

## 5.0 CONSERVATION MEASURES

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As shown in **Table 4-1**, approximately 108 acres of desert tortoise habitat would be permanently disturbed by construction of the Proposed Action. Approximately 848.5 acres would be temporarily disturbed. Of these totals, 32.3 acres (BLM lands) of permanent disturbance and approximately 253.7 acres of temporary disturbance would occur in the Beaver Dam Slope Critical Habitat Unit. Permanent and temporary disturbance make up 0.04 and 0.3 percent of the Beaver Dam Slope Critical Habitat Unit in Nevada (87,400 acres), respectively. All critical habitat disturbed during construction is located on federal land. Habitat restoration would be conducted for all federal lands disturbed by construction of the Proposed Action with the exception of those lands permanently impacted by the project footprint.

Prior to issuance of any federal permit, lease, or authorization for any surface disturbing activity on public lands, the LCWD and/or the other utility agencies would be required to pay a remuneration fee for each acre of surface disturbance to desert tortoise habitat. The BLM would ensure payment of remuneration fees by the project proponents or the designated utilities for compensation of the loss of desert tortoise habitat as a result of the proposed Project. The BLM and the USFWS would require a receipt of payment from each designated utility prior to issuing the Notice to Proceed.

Compensation fees are calculated according to *Compensation for the Desert Tortoise; A Report Prepared for the Desert Tortoise Management Oversight Group* (Desert Tortoise Compensation Team, 1991). The fee for disturbance within designated critical habitat is based on assignment of ratings to the following five factors:

- Category of Habitat (value of the land to tortoise populations)
- Term of Effect (short term vs. long term)
- Existing Disturbance on Site
- Growth Inducement (growth inducing effects of the proposed action)
- Effect of Adjacent Lands (whether adjacent lands will be affected)

The total rating of the five factors is then multiplied by the current compensation rate and the total acres of disturbance within the designated critical habitat. Compensation for disturbance on lands not within designated critical habitat is calculated by multiplying the acres of disturbance by the current compensation rate. The section 7 payments would be accompanied by a Section 7 Fee Payment Form and completed by the payee.

The LCWD is required to submit a Final POD to the BLM, which must be approved by BLM prior to issuance of the Notice to Proceed. It is likely that the amount of disturbance will change with the final engineering design; therefore, BLM will reevaluate the project disturbance and adjust the total compensation fee accordingly. The final compensation fee will be provided to USFWS with a copy of the Final POD and a breakdown of how the final compensation fee was calculated. Payment shall be made in accordance with the BLM Ely District Office Resource Management Plan Biological Opinion (July 2008) prior to issuance of the Notice to Proceed.

Although the impact of the project on desert tortoise is expected to be significant, the Applicant has proposed measures to reduce the project’s impact on the tortoise.

First, the Applicant will implement an Environmental Training Program. Prior to beginning work, all contractor personnel assigned to the field for construction-related activity shall attend a mandatory one-time Worker Environmental Training Program presented by the project developer’s Environmental Compliance Team. The presentation shall review topsoil salvage, access restrictions, general site restrictions, and other environmental requirements regarding the project. Participants shall sign a statement declaring that they understand and will abide by any guidelines set forth in the material presented.

The LCWD and LCPD have prepared specific plans that include measures to avoid or reduce potential impacts from the Proposed Action. These supplemental plans were included as appendices in the draft POD submitted by the LCWD as part of the ROW application. The supplemental plans in the POD for the Proposed Action are described in **Table 5-1**.

<b>Table 5-1 Summary of Supplemental Plans that Include Measures to Minimize Impacts to Environmental Resources</b>		
<b>Plan</b>	<b>Description Summary/Highlights</b>	<b>Resource Element</b>
Environmental Management Plan	<p>Describes procedures the LCWD and its construction and reclamation contractors would use during construction and reclamation of the Proposed Action to ensure compliance with environmental requirements and conditions stipulated in the POD.</p> <p>The LCWD would use the Environmental Management Plan to guide coordination of procedures that minimize impacts to environmental resources during construction and operation of the Proposed Action.</p> <p>The LCWD would employ on-site Construction and Environmental Inspectors to ensure compliance with all regulatory requirements.</p>	<p>Includes measures designed to reduce or minimize construction-related impacts on:</p> <ul style="list-style-type: none"> <li>• Soil Resources</li> <li>• Water Resources</li> <li>• Vegetation Communities</li> <li>• Wildlife Habitat</li> <li>• Air Quality</li> <li>• Archeological Resources and Historic Properties</li> </ul>
SWPPP	<p>Describes measures to protect water quality and manage storm water during construction-related activities.</p> <p>Identifies BMPs to reduce the introduction of pollutants to storm water, remove excess sediments from storm water before flowing offsite, and reduce the velocity of storm water flowing offsite.</p> <p>BMPs implementation coupled with the reestablishment of existing contours and vegetation along the project corridor, would minimize the potential for erosion.</p>	<p>Includes measures designed to reduce or minimize construction-related impacts on:</p> <ul style="list-style-type: none"> <li>• Soil Resources</li> <li>• Water Resources</li> <li>• Vegetation Communities</li> <li>• Wildlife Habitat</li> <li>• Air Quality</li> </ul>

<b>Table 5-1 Summary of Supplemental Plans that Include Measures to Minimize Impacts to Environmental Resources</b>		
<b>Plan</b>	<b>Description Summary/Highlights</b>	<b>Resource Element</b>
Revegetation Plan	<p>Describes procedures the LCWD and its contractors would use to conduct revegetation of the disturbed areas including seedbed preparation; seed mixtures; seeding, salvaging, and transplanting methods; revegetation schedule; post-construction monitoring; evaluation of revegetation success; remediation; and reporting.</p> <p>Post-construction monitoring would be conducted by LCWD or its successors or assignees.</p>	<p>Includes measures designed to reduce or minimize construction-related impacts on:</p> <ul style="list-style-type: none"> <li>• Soil Resources</li> <li>• Water Resources</li> <li>• Vegetation Communities</li> <li>• Wildlife Habitat</li> <li>• Air Quality</li> </ul>
Noxious Weed Management Plan	<p>Includes site-specific measures that LCWD and its contractors would implement to control noxious weeds including, but not limited to, the use of cleaned, weed-free equipment, pressure washing of all vehicles and equipment prior to arrival at the work site, and the use of certified weed-free straw/hay bales to control erosion.</p> <p>A key element of the Noxious Weed Management Plan is to identify and treat existing weed infestations prior to construction.</p>	<p>Includes measures to reduce the spread of noxious weed and impacts to vegetation communities and wildlife habitats.</p>
Access Road Plan	<p>Describes measures to be taken by LCWD or its contractors to access project facilities and the ROW, reclaim temporary access roads, and prevent unauthorized vehicle use of the project ROW. Includes descriptions of access routes and transportation-related activities.</p>	<p>Includes measures to minimize the use of access roads, thereby reducing potential impacts to vegetation communities, wildlife habitat, potential spread of noxious weeds and potential for air quality issues, sedimentation, and erosion.</p>
Fire Mitigation Plan	<p>Identifies measures to be taken during construction, operation, and maintenance of the project facilities to prevent and suppress fires.</p> <p>The purpose is to establish standards and practices to minimize the risk of fire or, in the event of fire, to implement immediate suppression procedures.</p>	<p>Includes measures designed to reduce or minimize construction-related impacts on:</p> <ul style="list-style-type: none"> <li>• Soil Resources</li> <li>• Water Resources</li> <li>• Vegetation Communities</li> <li>• Wildlife Habitat</li> <li>• Air Quality</li> </ul>
<p>Please refer to <b>Table 6-2</b> for representative specific mitigation measures applicable to the above summarized supplemental plans.</p> <p>BMP – Best Management Practice  LCWD – Lincoln County Water District  NDEP – Nevada Department of Environmental Protection  POD – Plan of Development  SPCC – Spill Prevention Control and Countermeasure Plan  SWPPP – Storm Water Pollution Prevention Plan</p>		

Additional conservation measures proposed by the Applicant will be implemented during construction and operations as specified in **Table 5-2**.

<b>Table 5-2      Standard Construction and Operations Procedures</b>
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.
To the extent practicable, all maintenance yards, field offices, and staging areas will be arranged to preserve shrubs and other native vegetation.
Clearing will be restricted to that area needed for construction.
All areas around structures will be backfilled, compacted, and returned as close as possible to the original condition and grade.
Signs will be placed along the access roads to discourage off-highway vehicle use of adjacent areas.
Project construction and traffic will remain within the construction ROW, facility footprints, and approved access roads.
Clearance surveys will be performed prior to any construction activities within the approved ROW. Any tortoises located shall be handled and relocated by a qualified tortoise biologist in accordance with USFWS-approved protocol (Desert Tortoise Council 1994, revised 1999). Burrows containing tortoises or nests shall be excavated by hand, with hand tools, to allow removal of the tortoise or eggs. Desert tortoises moved during the tortoise inactive season or those in hibernation, regardless of date, must be placed into an adequate burrow; if one is not available, one shall be constructed in accordance with Desert Tortoise Council (1994, revised 1999) criteria. During mild temperature periods in the spring and early fall, tortoises removed from the site shall not necessarily be placed in a burrow. Tortoises and burrows shall only be relocated to federally managed lands. If the responsible federal agency is not the BLM, verbal permission, followed by written concurrence, shall be obtained from the BLM and USFWS before relocating the tortoise or eggs to lands not managed by the BLM.
Construction monitoring will employ a field contact representative, authorized biologist(s), and qualified biologist(s) during construction activities except in those areas with high disturbance. The USFWS employs a specific set of guidelines for such monitoring.
Tortoises requiring moving will only be handled by the authorized and qualified tortoise biologist or other trained personnel approved by the USFWS. All tortoise handlers will possess a desert tortoise handler's permit issued by the USFWS.
Project access road speed limits will be enforced.
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.
Littering is not allowed. Project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or non-biodegradable debris would remain in the ROW following completion of construction.
No wildlife, including rattlesnakes, may be harmed except to protect life and limb.
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 species may not be collected for pets or any other reason.
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.

<b>Table 5-2 Standard Construction and Operations Procedures</b>
All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment.
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 to minimize impacts from increased public access.
To minimize perching opportunities for raptors near habitats supporting sensitive prey species, select structures incorporating a design to discourage raptor perching.
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 on disturbed areas to facilitate re-growth of vegetation.
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.
Where necessary, a biological resource monitor shall be present during the construction to ensure resources are protected in the construction area.
Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles.

An Environmental Inspector will be onsite as well, and the responsibilities of the Environmental Inspector are detailed in **Table 5-3**.

<b>Table 5-3 General Responsibilities of the Environmental Inspector</b>
<b>Advisory</b>
<ul style="list-style-type: none"> <li>• Advise construction and inspection personnel as necessary regarding compliance with project environmental requirements.</li> <li>• Advise on major decisions such as wet weather shut-downs, emergency erosion/sediment control, and other courses of action to deal with major unexpected environmental conditions.</li> <li>• Provide immediate response to spills in accordance with state and federal regulations and SPCC plan. Advise management and inspection staff on the cleanup and disposal of spilled material and any affected soils and vegetation.</li> <li>• Proactively plan ahead to facilitate environmental compliance in difficult areas and provide troubleshooting advice in advance of construction.</li> <li>• Conduct environmental training for construction crews, including informal tailgate briefings.</li> <li>• Check weather reports and inform construction management of potential heavy rain forecasts.</li> </ul>
<b>Construction Oversight</b>
<ul style="list-style-type: none"> <li>• Ensure that all wastes including garbage, oil, grease, chemicals, unsalvageable timber, rock, etc. are disposed of in an authorized manner.</li> <li>• Conduct water, soil, and biological monitoring/sampling as necessary.</li> <li>• Review construction methodologies with the contractor and inspection staff to ensure implementation of the appropriate construction and mitigation methods for prevailing conditions.</li> <li>• Coordinate the deployment of special environmental monitors to provide specialized monitoring of sensitive resource issues including species of concern, soils, erosion and sediment control, restoration, and cultural resources.</li> <li>• Contact BLM representative in the event that rare plant, vertebrate, or invertebrate fossils are discovered</li> <li>• Evaluate the construction contractor's implementation of the environmental mitigation measures required in the contract documents and all other authorizing documents.</li> <li>• Verify that the limits of authorized construction work areas and access roads are marked prior to clearing.</li> <li>• Oversee the location of dewatering structures and slope breakers to ensure they will not direct water into known cultural resource sites, erosion-prone sites, or sensitive plant populations.</li> </ul>

<b>Table 5-3      General Responsibilities of the Environmental Inspector</b>
<ul style="list-style-type: none"> <li>• Verify that trench dewatering activities do not result in the deposition of sand, silt and/or sediment near the point of discharge into a wetland or water body.</li> <li>• Ensure that grading returns sites to natural grade except as otherwise approved by the authorized change orders.</li> <li>• Confirm that all erosion control measures are adequate to handle forecasted rain events, including severe storms, and work with construction personnel and regulatory agencies to ensure erosion control measures are promptly and properly installed.</li>   <li>• Conduct periodic post-cleanup inspections of the restored right-of-way to identify potential stabilization or revegetation failure. Develop a list of outstanding items to be corrected and revise their status accordingly.</li> </ul>
<b>Documentation</b>
<ul style="list-style-type: none"> <li>• Document construction contractor conformance with all company environmental specifications, policies, plans, drawings, commitments, and agency grants and permit requirements (collectively referred to as Project Environmental Requirements).</li> <li>• Prepare Daily Environmental Inspection Reports to address progress of the project and details of all non-compliance situations, including instructions for follow-up measures. These reports will be e-mailed to the BLM Compliance Manager at the end of each work day.</li> <li>• Document the implementation of temporary and permanent erosion control and revegetation programs during construction.</li> <li>• Maintain records on cleanup and restoration data.</li> </ul>
<b>Liaison</b>
<ul style="list-style-type: none"> <li>• Provide liaison with landowners and government agencies as necessary.</li> <li>• Coordinate agency review and approval of field design change orders.</li> </ul>