 PSREC BMP	Construction excavations left open overnight would be covered to prevent injury to wildlife. Covers would be secured in place and would be strong enough to prevent wildlife from falling through the openings.	Prevent injury to wildlife	During construction
Biological-3 PSREC BMP	PSREC will conduct Worker Environmental Awareness Training (WEAT) workshop to make construction crews aware of sensitive biological resources, environmentally sensitive areas (ESA), and avoidance measures.	Resource awareness	During construction
Biological-4 PSREC BMP	PSREC will retain qualified biologists to conduct a pre-construction botanical survey, consistent with DFG (2009b) guidelines, to map the location of special-status plants and noxious weeds wherever drilling or trenching will occur, or wherever vehicles will be driven along the route. Sensitive botanical resources and noxious weed populations will be mapped and identified on construction drawings or project maps prior to construction	Identify resource locations	Pre-construction
Biological-5 PSREC BMP	A focused survey for three-ranked hump moss and broad-nerved hump moss shall be conducted in potential habitat along with the pre-construction botanical survey described in Biological-4. If found, the same ESA conditions described in Biological-20 for plants will be implemented for special-status mosses.	Avoid impacts to three-ranked hump moss and broad-nerved hump moss	Pre-construction
Biological-6 PSREC BMP	A focused survey for cylindrical trichodon shall be conducted in potential habitat along with the pre-construction botanical survey described in Biological-4. If found, the same ESA conditions described in Biological-20 for plants also apply to special-status mosses.	Avoid impacts to cylindrical trichodon	Pre-construction
Biological-7 PSREC BMP	Prior to construction, a botanical survey for Webber's ivesia shall be conducted in potential habitat in the project area, during the evident and identifiable period, by a qualified botanist. If Webber's ivesia is found, an ESA will be established, with temporary fencing, around the occurrence prior to construction in that part of the project area. The ESA shall remain in place until the completion of construction in that part of the project area. No vehicles or equipment staging shall be allowed in the ESA. Construction personnel, on foot, may need to cross part of an ESA if a pole is surrounded by Webber's ivesia. In that instance, the botanist shall be present when the ESA is entered and shall assist construction personnel in gaining pole access without harming Webber's ivesia. If the ESA is in a segment of the project	Avoid impacts to Webber's ivesia	Pre-construction

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	area where the line will be installed underground, the trench alignment will be moved to avoid the ESA, or the ESA will be avoided with an underground horizontal directional bore.		
Biological-8 PSREC BMP	A floristic survey according to DFG (2009b) guidelines shall be conducted as described in Chapter 1. If Boggs Lake hedge hyssop is found, an ESA will be established with temporary fencing around the occurrence, prior to construction in that part of the project area. The ESA shall remain in place until construction is completed in that part of the project area. No vehicles or equipment staging shall be allowed in the ESA. If the ESA is in a segment of the project area where the line will be installed underground, the trench alignment will be moved to avoid the ESA, or the ESA will be avoided with an underground horizontal directional bore.	Avoid impacts to Boggs Lake hedge hyssop	Pre-construction
Biological-9 PSREC BMP	One of the two measures below shall be implemented in order to prevent establishment of swallow nests prior to construction on bridges where new conduit will be attached. Swallows arrive in mid February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. a. Beginning 15 February and continuing every week thereafter, remove partially completed nests using either hand tools or high pressure water; or b. Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until construction within 250 ft is complete.	Prevent effects to swallows	Pre-construction
Biological-10 PSREC BMP	If Project construction activities are scheduled to occur during the bird nesting season (1 Feb – 31 August), PSREC will retain a qualified biologist to conduct a nest clearance survey using the methods described below. Birds of Prey and Special-Status Birds a. A qualified biologist shall conduct nest clearance surveys for birds of prey and special-status birds within 2 weeks prior to the start of construction. No further mitigation measures are necessary where no active nests of a bird of prey or special-status bird are found. b. If an active nest of a bird of prey or special-status bird (i.e., an actively defended nest, or a nest containing eggs or young) is found, PSREC will coordinate with the appropriate agency (e.g., BLM wildlife biologist if the nest is on BLM land, USFS wildlife biologist if the nest is on USFS land, or DFG environmental scientist if the nest	Prevent effects to birds nesting	Pre-construction

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	<p>is on state or private land) to determine if construction activities should be restricted near active nests for a specific distance and/or period of time. The potential ESA and extent of the seasonal restriction would be determined on a case-by-case and species-specific basis. Some bird species are more tolerant of human presence and disturbance than other species and whether a nest is within line-of-sight of the construction activities is integral to determining whether avoidance measures would be warranted.</p> <p>c. The Eagle Lake Resource Management Plan (RMP; BLM 2007, 2008) delineates the applicable buffer zone distances and seasonal restriction dates by bird-of-prey species. Where an active nest occurs on BLM land, the RMP will be used as a guideline for construction restrictions.</p> <p>d. The applicable ESA and seasonal restrictions can vary and shall take into account the species affected, topography, habitat suitability, degree of existing disturbance, associated prey base, breeding phenology, and degree or extent of proposed disturbance. Protection of active bird-of-prey and special-status bird nests shall apply during project construction and the breeding season period until the young have fledged or if the nesting attempt fails.</p> <p style="text-align: center;">Non Special-Status MBTA Birds</p> <p>e. A qualified biologist shall conduct nest clearance surveys for nesting MBTA birds where drilling or trenching will occur, or wherever vehicles will be driven along the route within 2 weeks prior to the start of construction. No further mitigation measures are necessary where no active MBTA bird nests are found.</p> <p>f. If a nesting MBTA bird is found, then the biologist shall flag a minimum 50-ft ESA around the nest. No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active. The ESA may be reduced if the biologist monitors the construction activities and determines in coordination with appropriate resource agency staff (e.g., BLM, USFS, or DFG), that no disturbance to the active nest is occurring.</p>		

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Biological-11 PSREC BMP	Between 15 February and 15 September, work within 0.25 mi of northern goshawk nests or PACs will be limited to two days. If more than two days are needed to complete the work, PSREC will coordinate with the appropriate agency, e.g., BLM wildlife biologist if the nest is on BLM land, USFS wildlife biologist if the nest is on USFS land, or DFG environmental scientist if the nest is on state or private land, to determine if construction activities should be restricted near active nests for a specific distance and/or period of time.	Avoid impacts to northern goshawk	During construction
Biological-12 PSREC BMP	Between 1 February and 31 August, project construction within 0.5 mi of golden eagle nests will be limited to two days of work. If more than two days are needed to complete the work, PSREC will coordinate with the appropriate agency, e.g., BLM wildlife biologist if the nest is on BLM land, USFS wildlife biologist if the nest is on USFS land, or DFG environmental scientist if the nest is on state or private land, to determine if construction activities should be restricted near active nests for a specific distance and/or period of time.	Avoid impacts to golden eagle	During construction
Biological-13 PSREC BMP	Between 1 February and 31 August, no work within 0.5 mi of the documented eyrie at Bonta Ridge or any other peregrine falcon eyrie identified during preconstruction surveys will occur. If it becomes necessary to conduct work within 0.5 mi of a peregrine falcon eyrie, PSREC will coordinate with DFG and the appropriate agency (e.g., BLM wildlife biologist if the nest is on BLM land; USFS wildlife biologist if the nest is on USFS land), to determine if construction activities should be restricted for a specific distance and/or period of time.	Avoid impacts to peregrine falcon	During construction
Biological-14 PSREC BMP	Between 1 March and 15 August, work within 0.25 mi of the California spotted owl PAC will be limited to two days of work. If more than two days are needed to complete the work, PSREC will coordinate with DFG and the USFS wildlife biologist to determine if construction activities should be restricted near the PAC.	Avoid impacts to California spotted owl	During construction
Biological-15 PSREC BMP	Willow flycatcher habitat in the project area is included in willow flycatcher avoidance areas shown on Figure 2, sheets 7, 10, 15, 18 (US395) and 20, 22, 23, 26, 28-30 (SR70). In order for construction to occur during the willow flycatcher breeding season (June 1 through August 15; USFS 2004), protocol surveys shall be conducted the same year construction will occur and must conclude absence of nesting/ territorial willow flycatcher. The surveys will be conducted in accordance with A Willow Flycatcher Survey Protocol for	Avoid impacts to Willow flycatcher	Pre-construction

Category	Committed Protection Measure	Effectiveness Criteria	Timing
	California (Bombay et al. 2003). If protocol surveys are not conducted, no work shall occur between 1 June and 15 August in the willow flycatcher avoidance areas mapped on Figure 2, sheets 7, 10, 15, 18 (US395) and 20, 22, 23, 26, 28-30 (SR70).		
Biological-16 PSREC BMP	Between 15 February and 31 August, wherever the project area comes within 250 ft or crosses a creek with steep, eroded banks, a survey will be conducted by a qualified biologist for nesting bank swallows no more than two weeks prior to construction. If no nesting bank swallows are found, construction may commence. If active bank swallow nests are found, biologist shall flag a minimum 250-ft Environmentally Sensitive Area (ESA) around the active nests. No work will occur in the ESA until the nests are no longer active and the bank swallows have left the area.	Avoid impacts to bank swallow	Pre-construction
Biological-17 PSREC BMP	PSREC will retain a qualified biologist to conduct a preconstruction survey for roosting bats within 2 weeks prior to the start of construction. The survey can be conducted concurrently with the nesting bird preconstruction survey. The survey will include, but is not limited to, the underside of bridges and culverts and rock crevices and overhangs. If no roosting bats are found, then no further mitigation measures are necessary. If roosting bats are found, PSREC will coordinate with the appropriate agency (e.g., BLM, USFS, or DFG) to determine if construction activities should be restricted near bat roosts for a specific distance and/or period of time. The potential Environmentally Sensitive Area (ESA) and extent of the seasonal restriction would be determined on a case-by-case and species-specific basis.	Prevent effects to roosting bats	Pre-construction
Biological-18 PSREC BMP	Between 1 February to 31 July, two weeks prior to work in the forested areas of the project area (from Quincy east to Big Grizzly Creek), the project shall contact DFG staff involved with the fisher reintroduction to ascertain if there are any denning female fishers within 0.5 mi of construction (Richard Callas: 530-340-5977, or Pete Figura: 530-225-3224). Radio or GPS-enabled collars on the released fishers allow their location and movement to be tracked (pers. comm. R. Callas). If there are denning female fishers within 0.5 mi, no construction shall occur within 0.5 mi of the den until the den has been vacated. DFG shall continue to be contacted every two weeks during construction from 1 February to 31 July in the forested areas to check for denning fishers.	Avoid impacts to Pacific fisher	Prior to and during construction
Biological-19	PSREC will retain a qualified biologist to conduct a preconstruction survey for	Prevent effects to burrowing	Pre-construction

Category	Committed Protection Measure	Effectiveness Criteria	Timing
PSREC BMP	active burrows of special-status burrowing animals in the project area within 2 weeks prior to the start of construction, wherever drilling or trenching will occur, or wherever vehicles will be driven along the route. If no active burrows are found, then no further mitigation measures are necessary. If active burrows of special-status burrowing animals are found, PSREC will coordinate with the appropriate agency (e.g., BLM, USFS, or DFG) to determine if construction activities should be restricted nearby for a specific distance and/or period of time. The potential ESA and extent of the temporal restriction would be determined on a case-by-case basis.	animals	
Biological-20 PSREC BMP	Prior to construction, PSREC will retain a qualified biologist to direct the establishment of environmentally sensitive areas (ESA) around special-status plant populations or other sensitive resources to be avoided. ESAs will be marked both in the field with temporary fencing, and on the construction drawings. Construction-related activities will be prohibited within ESAs, unless construction personnel on foot need to cross part of an ESA to access and climb an existing pole.	Avoid construction impacts to ESAs	Pre-construction
Biological-21 PSREC BMP	Perennial and intermittent waters in the project area, including any adjacent willow thickets, riparian corridors, and wetlands, shall be avoided by either hanging new conduit on existing utility poles, installing conduit underneath waters with horizontal directional drills, or blowing new fiber in existing conduit. No vehicles or equipment staging shall be allowed in perennial or intermittent waters, wetlands, willow thickets, or riparian corridors. Construction personnel, on foot, may need to cross narrow portions of wetlands, willow thickets, or riparian corridors, if a pole is surrounded by such a feature.	Avoid wetlands and waters	During construction
Biological-22 PSREC BMP	PSREC will retain qualified biologists and resource specialists to monitor construction activities in areas near sensitive resources.	Monitor construction in ESAs	During construction
Biological-23 PSREC BMP	Specific fiber optic vault locations are flexible and will be placed to avoid sensitive resources including, but not limited to, riparian areas, water courses, wetlands, special-status plant populations, etc.	Avoid sensitive resources	During construction
Biological-24 PSREC BMP	PSREC will implement the appropriate noxious weed control measures from the following; Partners against Weeds (BLM 1996), The National Invasive Species Management Plan (National Invasive Species Council 2008), and the Weed Prevention and Management Guidelines for Public Lands (BLM 2011).	Noxious weed control measures	During construction

Category	Committed Protection Measure	Effectiveness Criteria	Timing
Biological-25 PSREC BMP	Structures (if needed) will be constructed to conform to RUS (Rural Utilities Service) raptor-safe specifications. Additional resources used in design will be the <i>Avian Power Line Interaction Committee's Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 and Mitigating Bird Collisions with Power Lines: The State of the Art in 1994</i> .	Avoid impacts to raptors	During construction
Biological-26 PSREC BMP	If construction of any associated project infrastructure (e.g. re-generation site, secondary NOCs etc.) requires installation of outdoor lighting the lighting will be designed to minimize bird attraction or nocturnal insect attraction and swarming. At a minimum, lights should be down shielded to minimize attracting birds or insects. This measure will minimize the potential for nocturnal bird foraging (e.g., nighthawks).	Minimize nocturnal attraction of birds and insects	Post construction
Biological-27 PSREC BMP	To the extent practicable, and to mitigate potential disturbance to migrating deer moving east to west, underground construction of the 8 miles in the US395 ROW would not occur during April-May, spring migration, or October-November, fall migration.	Avoid construction during seasonal migration	During construction