

Chapter 1 Introduction

1.1 Overview

A Plan of Operations for the proposed Bald Mountain Mine - North Operations Area Project has been submitted by Barrick Gold U.S., Inc. (Barrick) to the Bureau of Land Management (BLM) Egan Field Office, in compliance with 43 Code of Federal Regulations Subpart 3809. The Plan of Operations details the proposed expansion of the existing Bald Mountain Mine (hereafter referred to as BMM) and Mooney Basin operations including the expansion of six open pits, the addition of rock disposal areas, a truck shop, and growth medium stockpiles. In addition, the Plan of Operations proposes to combine the existing Plans of Operations for the BMM and the Mooney Basin Operations Areas. The BMM and Mooney Basin Operations Areas are located approximately 65 air miles northwest of the town of Ely, Nevada, in White Pine County (Figure 1-1). The Proposed Action area encompasses portions of Townships 23 and 24 North, Ranges 56, 57, and 58 East.

This Environmental Impact Statement (EIS) is being prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulations 1500 – 1508) and in accordance with the BLM NEPA Handbook H-1790-1 (BLM, 2008) and applicable instruction memoranda.

Chapter 1 explains the Purpose and Need for the Proposed Action, the issues surrounding the action, and other introductory information. It also discusses how the project relates to the *Ely District Record of Decision and Approved Resource Management Plan* (BLM, 2008), NEPA, and the authorities guiding the EIS process. **Chapter 2** describes the Proposed Action and alternatives including the No Action Alternative. The No Action Alternative would continue the management direction established by the *Bald Mountain Mine Expansion Project Final Environmental Impact Statement* prepared in September 1995 (BLM, 1995a) and subsequent approved Record of Decision (BLM, 1995b), as well as final Environmental Assessments for expansions of Mooney Basin (BLM, 2003a) and BMM (BLM, 2005b). **Chapter 3** describes the affected environment and predicts the direct and indirect environmental consequences of the Proposed Action and each management alternative that are likely to occur. Cumulative impacts are described in **Chapter 4**. **Chapter 5** provides the consultation and coordination information used in preparation of this document, as well as a list of FEIS preparers. **Chapter 6** contains the list of references cited, abbreviations, and acronyms. **Appendices** include Appendix A - a list of relevant plans, statutes, regulations, executive orders, and management plans; Appendix B - public scoping documents; Appendix C – Public Comments and Response to Comments; Appendices D - Standard Bureau of Land Management Best Management Practices; Appendices E through I - supporting analysis information; Appendix J - Programmatic Agreement for Cultural Resource Protection at Mine Sites.

This FEIS describes the environmental consequences of implementing the Proposed Action and the identified alternatives.

1.2 Project History

Between 1869 and 1956 the Bald Mountain Mining District produced gold, silver, copper, antimony, and tungsten. Larger scale exploration and mining activities began in the 1970s within the BMM area and Mooney Basin Operations Area. In 1976, Placer Dome U.S. acquired an option on claims within the Bald Mountain Mining District and initiated exploration for

precious metals. A pilot-scale heap leach project was initiated at BMM in 1983 and was upgraded to a commercial heap leach facility in 1985. Large scale activities at BMM have been expanded periodically since the commercial processing facility was initiated. In September 1995, the BMM EIS was finalized for the expansion of pits, rocks disposal areas, roads, and ore-processing facilities (BLM, 1995a). Approved Plan of Operations amendments during the period from 1997 to 2005 included new/expanded pits, rock disposal areas, haul roads, and the Top Area underground facilities (Table 1-1).

The original Plan of Operations for the Mooney Basin Operations Area was submitted to the BLM in March 1994 and approved in 1995 (BLM, 1995a). Approved facilities include a heap leach pad and process facilities, rock disposal areas, pits, haul roads, and exploration disturbance. Several amendments were completed during the period from 1998 to 2005, including a 2005 Mooney Basin amendment for an expansion and modification to the heap leach facility and haul roads (Table 1-1).

TABLE 1-1 PROJECT NEPA HISTORY

PROJECT	3809/NEPA ACTIONS ENVIRONMENTAL ASSESSMENTS/EIS	APPROVAL DATE	NEPA DOCUMENT NO.
Bald Mountain (N-68193)	Bald Mountain Mine Expansion Project EIS	September 1995	NV-040-1995 FEIS
	1995 Plan of Operations (LJ Ridge)	March 1997	NV-040-97-12
	2005 Bald Mountain Mine Expansion Environmental Assessment	November 2005	NV-040-006-005 N-78825
Mooney Basin (N-78822)	Bald Mountain Mine Expansion Project EIS	September 1995	NV-040-1995 FEIS
	2003 Mooney Basin Expansion Environmental Assessment	March 2004	NV40-03-032
	2005 Plan of Operations and Reclamation Permit Amendment	March 2005	N-78822

The existing BMM and Mooney Basin Operations Area projects have been previously analyzed under the BMM EIS (BLM, 1995a), the *Mooney Basin Expansion Project Environmental Assessment* (BLM, 2003a), the *Final Bald Mountain Mine 2005 Expansion Environmental Assessment*, and a 2005 Plan of Operations and Reclamation Permit Amendment (Table 1-1). Previous NEPA actions authorized the disturbance of 3,418 acres within the BMM Plan of Operations boundary and 747 acres within the Mooney Basin Operations Area Plan of Operations boundary (a total of approximately 4,165 acres). Figure 1-2 shows the BMM and Mooney Basin Operations Area Plans of Operations boundaries and existing approved facilities.

1.3 Purpose and Need for Action

1.3.1 Introduction

Council on Environmental Quality regulations state that the document shall briefly specify the underlying purpose and need to which the agency is responding. The applicant's purpose and need must not be confused with the BLM purpose and need for the action. The PURPOSE is the goal or objective that would be achieved through the Proposed Action or alternatives. The NEED is the underlying problem or opportunity.

1.3.2 BLM's Purpose and Need

The BLM is responsible for authorizing mineral rights access on certain federal lands as authorized by the General Mining Law of 1872 as amended. The BLM also has the responsibility to protect surface resources of BLM-administered lands to the extent practicable.

Figure 1-1 General Location

Figure 1-2 Existing and Previously Authorized BMM and Mooney Basin Operations Area Facilities

BLM Surface Management Regulations state that "Anyone intending to develop mineral resources [authorized by the mining laws] on the public lands must prevent unnecessary or undue degradation of the land and reclaim disturbed areas" (43 Code of Federal Regulations Subpart 3809.1).

The BLM's Purpose for the proposed BMM North Operations Area Project is to authorize a legitimate use of the public lands which would allow Barrick to continue to profitably recover gold resources from federal mining claims in the Proposed Action area. The BLM would strive to balance the financial and social benefits from this Proposed Action while preventing unnecessary or undue degradation of public lands and ensuring future post-mining land use. The BLM would then meet its mission statement to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

The BLM's Need is to respond to Barrick's Plan of Operations in compliance with the 43 CFR 3809 regulations and other statutes.

1.3.3 Barrick's Purpose and Need

The purpose of Barrick's Plan of Operations for the BMM North Operations Area Project is to expand mining opportunities at the BMM and Mooney Basin Operation, while consolidating these two mines into one new Plan of Operations called North Operations Area. The need is to continue to profitably recover gold resources from federal mining claims within the Proposed Action area.

1.4 Proposed Action

To meet the purpose and need, Barrick has submitted a proposal to the BLM Egan Field Office to expand and consolidate the Plans of Operations for the BMM and Mooney Basin Operations Areas. The Proposed Action would consolidate the existing BMM (N-68193) and Mooney Basin Operations Area (N-78822) Plans of Operations into one unified Plan of Operations identified as the proposed BMM North Operations Area Project.

The Proposed Action consists of expanding existing open pits, rock disposal areas, and heap leach facilities and constructing a new truck shop, as well as continuing the operation, reclamation, and closure of the consolidated BMM and Mooney Basin Operations Area (including mine offices, truck shops/warehouse, haul roads, ore stockpiles, access roads, diversion ditches, power transmission lines, water wells and pipelines, process solution pipelines, and a landfill). The proposed expansion would be primarily on unpatented mining claims on BLM-administered land. Project access would continue to be via existing public roads. The life of the existing mine operation (currently estimated to end in mid to late 2009) would increase by approximately 10 years under the Proposed Action. The Proposed Action includes 3,920 acres of new disturbance. A total of 4,165 acres of disturbance has been previously authorized. If the Proposed Action was implemented, the authorized disturbance footprint would increase to 8,085 acres. The Proposed Action also includes reclamation of disturbance.

Combining the Mooney Basin Operations Area and the BMM into one project area would result in the new BMM North Operations Area Project Plan of Operations boundary being expanded to include an additional 3,738 acres of public land. The original operational boundaries of the two mines encompassed 12,727 acres of public and private land. The Proposed Action area boundary for the BMM North Operations Area Project would encompass a total of 16,465 acres of public and private land, although only 8,085 acres within this boundary would be disturbed. The new proposed consolidated Plan of Operations boundary is shown on Figure 1-3.

Nearly all of the proposed mining activities are located on public land and are therefore subject to review and approval by the BLM pursuant to the Federal Land Policy and Management Act of 1976, as amended, and corresponding surface management regulations (43 Code of Federal Regulations Subpart 3809). These activities and their approval by the BLM pursuant to the Federal Land Policy and Management Act constitute a federal action and are thus subject to NEPA. The BLM has determined that the Proposed Action constitutes a major federal action and that an EIS must be prepared to fulfill the requirements of NEPA.

The Proposed Action is discussed in further detail in Chapter 2.

1.5 Existing Analysis Documents Used for This Statement

This FEIS incorporates by reference the following existing environmental analyses:

Bureau of Land Management (BLM). 1995. *Bald Mountain Mine Expansion Project Final Environmental Impact Statement*. U.S. Department of the Interior, Bureau of Land Management, September 1995.

_____. 2003. *Mooney Basin Expansion Project Environmental Assessment* (NV040-03-032), December 2003.

_____. 2004. *Bald Mountain Mine Exploration Program Programmatic Environmental Assessment* (NV040-04-023), October 2004.

_____. 2005. *Bald Mountain Mine 2005 Expansion Environmental Assessment* (NV040-006-005), November 2005.

_____. 2006. *Placer Dome U.S., Inc. Bald Mountain Mine, Little Bald Mountain Mine, Underground Mining and Haul Road Environmental Assessment* (NV040-06-035), September 2006.

These documents are included in the Administrative Record and are available for review at the BLM Egan Field Office.

1.6 Relationship to Agency and Other Policies and Plans

The BLM is responsible for administering mineral rights access on certain federal lands as authorized by the General Mining Law of 1872. Under the law, qualified prospectors are entitled to reasonable access to mineral deposits on public domain lands that have not been withdrawn from mineral entry.

The BLM Ely District has the responsibility and authority to manage the surface and subsurface resources on public lands located within the Ely District. Barrick's use of public land in the Ely District requires compliance with BLM's Surface Management Regulations (43 Code of Federal Regulations 3809) and other applicable statutes, including the Mining and Mineral Policy Act of 1970 (as amended) and Federal Land Policy and Management Act of 1976 (as amended). The BLM must review Barrick's plan for mining and development to ensure the following:

- Adequate provisions are included to prevent unnecessary or undue degradation of federal lands and to protect the non-mineral resources of the federal lands;

Figure 1-3 Proposed North Operations Area Project Facilities

- Measures are included to provide for reclamation of disturbed areas; and
- Compliance with applicable state and federal laws is achieved.

In accordance with Section 202 of Federal Land Policy and Management Act of 1976 (as amended), the Proposed Action and alternatives are in conformance with the Ely District Record of Decision and Approved Resource Management Plan (BLM, 2008). The objective for minerals in the Ely Resource Management Plan 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 Management Action for locatable minerals is to, “Allow locatable minerals development on approximately 9.9 million acres of Federal mineral estate, subject to the prevention of unnecessary or undue degradation of public lands.” The location of the Proposed Action is within the 9.9 million acres open to locatable minerals. The Proposed Action and alternatives have also been analyzed within the scope of other relevant plans, statutes, regulations, executive orders, and manuals listed in Appendix A.

The Proposed Action and alternatives are also consistent with the *White Pine County Public Land Use Plan* (White Pine County, 1998b), which specifically recognizes that development of mineral resources is desirable and necessary to the State and the nation. The Plan also states that it is the policy of White Pine County to encourage mineral exploration and development.

The BMM EIS (BLM, 1995a) and the supporting cumulative impacts analysis in Appendix B of the EIS were also used to the extent practicable in the preparation of this document.

1.7 Authorizing Actions

The BLM is the lead agency for this EIS. The BLM Ely District Manager is the official responsible for preparation of this FEIS. The Nevada Department of Wildlife (NDOW) is serving as a cooperating agency for preparation and review of this FEIS. NDOW is the State agency directly responsible for managing fish and wildlife resources in Nevada. The BLM is responsible for the analysis of the Proposed Action and alternatives, document preparation, and public review and comment. Implementing the Proposed Action or the alternatives would require authorizing actions from other federal, state, and local agencies with jurisdiction over certain aspects of the Proposed Action. Table 1-2 lists all the required state and federal permits or approvals and the responsible agencies. Barrick is responsible for applying for and acquiring the permits listed. Most of the permits are already in place for the existing BMM and Mooney Basin Operations Area projects, and only modifications would be required for the existing permits.

TABLE 1-2 REQUIRED PERMITS

AUTHORIZING ACTION / PERMIT	AGENCY
43 Code of Federal Regulations 3809 Plan of Operations Authorization	BLM
Air Quality Operating Permit	Nevada Division of Environmental Protection, Bureau of Air Pollution Control
Hazardous Materials Storage Permit	Nevada State Fire Marshal
Explosives Permit	U.S. Department of the Treasury, Bureau of Alcohol, Tobacco, and Firearms
Water Pollution Control Permit and Reclamation Permit	Nevada Division of Environmental Protection, Bureau of Mining Regulation and Reclamation

AUTHORIZING ACTION / PERMIT	AGENCY
General Permit for Storm Water Discharges Associated with Industrial Activity from Metals Mining	Nevada Division of Environmental Protection, Bureau of Water Pollution Control
General Permit to Operate Septic Systems	Nevada Division of Environmental Protection, Bureau of Water Pollution Control
Jurisdictional Delineation Report Concurrence	U.S. Army Corps of Engineers
Permit to Appropriate Water	Nevada Division of Water Resources
Solid Waste Class III Wavered Landfill Authorization	Nevada Division of Environmental Protection, Bureau of Waste Management
EPA ID Number (RCRA)	U.S. Environmental Protection Agency
County Special Use Permit	White Pine County
Hazardous Materials Transportation Permit	Nevada Department of Transportation.
Public Water System Permit	Nevada Division of Environmental Protection, Bureau of Safe Drinking Water
Industrial Artificial Pond Permit	Nevada Department of Wildlife

1.8 Summary of Public Scoping Process

A Notice of Intent to prepare an EIS for the BMM North Operations Area Project was published in the Federal Register on March 30, 2007. The Notice of Intent announced scoping meetings to be held in the neighboring communities of Ely, Elko, and Eureka, Nevada, and invited scoping comments to be submitted to the BLM. The duration of the public scoping period was 56 days, closing on May 25, 2007 (Appendix B).

The original project mailing list (Appendix B) for this was generated by the BLM Egan Field Office in March 2007, and represented individuals, agencies, or organizations who had expressed interest in similar projects. A scoping letter was prepared and sent to all parties on the mailing list. This letter provided an overview of the Proposed Action; identification of preliminary issues; the times, dates, and locations of public scoping meetings; a request for written comments; directions on how to submit scoping comments; and identification of BLM contacts (Appendix B).

A legal notice of the Proposed Action was prepared by the BLM and published in the *Elko Daily Free Press* and *Ely Daily Times* and distributed to public posting locations in Ely, Elko, and Eureka. A news release was also distributed to the local media. The legal notice and each news release informed the public of BLM's intention to prepare the BMM North Operations Area Project EIS, a description of the Proposed Action, the dates and times of the three scoping meetings, and methods for providing comments (Appendix B).

Scoping meetings were held in Elko, Ely, and Eureka, Nevada, on May 7, 8, and 9, 2007, respectively. The meetings were informal and held in an open-house format where information on the NEPA process and project specifics was displayed with posters, handouts, and presentations. Representatives of BLM, NDOW, and Barrick attended the meetings. Public attendees at the meetings were asked to sign a register and invited to provide scoping comments. These were made part of the administrative record, which is available at the BLM Egan Field Office.

1.9 Issues

Issues were raised both internally (see Chapter 2 for discussion of internally generated issues) and externally. All comments received during public scoping were recorded. Issues and concerns that were raised included potential impacts on Ruby Valley and the Ruby Lake National Wildlife Refuge, located approximately seven air miles north of the Proposed Action area. Additional comments included concerns about increased traffic, increased vehicle speed, increased water use, loss of wildlife habitat (mule deer winter range in particular), air quality, land use access, visual aesthetics, potential economic impacts, and mercury deposition. Table 1-3 provides a list of the individuals who provided comments during the public scoping period for the Proposed Action including these comments and concerns. Although these were considered during the NEPA process, not all concerns warrant analysis in the EIS. Key issues of analysis that came from the internal and external scoping process are the potential changes to groundwater quality and quantity, change in water discharge and recharge that may affect seeps and springs, loss of cultural resources, the potential for increased mercury and particulate pollutants in the air, the potential for spread of non-native invasive species, the potential effect on pygmy rabbit and sage grouse habitat, the reduction of transitional wildlife habitat, specifically mule deer, and the potential for mine activities and structures to adversely affect migratory deer movement. These and other issues for analysis are summarized in the Summary under each resource.

TABLE 1-3 PUBLIC COMMENT INFORMATION

NAME	ORGANIZATION	COMMENT
Martha Collins	Refuge Manager, Ruby Lake National Wildlife Refuge	<ul style="list-style-type: none"> - Increased traffic through Ruby Valley and refuge. Safety concern. - Hearing rumors of paving Ruby Valley Road (not in favor). - Increased use of water. Concern with pumping and effect on refuge habitat.
Tom Bath	Bath Lumber Co.	Meetings were very informative. Fully supports project.
George Fennemore	Barrick Gold Corporation Cortez Gold Mines	Please consider the socioeconomic value of high wage mining jobs for the workforces in Elko, Spring Creek, Ely, Eureka, and other communities in northeast Nevada.
Don Harris	Midway Gold Corp.	<ul style="list-style-type: none"> - Bald Mtn has been an excellent neighbor especially w/blading main road between Jiggs and Mine. - Concern over wildlife habitat loss, especially mule deer which use the south Rubies as winter range. - Fugitive Dust - Increased water use with expansion in a dry area.
Anonymous		<ul style="list-style-type: none"> - Main concern with more vehicles on road and speed they travel. Sees traffic speeding on road. - Worried about the environment, wildlife, air quality, aesthetics, land use access.
Anonymous		<ul style="list-style-type: none"> - Increased dust particulates. - Potential mercury deposition (effects on refuge wildlife). - Generally, please thoroughly discuss impact of expanded operations on the refuge. - Does increased area mean increased mining activity?

NAME	ORGANIZATION	COMMENT
Jeanne Geselbracht	Environmental Protection Agency	Environmental Protection Agency's recommendations for inclusion in this EIS. - Purpose and Need Statement - Alternatives Analysis - Water Resources - Air Quality - Hazardous Air Pollutants - Vegetation and Wildlife - Mining Waste Management and Land Reclamation - Environmental Justice - Government to Government Consultation - Land Use - Pollution Prevention - Cumulative Impacts
Gosia Sylwestrzak	Nevada State Clearinghouse	- Indicating the Division of Water Resources supports the proposal as written.

1.10 Summary of DEIS Public Comment Period

The BMM North Operations Area Project Draft Environmental Impact Statement (DEIS) was made available for public comment on December 19, 2009. The public comment period lasted 45 days from December 19, 2009 until February 2, 2009. Three public comment meetings were held during the public comment period. These meetings were held in Ely, Nevada on January 6, 2009; Elko, Nevada on January 7, 2009; and in Eureka, Nevada on January 8, 2009. Project information was presented in an open-house format at these meetings with BLM and Barrick representatives present to discuss concerns and answer questions.

Individuals, public agencies, and non-profit organizations submitted 17 letters containing comments on the DEIS. The comments received and responses to these comments are contained in Appendix C. Additional information about public scoping is presented in Chapter 5 Consultation and Coordination.