

## 1.0 Introduction

### 1.1 Introduction and General Location

Barrick-Dee Mining Venture (BDMV) proposes to construct, operate, and reclaim the Arturo Mine Project (Proposed Action/project), which would include development of new facilities and expansion of previously disturbed gold mining areas at the Dee Gold Mine. The proposed project is located on the northern end of the Carlin Trend in Elko County, Nevada, approximately 27 aerial miles northwest of the town of Carlin, as shown in **Figure 1-1**. The proposed project is located on public land administered by the United States Department of the Interior, Bureau of Land Management (BLM), Elko District, Tuscarora Field Office.

The proposed project would be an expansion of the existing Dee Gold Mine, which was operated by the Dee Gold Mining Company under Plan of Operations (PoO) NVN-070250; the Dee Gold Mine currently is in reclamation and closure. The project is proposed by BDMV, a joint venture between Barrick Gold Exploration Inc., the venture manager, and Marigold Mining Company, a subsidiary of Goldcorp Inc.

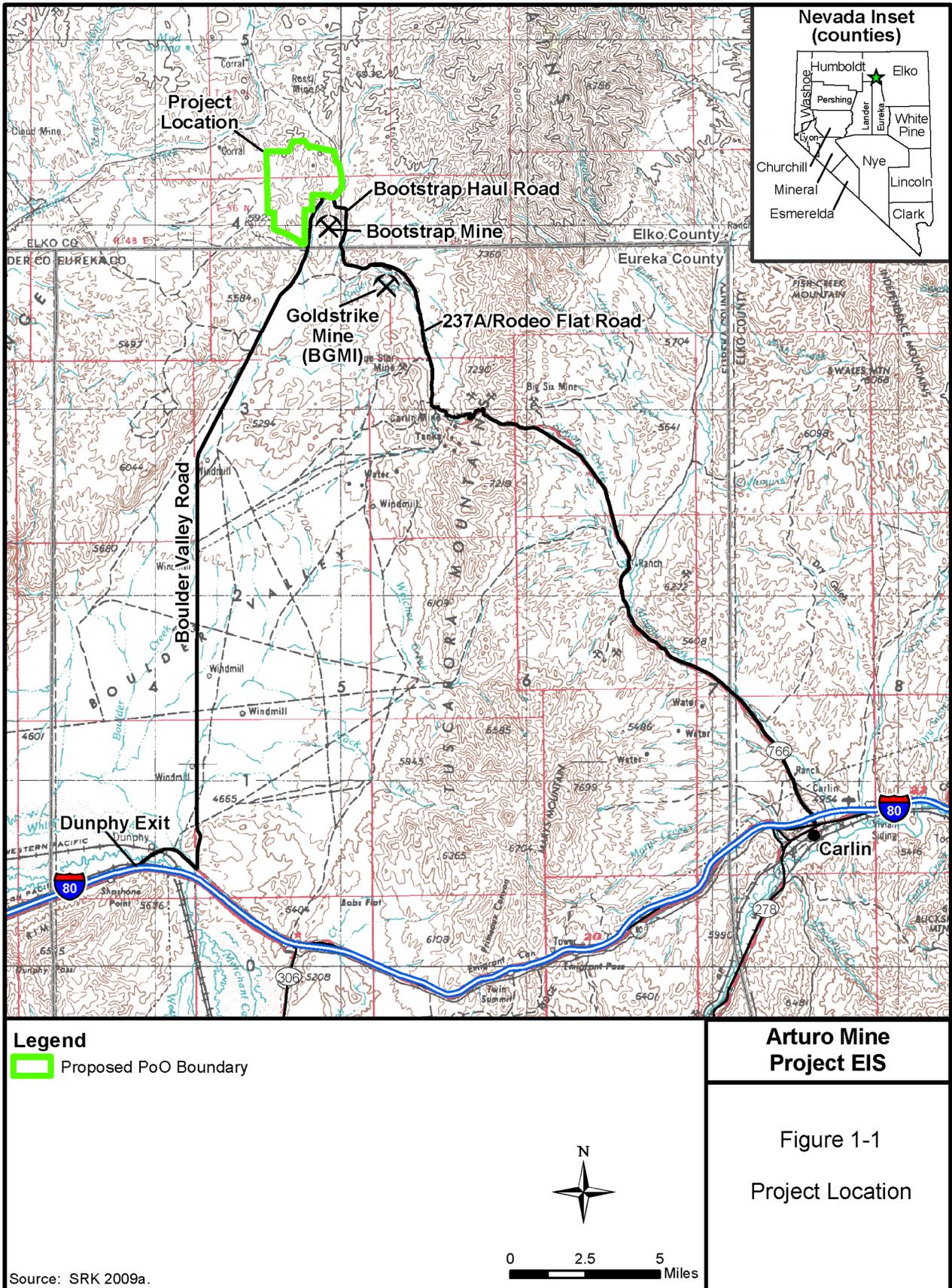
The proposed project would be developed primarily on public lands that consist of either: 1) existing disturbance by authorized mining activity, 2) disturbance by authorized mining activity that has been subsequently reclaimed, or 3) land that remains undisturbed. The proposed project also would take place on previously disturbed and undisturbed private land controlled by BDMV or an affiliated company. The proposed project would disturb a total of 2,774 acres of public and private land including 269 acres of existing disturbance, 543 acres of reclaimed mining disturbance, and 1,962 acres that would result in new land disturbance.

The proposed project includes:

- Expansion of the existing open pit;
- Construction of new waste rock disposal facilities (WRDFs);
- Construction of a new heap leach pad and gold processing facilities;
- Upgrading and re-aligning segments of the Bootstrap Haul Road, including light vehicle access;
- Construction and/or relocation of support facilities, including office buildings and a communication site;
- Construction and installation of new power transmission lines; and
- Continued surface exploration within the project area.

Mill-grade ore would be transported via the Bootstrap Haul Road right-of-way (ROW) NVN-007683 and processed by contract at the existing Barrick Goldstrike Mines Inc. (BGMI) facilities (**Figure 1-1**) located approximately 3.5 road miles southeast of the Dee Gold Mine. Low-grade leachable ore would be processed on-site at the proposed heap leach pad and associated processing facilities.

Proposed project construction would begin in early 2013 pending authorization of permits and approvals. Mine operations would begin within 8 months of construction start-up, and would continue for approximately 8 years depending on mining and economic conditions. Ore processing would continue for an additional 2 years beyond the end of mining operations. To the extent possible, reclamation would occur concurrently with mining operations. Final reclamation would be completed during a 4-year period



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following cessation of mining. Post-closure monitoring by the Nevada Division of Environmental Protection (NDEP)-Bureau of Mining Regulation and Reclamation (BMRR) may continue for up to 30 years following completion of processing according to current regulations. The duration of the BLM's post-closure monitoring would depend on the project's final closure plan and its implementation.

The proposed project would be located in Elko County, within the United States Geological Survey Santa Renia Fields' 7.5-minute topographic quadrangle map area. The proposed PoO boundary, within which most of the mining facilities and activities are proposed, consists of unpatented mining claims located on public land administered by the BLM. Other proposed elements of the project area (Bootstrap Haul Road, power connection yard, power transmission line corridor, and a portion of the secondary access road entrance) would be located on a combination of BLM land and private land. **Figure 1-2** provides an overview of the surface land ownership of the proposed project area.

BLM approval is required for activities that occur on public lands pursuant to the Federal Land Policy and Management Act of 1976 (FLPMA) (as amended), the BLM's surface management regulations (43 Code of Federal Regulations [CFR] Subpart 3809), and the BLM's regulations pertaining to use and occupancy under the mining laws (43 CFR Subpart 3715). The BLM also is required by the National Environmental Policy Act of 1969 (NEPA) to review the impacts of the overall proposal, including impacts on both public and private lands. The BLM has determined that an Environmental Impact Statement (EIS) must be prepared to fulfill the NEPA requirements.

Subpart 3715 of 43 CFR identifies the requirements for "use and occupancy of public lands for the development of locatable mineral deposits by restricting such use or occupancy to that which is reasonably incident." BDMV is required to meet the specific conditions outlined in 43 CFR Subpart 3715.3-2, as the Proposed Action would disturb a total of 2,703 acres of public land administered by the BLM.

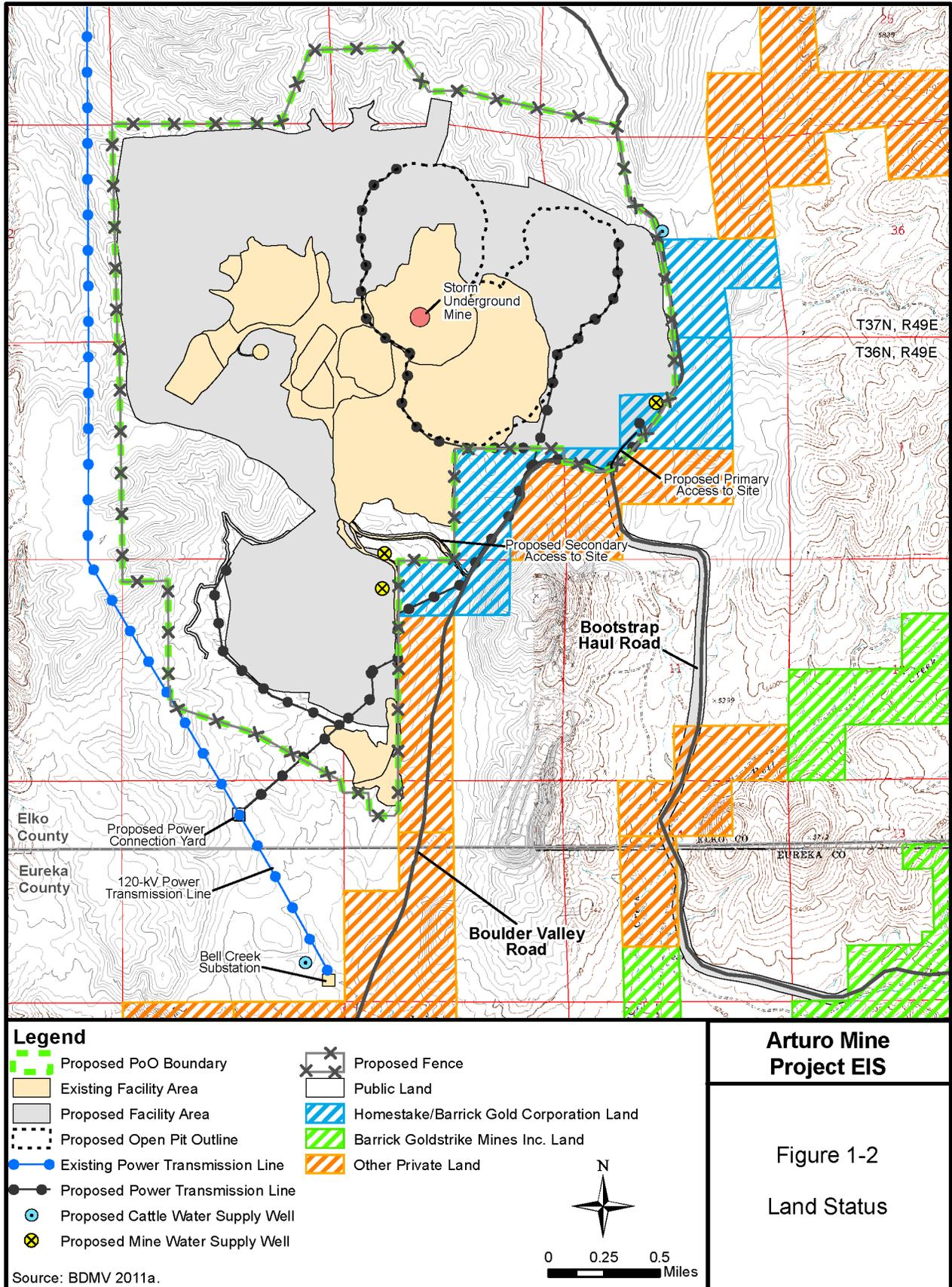
The proposed PoO boundary would be fenced and/or signed to restrict public access. Access to the proposed PoO boundary would require permission from BDMV in order to protect the public from potentially hazardous situations and to protect the mine facilities and equipment from vandalism or damage. Fences and signs would be approved by the BLM. The occupancy and use requirements of this PoO do not allow individuals to live on-site.

Areas where facilities would be located outside the main PoO boundary, which include the proposed Bootstrap Haul Road, power connection yard, power transmission line corridor, and secondary access road generally would be open to public access. Fencing and signage required in these areas to protect the public from hazards and to protect BDMV property would be approved by the BLM.

A programmatic Environmental Assessment (EA) for mining claim, mill site use, and occupancy for selected actions was completed by the BLM for the State of Nevada with a finding of no significant impact (BLM 2000a). The programmatic EA provides the basic analysis for the proposed use and occupancy of public lands. This EIS provides the site-specific analysis for the proposed project.

The BLM is serving as the lead agency for preparing the EIS in compliance with NEPA, the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR 1500-1508), the BLM's NEPA Handbook (H-1790-1), the Bureau-wide Guidelines for Assessing and Documenting Cumulative Impacts (April 1994), CEQ's Considering Cumulative Effects under NEPA (January 1997), and other applicable guidance. The Nevada Department of Wildlife (NDOW) and the Elko County Board of Commissioners are serving as cooperating agencies for preparation and review of this EIS.

This EIS describes and analyzes the environmental consequences of the Proposed Action and proposed project alternatives, including the No Action Alternative. The No Action Alternative is to continue surface exploration activities and complete reclamation and closure activities of the Dee Gold Mine, as currently authorized.



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## 1.2 Current Status of the Dee Gold Mine

The Arturo Mine Project is a proposed expansion of the Dee Gold Mine, an existing open-pit mine undergoing reclamation and closure. The Dee Gold Mine started open-pit production in 1983. In 1999, the Dee Gold Mine began underground production from a decline in the bottom of the open pit. The open-pit and underground operations were shut down in 2000 (a period of low gold prices) at which time, reclamation and closure activities were initiated at the Dee Gold Mine. In 2006, Barrick-Rossi Mining Venture began construction and operation of the Storm Underground Mine from a second decline in the bottom of the Dee open pit. The existing facility area is shown in **Figure 1-2**. Most of the facilities associated with the Dee Gold Mine have been reclaimed and bond released for earth work and revegetation except for those facilities that support the Storm Underground Mine.

## 1.3 History of Plans of Operation and Rights-of-Way Associated with the Dee Gold Mine

There have been a number of permitted disturbances within the proposed project area as a result of gold exploration and mining over the last 3 decades, the most significant of which are discussed below.

Cordex Exploration Company conducted exploration activities under PoO NVN-070509 within the project area from 1981 to 1983. Dee Gold Mining Company obtained control of the mining claims in the project area in 1983. Beginning in 1983, Dee Gold Mining Company explored and operated in the area under the Dee Gold Mine PoO NVN-070250 and a series of plan amendments as analyzed in EAs (EA-NV-010-83-053, EA-NV-010-91-101, BLM/EK/PL-93/035, and BLM/EK/PL-97/003). The NDEP-BMRR Reclamation Permit associated with this PoO is No. 0118.

Since 1998, BDMV has conducted exploration activities on the property under the Dee Surface Exploration PoO NVN-071216 and NDEP-BMRR Reclamation Permit No. 0142. Barrick Meridian Joint Venture conducts exploration within the project boundary under the Rossi Surface Exploration Project PoO NVN-070874 and NDEP-BMRR Reclamation Permit No. 0183.

Barrick-Rossi Mining Venture conducts underground mining and exploration operations from the Dee open pit under the approved Storm Underground Mine PoO NVN-071238 and NDEP-BMRR Reclamation Permit No. 0243.

ROWs associated with the proposed project include the Bootstrap Haul Road (NVN-007683), the Sierra Pacific Power Company/NVEnergy 69-kilovolt power transmission line to the Dee Gold Mine (NVN-038874), and the Sierra Pacific Power Company/NVEnergy 120-kilovolt power transmission line (NVN-053160).

## 1.4 Purpose and Need for Action

The BLM's purpose is to respond to BDMV's proposed Arturo Mine Project PoO, including the proposed changes to the Bootstrap Haul Road and the power transmission line ROWs. BDMV is proposing to expand and develop an open-pit mine on public lands to mine gold and silver, which are locatable minerals, and to construct a power transmission line to provide electricity to this mining operation. The Bootstrap Haul Road would be widened to allow transportation of ore by haul truck to the existing BGMI milling facility. In responding to BDMV's proposed project, the BLM would determine whether to approve, approve with modifications, or deny the proposed project.

The BLM's need for the action is based on BDMV's proposed project. The BLM is required to respond to BDMV's proposed project to conduct mining operations for locatable minerals in accordance with the Surface Management Regulations (43 CFR 3809), the Use and Occupancy Under the Mining Laws Regulations (43 CFR 3715), and other applicable laws such as FLPMA and NEPA. The BLM is required to respond to BDMV's proposal to construct a power transmission line and to upgrade the Bootstrap Haul Road in accordance with the BLM ROW Regulations (43 CFR 2800), and respond to the ROW application under Title V of FLPMA for a ROW grant to construct, operate, maintain, and decommission

this proposed power transmission line and reclaim the proposed Bootstrap Haul Road. In considering the need for the proposed project, the BLM must determine if the proposed project would create unnecessary or undue degradation of the public lands involved in the action. The NEPA mandates that the BLM evaluate or analyze the environmental impacts of the proposed project and reasonable alternatives (including the No Action Alternative), and consider and evaluate appropriate mitigation measures.

## **1.5 Relationship to BLM and Non-BLM Policies, Plans, and Programs**

### **1.5.1 Land Use Plan Conformance**

The BLM has the responsibility and authority to manage the surface and subsurface resources on public lands located within the BLM's jurisdiction, and has designated the lands within the project area as open to entry for locatable minerals.

The Proposed Action and alternatives described in this document are in conformance with the Elko Resource Management Plan, Issue – Minerals, Management Prescription – 1 (BLM 1987) and are consistent with federal, state, and local laws, regulations, and plans.

### **1.5.2 State and Local Land Use Plans and Policies**

The State of Nevada's 1986 Statewide Policy Plan for Public Lands section on Mineral Resources states the Goals for Mineral Resources as: recognize that the development of Nevada's mineral resources is desirable and necessary to the nation, the state, and particularly, to the rural counties of the state; retain existing mining areas and promote the expansion of mining operations and areas, while respecting other resource values; and develop policies and regulations that provide for the long-term availability and responsible development of Nevada's mineral resources (Nevada Division of State Lands 1986).

The State of Nevada recognizes that mining is an important contributor to the state's economy and encourages the development of mineral resources. In Nevada Revised Statute 519A.010, the state policy toward mining and reclamation as defined by the Legislature is:

- “(a) The extraction of minerals by mining is a basic and essential activity making an important contribution to the economy of the State of Nevada;
- (b) Proper reclamation of mined land, areas of exploration and former areas of mining or exploration is necessary to prevent undesirable land and surface water conditions detrimental to the ecology and to the general health, welfare, safety and property rights of the residents of this state; and
- (c) The success of reclamation efforts in this state is dependent upon cooperation among state and federal agencies.”

Elko County, in cooperation with the Nevada Division of State Lands, developed the Elko County Public Land Use and Natural Resource Management Plan (Elko County 2010). The Proposed Action is consistent with this plan that recognizes the economic importance of developing mineral resources within the county. Directive 14-1 states that it is the objective/goal of the Elko County Public Land Use and Natural Resource Management Plan to “...retain existing mining areas and promote the expansion of mining operations and areas not specifically withdrawn” (Elko County 2010).

The Proposed Action is consistent with state and local land use plans and policies.

## **1.6 Environmental Review Process**

Numerous opportunities for public input occur during the NEPA decision-making process. The initial step in the EIS process is to notify the public and other government agencies of the BLM's intent to prepare an EIS. The BLM published a Notice of Intent to prepare an EIS for the proposed project in the Federal

Register (FR) on June 21, 2010. The Notice of Intent included a summary of the proposed project, information on public scoping, and project contact information.

The purpose of public scoping is to actively solicit and acquire input from the public and other interested federal, state, tribal, and local agencies about the proposed project. Information received during public scoping helps the agencies identify potential environmental issues, social, economic, cultural issues/impacts, alternatives, and mitigation measures associated with the development of the proposed project. The process provides a mechanism for focusing and clarifying the issues so the EIS can address and analyze the primary areas of concern. Section 4.1, Public Participation and Scoping, provides detailed information regarding public scoping that was conducted for the proposed project.

After completion of the public scoping period, the Draft EIS is prepared, which addresses the environmental effects associated with the Proposed Action and alternatives, including the issues and concerns identified during the scoping process. After the Draft EIS is published through a Notice of Availability in the FR, the public has the opportunity to comment on the EIS during a 45-day public comment period. During the public comment period, the BLM conducts one or more public meetings. Comments can be submitted at the public meetings by filling out comment forms. The public also may submit comments to the BLM via mail, facsimile, and e-mail. The e-mail address for comments is BLM\_NV\_ELDOArturoEISTeam@BLM.gov.

The Final EIS includes responses to all substantive public comments received on the Draft EIS. The Final EIS is published through a Notice of Availability in the FR, and the public has the opportunity to review the Final EIS for a 30-day review period. Following the 30-day review period, the BLM issues the Record of Decision for the EIS.

## 1.7 Project Permits and Approvals

In addition to the EIS, implementing the Proposed Action would require authorizing actions from other federal, state, and local agencies with jurisdiction over certain aspects of the proposed project. **Table 1-1** lists the required permits or approvals, which are already in place or that would be obtained or otherwise addressed, and the responsible regulatory agencies. BDMV is responsible for amending existing permits and applying for and acquiring additional permits, as needed.

**Table 1-1 Major Permits and Approvals**

Permit/Approval	Granting Agency
EIS PoO Approval ROW Grant(s)	BLM
Explosives Permit	United States Bureau of Alcohol, Tobacco, and Firearms
Section 106 National Historic Preservation Act agreement document(s)	BLM and State of Nevada Historic Preservation Office
National Pollutant Discharge Elimination System Storm Water General Permit	NDEP-Bureau of Water Pollution Control
Water Pollution Control Permit Reclamation Permit	NDEP-BMRR
Permit to Appropriate Water – Change in Point of Use and Diversion	Nevada Division of Water Resources (NDWR)
Nevada State Dam Permit (storm water ponds)	NDWR

**Table 1-1 Major Permits and Approvals**

<b>Permit/Approval</b>	<b>Granting Agency</b>
Industrial Artificial Pond Permit	NDOW
Approval to Operate a Sanitary Landfill/ Solid Waste System Hazardous Waste Management Permit	NDEP-Bureau of Waste Management
Air - Surface Disturbance Permit Air - Permit to Construct Air - Permit to Operate	NDEP-Bureau of Air Pollution Control
Hazardous Materials Permit	State of Nevada; Fire Marshal Division
Radioactive Material License	Nevada State Health Division – Radiological Health Section
Road Construction Applications Building Permits	County
Potable Water System	NDEP-Bureau of Safe Drinking Water
Septic System	NDEP-Bureau of Water Pollution Control

## 1.8 Summary of Key Issues

Major issues associated with the Proposed Action identified during the preparation of this EIS include:

- Potential long-term geotechnical stability of project components;
- Potential for degradation of surface water or groundwater quality from the placement of waste rock containing a mixture of oxide- and sulfide-bearing materials;
- Potential impacts associated with the quality of water discharged from the existing Tailings Disposal Facility 1 that would be covered with the proposed West WRDF;
- Potential construction, operation, and closure of a new heap-leach facility;
- Potential post-closure pit lake water quality and associated impacts;
- Potential mule deer migration corridor disruption due to the proposed WRDFs;
- Potential livestock management issues including cattle movement and loss of grazing areas;
- Potential social and economic impacts to affected communities with an average of more than 200 new jobs created for the 8-year construction and operation of the mine; and
- Potential air emissions impacts, including mercury.

## 1.9 Organization of the Environmental Impact Statement

This EIS follows the CEQ recommended organization (40 CFR 1502.10). Chapter 1.0 provides descriptions of the purpose and need for the action, the role of the BLM in the EIS process, and the required regulatory actions for the proposed project. Chapter 2.0 describes the Proposed Action and alternatives, including the No Action Alternative. Chapter 3.0 describes the affected environment and the direct, indirect, and cumulative impacts associated with the Proposed Action and alternatives; possible mitigation to reduce or minimize impacts; and any residual adverse effects following the implementation

of mitigation. Chapter 4.0 summarizes public participation and the scoping process and the consultation and coordination undertaken to prepare the EIS. Chapter 5.0 presents the list of EIS preparers and reviewers. Chapter 6.0 presents the list of references. Copies of supporting documents are on file at the BLM Tuscarora Field Office in Elko, Nevada.