

## Chapter 4 Mitigation

### 4.1 Introduction

This chapter presents OEA's preliminary recommended mitigation measures. Based on the information available to date, consultations with appropriate Federal, state, and local agencies, comments from the public, consultation with Federally recognized tribes, and extensive environmental analysis, OEA considered preliminary mitigation measures to address the expected environmental impacts of construction and operation of the proposed rail line.

Under 49 USC 10502, the Board granted conditional approval for the Proposed Action. However, in granting this approval, the Board explained that the project could not be finally approved until the environmental review process, required under NEPA and related laws, is completed and the Board has the opportunity to fully assess the potential environmental effects of the project. The Board made clear in its decision that it would issue a further decision on the entire proposed project after the EIS process is completed.

The Draft EIS discusses OEA's preliminary recommended mitigation measures. In the Draft EIS, the Applicant proposed 64 voluntary mitigation measures, and OEA supplemented the Applicant's mitigation measures with an additional 36 mitigation measures. In developing mitigation, OEA considered a wide variety of interests, including state, local, and regional governments, Federally recognized tribes, and community groups. OEA used all of the information it gathered to develop appropriate preliminary mitigation recommendations to supplement the Applicants' proposed voluntary mitigation measures, as discussed below.

#### 4.1.1 Limits of the Board's Conditioning Power

The Board has authority to impose conditions to mitigate potential environmental impacts, but that authority is not limitless. As a government agency, the Board can impose only conditions that are consistent with its statutory authority. Any conditions the Board imposes must relate directly to a specific Proposed Action, must be appropriate to the scope and degree of impacts, and must be supported by the record before the Board. The Board's practice consistently has been to consider mitigation for only those impacts that result directly from a Proposed Action and not to impose mitigation to remedy pre-existing conditions.

#### 4.1.2 Voluntary Mitigation and Negotiated Agreements

OEA encourages Applicants to propose voluntary mitigation measures. Because Applicants seeking Board authority can gain substantial knowledge about local community issues or other issues involved during project planning, and because they consult with other regulatory agencies and communities during project planning and at the early stages of the regulatory process, Applicants can often propose relevant voluntary mitigation that is more far-reaching than mitigation the Board could unilaterally impose.

For this project, the Applicant has engaged in substantial outreach with potentially affected agencies, entities, and communities and has proposed extensive voluntary mitigation for this project, which is set forth and discussed in more detail below.

The Board also encourages Applicants to negotiate mutually acceptable agreements with affected communities and other government entities to address potential environmental impacts, if appropriate. Negotiated agreements can be with neighborhoods, communities, or other entities.

If the Applicant enters into any negotiated agreements, the Board would require compliance with the terms of any such agreements as environmental mitigation conditions in any Final Decision approving the Proposed Action. These negotiated agreements would supersede any environmental conditions for that particular community or other entity that the Board would otherwise impose.

#### **4.1.3 Preliminary Nature of Environmental Mitigation**

OEA emphasizes that all of the environmental mitigation measures proposed here are preliminary and welcomes public and agency comments on these measures. In order for OEA to assess the public comments effectively, the public should be specific about any desired mitigation and the reasons why the suggested mitigation would be appropriate.

After considering all public comments on the Draft EIS and Supplemental Draft EIS, OEA will issue a Final EIS responding to all comments on the Draft EIS and Supplemental Draft EIS (including any suggestions related to mitigation) and presenting any additional environmental analysis. The Final EIS will contain OEA's final recommendations to the Board, including final recommended environmental mitigation. The Board will then make its final decision regarding the Proposed Action in accordance with 49 USC 11324(c) and (d).

#### **4.1.4 Role of Cooperating Agencies in Developing Proposed Environmental Mitigation Measures**

In addition to assisting in OEA's environmental analysis, BLM and USACE as cooperating agencies participated in developing preliminary recommended mitigation.

In particular, BLM developed mitigation measures to protect BLM-administered public land and resources in the project area. The associated BLM right-of-way grant UTU-80737 would be issued subject to regulations under 43 CFR 2800 and mitigating stipulations that either are required by policy, law, or regulation or are needed to ensure mitigation of associated surface disturbance activities.

In addition to the mitigation stipulated in the Draft EIS and this Supplemental Draft EIS, BLM may impose stipulations on its right-of-way grant, stipulations that may include but are not limited to requirements for restoration, revegetation, and curtailment of erosion of the surface of the land, or any other rehabilitation measures determined necessary regarding extent, duration, survey, location, construction, operation, maintenance, use, and termination. BLM may also impose requirements designed to control or prevent damage to scenic, aesthetic, cultural, and environmental values including damage to fish and wildlife habitat, damage to Federal property, and hazards to public health and safety. According to BLM regulations, the Applicant would be required to secure all relevant permits for use of Federal public lands prior to beginning construction activities.

As a cooperating agency, USACE may issue individual decisions regarding the proposed project and intends to use this Supplemental Draft EIS for decision-making purposes. USACE could require additional mitigation measures in its Section 404 permit for the proposed project.

## 4.2 Applicant's Voluntary Mitigation Measures

The Applicant has submitted voluntary mitigation (VM) measures to OEA for the Board to consider when making its decision about this Proposed Action. OEA has reviewed the voluntary mitigation measures again, and recommends that, if the proposed rail line is approved, the Board require the Applicant to comply with these voluntary mitigation measures.

Some of the Applicant's voluntary mitigation measures included in the Draft EIS have been edited by the Applicant in this Supplemental Draft EIS to ensure clarity. In addition, the Applicant has added five new mitigation measures in consideration of the resource concerns raised by agencies and individuals in written comments on the Draft EIS. Table 4-1 summarizes the mitigation measures that are new in this Supplemental Draft EIS.

| <b>Measure No.</b> | <b>Description</b>   |
|--------------------|--|
| VM 25              | The Applicant shall consult and coordinate with BLM and UDNR to ensure that the construction and operation of the selected alternative do not impair the Redmond WMA or reduce UDNR's ability to achieve the habitat goals and objectives stated in the Management Plan for the Redmond WMA (dated December 30, 2008).   |
| VM 38              | The Applicant shall obtain any Federal permits required by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act from USACE before initiating project-related construction activities in wetlands and water bodies. The Applicant also agrees to obtain necessary state permits and authorizations. The Applicant shall incorporate stipulations of these permits and authorizations into construction contract specifications.  |
| VM 39              | The Applicant shall work directly with USACE to develop appropriate mitigation for direct wetland impacts as stipulated in the Section 404 permit.   |
| VM 40              | The Applicant shall, per the requirements of 33 CFR 325, avoid and minimize impacts to wetlands to the extent practicable during the preliminary and final design of the selected alternative. After all steps have been taken to avoid and minimize impacts to wetlands, the Applicant agrees to prepare compensatory mitigation for any remaining wetland impacts that cannot be avoided. Compensatory mitigation would be developed through any one or a combination of the following four methods: restoring a previously existing wetland or other aquatic site, enhancing an existing aquatic site's functions, establishing (that is, creating) a new aquatic site, and/or preserving an existing aquatic site. |
| VM 41              | The Applicant shall, as appropriate, develop design measures to reduce the project's footprint at key locations where wetland impacts could be reduced.  |

### 4.2.1 Voluntary Mitigation Measures for Rail Operations and Safety

VM 1. The Applicant shall consult with appropriate Federal, state, and local transportation agencies to determine the final design and other details of the grade-crossing warning devices and the grade separations on public roads. Implementation of all grade-crossing warning devices on public roadways will be subject to the review

and approval of reasonable warning devices by the Utah Department of Transportation (UDOT) and by Juab, Sanpete, and Sevier Counties (see Table 4-2).

| <b>Roadway</b>            | <b>Type of Crossing Warning Device</b>        |
|---------------------------|---|
| U.S. 89/SR 24             | Grade-separated crossing (no device required) |
| U.S. 50 west of Salina    | Automatic crossing gates                      |
| SR 78 west of Levan       | Flashing lights                               |
| Other rural paved roads   | Signs   |
| Other rural unpaved roads | Signs   |

- VM 2. The Applicant shall consult with private landowners to determine the final details of reasonable warning signs on grade crossings on private roads.
- VM 3. The Applicant shall confine all project-related construction traffic to a temporary access road within the right-of-way or established public roads. Where traffic cannot be confined to temporary access roads or established public roads, the Applicant shall make necessary arrangements with landowners to gain access from private roads.
- VM 4. The Applicant shall ensure that proposed activities within and along existing roads are consistent with the Manual of Uniform Traffic-Control Devices for installation of signs (regulatory, warning/caution, speed, and so on), delineators, and other roadway appurtenances and in compliance with the terms and conditions of any BLM right-of-way grant and American Association of State Highway and Transportation Officials safety standards.
- VM 5. The Applicant shall ensure that temporary access roads are used only during project-related construction. After construction is completed, the Applicant shall remove and restore any temporary access roads constructed outside the rail line right-of-way unless otherwise agreed to with the landowners.

**4.2.2 Voluntary Mitigation Measures for Land Use**

**4.2.2.1 General Land Use**

- VM 6. The Applicant shall ensure that land areas that are directly disturbed by the Applicant's project-related construction are restored to their original condition, as may be reasonably practicable, after project-related construction is completed.
- VM 7. The Applicant shall erect temporary construction fencing, where appropriate, before project-related construction begins. The Applicant shall inspect temporary construction fencing regularly and promptly repair any damage.
- VM 8. The Applicant shall install permanent fencing, where appropriate. The Applicant shall consult with BLM, the Utah Department of Natural Resources (UDNR), other local agencies, and affected landowners to determine appropriate fencing

locations and designs. The Applicant shall inspect all fencing regularly and shall promptly repair any damage.

- VM 9. The Applicant shall provide access to Federal public land and ensure that access roads to public lands are not permanently blocked or closed.
- VM 10. The Applicant shall ensure that recreational routes crossed by the selected alternative are signed for safety.
- VM 11. The Applicant shall require constructors to remove all trash and debris generated as a result of the project from public land and dispose of it at an authorized facility in accordance with all applicable Federal, state, and local regulations.

#### **4.2.2.2 Grants and Leases**

- VM 12. The Applicant shall obtain a lease with the Utah School and Institutional Trust Lands Administration for construction of the rail line to cross land owned by the State of Utah. The Applicant shall comply with any conditions required under this lease, in addition to those imposed by the Board, for activities on state land.
- VM 13. The Applicant shall obtain a right-of-way grant from BLM granting an easement for the rail line to cross land administered by BLM before any project-related construction activities begin on BLM-administered land. The Applicant shall follow any conditions required under this easement, in addition to those imposed by the Board, for activities on BLM-administered land.

#### **4.2.2.3 Agriculture**

No mitigation measures are proposed for impacts to agricultural resources.

#### **4.2.2.4 Grazing Allotments**

- VM 14. The Applicant shall put in place temporary fences during construction to allow continued grazing, if practicable.
- VM 15. Once construction is completed, the Applicant shall replace all permanent fences removed during construction.
- VM 16. Once construction is completed, the Applicant shall retain or replace cattle guards, gates, and drainage crossings used as livestock passageways as needed.
- VM 17. The Applicant shall evaluate whether existing gates on existing side roads that are used to access grazing allotments need to be upgraded with properly sized cattle guards to accommodate increased present and future traffic. Where deer fencing is installed, cattle access needs will be considered in the fence design.
- VM 18. The Applicant shall maintain livestock access to water sources, vehicle and livestock access to the allotments, safety fencing, and signage for grazing allotment entrances and exits to enable livestock operations on BLM grazing allotments to continue.
- VM 19. The Applicant shall make reasonable efforts to identify all utilities and valid prior existing rights-of-way (including rangeland allotment developments) located

within and adjacent to the rail line right-of-way or that cross the rail line right-of-way.

- VM 20. The Applicant shall, before project-related construction begins, notify the owner of each identified utility and coordinate with the owner to avoid or minimize damage to utilities.
- VM 21. The Applicant shall consult with utility owners to design the rail line so that the utilities are protected during project-related construction and subsequent maintenance and operation of the rail line.
- VM 22. The Applicant shall promote the safety of construction workers and avoid interruption of electricity transmission and shall ensure that the regulations of the Occupational Safety and Health Administration and the Utah Overhead Line Safety Act are followed.
- VM 23. The Applicant shall coordinate with PacifiCorp and Rocky Mountain Power before beginning construction activities to ensure that all appropriate regulations are followed, especially when operating large equipment such as cranes near a transmission line right-of-way.

#### **4.2.3 Voluntary Mitigation Measures for Biological Resources**

- VM 24. The Applicant shall work with the State of Utah prior to construction if any land needs to be taken at the Yuba Lake Recreation Area and the Redmond WMA for construction and operation of the rail line. The Applicant shall negotiate in good faith for the appropriate compensation or exchange acreage to compensate the State for any loss in acreage.
- VM 25. The Applicant shall consult and coordinate with BLM and UDNR to ensure that the construction and operation of the selected alternative do not impair the Redmond WMA or reduce UDNR's ability to achieve the habitat goals and objectives stated in the Management Plan for the Redmond WMA (dated December 30, 2008).
- VM 26. The Applicant shall work with BLM and UDNR to establish species composition, diversity, structure, and total ground cover appropriate for the desired plant community.
- VM 27. The Applicant shall use temporary barricades, fencing, and/or flagging, as needed, to contain project-related impacts to the area within the construction right-of-way. Where possible, staging areas will be located on previously disturbed sites. However, staging areas will not be established in sensitive habitat areas.
- VM 28. The Applicant shall install culverts at surface water crossings as needed along the rail line to maintain hydrologic connectivity of surface flows from west of Redmond WMA that are crucial to the maintenance and health of the wetland habitat in the area.
- VM 29. The Applicant shall use best management practices (BMPs) that require all contractors to conduct daily inspections of all equipment for any fuel, lube oil, hydraulic, or antifreeze leaks. If leaks are found, the Applicant shall require the

contractor to immediately remove the equipment from service and repair or replace it.

- VM 30. The Applicant shall revegetate as needed any areas that are stripped of existing vegetation with desirable species (such as perennial species that are native to the region) using certified weed-free seed.
- VM 31. The Applicant shall work with the appropriate county and state authorities to implement a noxious-weed-control program during construction and operation of the new rail line. A combination of seeding, mechanical weed control, and chemical weed-control mechanisms will be used. All herbicides will be approved by EPA. The Applicant shall make a reasonable attempt to notify residents of property adjacent to the right-of-way before the herbicides are used.
- VM 32. The Applicant shall maintain the right-of-way to reduce the potential for uncontrolled wildfires. This maintenance could include reducing or eliminating vegetation accumulation within the right-of-way or seeding fire-resistant species of drought-tolerant plants that are suitable to the ecosystem.
- VM 33. The Applicant shall mitigate potential impacts to raptors and shall implement management practices from the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* (Romin and Muck 2002).
- VM 34. The Applicant shall use BMPs including bank stabilization and erosion-control measures to protect fish habitat.
- VM 35. The Applicant shall coordinate with BLM and UDNR to identify sensitive species within the proposed rail corridor and to identify measures to minimize impacts to such species during construction and operation of the rail line. These species shall include the long-billed curlew, southern leatherside chub, and other state-listed sensitive species. The crossing structure for the Sevier River will be designed to avoid or minimize impacts to the river channel, stream banks, active floodplain, and riparian vegetation. Guidelines from the USFWS conservation agreement for the least chub will be implemented.
- VM 36. The Applicant shall consult with BLM and UDNR during preliminary design to determine appropriate measures to prevent wildlife losses during migration periods.
- VM 37. The Applicant shall consult with BLM and UDNR during the rail line design to provide reasonable enhancement (such as reseeding, restoration, or other appropriate measures) to parts of the deer winter range to replace habitat lost from the construction of the rail line and to attract the animals to the enhanced range and away from the rail line.

#### **4.2.4 Voluntary Mitigation Measures for Water Resources and Wetlands**

- VM 38. The Applicant shall obtain any Federal permits required by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act from USACE before initiating project-related construction activities in wetlands and water bodies. The Applicant also agrees to obtain necessary state permits and

- authorizations. The Applicant shall incorporate stipulations of these permits and authorizations into construction contract specifications.
- VM 39. The Applicant shall work directly with USACE to develop appropriate mitigation for direct wetland impacts as stipulated in the Section 404 permit.
- VM 40. The Applicant shall, per the requirements of 33 CFR 325, avoid and minimize impacts to wetlands to the extent practicable during the preliminary and final design of the selected alternative. After all steps have been taken to avoid and minimize impacts to wetlands, the Applicant agrees to prepare compensatory mitigation for any remaining wetland impacts that cannot be avoided. Compensatory mitigation would be developed through any one or a combination of the following four methods: restoring a previously existing wetland or other aquatic site, enhancing an existing aquatic site's functions, establishing (that is, creating) a new aquatic site, and/or preserving an existing aquatic site.
- VM 41. The Applicant shall, as appropriate, develop design measures to reduce the project's footprint at key locations where wetland impacts could be reduced.
- VM 42. The Applicant shall use proper design and construction BMPs, including erosion control, to reduce the amount of sediment and pollutants entering surface waters, groundwater, and Waters of the U.S. The Applicant shall require its construction contractor to follow all mitigation measures required in all permits obtained, including the Section 404 permit from USACE and the Section 401 Water Quality Certificate from the Utah Department of Environmental Quality.
- VM 43. The Applicant shall, in conjunction with Executive Order 11988, Floodplain Management, not place any dredge, fill, or bridge structures within the ordinary high-water mark of the Sevier Bridge Reservoir or Redmond Lake or within the 100-year floodplain of the Sevier River.
- 4.2.5 Voluntary Mitigation Measures for Topography, Geology, and Soils**
- VM 44. The Applicant shall secure all relevant permits for use of public land before beginning construction activities on public land.
- VM 45. The Applicant shall limit ground disturbance to only the areas necessary for project-related construction activities.
- VM 46. The Applicant shall, during project-related earth-moving activities, require the contractor to remove topsoil and segregate it from subsoil. The contractor shall also stockpile topsoil to be applied later during reclamation of disturbed areas along the right-of-way. The contractor shall place the topsoil stockpiles in areas that would minimize erosion and shall use appropriate erosion-control measures around all stockpiles to prevent erosion.
- VM 47. The Applicant shall, during construction activity, take reasonable steps to ensure that its contractors use fill material appropriate for the project area.
- VM 48. The Applicant shall begin reclamation of disturbed areas as soon as practicable after project-related construction ends along a particular stretch of rail line. The goal of reclamation will be the rapid and permanent re-establishment of native



ground cover on disturbed areas. If weather or the season prevents vegetation from being quickly re-established, the Applicant shall use measures such as mulching or erosion-control blankets to prevent erosion until vegetative cover is established. The Applicant shall monitor reclaimed areas for 3 years. For those areas where efforts to establish vegetation cover have been unsuccessful after 1 year, the Applicant shall reseed annually for up to 3 years if needed.

#### **4.2.6 Voluntary Mitigation Measures for Hazardous Materials**

- VM 49. The Applicant shall develop a spill-prevention plan before initiating any project-related construction activities for handling the release of petroleum products or other hazardous materials during construction activities.
- VM 50. The Applicant shall, in the event of a spill, give local officials a list of government agencies and the Applicant's management personnel to be contacted. In the event of a reportable spill, the Applicant shall comply with its spill-prevention plan and applicable Federal, state, and local regulations pertaining to spill containment and appropriate clean-up.
- VM 51. The Applicant shall require its construction contractor to implement measures to ensure that workers and the environment are protected if undocumented hazardous materials are encountered. The Applicant shall document all activities associated with hazardous material spill sites and hazardous waste sites and shall notify the appropriate local and state regulatory agencies according to applicable regulations. The measures will ensure the proper handling and disposal of contaminated materials including contaminated soil, groundwater, and stormwater, if such materials are encountered.

#### **4.2.7 Voluntary Mitigation Measures for Air Quality**

- VM 52. The Applicant shall reduce fugitive-dust emissions created during project-related construction activities and shall implement appropriate fugitive-dust-suppression controls such as spraying water or other approved measures. The Applicant's construction contractor shall also regularly operate water trucks on haul roads to reduce dust.
- VM 53. The Applicant shall work with its contractors to make sure that construction equipment is properly maintained and that mufflers and other required pollution-control devices are in working condition in order to limit construction-related air pollutant emissions.

#### **4.2.8 Voluntary Mitigation Measures for Noise**

- VM 54. The Applicant shall comply with Federal Railroad Administration regulations that establish decibel limits for train operations and locomotive noise standards.
- VM 55. The Applicant shall work with its construction contractors to minimize, to the extent practicable, construction-related noise disturbances near any residences.
- VM 56. The Applicant shall maintain project-related construction and maintenance vehicles in good working order with properly functioning mufflers to control noise.

- VM 57. The Applicant shall install rail-lubrication systems at curves where doing so would reduce the noise experienced by residents.

#### **4.2.9 Voluntary Mitigation Measures for Socioeconomics**

- VM 58. The Applicant shall, before beginning construction activities related to this project, notify local communities, Counties, and landowners about construction timeframes and disturbances.
- VM 59. The Applicant shall ensure that project-related construction vehicles, equipment, and workers will not access work areas through landowners' properties without the permission of the property owners. In the unlikely event of any inadvertent damage, the Applicant shall work with affected landowners to appropriately redress any damage to each landowner's property caused by the Applicant's project-related construction activities.
- VM 60. The Applicant shall, at least 1 month before beginning construction activities in the project area, provide project-related construction information regarding the sequence of construction of public grade crossings and the approximate schedule for these activities at each crossing, as well as any additional information as appropriate, to emergency response providers in Levan, Gunnison, Salina, Nephi, Manti, and Sigurd and the Park Manager at Yuba Lake Recreation Area.
- VM 61. The Applicant shall, before the start of railroad operations, contact the emergency response providers in Levan, Gunnison, Salina, Nephi, Manti, and Sigurd and the Park Manager at Yuba Lake Recreation Area with information on the proposed operations to allow the local communities and Counties to incorporate the information into local response plans.

#### **4.2.10 Voluntary Mitigation Measures for Historic Properties and Paleontological Resources**

- VM 62. The Applicant shall inform construction supervisors of the importance of protecting archaeological resources, graves, and other historic properties and how to recognize and treat these resources.
- VM 63. The Applicant agrees to comply with the requirements of the Programmatic Agreement with the Utah SHPO once it is executed.

#### **4.2.11 Voluntary Mitigation Measures for Recreation**

- VM 64. The Applicant shall install rail crossing signs at the Painted Rocks Campground crossing and at an at-grade crossing for the Paiute all-terrain vehicle (ATV) trail.
- VM 65. The Applicant shall design the Yuba Narrows crossing bridge to maximize, to the extent practicable, the ability of boats, water skiers, and other recreationists to pass under the bridge across the Sevier Bridge Reservoir.
- VM 66. The Applicant shall coordinate with the Park Manager at Yuba Lake Recreation Area regarding schedule and access issues for boaters during construction. The Applicant shall install warning devices to notify boaters of project-related bridge construction.

- VM 67. The Applicant shall ensure that public access roads to the Sevier Bridge Reservoir will remain open and will be signed for safety. If the rail line causes damage to existing facilities at the Painted Rocks Campground, the Applicant shall be responsible for repairing or replacing damaged facilities including but not limited to the Painted Rocks Well, water pipelines, water storage tank, septic systems, toilets, dump stations, roads, and campsites.
- VM 68. The Applicant shall provide an at-grade crossing to maintain the continuity of the Paiute ATV trail. Appropriate signs will be installed for safety purposes. The Applicant shall coordinate the design of the crossing with the landowner. The Applicant shall install stop signs and appropriate railroad warning signs in conjunction with the rail crossing.
- VM 69. If deemed appropriate, the Applicant agrees to improve the access road, associated fences, trees, and noise-mitigation structures along the 0.6-mile entrance to Painted Rocks Campground from SR 28.
- VM 70. The Applicant shall consult with the Park Manager at Yuba Lake Recreation Area regarding construction activities and shall attempt to schedule project-related construction activities to avoid peak-use periods to the extent practical.

#### **4.2.12 Voluntary Mitigation Measures for Aesthetics**

- VM 71. The Applicant shall develop all structural elements such as walls, bridges, and tunnels to harmonize with existing structures and other landscape elements in the project area. For instance, visual impacts to slope lengths will be reduced by leaving native boulders in place or by adding additional boulders to the slope. This practice will provide erosion control and add visual interest to the slope.
- VM 72. The Applicant shall use cut techniques such as slope rounding, undulating the face, and constant distance in rolling topography as appropriate.
- VM 73. The Applicant shall further soften slope cuts and stabilize them by mulching the stripped vegetation and reapplying the mulch to the slope. Any slope cuts on public land administered by BLM will be restored to the original VRM objective for that location as specified by appropriate BMPs and in the most recent Resource Management Plan.
- VM 74. The Applicant shall, after project construction, landscape cut-and-fill areas with appropriate native vegetation where practicable to make the area appear as natural as reasonably possible. Any slope cuts on public land administered by BLM will be restored to the original VRM objective for that location as specified in the most recent Resource Management Plan.

### **4.3 OEA's Preliminary Recommended Mitigation Measures**

OEA has developed preliminary recommended mitigation (RM) measures to minimize or avoid potential project-related impacts. Based on the new project information, OEA recommends 13 new mitigation measures to address the resource concerns raised by agencies and individuals in written comments on the Draft EIS. Table 4-3 below summarizes the mitigation measures that are new in this Supplemental Draft EIS.

| <b>Table 4-3. Additional Mitigation Recommended by OEA</b> |  |
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| <b>Measure No.</b>   | <b>Description</b>   |
| RM 12  | The Applicant shall prepare a Reclamation Plan for re-establishing vegetation in areas disturbed by construction related to this project. The Applicant shall coordinate with UDNR in developing the plan to ensure for appropriate seed mixtures, planting rates and times, and post-planting monitoring methods and schedules to ensure that the criteria for success are met, to the extent practicable   |
| RM 13  | The Applicant shall coordinate with USDOJ and UDWR to identify appropriate seasonal restrictions on project-related construction and operations that will ensure protection of all migratory birds during their breeding, nesting, and roosting seasons. Preconstruction surveys for raptors and migratory birds will be conducted if large, woody vegetation or dense shrubs are scheduled to be cleared during the nesting seasons for either raptors or migratory songbirds. The nesting season for raptors in larger, woody vegetation (such as trees near streams or canal crossings) is February 1 through July 31. The nesting season for smaller, migratory songbirds in any woody vegetation (including trees and shrubs) is May 1 through August 30.   |
| RM 14  | During project-related construction and operation, the Applicant shall avoid and minimize impacts to Waters of the U.S., including wetlands, to the extent practicable. If construction is authorized, the Applicant will conduct a wetland delineation in compliance with Section 404 of the Clean Water Act. The Applicant will comply with all reasonable requirements as required by USACE. The total acreage of jurisdictional wetlands identified during this process and the results of the functional assessment will determine the type and amount of mitigation required to offset impacts to Waters of the U.S. in accordance with the requirements of 33 CFR 325 and 332. The Applicant will be required to develop mitigation for impacts to wetlands and other Waters of the U.S., such as ephemeral and perennial drainages.  |
| RM 15  | The Applicant shall implement all reasonable BMPs imposed by USACE under Section 404 of the Clean Water Act to minimize project-related impacts to Waters of the U.S., including wetlands. BMPs could include: <ul style="list-style-type: none"> <li>• Containing sediment and turbidity at the work site by installing diversion or containment structures.</li> <li>• Disposing of dredge spoils or unusable excavated material not used as backfill at upland disposal sites in a manner that minimizes impacts on wetlands.</li> <li>• Revegetating wetlands as soon as possible, preferably in the same growing season, by systematically removing vegetation, storing it in a manner to retain viability, and replacing it after construction to restore the site.</li> <li>• Stockpiling topsoil and organic surface material, such as root mats, separately from overburden and returning them to the surface of the restored site.</li> <li>• Dispersing the load of heavy equipment such that the bearing strength of the soil (the maximum load the soil can sustain) would not be exceeded. Suitable methods could include, but are not limited to, working in frozen or dry ground conditions, using mats when working in wetlands or mudflats, and using tracked rather than wheeled vehicles.</li> <li>• Using techniques such as brush layering, brush matting, live siltation (a revegetation technique used to trap sediment), jute matting, and coir logs to stabilize soil and re-establish native vegetation.</li> </ul> |
| RM 16  | The Applicant shall design and construct the rail line authorized by the Board in such a way as to maintain natural water flow and drainage patterns to the extent practicable. This shall include installing bridges or placing equalization culverts through the embankment as necessary to prevent the impoundment of water or excessive drainage and maintaining the connectivity of floodplains and wetlands as applicable.   |
| RM 17  | During rail construction, the Applicant shall disturb the smallest area practicable around any streams and, as soon as practicable following project-related construction activities, shall revegetate disturbed areas using native vegetation.  |

| <b>Table 4-3. Additional Mitigation Recommended by OEA</b> |   |
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| <b>Measure No.</b>   | <b>Description</b>  |
| RM 18  | The Applicant shall minimize the number of temporary stream crossings constructed to provide access for contractors, work crews, and heavy equipment to the extent practicable. Where needed, temporary structures shall be placed to avoid overly constricting active channels and shall be removed as soon as practicable after the crossing is no longer needed.   |
| RM 19  | The Applicant shall coordinate with USACE, BLM and UDNR to ensure that new project-related stream and floodplain crossings are appropriately designed. For crossings within the mapped 100-year floodplain, drainage crossing structures shall be designed to pass a 100-year flood.  |
| RM 20  | The Applicant shall evaluate project-related construction water needs in relation to stream flow rates and groundwater recharge rates, as appropriate, and shall minimize effects on surface water and groundwater. Water withdrawals shall be subject to prior written approval by UDNR for withdrawals from fish-bearing waters.  |
| RM 31  | The Applicant shall work with individual land owners to avoid, where possible, creating small areas of farmland that could no longer be farmed due to project-related rail construction and operation. The Applicant shall work with an appropriate local or state agency and in consultation with the property owner to determine, on a case-by-case basis, whether farmland could remain farmable and whether steps reasonably can be taken to maximize the amount of farmland that will remain farmable. |
| RM 37  | The Applicant shall obtain all relevant Federal, state, and local permits prior to beginning construction activities.   |

#### **4.3.1 Preliminary Recommended Mitigation Measures for Rail Operations and Safety**

- RM 1. The Applicant shall comply with the safety regulations implemented and enforced by the Federal Railroad Administration.
- RM 2. According to the National Pipeline Mapping System, two major pipeline companies have facilities in the general area. The Applicant shall conduct the necessary surveys to determine whether project-related construction would cross any existing pipelines and shall comply with any applicable regulations and the regulations implemented and enforced by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety.
- RM 3. The Applicant shall consult with appropriate Federal, state, and local transportation agencies to determine the final design and other details of project-related grade-crossing warning devices. Implementation of all project-related grade-crossing warning devices on public roads would be subject to the review and approval of UDOT and Juab, Sevier, and Sanpete Counties.
- RM 4. The Applicant shall coordinate with UDOT and Juab, Sevier, and Sanpete Counties to minimize delay during grade-crossing construction.

#### **4.3.2 Preliminary Recommended Mitigation Measures for Land Use**

- RM 5. The Applicant shall comply with all Federal and state regulations that apply to land use, as practicable, in the project area.
- RM 6. The Applicant shall work with local farm agencies and landowners, to the extent practicable, to determine when property is no longer farmable due to the location of the proposed track and to determine appropriate remedies for the landowner.
- RM 7. The Applicant shall work with farmers to remedy, to the extent practicable, any damage to crops caused by the Applicant's construction and operation activities related to the project. This includes any impacted irrigation appurtenances.
- RM 8. Prior to commencing any project-related construction activities, the Applicant shall provide its construction schedule to affected farmers and ranchers to allow them to determine whether they should continue to farm areas or discontinue farming due to impending construction activities related to the project.
- RM 9. The Applicant shall work with ranchers to remedy, to the extent practicable, any damage to pastures or rangelands caused by the Applicant's construction or reconstruction activities related to the project.
- RM 10. The Applicant shall negotiate with farmers and ranchers regarding the possibility of train-free periods to facilitate movement of equipment or livestock from one side of the rail line to the other.

#### **4.3.3 Preliminary Recommended Mitigation Measures for Biological Resources**

- RM 11. The Applicant shall notify the Board and USFWS if any Federally listed threatened or endangered species are discovered during project-related construction activities.
- RM 12. The Applicant shall prepare a Reclamation Plan for re-establishing vegetation in areas disturbed by construction related to this project. The Applicant shall coordinate with UDNR in developing the plan to ensure for appropriate seed mixtures, planting rates and times, and post-planting monitoring methods and schedules to ensure that the criteria for success are met, to the extent practicable.
- RM 13. The Applicant shall coordinate with USDOJ and UDWR to identify appropriate seasonal restrictions on project-related construction and operations that will ensure protection of all migratory birds during their breeding, nesting, and roosting seasons. Preconstruction surveys for raptors and migratory birds will be conducted if large, woody vegetation or dense shrubs are scheduled to be cleared during the nesting seasons for either raptors or migratory songbirds. The nesting season for raptors in larger, woody vegetation (such as trees near streams or canal crossings) is February 1 through July 31. The nesting season for smaller, migratory songbirds in any woody vegetation (including trees and shrubs) is May 1 through August 30.

#### **4.3.4 Preliminary Recommended Mitigation Measures for Water Resources and Wetlands**

- RM 14. During project-related construction and operation, the Applicant shall avoid and minimize impacts to Waters of the U.S., including wetlands, to the extent practicable. If construction is authorized, the Applicant will conduct a wetland delineation in compliance with Section 404 of the Clean Water Act. The Applicant will comply with all reasonable requirements as required by USACE. The total acreage of jurisdictional wetlands identified during this process and the results of the functional assessment will determine the type and amount of mitigation required to offset impacts to Waters of the U.S. in accordance with the requirements of 33 CFR 325 and 332. The Applicant will be required to develop mitigation for impacts to wetlands and other Waters of the U.S., such as ephemeral and perennial drainages.
- RM 15. The Applicant shall implement all reasonable BMPs imposed by USACE under Section 404 of the Clean Water Act to minimize project-related impacts to Waters of the U.S., including wetlands. BMPs could include:
- Containing sediment and turbidity at the work site by installing diversion or containment structures.
  - Disposing of dredge spoils or unusable excavated material not used as backfill at upland disposal sites in a manner that minimizes impacts on wetlands.
  - Revegetating wetlands as soon as possible, preferably in the same growing season, by systematically removing vegetation, storing it in a manner to retain viability, and replacing it after construction to restore the site.
  - Stockpiling topsoil and organic surface material, such as root mats, separately from overburden and returning them to the surface of the restored site.
  - Dispersing the load of heavy equipment such that the bearing strength of the soil (the maximum load the soil can sustain) would not be exceeded. Suitable methods could include, but are not limited to, working in frozen or dry ground conditions, using mats when working in wetlands or mudflats, and using tracked rather than wheeled vehicles.
  - Using techniques such as brush layering, brush matting, live siltation (a revegetation technique used to trap sediment), jute matting, and coir logs to stabilize soil and re-establish native vegetation.
- RM 16. The Applicant shall design and construct the rail line authorized by the Board in such a way as to maintain natural water flow and drainage patterns to the extent practicable. This shall include installing bridges or placing equalization culverts through the embankment as necessary to prevent the impoundment of water or excessive drainage and maintaining the connectivity of floodplains and wetlands as applicable.
- RM 17. During rail construction, the Applicant shall disturb the smallest area practicable around any streams and, as soon as practicable following project-related construction activities, shall revegetate disturbed areas using native vegetation.

- RM 18. The Applicant shall minimize the number of temporary stream crossings constructed to provide access for contractors, work crews, and heavy equipment to the extent practicable. Where needed, temporary structures shall be placed to avoid overly constricting active channels and shall be removed as soon as practicable after the crossing is no longer needed.
- RM 19. The Applicant shall coordinate with USACE, BLM and UDNR to ensure that new project-related stream and floodplain crossings are appropriately designed. For crossings within the mapped 100-year floodplain, drainage crossing structures shall be designed to pass a 100-year flood.
- RM 20. The Applicant shall evaluate project-related construction water needs in relation to stream flow rates and groundwater recharge rates, as appropriate, and shall minimize effects on surface water and groundwater. Water withdrawals shall be subject to prior written approval by UDNR for withdrawals from fish-bearing waters.
- RM 21. When project-related activities, such as culvert and bridge construction, require work in stream beds, the Applicant shall conduct activities, to the extent practicable, during either summer or winter low-flow conditions.
- RM 22. The Applicant shall work with BLM to mitigate any potential impacts of project-related construction and operation activities to groundwater wells near the Painted Rocks Campground and any other groundwater wells in the project area.
- RM 23. The Applicant shall be responsible for promptly bringing the wells and water system back into compliance if construction or operation of the rail line affects wells and/or water systems.
- RM 24. The Applicant shall design the selected alternative according to the applicable standards of the floodplain programs administered by Sanpete and Sevier Counties.

#### **4.3.5 Preliminary Recommended Mitigation Measures for Topography, Geology, and Soils**

- RM 25. The Applicant shall secure all relevant permits for use of public land before beginning project-related construction activities on public land.

#### **4.3.6 Preliminary Recommended Mitigation Measures for Hazardous Materials**

- RM 26. The Applicant shall maintain the right-of-way in a sanitary condition during all project-related construction, operation, maintenance, and termination activities.
- RM 27. The Applicant shall ensure that waste materials related to this project are removed and disposed of promptly at an appropriate waste-disposal site.
- RM 28. The Applicant shall ensure that gasoline, diesel fuel, oil, lubricants, and other petroleum products are handled and stored in such a manner as to prevent them from entering into and contaminating soils on public land. If a petroleum spill occurs in the project area as a result of rail construction, operation, maintenance, or termination activities, the Applicant shall be responsible for promptly cleaning up any spills in accordance with Federal and state regulations.



#### **4.3.7 Preliminary Recommended Mitigation Measures for Air Quality**

RM 29. The Applicant shall comply with applicable Federal and state air quality regulations.

#### **4.3.8 Preliminary Recommended Mitigation Measures for Noise**

RM 30. The Applicant shall work with its contractors to minimize, to the extent practicable, construction-related noise disturbances in residential areas. Construction-related and maintenance vehicles must be in good working order with properly installed mufflers to control noise.

#### **4.3.9 Preliminary Recommended Mitigation Measures for Energy Resources**

No mitigation measures are proposed for impacts to energy resources.

#### **4.3.10 Preliminary Recommended Mitigation Measures for Socioeconomics**

RM 31. The Applicant shall work with individual land owners to avoid, where possible, creating small areas of farmland that could no longer be farmed due to project-related rail construction and operation. The Applicant shall work with an appropriate local or state agency and in consultation with the property owner to determine, on a case-by-case basis, whether farmland could remain farmable and whether steps reasonably can be taken to maximize the amount of farmland that will remain farmable.

RM 32. The Applicant shall, before beginning construction activities related to this project, establish a Community Liaison to consult with affected communities, businesses, and agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic public outreach for 1 year after operations on the new rail line begin.

RM 33. The Applicant shall provide the name and phone number of the Community Liaison to appropriate local officials in communities through which the new rail line passes.

#### **4.3.11 Preliminary Recommended Mitigation Measures for Historic Properties and Paleontological Resources**

RM 34. The Applicant shall comply with the provisions of the Programmatic Agreement once it is executed.

#### **4.3.12 Preliminary Recommended Mitigation Measures for Recreation**

RM 35. The Applicant shall coordinate with the U.S. Forest Service and BLM to ensure that impacts to the Paiute ATV trail are addressed to reduce or avoid impacts to the trail as practicable. The Applicant's voluntary mitigation should further reduce impacts to the trail. OEA has determined that the Applicant's Proposed Action in this Supplemental Draft EIS (Alternative B/B2) and Alternative B3/B2 would have a negligible effect on recreation.

#### **4.3.13 Preliminary Recommended Mitigation Measures for Federal Public Land**

RM 36. The Applicant's mitigation measures for impacts to Federal public land shall comply with the most recent Federal land-use policies, regulations, and procedures. In addition to the mitigation recommended by the Board and the voluntary mitigation proposed by the Applicant in Section 4.2, Applicant's Voluntary Mitigation Measures, of this chapter, BLM recommends the following mitigation measures for construction, operation, and termination activities on Federal public land:

- The Applicant shall secure all relevant Federal, state, and local permits before beginning construction activities.
- The Applicant shall stake the centerline and clearly mark the exterior boundary of the right-of-way area before beginning construction activities.
- The Applicant shall ensure that all activities associated with the construction, operation, maintenance, and termination of the proposed project on Federal land under BLM's jurisdiction are confined within the authorized limits of the described right-of-way area, unless otherwise approved in writing by BLM.
- The Applicant shall ensure that surveys for specific species, if required, are conducted before beginning construction activities. These surveys will be conducted following BLM-approved protocols and regulations. Also, if appropriate, mitigation measures from recovery plans, conservation plans, or conservation agreements will be implemented in cooperation with BLM and state and Federal wildlife agencies.
- The Applicant shall be responsible for repairing existing facilities that are damaged during operation, maintenance, or termination of activities on Federal land under the jurisdiction of BLM. These facilities shall be repaired or restored to the same condition as existed before the damage.
- The Applicant shall obtain the prior written approval of BLM if, at any time after the grant to cross Federal public land, the Applicant wishes to reconstruct, remodel, or relocate any part of the right-of-way or change, modify, or add improvements or facilities on Federal land under BLM's jurisdiction.
- The Applicant shall ensure full compliance with the terms, conditions, and stipulations of any BLM right-of-way grant. Failure or refusal of the Applicant's agents, contractors, subcontractors, or employees to comply with the terms, conditions, and stipulations shall be the ultimate responsibility of the Applicant.
- The Applicant shall meet with BLM to arrange a joint inspection of the right-of-way when the grant to cross Federal public land is no longer needed and before discontinuing use of the facilities on Federal land under BLM's jurisdiction. The inspection will be held to agree on an acceptable abandonment (discontinuing use of the facilities under BLM jurisdiction) and rehabilitation plan. BLM must approve the plan in writing before the Applicant begins any abandonment (discontinuing use of the facilities under BLM jurisdiction) and/or rehabilitation activities.

**4.3.14 General**

RM 37. The Applicant shall obtain all relevant Federal, state, and local permits prior to beginning construction activities.

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