

APPENDIX C

**Standard Construction and Operation Procedures
(Applicant Proposed Environmental Protection Measures)**

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Reference Number	Mitigation Measures	Impacts Mitigated
Landscape Preservation and Impact Avoidance		
LP-1	To the extent practicable, native shrubs and other vegetation will be preserved and protected during construction operations except where clearing operations are required for permanent structures, approved construction roads, and excavation operations.	Wildlife habitat loss
LP-2	To the extent practicable, all maintenance yards, field offices, and staging areas will be arranged to preserve shrubs and other native vegetation.	Wildlife habitat loss
LP-3	Clearing will be restricted to that area needed for construction.	Wildlife habitat loss
LP-4	All areas around structures will be backfilled, compacted, and returned as close as possible to the original condition and grade.	Surface water quality from sedimentation
LP-5	In order to reduce environmental damage, washes, steep slopes, or sensitive environmental areas will not be used for equipment or materials storage or stockpiling; construction staging or maintenance; field offices; hazardous material or fuel storage, handling, or transfer; or temporary access roads. Washes, steep slopes, and sensitive environmental areas will be identified on project maps and incorporated into project planning. These areas will be identified and located from existing environmental information or pre-construction surveys.	Surface water quality from sedimentation and spills
LP-6	Excavated or graded materials will not be stockpiled or deposited on or within 100 feet of any steep slopes (defined by industry standards) or washes (including seasonally active ephemeral drainages) unless retention devices are installed to prevent sedimentation of these areas.	Surface water quality from sedimentation
LP-7	When and where applicable, landscaping standards, including clearing of native vegetation, will be followed as prescribed by local land use and management agencies when work is within their jurisdictions.	Surface water quality from sedimentation

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Reference Number	Mitigation Measures	Impacts Mitigated
Erosion and Sediment Control		
ESC-1	Planting native grasses, forbs, or shrubs, or placing riprap and other materials as appropriate, will be used to prevent and minimize the potential for erosion and siltation during construction of project features and during the period needed to reestablish permanent vegetative cover on disturbed sites. Sediment fences will be used where appropriate to limit wind and water erosion, and water trucks will be used in disturbed areas during construction to limit wind erosion.	Loss of native vegetation
ESC-2	Final erosion control and site restoration measures will be initiated as soon as a particular area is no longer needed for construction, stockpiling, or access. Clearing schedules will be arranged to minimize exposure of soils.	Surface water quality from sedimentation
ESC-3	Cuts and fills for access roads and utility corridors will be sloped to prevent landslides and to facilitate revegetation.	Surface water quality from sedimentation
ESC-4	Signs will be placed along the access road to discourage OHV use of adjacent areas.	Loss of native vegetation
ESC-5	Borrow areas will be contoured and shaped to carry the natural contour of adjacent undisturbed terrain into the borrow area.	Surface water quality from sedimentation
ESC-6	Project construction and traffic will remain within the construction right-of-way, facility footprints, and approved access roads.	Surface water quality from sedimentation
ESC-7	Soil or rock stockpiles, excavated materials, or excess soil materials will not be placed near sensitive habitats, including washes, where they may erode into these habitats or be washed away by high water or storm runoff unless retention devices are installed to prevent sedimentation of these areas. Water, tackifier, or short-term stabilizers will be used as necessary to prevent wind erosion of soil stockpiles. Any permanent waste piles will be revegetated using suitable native species after they are shaped to provide a natural appearance.	Surface water quality from sedimentation

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Reference Number	Mitigation Measures	Impacts Mitigated
Pipeline and Utility Corridor Construction		
PUCC-1	Construction rights-of-way will be limited to the minimum practicable width.	Wildlife habitat loss
PUCC-2	If suitable for reclamation purposes, topsoil will be removed from the trench area and stockpiled for later use.	Loss of vegetation
PUCC-3	Surface elevations will be returned to pre-project conditions, taking into account expected settling.	Visual conflicts and erosion
Biological Resources		
BR-1	Bird nests encountered during land disturbing construction activities will be avoided while the birds are fledging. To the extent practicable, land disturbing construction activities will be scheduled outside of the breeding season (March 15 through July 30). If construction is required during the breeding season, the area impacted will be surveyed for nests prior to construction.	MBTA violations
BR-2	Qualified biologists will survey for burrowing owl-nesting cavities prior to the nesting season and during construction if ground-disturbing activities will occur between mid-March and August. Empty nest-site burrows will be collapsed within the construction zone to mitigate direct impacts that may otherwise occur to burrowing owls. This will be accomplished, where appropriate, as part of the surveys for the desert tortoise. If owl-occupied burrows are located during their nesting or brooding season, burrows will be avoided until the young owls leave the nest or it is determined that the nesting attempt failed. Surveys for desert tortoise burrows will occur prior to construction activities and any unoccupied burrows will be collapsed and occupied burrows will be collapsed according to methods established during consultation with the appropriate federal and state agencies. The BLM wildlife staff and USFWS will be notified of any desert tortoise death or injury due to the project implementation by close of business on the following workday.	Burrowing owl and desert tortoise mortality
BR-3	Gila monsters in immediate danger from construction activities will be captured and confined in a cool, shaded environment (e.g a vented bucket or box) by an authorized biologist in accordance with NDOW protocol. Injured Gila monsters will be transferred to a	Gila monster mortality

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	veterinarian. Dead Gila monsters will be preserved for NDOW. All location and description of all encounters with Gila monsters will be documented according to NDOW standards. Relocations distances and locations will be selected based on consultation with NDOW.	
BR-4	Impacts to chuckwalla will be minimized by restricting activity in upland areas occupied by this species. Chuckwallas typically hide in rock crevices and other similar shelters when approached or threatened, making it difficult to capture and relocate them. However, trained and NDOW authorized personnel will remove them prior to construction if necessary. Relocation distanced will not exceed parameters established in consultation with NDOW.	Chuckwalla mortality
BR-5	Vegetation salvage and replanting will be implemented and completed as required by the BLM in accordance with their established guidelines. Adopting roadway signage that discourages off-road travel will help protect vegetation along road margins.	Loss of native vegetation Wildlife habitat loss
BR-7	Agency review and assessment of project-associated impacts on vegetation may precipitate a mitigation requirement to salvage various plants located inside the construction zone. Protected or otherwise sensitive plants (such as Joshua trees and numerous species of cactus and yuccas) will have to be identified and salvaged from the construction corridor prior to the onset of construction. Salvaged plants will then be held for replanting along construction zone margins, other project-affected areas (for example, former equipment staging grounds), or alternate lands. Only plants that have a reasonable probability for success (as described in the Revegetation Plan) will be transplanted. Plant salvage activities will not occur during the spring flowering season.	Loss of native vegetation
BR-8	The project proponent will complete a preconstruction weed survey along the designated ROW and will adhere to an integrated pest management plan prepared for the project.	Loss of native vegetation and spread of non-native species
BR-9	Except when not feasible, all project vehicle movement would be restricted to existing access roads and access roads constructed as a part of the project.	Loss of native vegetation and spread of non-native species Wildlife/vehicle collisions

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BR-10	The area limits of project construction and survey activities would be predetermined based on the temporary and permanent disturbance areas noted on the final design engineering drawings to minimize environmental effects arising from the project, with activity restricted to and confined within those limits.	Loss of native vegetation and spread of non-native species
BR-11	Littering is not allowed. Project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or nonbiodegradable debris would remain in the right-of-way following completion of construction.	Attraction of predators
BR-12	No wildlife, including rattlesnakes, may be harmed except to protect life and limb.	Wildlife mortality
BR-13	Project personnel are not allowed to bring pets to any project area in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations.	Wildlife harassment
BR-14	Plant or wildlife species may not be collected for pets or any other reason.	Loss of native vegetation Wildlife harassment and take
BR-15	Project supplies or equipment where wildlife could hide shall be inspected prior to moving or working on them, to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which wildlife cannot escape or be removed, shall be covered or otherwise made secure from wildlife intrusion or entrapment at the end of each work day.	Wildlife entrapment
BR-16	All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment.	Wildlife entrapment
BR-17	All new access roads constructed as part of the project that are not required as permanent access for future project maintenance and operation would be permanently closed and reclaimed to minimize impacts from increased public access.	Loss of native vegetation Increased access and wildlife/vehicle collisions
BR-18	To minimize perching opportunities for raptors near habitats supporting sensitive prey species, structures incorporating a design to discourage raptor perching shall be selected.	Increased raptor predation
BR-19	Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil shall be conserved during excavation and reused as cover	Loss of native vegetation and wildlife habitat loss

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	on disturbed areas to facilitate re-growth of vegetation.	
BR-20	Construction holes left open overnight shall be covered. Covers shall be secured in place nightly, prior to workers leaving the site, and shall be strong enough to prevent livestock or wildlife from falling through and into a hole. Holes and/or trenches shall be inspected prior to filling to ensure absence of mammals and reptiles.	Wildlife entrapment
BR-21	Where necessary, a biological resource monitor shall be present during the construction to ensure that resources are protected in the construction area.	Loss of native vegetation and general wildlife impacts
BR-22	To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, 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. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Field Office Weed Coordinator or designated contact person.	Spread of non-native vegetation
	To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for reclamation or stabilization activities, feed, bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely Field Office.	Spread of non-native vegetation
	To eliminate the introduction of noxious weed seeds, roots, or rhizomes all source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials used for construction, maintenance, or reclamation will be inspected and found to be free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely Field Office. Inspections will be conducted by a weed scientist or qualified biologist.	Spread of non-native vegetation

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	Prior to the entry of vehicles and equipment to a project area, areas of concern will be identified and flagged in the field by a weed scientist or qualified biologist. The flagging will alert personnel or participants to avoid areas of concern. These sites will be recorded using global positioning systems or other Ely Field Office approved equipment and provided to the Field Office Weed Coordinator or designated contact person.	Spread of non-native vegetation
	Prior to entering public lands, the contractor or operator will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.	Spread of non-native vegetation
BR-23	Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles.	Wildlife entrapment
BR-24	All appropriate NDOW and USFWS permits will be obtained prior to initiation of the project.	Wildlife and vegetation resources protection
BR-25	A speed limit of 25 miles per hour will be enforced on project ROW and access roads, unless otherwise posted, for all project personnel.	Wildlife protection
BR-26	All project areas in Desert Tortoise habitat will be surveyed by a qualified biologist in accordance with applicable HCP regulations and resource management agency requirements before the start of ground disturbance.	Wildlife protection
BR-27	Areas designated for fencing will require a qualified tortoise biologist to conduct tortoise clearance of the fence line in accordance with applicable HCP regulations and resource management agency requirements prior to construction. Clearance of the fence line will involve excavating nests, relocating eggs, flagging avoidable burrows, collapsing unavoidable, unoccupied burrows, and relocating tortoises in accordance with the Service-approved protocol for handling desert tortoises (Desert Tortoise Council 1994, revised 1999). If a copy of this protocol is needed, contact the BLM's wildlife staff representative for this project.	Desert tortoise protection

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BR-28	Following temporary fence construction and prior to the commencement of project activities, all desert tortoises shall be removed from the site. Clearance of the fenced area will involve inspecting burrows for occupancy of tortoises or tortoise nests/eggs, collapsing unoccupied burrows, and removing tortoises and eggs (excavating nests by hand) in accordance with the tortoise handling protocol.	Desert tortoise protection
BR-29	Tortoises that are moved offsite and released into undisturbed habitat on public land, must be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibernaculum in which it was found, or in an artificially constructed burrow in accordance with the tortoise handling protocol	Desert tortoise protection
BR-30	If a tortoise is found onsite in harms way, activities shall cease until the tortoise moves, or is moved by a qualified tortoise biologist, or individual trained in the proper technique of handling and moving desert tortoises in accordance with the tortoise handling protocol. An exception is made if an operator encounters a desert tortoise in <i>imminent danger</i> ; the operator shall move the tortoise out of harm's way and on to adjacent BLM land. Tortoises will be moved a specified distance (to be determined by the USFWS) that will not result in a tortoise being displaced from its home range. Tortoises that are moved offsite and released into undisturbed habitat on public land, must be placed in the shade of a shrub during mild temperatures, in a natural unoccupied burrow or hibernaculum in which it was found, or in an artificially constructed burrow if temperatures are too hot or too cold as described in the tortoise handling protocol.	Desert tortoise protection
BR-31	Surveys for and monitoring of nests of riparian bird species in the ROW will be conducted prior to construction if construction is to occur between March 15 and July 30. Active nests will be avoided.	MBTA Violations
Cultural and Paleontological Resources		
CR-1	In avoiding or mitigating effects, the BLM, in consultation with the SHPO, shall determine the precise nature of effects to historic properties identified in the APE. The BLM shall ensure that LCWD, through its contractors, develops a comprehensive treatment or data	Site degradation

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	recovery plan and seek SHPO concurrence on the consolidated plan (Attachment A). The BLM shall provide identified interested parties with the same review opportunity as afforded the SHPO.	
CR-2	To the extent practicable, the LCWD avoids effects to historic properties through project design, or redesign, relocation of facilities, or by other means in a manner consistent with the BLM/SHPO Statewide Protocol. When avoidance is not feasible, the BLM, in consultation with the signatories, identified interested persons, and appropriate tribes, shall ensure that LCWD develops an appropriate Treatment or Data Recovery Plan designed to lessen or mitigate project-related effects to historic properties.	Site degradation
CR-3	For properties eligible under Criteria (a) through (c), mitigation other than data recovery may be considered in the Treatment Plan (e.g., HABS/HAER recordation, oral history, historic markers, exhibits, interpretive brochures or publications, etc.). Where appropriate, Treatment Plans shall include provisions (content and number of copies) for a publication for the general public.	Site degradation
CR-4	In areas of indirect effect where visual degradation may impact the setting of an NRHP eligible site mitigation measures or plan redesign will be implemented for the affected site under the consultation of the BLM.	Visual degradation
CR-5	When data recovery is proposed, the BLM, in consultation with the SHPO, shall ensure that LCWD develops a Data Recovery Plan that is consistent with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-37) and Treatment of Historic Properties: A Handbook (Advisory Council on Historic Preservation 1980).	Site degradation
CR-6	The BLM shall ensure that LCWD, through its contractors, implements and completes the fieldwork portions of any final Treatment or Data Recovery Plan prior to initiating any activities that may affect historic properties located within the area covered by the Plan.	Site degradation
CR-7	The BLM shall ensure that all records and materials resulting from identification and treatment efforts are curated in accordance with 36 CFR 79 in a BLM-approved facility in	Data loss

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	<p>Nevada. Materials covered by Native American Graves Protection and Repatriation Act (NAGPRA) will be handled in accordance with 43 CFR 10. All materials collected will be maintained in accordance with 36 CFR 79 or 43 CFR 10 until the final treatment report is complete and collections are curated or returned to their owners. BLM will encourage private owners to donate collections from their lands to an appropriate curation facility.</p>	
CR-8	<p>State Protocol Agreement, Section VIII "Discovery Situations"</p> <p>A. Planning For Discoveries</p> <p>The BLM will encourage applicant development of discovery plans for large and complex undertakings and those involving land disturbance in areas known to contain buried sites. Copies of such discovery plans will be forwarded to the SHPO for review along with BLM's determination of effect for the project. When a discovery plan has been accepted by BLM and SHPO, the BLM can meet its Section 106 requirements by following the plan when cultural properties are discovered during implementation of an undertaking. The BLM shall take prudent and feasible steps to ensure that the undertaking does not harm the property until treatment is completed in accordance with the discovery plan. BLM and SHPO may agree upon a standard discovery plan for inclusion in the BLM Handbook. A field office may follow that discovery plan without additional consultation with SHPO on the discovery plan. Until such a plan is developed for inclusion in the BLM Handbook, BLM will follow procedures outlined in Section VIII.B of this Protocol.</p> <p>B. Unplanned Discoveries</p> <p>If the BLM determines, after completion of the review process outlined in this Protocol, an undertaking may affect or has affected a previously unidentified property that may be eligible for the National Register, the BLM will be required to follow appropriate discovery procedures defined in the BLM Handbook or other guidance developed jointly between the BLM and the SHPO. Until the BLM Handbook procedures are developed, the BLM will make a reasonable effort to avoid or minimize harm to a discovered property until (1) the property has been assessed in terms of National Register eligibility, and (2) if the property is determined eligible, an appropriate treatment plan has been prepared. The SHPO will be</p>	Unanticipated discoveries: cultural resources

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	<p>provided 15 days of receipt of the documentation to comment on the treatment plan. Since implementation of the treatment plan is not covered by the land user's Conditions of Approval, implementation of the treatment plan will require a MOA among the BLM, the SHPO, and the land user.</p>	
CR-9	<p>Human remains and associated artifacts may be discovered during pipeline construction. If human remains are discovered under any circumstances, they will be secured and protected until such time as appropriate disposition has been determined, in accordance with applicable local, state, and Federal statutes. If Native American human remains are discovered on BLM land, the BLM shall comply with NAGPRA by implementing the regulations at 43 CFR 10. Construction and other activities within a 100 meters will cease immediately on direction of the on-site representative or Applicant representative (such as the Environmental Inspector). The BLM, on-site representative and Applicant representative will have the ability to stop work in the area of the find. Immediately upon discovery, the on-site representative or Applicant representative in accordance with the procedures outlined below, will secure the location with appropriate security and avoidance measures. It may be necessary for the applicant to provide 24 hour on-site security for NAGPRA associated discoveries and for other discoveries as determined by the BLM. Specific plans for dealing with human remains will be prepared and will be provided for agency and tribal review prior to issuing the Notice to Proceed. Time lines will be those found in the State Protocol Agreement.</p> <p>In all cases, the BLM cultural lead will be notified immediately by phone, followed by written notification, of any discoveries of human remains, associated and unassociated funerary objects, sacred objects, or objects of cultural patrimony. The BLM will be immediately notified for such discoveries on BLM jurisdiction land. The BLM shall be responsible for compliance with the NAGPRA and its implementing regulations (43CFR10) for all NAGPRA-related inadvertent discoveries and discovery situations on lands under their respective jurisdictions.</p>	<p>Unanticipated discovery of human remains and associated funerary objects.</p>

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CR-10	<p>Fossil remains may be discovered during pipeline and associated ancillary features construction. If fossil remains are discovered stipulation in the Procedure of BLM 8270 Handbook and BLM Manual for the Management of Paleontological will be implemented.</p> <p>Fossils and cultural resources are primarily found on bare, unvegetated outcrops which are created as the result of active erosion processes. These erosion processes are of such a nature that it is unlikely that the minimal level of surface disturbance allowed under a Survey and Limited Surface Collection permit will impact cultural resources.</p> <p>Paleontological resource use permits do not authorize collecting or disturbing cultural resources, even when those resources are associated with fossils. Such occurrences fall under provisions of the Archaeological Resources Protection Act (ARPA) and the National Historic Preservation Act (NHPA). When archaeological and paleontological materials are discovered in association, all work must stop until the appropriate BLM manager, under the provisions of ARPA and the NHPA, authorizes the work to proceed. The BLM manager, in consultation with their office archaeologist and paleontology program coordinator, and the designated Regional Paleontologist, will evaluate the situation and determine an appropriate course of action to safeguard both the paleontological and archaeological materials.</p>	Unanticipated discoveries: cultural and paleontological resources
Reclamation		
R-1	Reclamation will normally be accomplished with native species only. These will be representative of the indigenous species present in the adjacent habitat. Rationale for potential planting with selected non-natives will be documented. Possible exceptions could include use of non-natives for a temporary cover crop to out-compete weeds.	Loss of native vegetation
R-2	Seeding will occur during November 15 through March 15 to ensure a greater chance of success.	Loss of native vegetation

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R-3	Reclamation release criteria will follow NDEP guidelines specified in the Stormwater General Permit NVR 1000000. In general stabilization will be achieved when a site supports native perennial vegetation equal to 70 percent of total perennial cover in adjacent areas. Exceptions will be evaluated on a case-by-case basis with agency personnel.	Loss of native vegetation
R-4	Control of noxious weeds will follow an integrated pest management plan approved by the authorizing officer. A list of Nevada noxious weeds will be provided by the authorized officer.	Spread of non-native vegetation
R-5	Topsoil, as defined in the project description, will be salvaged and stockpiled prior to disturbance. All disturbance areas will be recontoured to blend as nearly as possible with the natural topography prior to revegetation. All compacted portions of the disturbance will be ripped to a depth sufficient to relieve compaction as determined by Environmental Inspectors. Topsoil will be redistributed as close to original salvage depths as possible and will be left in a roughened condition to reduce erosion and maximum contact between seeds and soil.	Loss of native vegetation
R-6	All portions of access roads not needed for other uses as determined by the authorized officer will be reclaimed.	Loss of native vegetation
R-7	Mulching of the seedbed following seeding may be required under certain conditions, such as severe erosion.	Loss of native vegetation
R-8	Revegetation success will be evaluated annually after construction. Where it has been determined that revegetation success criteria have not been met, the agencies and the operator will meet to decide on the best course of actions necessary to meet the reclamation goal.	Loss of native vegetation and spread of non-native species
R-9	Where applicable, the following agencies will be consulted to determine the recommended plant species composition, seeding rates, and planting dates: a. U.S. Fish and Wildlife Service b. U.S. Natural Resources Conservation Service c. U.S. Bureau of Land Management	Loss of native vegetation

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R-10	Revegetation will be accomplished using native species that are representative of those present in adjacent habitats, appropriate to existing site conditions, and compatible with surrounding vegetation. Species chosen for a site will be matched for site drainage, climate, shading, resistance to erosion, soil type, slope, aspect, and vegetation management goals.	Loss of native vegetation
R-11	Construction areas, including storage yards, will be free of waste material and trash accumulations at all times.	Removes hazardous materials and visual conflicts
R-12	All unused materials and trash will be removed from construction and storage sites during the final phase of work. All removed material will be placed in approved sanitary landfills or storage sites and work areas will be upgraded to the approximate original contour of the natural landscape.	Removes hazardous materials and visual conflicts
R-13	Upon completion of construction, any land disturbed will be graded to provide proper drainage and blend with the natural contour of the land. Following grading, it will be revegetated using plants native to the area, suitable for the site conditions, and beneficial to wildlife.	Loss of native vegetation
R-14	Following completion of construction, all yards, offices, and construction buildings, including concrete footings and slabs, will be removed from the site.	Visual conflicts
R-15	All temporary construction roads will be obliterated and restored to the original contour, and made to discourage vehicular traffic when no longer needed by contractors. Culverts will be removed as appropriate, road escarpments will be contoured and vegetated, and all road surfaces will be scarified to establish conditions appropriate for reseeding, drainage, and erosion prevention.	Loss of native vegetation
	Visual Resources	
V-1	All structures, stacks, buildings, and tanks will be constructed of materials that will restrict glare, and will be finished with flat tones intended to blend with the surrounding environment. The project applicant will consult with Lincoln County and BLM regarding the final selection of colors for the features of the property.	Strong color and texture contrasts of storage tanks and substation create visual conflicts in the landscape

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V-2	Any Project facility fencing will be constructed of non-reflective materials, and will be treated or painted to blend with the surrounding environment.	Strong color and texture contrasts of fencing create visual conflicts in the landscape
V-3	Signage will be constructed of materials that are non-glare, and will be painted using unobtrusive colors.	Strong color contrasts create visual conflicts in the landscape.
V-4	Lighting will be limited to areas required for safety and security, and will be shielded and directed downward to the extent possible.	Nightlighting at substation
V-5	Lighting will be directed and shielded to reduce light scatter and glare. Highly directional, high-pressure sodium vapor fixtures (or other fixtures that meet the criteria specified) will be used where practicable.	Nightlighting at substation
V-6	Switches will be used as appropriate to allow use of lighting only when needed.	Nightlighting at substation
V-7	Non-specular conductors and non-reflective and non-refractive insulators would be used to reduce conductor and insulator visibility.	Glare from overhead electric distribution lines
Water Pollution Prevention and Monitoring		
WP-1	A groundwater monitoring plan will be developed by LCWD and BLM and submitted to the Nevada State Engineer for approval. Results of monitoring will be provided to the FWS, BLM and the Nevada State Engineer at least annually and in accordance with requirements established by the Nevada State Engineer.	Groundwater quality and quantity
WP-2	All applicable federal and state laws related to control and abatement of water pollution will be complied with. All waste material and sewage from construction activities or project related features will be disposed of according to federal and state pollution control regulations.	Water quality

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WP-3	Activity with a high potential for causing sediment movement into washes will not be conducted during potentially high runoff periods, typically July and August without mitigation measures designed to anticipate, avoid, manage, and mitigate high runoff events.	Surface water quality from sedimentation
WP-4	All disturbed ephemeral washes will be reclaimed as soon as possible according to BMPs and any permit conditions. Native species capable of bank stabilization will be used to revegetate all disturbed banks as necessary.	Surface water quality from sedimentation
WP-5	Stormwater management plans will be implemented for project construction and facility operation to minimize and control erosion from stormwater runoff. Stormwater during project construction will be managed in compliance with applicable state and federal regulations, including compliance with requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater general permits, which will be obtained for the project. As determined by the Nevada Division of Environmental Protection, stormwater management elements may include: <ul style="list-style-type: none"> ○ Application of best management practices for erosion, sedimentation, and stabilization control during construction activities, and management of oils and other substances during operation to minimize contact with stormwater ○ Structural controls during operation and sedimentation detention basins ○ Monitoring and maintenance to ensure long-term effectiveness of the management system. 	Surface water quality from sedimentation
WP-6	Pursuant to provisions in the CWA, projects that disturb 1 acre or more of land must also develop and implement a Stormwater Pollution Prevention Plan (SWPPP). SWPPP outlining mitigation strategies to reduce impacts associated with stormwater runoff during construction will be implemented for this project.	Surface water quality from sedimentation
WP-7	Construction specifications will require construction methods that prevent entrance or accidental spillage of pollutants into flowing or dry watercourses, and ground water sources. Potential pollutants and wastes include, but are not limited to, refuse, garbage, cement, concrete, sewage effluent, industrial waste, oil and other petroleum products, aggregate processing tailings, mineral salts, drilling mud, and thermal pollution.	Water quality from spills

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WP-8	Any construction wastewater discharged into surface waters will be essentially free of settling material. Wastewater from aggregate processing, concrete batching, or other construction operation will not enter drainages without water quality treatment. Turbidity control methods may include settling ponds; gravel-filter entrapment dikes; recirculation systems for washing aggregates; or other approved methods.	Surface water quality from sedimentation
Fire Mitigation		
F-1	Vegetation will be cleared from working areas on all roadways, equipment parking areas, and construction sites, including the Project right-of-way, as described in the Project POD and SWPPP.	Fire
F-2	Vehicles will not be driven or parked outside of these designated areas unless the site has been cleared of vegetation and other flammable materials.	Fire
F-3	Spark arrestors are required on vehicles and motorized equipment, such as chainsaws and other gas powered tools.	Fire
F-4	All welders will have an assistant who will monitor welding sites for embers or fires, in addition to their other construction activities.	Fire
F-5	At sites where cutting, welding, or grinding will occur, the vegetation must be cut to ground level or cleared for at least 25 feet in all directions.	Fire
F-6	Sites surrounding devices with combustion engines (e.g. generators and pumps) will be cleared of all vegetation for at least 25 feet in all directions beyond the size of the device.	Fire
F-7	The Contractors will provide an adequate supply of fire extinguishers, shovels, axes, pulaskies, and other tools to ensure that each crew member is equipped to participate in fire suppression. At sites where cutting, welding, or grinding occurs, there will be a minimum of: <ul style="list-style-type: none"> • one water-filled backpack pump; • one long handled shovel (at least 46 inches long); and • Five pound ABC rated fire extinguisher within 25 feet. 	Fire

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Reference Number	Mitigation Measures	Impacts Mitigated
F-8	Fire fighting tools will be contained in an area clearly labeled as fire fighting equipment that provides crew members with unrestricted access. In addition, water trucks and construction equipment will be available on-site for fire suppression.	Fire
F-9	All vehicles and equipment used by the Contractors will contain a 2-pound (or larger) fire extinguisher with an ABC rating and a long-handled shovel.	Fire
F-10	The Contractors will inspect each site following construction activity to ensure that there are no embers. Federal, state, and local fire control authorities may inspect sites within their jurisdiction and impose further fire prevention measures.	Fire
F-11	During the fire season, normally June thru September, it is incumbent on the Contractor to contact the BLM Wildfire Dispatch daily for current fire weather information. In the event that the National Weather Service issues a Red Flag warning for extreme fire weather conditions due to dry lightning, high winds, and/or low relative humidity; all construction activities with the possibility of starting a wildfire must cease.	Fire
Noise and Air Pollution		
NA-1	Contractors will be required to comply with all applicable federal, state, and local laws and regulations concerning prevention and control of noise and air pollution. Contractors are expected to use reasonably available methods and devices to control, prevent, and reduce atmospheric emissions or discharges of atmospheric contaminants and noise.	Air pollutants and noise
NA-2	Contractors will obtain applicable air quality permits before starting construction or operating equipment that will result in regulated atmospheric emissions. Methods such as wetting exposed soil or roads with water or chemical dust suppressants where dust is generated by passing vehicles will be employed. Construction would comply with all the requirement of the dust permit.	Air pollutants, including fugitive dust
NA-3	Fugitive dust emissions would be minimized by periodic application of water to disturbed areas.	Fugitive dust

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Reference Number	Mitigation Measures	Impacts Mitigated
NA-4	During excavation, backfilling, contouring and rehabilitation, the disturbed soil should be wetted, chemically treated, or treated by other means satisfactory to the Authorized Officer, sufficiently in order to effectively reduce airborne dust and reduce soil erosion. A regular maintenance program shall include, but is not limited to, soil stabilization and reapplication of dust abatement methods as necessary.	Fugitive dust
NA-5	New roads would be built at right angles to washes to the extent practicable. Construction and maintenance activities would be conducted to minimize disturbance to vegetation and drainage channels. Existing roads would be left in or restored to a condition equal to or better than their condition prior to construction.	Erosion
NA-6	All new access roads not required for maintenance would be permanently closed using methods approved by the landowner/manager (e.g., stockpiling and replacing topsoil or rock replacement).	Fugitive dust, erosion
NA-7	All construction vehicle movement outside the right-of-way would be restricted to designated access or public roads. New access roads may be created if approved by the Authorized Officer. Routes for new access roads would be surveyed by the tortoise biologist prior to surface disturbance.	Fugitive dust, erosion, T&E
NA-8	All requirements of those entities having jurisdiction over air quality matters would be adhered to and any permits needed for construction activities would be obtained. Open burning of construction trash is not allowed.	Fugitive dust and other air emissions
NA-9	All project personnel would be instructed on the project dust mitigation plan during initial environmental training.	Fugitive dust
NA-10	Contractors will be required to reduce dust from construction operations and prevent it from causing a nuisance to people. To accomplish this, the following measures will be implemented: <ul style="list-style-type: none"> • For the duration of construction activities, all actively disturbed areas, including roads and structure pads will be stabilized prior to and during all construction activities 	Fugitive dust

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	<p>through the use of wet suppression as required to meet ambient air quality standards.</p> <ul style="list-style-type: none"> • Disturbed areas, including storage piles not being actively used for a period of 14 days or longer, will be stabilized as appropriate to minimize dust emissions. Active stabilization may not be required if soil moisture or natural crusting is sufficient to limit ambient impacts. • Bulk material stored onsite that is a possible fugitive dust source will be actively wetted, as needed, to minimize ambient impacts. It is anticipated that the majority of the material will be used onsite upon arrival. Should bulk materials require onsite storage for an extended period of time, the application of active wet suppression or the installation of a porous wind fence will be used as necessary to minimize fugitive dust generation. • Many of the unpaved surfaces, such as onsite access roads, will be covered with gravel or watered as necessary to minimize dust generation. • Onsite fugitive dust emissions will be limited by reducing vehicle speeds and a combination of active and passive dust suppression measures. Additional mitigation practices will include the following: <ul style="list-style-type: none"> ○ Onsite access roads, parking lots, and lay-down areas will be maintained with a gravel cover to the maximum extent practical. ○ Traffic on maintained onsite access roads will be restricted and a posted speed limit of 15 miles per hour will be enforced to minimize dust emissions from unpaved road segments. ○ Unpaved road segments will be watered as necessary. ○ Gaseous emissions from project related sources will be minimized by proper maintenance and tune-up of equipment. • Water applied to the project area to control dust emissions will not be allowed to form puddles which could act as attractants to wildlife. 	
Hazardous Material Storage, Handling, Disposal, and Safety Measures		
HM-1	Contractors will be required to comply with Nevada State Regulations established under the authority of the Federal Resources Conservation and Recovery Act of 1976.	Water quality from spills and leaks

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Reference Number	Mitigation Measures	Impacts Mitigated
HM-2	“Hazardous material” means any substance, pollutant, or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 USC 9601 et seq., and its regulations (CERCLA). The definition of hazardous substances under CERCLA includes any “hazardous waste” as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended 42 USC 6901 et seq., and its regulations.	Water quality from spills and leaks
HM-3	Impacts from accidental spills would be addressed effectively through Spill Prevention Control and Countermeasure Plan and standard procedures, including training personnel in spill prevention and control techniques and requirements, maintaining appropriate spill control equipment, and complying with all hazardous materials management regulations.	Water quality from spills and leaks
HM-4	The potential for adverse impacts from oil and fuel spills will be reduced through careful handling and designation of specific equipment repair and fuel storage areas.	Water quality from spills and leaks
HM-5	Waste materials known or found to be hazardous will be disposed of in approved treatment or disposal facilities in accordance with federal, state, and local regulations, standards, codes, and laws.	Water quality from spills and leaks
HM-6	Solid waste will be stored in closed onsite roll-off bins. Recyclable materials will be separated from the solid waste stream. Solid waste will be collected periodically and transported to a local licensed landfill.	Water quality from spills and leaks
HM-7	Generation of wastes during construction will be minimized through detailed estimating of materials needed and through efficient construction practices. Any wastes generated during construction will be recycled as much as feasible. Concrete waste will be used as fill onsite, or, if not suitable for reuse, will be removed to a local licensed landfill. Any non-recyclable wastes will be collected and transported to a local licensed landfill.	Water quality from spills and leaks
HM-8	Fuels, lubricant chemicals, and welding gases used during construction will be in controlled storage until used. Any empty containers or waste material will be segregated in storage and properly recycled or disposed of by licensed handlers.	Water quality from spills and leaks

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Reference Number	Mitigation Measures	Impacts Mitigated
HM-9	Concrete trucks will not be washed at construction sites. All spilled concrete will be removed from construction areas and disposed of properly.	Water quality from spills and leaks
HM-10	Portable toilets will be provided for onsite sewage handling during construction and will be pumped out and cleaned regularly.	Water quality from spills and leaks
HM-11	To minimize the exposure of personnel and equipment to potential flood hazards, construction activities in the washes will be scheduled to occur when the probability for flash flooding is low.	Water quality from spills and leaks
HM-12	Hazardous material would not be drained onto the ground or into the streams or drainage areas. All construction waste including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials would be stored in contained devices approved by the Authorized Officer and removed to a disposal facility authorized to accept such material. No debris of any kind would be deposited in or on the right-of-way.	Water quality from spills and leaks