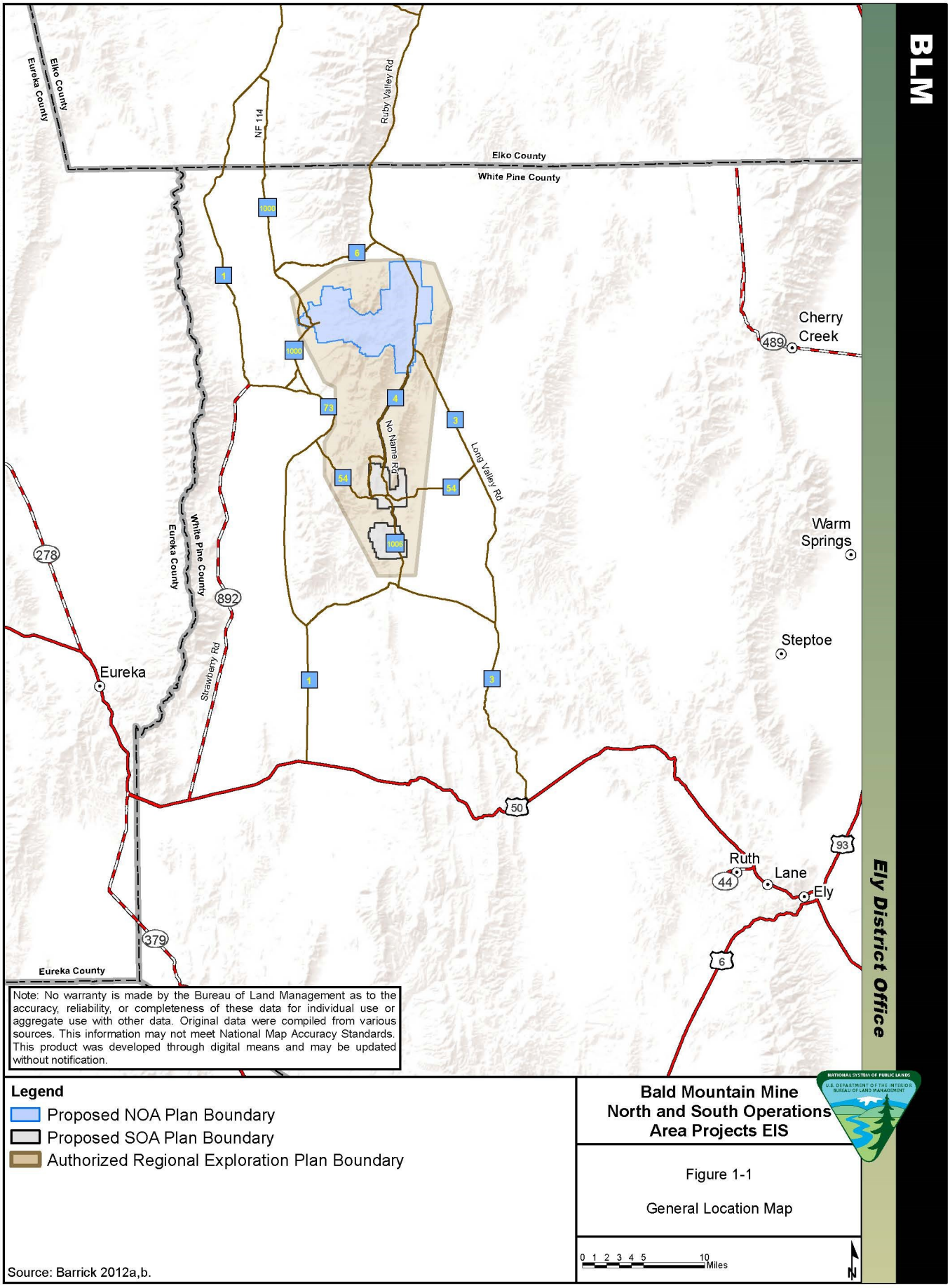
1.0 Introduction

1.1 Introduction and General Location

Barrick Gold U.S. Inc. (Barrick) is proposing to expand existing mine facilities for its Bald Mountain Mine (BMM) North and South Operations Area Projects (project). The project is located in the Bald Mountain Mining District in White Pine County, Nevada, approximately 65 miles northwest of Ely (**Figure 1-1**). The North Operations Area (NOA) project was submitted to expand and combine the current BMM NOA Plan of Operation (PoO) (NVN-82888) and Casino/Winrock PoO (NVN- 068521) into one PoO. The South Operations Area (SOA) was submitted to expand and combine the existing Alligator Ridge Mine (NVN-068655) and the Yankee Mine (NVN-068259) into one PoO. The proposed consolidation of mine plans and boundary modifications would eliminate overlap between various plan boundaries and approved activities. To comply with Title 43 Code of Federal Regulations (CFR), subpart 3809 (43 CFR §3809), as amended, and State of Nevada regulations governing the reclamation of mined lands (Nevada Administrative Code [NAC] 519A.010-635), Barrick submitted PoOs for the North and South Operations Area projects to the Bureau of Land Management (BLM) and Nevada Division of Environmental Protection (NDEP) in October 2011.

The 43 CFR §3809 regulations require that the BLM fulfill its obligation under the National Environmental Policy Act (NEPA) of 1969 by analyzing and disclosing the potential environmental impacts of the proposed project. This Environmental Impact Statement (EIS) analyzes and discloses the impacts of the current proposed project as per regulations promulgated by the Council on Environmental Quality (CEQ) for implementing procedural provisions of NEPA (40 CFR §1500-1508) and BLM's NEPA Handbook (H-1790-1). These regulations establish procedural and content requirements for NEPA documents and require that the NEPA documents: 1) analyze the impacts of the proposed project; 2) identify reasonable alternatives; 3) inform the public about the proposed project; 4) solicit public comment on the proposed project and alternatives; and 5) provide federal decision-makers with adequate information upon which to base decisions. The BLM, Ely District, Egan Field Office is the federal lead agency responsible for the preparation of this EIS. The Nevada Department of Wildlife (NDOW), U.S. Fish and Wildlife Service (USFWS), White Pine County, Eureka County, and the State of Nevada Sagebrush Ecosystem Program are serving as cooperating agencies for the preparation and review of this EIS.

This EIS has been prepared by the BLM in accordance with NEPA and with input from the cooperating agencies, other federal agencies, the State of Nevada, local agencies, and the public. The EIS discloses the impacts to the human and natural environment resulting from the proposed project. As applicable and provided for by the CEQ (40 CFR §1508.28 and 40 CFR §1502.20), this analysis tiers off of the 2009 *Final Environmental Impact Statement for the Bald Mountain Mine North Operations Area Project*, which included the expansion of the BMM and consolidation of the BMM and Mooney Basin Project into one PoO (NVN-82888). Since that time, there have been three amendments to that PoO, two of which were determined to be adequately covered under existing NEPA analysis, while the third PoO amendment was analyzed under an Environmental Assessment (EA), *Mooney Heap and Little Bald Mountain Expansion Project*. The BLM has carefully considered the two PoOs for the North and South Operations Area projects and has determined that they would require preparation of an EIS. This requirement, in part, is due to the new geographic location, size of the Proposed Action, and the potential resource impacts that have not been analyzed under existing NEPA documentation (516 DM 11.8 B(7)).



Bald Mountain Mine North and South Operations Area Projects EIS

Figure 1-1

General Location Map

12/21/2015

Pursuant to 40 CFR §1508.25, in determining the scope of analysis for the proposed project, the BLM must consider the range of actions, alternatives, and impacts to be considered in an EIS. These actions and related impacts include: 1) the direct and indirect impacts from the Proposed Action (and alternatives) and any connected actions that are inextricably linked to the Proposed Action or alternatives; and 2) the cumulative impacts of the Proposed Action (and alternatives) and past and present actions and reasonably foreseeable future actions (RFFAs) that would not be linked to the Proposed Action (and alternatives) but would affect the same resources.

1.2 Transfer of Ownership of the Bald Mountain Mine

Barrick completed the sale of the Bald Mountain Mine to Kinross Gold Corporation (Kinross) in January 2016 prior to completion of the EIS process. Kinross has assumed ownership of the Bald Mountain Mine and the proposed project. The Final EIS has retained the name of Barrick in the document, but Kinross is the new operator of the BMM and proponent of the proposed project.

1.3 Purpose of and Need for the Action

1.3.1 BLM Purpose

The BLM's Ely District, Egan Field Office received the PoOs from Barrick for the expansion of existing mine facilities and development of new mine facilities for the BMM project. The BLM's purpose is to provide Barrick the opportunity to construct and operate an expanded and new gold mine and associated facilities in the Proposed Action area.

1.3.2 BLM Need

The need for the action is established by the BLM's responsibility under the Federal Land Policy and Management Act of 1976 (FLPMA), the Mining Law of 1872, BLM's Surface Management Regulations (43 CFR §3809), and its Use and Occupancy Regulations (43 CFR §3715) to respond to Barrick's PoOs for constructing and expanding mining facilities, while preventing unnecessary or undue degradation of public land and ensuring future post-mining land uses.

1.3.3 BLM's Decision to be Made

The BLM will decide whether or not to approve Barrick's PoOs for the BMM project, as submitted or modified, based on the impact analysis and associated mitigation, as identified in the EIS.

1.4 Barrick's Project Objective

Barrick's objective for the proposed project is to profitably recover gold and other precious metal resources through mining and processing operations at the BMM site. To the extent practical, the proposed operations would utilize existing facilities and infrastructure at BMM's currently permitted operations for the proposed project.

1.5 Consistency and Compliance

1.5.1 BLM Ely District Record of Decision and Approved Resource Management Plan

The BLM has the responsibility and authority to manage the surface and subsurface resources on public lands located within the jurisdiction of the BLM Ely District, and it has designated lands within the proposed project area as open for mineral exploration and development. Within the *Ely District Record of Decision and Approved Resource Management Plan* (Ely District RMP) (BLM 2008, as amended), the BLM objective for locatable minerals is:

"To provide for the responsible development of mineral resources to meet local, regional, and national needs, while providing for the protection of other resources and uses."

The proposed project is consistent with the objectives of and is operating within the parameters of the Ely District RMP (2008, as amended).

The proposed project also is consistent with the Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA) (BLM 2015e). The BLM prepared this ARMPA to identify and incorporate appropriate measures in existing land use plans. It is intended to conserve, enhance, and restore GRSG habitat by avoiding, minimizing, or compensating for unavoidable impacts on GRSG habitat in the context of the BLM's multiple use and sustained yield mission under FLPMA (BLM 2015e). **Appendix A** provides a summary table of the management decisions and required design features or required design features (RDFs) from the ARMPA, whether or not the measure is applicable to the project, and whether the proposed project is consistent with the measure. Additional details supporting the consistency of the proposed project with the ARMPA is provided in **Appendix A**.

1.5.2 Surface Management Authorizations and Plans

The BLM is responsible for administering mineral rights access on certain federal lands as authorized by the General Mining Law of 1872, as amended. Under the law, qualified applicants are entitled to reasonable access to mineral deposits on public domain lands that have not been withdrawn from mineral entry. BLM authority is derived from the FLPMA. BLM regulations for the Surface Management (of mining) in Title 43 CFR, §3809 were promulgated in 1981 and revised in 2001, and derive their mandate from Sections 302 and 303 of the FLPMA. Barrick submitted their PoOs for the proposed project as required by BLM 43 CFR §3809 regulations. In order to use public land administered by the Egan Field Office, Barrick must comply with the BLM Surface Management Regulations (as amended) (43 CFR §3809) and other applicable statutes, including the Mining and Mineral Policy Act of 1970 (MMPA) (as amended) and FLPMA. The BLM has the responsibility and authority to manage the surface and subsurface resources on public lands located within the jurisdiction of the Egan Field Office.

The BLM must review Barrick's PoOs for developing the proposed project to ensure that:

- Adequate provisions are included to prevent unnecessary or undue degradation of federal lands;
- Measures are included to provide for reclamation of disturbed areas; and
- Proposed project activities comply with all applicable state and federal laws.

The BLM has reviewed Barrick's PoOs and has prepared this EIS to ensure compliance with these surface management requirements under the NEPA.

1.5.3 BLM Cyanide Management Plan

The BLM's national cyanide management policy requires that BLM state offices prepare a Cyanide Management Plan. The Nevada State Office of the BLM has prepared and administers the Nevada Cyanide Management Plan (BLM 1991). The Nevada Cyanide Management Plan is applicable to all public lands administered by the BLM in Nevada and would be applicable to the proposed project's heap leaching activities and relevant precious metal recovery processes. The Nevada Cyanide Management Plan provides guidance on cyanide use in mining activities and lists the following objectives:

- Implement the BLM's national cyanide management policy;
- Ensure that mining operations using cyanide on BLM-administered lands follow Best Management Practices (BMPs) and do not cause unnecessary or undue degradation of the federal lands;

- Provide both the mine operator and the BLM technical staff with standards for development and evaluation of mining projects that use cyanide; and
- Use state standards, if established.

The Nevada Cyanide Management Plan is not intended to duplicate requirements of other federal or state agencies with responsibility for managing the use of cyanide in mining operations. Where standards are established for mining operations by the State of Nevada through the NDEP, Bureau of Mining Regulation and Reclamation (BMRR), they shall apply when reviewing a Notice or a Plan. The BLM has reviewed the PoOs for the proposed project to ensure that it is in conformance with the Nevada Cyanide Management Plan.

1.5.4 BLM Reclamation Standards

The MMPA mandates that federal agencies ensure that closure and reclamation of mine operations be completed in an environmentally responsible manner. The MMPA states that the federal government should promote the "development of methods for the disposal, control, and reclamation of mineral waste products, and the reclamation of mined lands, so as to lessen any adverse impact of mineral extraction and processing upon the physical environment that may result from mining mineral activities."

Relevant BLM policy and standards for reclamation are presented in the BLM Solid Minerals Reclamation Handbook (BLM Manual Handbook H-3042-1), which provides consistent reclamation guidelines for all solid non-coal mineral activities conducted under the authority of the BLM Minerals Regulations in Title 43 CFR (BLM 1992). BLM's short-term reclamation standards and goals include stabilization of disturbed areas and protection of both disturbed and adjacent undisturbed areas from unnecessary or undue degradation. The BLM's long-term reclamation standards and goals include the establishment of a self-sustaining, safe, and stable condition providing productive post-mining use of the land, which conforms to the approved land use plan for the area. The BLM has reviewed the Reclamation Plan for the proposed project to ensure that the proposed project would meet BLM's reclamation standards and goals.

1.5.5 Relationship to Non-BLM Policies, Plans, and Programs

White Pine County, in cooperation with the Nevada Division of State Lands, has adopted a Public Lands Policy Plan within its jurisdiction. This policy plan was developed in response to Nevada State Bill 40, which directs the State Land Use Planning Agency to work with local planning entities to prepare local plans and policy statements regarding the use of federal lands in Nevada. The 2007 White Pine County Public Lands Policy Plan emphasizes that the development of Nevada's mineral resources as "desirable and necessary to the economy of the nation, the state, and particularly to White Pine County" (White Pine County Public Land Users Advisory Committee [PLUAC] 2007).

The 2007 White Pine County Public Lands Policy Plan includes the following policies relevant to the proposed project:

- **Policy 7-1**: Encourage the careful development and production of White Pine County's mineral resources while recognizing the need to conserve other environmental resources.
- **Policy 7-2**: Support state and federal policy that encourages both large and small scale operations. Regulatory hurdles should not be so complex that they undermine the principles of the various mining and leasing laws, including the Mining Law of 1872.
- **Policy 7-3**: Mineral operations should be consistent with BMPs for the protection of the environmental qualities and the multiple use of public lands. Federal and state regulatory agencies should continue to enforce existing reclamation standards to ensure there is no unnecessary or undue degradation of the public lands and adjacent private lands.

- **Policy 7-4**: Mine site and exploration reclamation standards should be consistent with the best-possible post-mine use for each specific area. Specific reclamation standards should be developed for each property rather than using broad-based universal standards. Private properties (i.e., patented claims) should be reclaimed to the standard and degree desired by their respective owners, following state law and regulations.
- **Policy 7-5**: Reclamation of mine sites should be coordinated with the White Pine County Commission and the PLUAC. Options should be considered for post-mine use of buildings, access roads, water developments, and other infrastructure for further economic development by industry as well as uses pursuant to the Recreation and Public Purposes Act (White Pine County PLUAC 2007).

The proposed project is consistent with all of these relevant policies of the 2007 White Pine County Public Lands Policy Plan.

1.6 Environmental Review Process

Numerous opportunities for public input occurred during the NEPA decision-making process. The initial step in this EIS process was to notify the public and other government agencies of the BLM's intent to prepare an EIS. The BLM published a Notice of Intent (NOI) to prepare an EIS for the proposed project in the Federal Register (FR) on April 16, 2012. The NOI included a summary of the proposed project, information on public scoping, and project contact information. Publication of the NOI initiated a 30-day scoping period. The purpose of public scoping was to actively solicit and acquire input from the public and other interested federal, state, tribal, and local entities about the proposed project. As part of the scoping process, the BLM conducted public scoping meetings in Ely, Eureka, Elko, and Reno, Nevada, from May 7 through May 10, 2012. For details on public scoping, see Section 4.1.1, Scoping.

Information received during public scoping helped the agencies identify potential environmental issues/impacts, alternatives, and mitigation measures associated with the development of the proposed project. The process provided a mechanism for focusing and clarifying the issues so the EIS addressed and analyzed the primary areas of concern. Key potential resource issues identified during public scoping included:

- Potential for degradation of surface water or groundwater quality;
- Potential depletion of groundwater from pit lakes and/or water withdrawals for mine operations;
- Potential impacts to the Management Area 10 mule deer herd, mule deer habitat, and migration corridors;
- Potential impacts to greater sage-grouse habitat and strutting grounds;
- Potential impacts to Wild Horse Herd Management Areas (HMAs), including herd access to surface water sources;
- Potential air quality impacts from fugitive dust containing mercury, arsenic, or other contaminants; and
- Potential visual impacts to visual resources, including the visual setting of the Pony Express Trail and the Ruby Lake National Wildlife Refuge (NWR).

After completion of the public scoping period, a Draft EIS was prepared to address the environmental effects associated with the Proposed Action including the issues and concerns identified during the scoping period. The Draft EIS was published through the Notice of Availability in the FR on August 14, 2015, and the public was given the opportunity to comment on the EIS during a 60-day comment period. During the public comment period, the BLM conducted four public meetings. The public was afforded the opportunity to submit written comments at public meetings as well as by mail, facsimile, and e-mail. For additional details, see Section 4.1.2, Public Review of the Draft EIS, and **Appendix J**, Response to

Comments, which includes a summary of public outreach, public comments received, the content analysis process, and responses to all substantive public comments received on the Draft 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 major permits or approvals that are already in place or would be obtained and the responsible regulatory agencies. Barrick 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 Record of Decision (ROD) PoO Approval and Notice to Proceed	BLM
Section 106 National Historic Preservation Act (NHPA) Programmatic Agreement (PA)	BLM and State of Nevada Historic Preservation Office
Air - Surface Disturbance Permit Air - Permit to Construct Air - Permit to Operate	NDEP-Bureau of Air Pollution Control (BAPC)
Water Pollution Control Permit Reclamation Permit	NDEP-Bureau of Mining Regulation and Reclamation
Potable Water System	NDEP-Bureau of Safe Drinking Water
Approval to Operate a Sanitary Landfill/ Solid Waste System	NDEP-Bureau of Waste Management
National Pollutant Discharge Elimination System Storm Water General Permit Septic System	NDEP-Bureau of Water Pollution Control (BWPC)
Industrial Artificial Pond Permit	NDOW
Permit to Appropriate Water Change in Point of Diversion Change in Place of Use	Nevada Division of Water Resources (NDWR)
Hazardous Materials Permit	State of Nevada; Fire Marshal Division
Explosives Permit	United States Bureau of Alcohol, Tobacco, and Firearms
Hazardous Material Certification of Registration	United States Department of Transportation (USDOT)
Identification Number	United States Environmental Protection Agency (USEPA)
Road Construction Applications, Road Maintenance Agreement, Building Permits	White Pine County

1.8 Organization of the Environmental Impact Statement

As described in detail in the previous sections, Chapter 1.0 of the EIS provides an introduction and general location of the existing/authorized and reclaimed facilities and Proposed Action. In addition, this chapter describes: the purpose of and need for the proposed project; identified scoping issues to be

addressed by the EIS, public review of the Draft EIS, responsibilities of the BLM; compliance of the proposed project to existing BLM and non-BLM policies, plans, and programs; environmental review process; and permits and approvals that would be needed for the proposed project.

Chapter 2.0 provides detailed information regarding existing facilities and operations at the BMM, the Proposed Action, other action alternatives, the No Action Alternative, proposed and completed reclamation, Barrick's environmental protection measures, alternatives considered but eliminated from detailed analyses, interrelated projects, and a summary comparison of impacts between the Proposed Action, action alternatives, and No Action Alternative. Numerous figures illustrating mine components and other features that would be part of the Proposed Action or other action alternatives also are provided in this chapter.

Chapter 3.0 describes the existing affected natural and human environment within proposed disturbance areas associated with the study area and the potential direct and indirect impacts to natural and human environment resources from the Proposed Action and alternatives. As part of this analysis, Chapter 3.0 also discloses the cumulative impacts to these resources from the Proposed Action and alternatives in combination with impacts from other past and present actions and RFFAs; potential monitoring and mitigation measures developed to avoid, minimize, or mitigate resource impacts; and residual impacts to these resources after the implementation of potential monitoring and mitigation measures. This chapter also contains specifically required disclosures regarding the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity, and irreversible and irretrievable commitment of resources (NEPA Sec. 102 C(iv)).

Chapter 4.0 provides a summary of the public participation and scoping process used to solicit comments on the Proposed Action and alternatives and identify issues or concerns; consultation and coordination undertaken to prepare the EIS; and a list of federal, state, and local agencies, tribal organizations, and private organizations and companies that were contacted during the preparation of the EIS.

Chapter 5.0 provides a list of lead and cooperating agency personnel and the third-party NEPA contractor's (AECOM) team members that prepared the EIS. Chapter 6.0 lists the references that were used in the EIS to document the source or sources of information. Chapter 7.0 includes a glossary of terms the readers can use to obtain definitions for scientific or technical terms. Appendices included in the EIS provide supplemental detailed information used to support statements or findings documented in the EIS.