CHAPTER 6
MITIGATION AND MONITORING

6.1 PROPOSED ACTION

6.1.1 Recommended Mitigation Measures

In addition to the environmental protection measures discussed in **Chapter 2**, **Section 2.2.10**, the mitigation measures below are proposed by the BLM.

Greater Sage Grouse

There is no PPH or NDOW Category 1 or 2 habitat in the project area; however, approximately 168 acres of Category 3 habitat, or PGH, could be disturbed by the proposed project.

Mitigating the loss of PGH is proposed and would be addressed in compliance with the 2013 MOU between the BLM, Humboldt-Toiyabe National Forest, Nevada Department of Conservation and Natural Resources, and Barrick Gold of North America, Newmont Mining Corporation, and other companies (BLM 2013c). As outlined in the MOU, the replacement ratio for PGH-quality habitat would be 2:1. Therefore, the restoration projects would need to equate to 336 acres of PGH restored.

The BLM has identified potential sage-steppe habitat restoration projects that could serve as off-site mitigation for impacts on greater sage-grouse habitat under the proposed action. Restoration projects would be monitored over five years or until they are successful, as determined by the BLM. Expected performance criteria would include a minimum density and percent cover threshold for planted or seeded species, as well as maximum percent cover thresholds for invasive plant species.

The criteria for restoration success would be consistent with the performance criteria and restoration and revegetation plans in Appendices E and U of the Environmental Compliance Monitoring Plan for the Ruby Pipeline Plan of Development (Ruby Pipeline LLC 2010). The BLM would initiate and fund any

required NEPA compliance for potential greater sage-grouse habitat restoration projects.

In addition to benefiting greater sage-grouse, the identified potential restoration projects would also benefit other sage-steppe obligate species. The currently identified potential off-site mitigation and restoration projects are summarized below. CRI could participate in one or more of these projects to provide adequate mitigation for the proposed action. Mitigation would occur within ten years of the signed ROD.

- **Rock Spring Restoration Project**—This project would involve fencing a spring and associated five to ten acres of sagebrush and riparian habitat that is currently heavily degraded by wild horse use. The project could also involve plumbing the existing spring box to route water approximately half a mile to an existing trough and seeding outside of the exclosure. The project would be in the Soldier Meadows Allotment, in core habitat for greater sage-grouse, as designated by NDOW.
- **Rock Spring Creek Restoration Project**—This project involves fencing a spring and associated five to ten acres of sagebrush and riparian habitat, including installing a spring box or water catchment system to route water to a new trough outside of the fenced spring area. Seeding may occur outside the exclosure. Several other springs in the vicinity would benefit from similar improvements, and the project could include improving some or all of them. The project would be in the Pine Forest Allotment, in core habitat for greater sage-grouse, as designated by NDOW.
- **Pine Forest Road Restoration and Re-route Project**—This project involves several components, including two meadow restorations (totaling over 100 acres), approximately five miles of road abandonment, closed road restoration, and improved road barriers. Details of this project are in development. The project would be in the Pine Forest Allotment in core habitat for greater sage-grouse, as designated by NDOW.

Cultural Resources

A treatment plan will be prepared and will include mitigation measures that address anticipated direct impacts on the prehistoric component of NRHP-eligible site CrNV-22-3545 and anticipated indirect impacts on NRHP-eligible site CrNV-02-401 (the Panama Townsite). The treatment plan and associated MOA would be signed before any surface disturbance of CrNV-22-3545 and should include the following:

- CRI should develop and submit to the BLM for approval a mine worker education program on the consequences of unauthorized collection of artifacts.

- A detailed description of the treatments proposed for historic properties eligible for the NRHP, with an explanation or rationale provided for the choice of the proposed treatments. Data recovery will be phased, and Phase 1 would consist of
  - Geomorphologic assessment and data recovery through mapping, surface artifact collection, and limited excavation for the three extant prehistoric loci of site CrNV-22-3545 (Locus C, Locus C-100, and Locus C-361). Note that Phase 2 might entail excavating 5-meter by 5-meter or 10–meter by 10-meter grids if it is warranted, based on the results of Phase 1 and only after consultation with the BLM and with SHPO concurrence,
  - Archival and documentary research and the development of historic narratives for the Panama Townsite, and
  - Development of a display (interpretive panel) at the Marzen House Museum in Lovelock, Nevada, that focuses on the High Line Road, the Panama Townsite, and the possible role of Chinese laborers in mining on the site.

6.1.2 Applicant Committed Monitoring

CRI would monitor the proposed activity to identify or prevent impacts according to the operating permits and plans in **Table 6-1**.

Table 6-1
Monitoring Plan

Monitoring Component	Permit or Plan and Agency
Air quality	Throughput, emissions, fuel use, and stack testing NDEP Bureau of Air Pollution Control
Solid and hazardous waste	90-Day storage area inspections Satellite storage area weekly inspections NDEP Bureau of Waste Management
Explosives	Weekly magazine inspection BATFE
Water	Process water, surface water, and groundwater quality and quantity NDEP Bureau of Mining Regulation and Reclamation Inspection of stormwater BMPs NDEP Bureau of Water Pollution Control Water use NDWR
Noxious weeds	Periodic noxious weed surveys and updated weed management plan on an as-needed basis BLM (under the plan of operations)
Reclamation	Reclamation revegetation success BLM and NDEP Bureau of Mining Regulation and Reclamation
Slope stability	Inspections BLM and NDEP Bureau of Mining Regulation and Reclamation

Table 6-1
Monitoring Plan

Monitoring Component	Permit or Plan and Agency
Waste and ore rock chemistry	Waste rock and ore analysis NDEP Bureau of Mining Regulation and Reclamation
Wildlife	Wildlife mortality NDOW

6.1.3 No Action Alternative

There are no mitigation measures or monitoring recommended as part of the No Action Alternative, other than those activities already associated with the mining operations.

6.1.4 Alternative 1—Permanent Management of PAG Material Outside of the Rochester Pit

The mitigation measures and monitoring recommended for the proposed action would apply to Alternative 1 as well. There are no additional mitigation or monitoring measures for Alternative 1.