

# **1 INTRODUCTION: PURPOSE OF AND NEED FOR ACTION**

## **1.1 Introduction and Location**

CGM has proposed the Project as an expansion of the Pipeline/South Pipeline Project. Specifics of the Project are outlined in the Modification to the Pipeline Plan of Operations for the Pipeline/South Pipeline Pit Expansion, January 2001, revised April 2004. The planned additional development of the South Pipeline ore deposit would account for up to an additional seven years of mining and processing beyond the 18 years of mining and processing outlined in the South Pipeline Project Final Environmental Impact Statement (EIS) (BLM 2000a, page 3-1). This would increase the mine life for up to a total of 25 years.

The Project is located within Township 27 North, Range 47 East (T27N, R47E), T28N, R47E, and T27N, R46E, Mount Diablo Base and Meridian (M.D.B.M.) (Project Area) (Figure 1.1.1). The Project Area is located within the Joint Venture Area (JVA), established by Placer Dome U.S. and Kennecott Minerals, where all mineral exploration and development activities by these two companies are conducted by CGM. The Project Area comprises a total of 39,350 acres of public lands administered by the BLM Battle Mountain Field Office (38,270 acres), and fee lands (1,080 acres). The Cortez facility is located beyond and east of the boundary of the Project Area (Figure 1.1.2).

The Project is located approximately 30 miles southeast of Battle Mountain, Nevada in Lander County (Figure 1.1.1). The Project is reached by traveling from Battle Mountain on U.S. Interstate 80 (I-80) approximately 30 miles east, or from Elko, Nevada approximately 42 miles west, to the Beowawe Exit, then traveling approximately 31 miles south on Nevada State Route (SR) 306.

The proposed mining activities, located on public lands, are subject to review and approval by the BLM pursuant to the Federal Land Policy and Management Act (FLPMA) and subsequent surface management regulations (43 Code of Federal Regulations [CFR], Subpart 3809). The activities, and their approval by the BLM pursuant to the FLPMA, constitute a federal action and are thus subject to the National Environmental Policy Act (NEPA). The BLM has determined that the Project constitutes a major federal action and has determined that a Supplemental EIS (SEIS) must be prepared to fulfill NEPA requirements.

The SEIS is being prepared by the BLM, which is the Lead Agency with respect to compliance with the NEPA and its implementing regulations. The Nevada Department of Wildlife (NDOW) is a cooperating agency for the preparation and review of the SEIS and is responsible for providing information within its area of expertise.

The SEIS is prepared in compliance with the NEPA, and in accordance with BLM Handbook H-1790-1, Battle Mountain Field Office NEPA Handbook, and Nevada State Office (NSO) Instruction Memorandum NV-90-435 on the analysis of cumulative impacts. The SEIS considers the quality of the natural environment based on the physical impacts to public and private lands that may result from implementation of the Project.

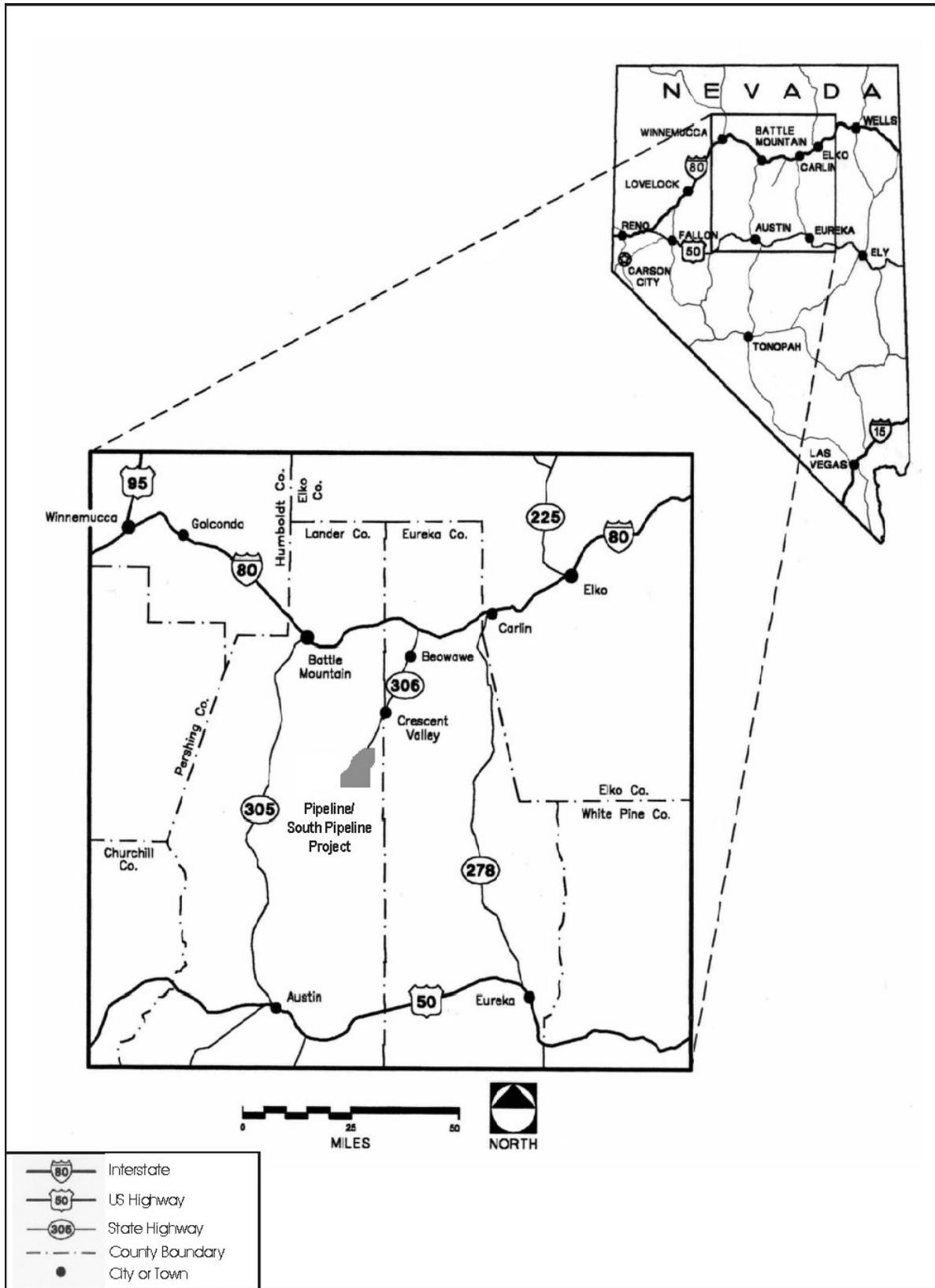
## **1.2 CGM Projects**

### **1.2.1 Existing and Previously Approved CGM Facilities and Operations**

Existing approved CGM mining and processing facilities are located in two main areas as follows: Cortez, and Gold Acres/Pipeline/South Pipeline (Figure 1.1.2). In addition, mining has occurred in the Horse Canyon area approximately 11 miles east of the Pipeline/South Pipeline facilities. The Cortez area lies on the east side of Crescent Valley on the western flank of the Cortez Mountains in Lander County, approximately six miles west of Horse Canyon. The Gold Acres and Pipeline areas lie on the southwest side of Crescent Valley in the Shoshone Range in Lander County, approximately eight miles northwest of the Cortez area. The Gold Acres/Pipeline/South Pipeline area contains the Gold Acres, London Extension of the Gold Acres deposit and Pipeline/South Pipeline open pit mines, as well as the Pipeline/South Pipeline operations, which are discussed in greater detail in Chapter 2. The Horse Canyon area is located approximately two miles east of Mount Tenabo in the Cortez Mountains in Eureka County. The Horse Canyon area encompasses the Horse Canyon and South Silicified open pit mines.

### **1.2.2 Proposed Action**

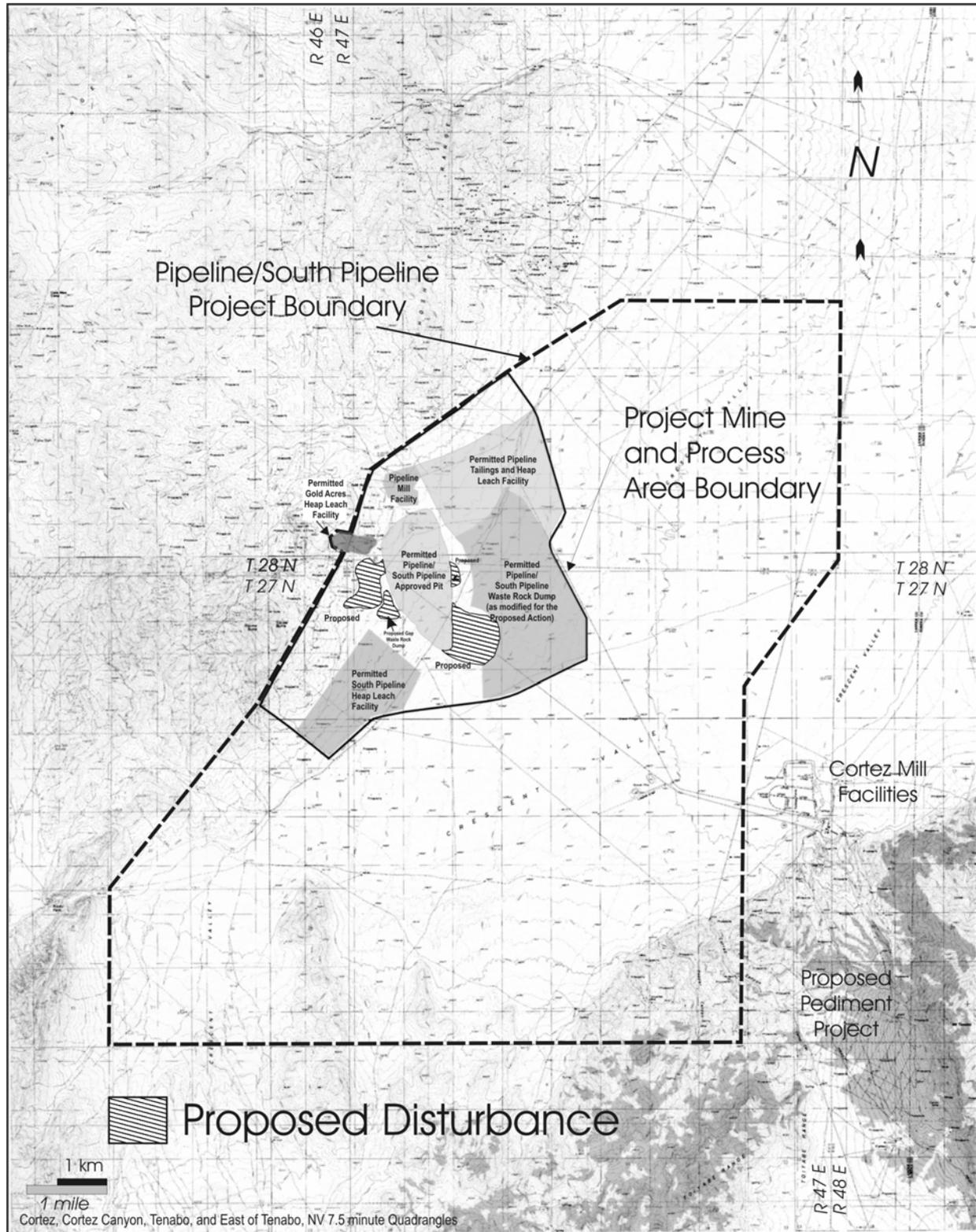
The Proposed Action is an expansion of the approved Pipeline/South Pipeline Project within the existing and approved area of surface disturbance. The planned additional development of the South Pipeline ore deposit would provide up to seven additional years of mining and processing beyond the 18 years of mining and processing outlined in the South Pipeline Final EIS (BLM 2000a, page 3-1). This will increase the mine life for a total of up to 25 years. There would be no additional surface disturbance beyond the 7,676 acres approved in the South Pipeline Final EIS and the Gravel Pit EA and Expansion (BLM 2000a, CGM 2001c). The actions associated with the Project would consist of the following: a) expand the South Pipeline open pit to the east, southeast, and southwest; b) increase the depth of the Pipeline/South Pipeline open pit; c) use resulting waste rock as backfill into portions of the Pipeline/South Pipeline open pit; d) increase the height of the approved South Area Heap Leach (SAHL) pad (defined as the Pipeline/ South Pipeline Heap Leach Facility in the South Pipeline Project Final EIS (BLM 2002, page3-8) from a height of 250 feet to 300 feet above ground surface; e) increase the approved waste rock dump height from 250 feet to 300 feet above ground surface; f) increase the height of the approved Area 28 Integrated Heap Leach/Tailings facility up to a maximum of 350 feet above ground surface; g) construct an additional waste rock dump (above original grade) on the backfilled portion of the open pit; h) construct the 125-acre Gap waste rock dump; i) increase the approved mining rate from an average 150,000 tons per day (tpd) with a maximum of 250,000 tpd to an average of 350,000 tpd with a maximum of 500,000 tpd; j) translocate waste rock within the Pipeline/South Pipeline open pit, including portions of the expanded open pit; k) conduct certain activities at the approved Cortez facility without modification to the facility; l) install ground water extraction wells (ground water extraction from the existing and planned wells would not exceed the approved annualized average rate of 34,500 gpm); and m) continue management of mine dewatering as outlined in the Pipeline Infiltration Plan and South Pipeline EIS. All of these activities comprise the Proposed Action to be analyzed in the SEIS. The Proposed Action would utilize the same mining methods as are used to mine the Pipeline/South Pipeline deposit. See Section 2.2 as well as the Cortez Pipeline Gold Deposit (Pipeline) Final EIS (BLM 1996a, pages 2-10 to 2-11) and South Pipeline Final EIS (BLM 2000a, pages 3-7 to 3-10).



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Figure 1 General Location Map

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Figure 1.1.2 Project Area Map

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### **1.3 Purpose of and Need for Action**

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, which have not been withdrawn from mineral entry.

The purpose of the Project is to complete an expansion of the existing Pipeline/South Pipeline Project, within the existing and approved area of surface disturbance, and continue to recover the gold and silver ore resources identified on mining claims that have been staked or acquired by CGM under the General Mining Law. The Project would provide sufficient ore to allow for the continued operation of the existing milling facilities currently operated by CGM and could also result in a small increase in workforce and equipment needs during construction. The proposed Project includes an increase in the approved mining rate from an average 150,000 tpd to an average of 350,000 tpd, and installation of additional extraction wells while continuing management of the mine dewatering as outlined in the Pipeline Infiltration Plan and South Pipeline Final EIS. The Project would include continued dewatering operations at an annualized average rate of 34,500 gpm. The proposed Project would be completed without increasing surface disturbance beyond the approved 7,676 acres (BLM 1996a; BLM 2000a; CGM 2001b).

CGM's objective for the Project is to profitably recover precious metals (gold and incidental silver) from CGM's mining claims to the optimal extent possible and reclaim the Project Area in a manner that is environmentally responsible and in compliance with United States mining laws, the FLPMA, Nevada Mine Reclamation Law, and other applicable laws and regulations. The need is to meet the prevailing market demand for gold and silver. The prevailing market demand for gold and silver is adjusted on a daily basis on commodity exchanges throughout the world. This adjustment results from buyers and sellers agreeing on a specific transaction price. That price reflects current supply and demand for the commodity.

The purposes of the SEIS are as follows: a) to analyze the impacts of the proposed Project; b) identify reasonable alternatives; c) to inform the public about the Project; d) to solicit public comment on the proposed Project and alternatives; and e) provide agency decision makers with adequate information upon which to base the decision to approve or deny the Project or an alternative development scenario.

### **1.4 BLM Responsibilities and Relationship to Planning**

The SEIS was prepared in conformance with the policy guidance provided in BLM's NEPA Handbook (BLM Handbook H-1790-1). The BLM Handbook provides instructions for compliance with the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA and the Department of the Interior's (DOI's) manual on NEPA (516 DM 1-7).

#### **1.4.1 Resource Management Plan**

The Proposed Action conforms with the BLM's Shoshone-Eureka Resource Management Plan (RMP) dated March 1986 (BLM 1986a). Specifically, on page 29 in the RMP ROD, under the heading "Minerals" subtitled "Objectives" number 1:

“Make available and encourage development of mineral resources to meet national, regional, and local needs consistent with national objectives for an adequate supply of minerals.”

Under “Management Decisions,” “Locatable Materials,” page 29, number 1:

“All public lands in the planning areas will be open for mining and prospecting unless withdrawn or restricted from mineral entry.”

Under “Management Decisions,” number 5, Current Mineral Production Areas:

“Recognize these areas as having a highest and best use for mineral production and encourage mining with minimum environmental disturbance...”

### **1.4.2 Surface Management Authorizations and Relevant Plans**

BLM regulations for surface management of public lands mined under the General Mining Law (43 CFR 3809) recognize the statutory right of mineral claim holders such as CGM to explore for and develop federal mineral resources and encourage such development. These federal regulations require the BLM to review proposed operations to ensure the following: a) that adequate provisions are included to prevent unnecessary or undue degradation of public lands; b) that measures are included to provide for reclamation; and c) that the proposed operations comply with other applicable federal, state, and local laws and regulations. CGM submitted to the BLM on January 16, 2001 Plan for the Project (CGM 2001a) as required under the regulations. Plans submitted prior to January 20, 2001 are subject to the new 3809 regulations with the exception of 3809.401 (plan content) and 3809.415 and 420 (performance standards). The CGM Plan is on file and available for review during normal business hours at the BLM’s Battle Mountain Field Office.

### **1.4.3 Site Reclamation Requirements**

The Mining and Mineral Policy Act of 1970 (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 following:

“...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 or mineral activities.”

The BLM’s long-term reclamation goals are to shape, stabilize, revegetate, or otherwise treat disturbed areas in order to provide a self-sustaining, safe, and stable condition providing productive use of the land, which conforms to the approved land use plan for the area. The short-term reclamation goals are to stabilize disturbed areas and to protect both disturbed and adjacent undisturbed areas from unnecessary or undue degradation. Relevant BLM policy and standards for reclamation are set forth 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 1992a). The BLM has reviewed the site reclamation portions of the Plan to ensure that the Project would meet BLM’s reclamation standards and goals.

#### **1.4.4 Cyanide Management Plan Requirements**

The BLM's national cyanide management policy requires that BLM state offices prepare a Cyanide Management Plan. The NSO of the BLM has prepared and continues to administer the Nevada Cyanide Management Plan (BLM 1992b). The Nevada Cyanide Management Plan is applicable to all public lands administered by the BLM in Nevada, and would be applicable to the Project cyanide heap leaching activities, relevant precious metal recovery processes, and expanded tailings facility. 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 managed 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 Nevada Division of Environmental Protection (NDEP), Bureau of Mining Regulation and Reclamation (BMRR), they shall apply when reviewing a Notice or a Plan. The BLM has reviewed the Plan to ensure that it is in conformance with the Nevada Cyanide Management Plan.

#### **1.4.5 Local Land Use Planning and Policy**

The Proposed Action is consistent with Section XI of the Lander County Revised Policy Plan for Federally Administered Lands - November 1999 (Lander County 1999), which sets forth the policy to "promote the expansion of mining operations and areas." This policy also states that mine site reclamation standards should be consistent with the best possible post-mine use for each specific area, and that specific standards should be developed for each property.

### **1.5 Authorizing Actions**

Based upon information received during the scoping process and during subsequent discussions with various agencies, certain authorizing actions have been identified as required, or may potentially be required, prior to construction or operation of the Project. A list of these authorizing actions, organized by agency, is provided in Table 1.5.1.

### **1.6 Environmental Review Process**

Documentation of activities conducted during the Project scoping procedure has been compiled in a Project Scoping Document, which includes a summary of the issues and concerns identified during the scoping process. The Project Scoping Document identifies the key issues that the BLM decided

are necessary to analyze in the SEIS, and those concerns not considered critical in terms of anticipated effects of the Proposed Action. The Scoping Document is on file and available for review during normal business hours at the BLM's Battle Mountain Field Office.

A Notice of Intent (NOI) to prepare this SEIS was published in the Federal Register on December 18, 2001. The NOI invited scoping comments to be sent to the BLM through January 17, 2002. Also on December 18, 2001, copies of a news release entitled "Notice of Intent to Prepare a Supplemental Environmental Impact Statement to Analyze the Proposed Modifications to the Pipeline/South Pipeline Pit Expansion" were issued statewide to newspapers and major interest groups.

Comment letters received during the public scoping period have been included in the Project Scoping Document and are on file and available for review during normal business hours at the BLM's Battle Mountain Field Office. As a result of the public scoping process, the following potential Project impacts were identified by the public:

- Soils and Watershed
  - Impacts from increased erosion
  - Impacts to soils from a chemical release
  - Impacts to the quality of soils for restoring wildlife habitat and values
  - Impacts of slope angle
  
- Water Resources
  - Impacts to regional hydrology
  - Impacts to surface waters from toxic effluents and residues
  - Impacts to ground water chemistry
  - Impacts to seeps and springs
  - Impacts to future pit water quality
  - Impacts from infiltration activities
  - Impact of subsidence from dewatering operations
  - Impacts to stream flows/surface flows
  - Impacts to wetlands
  - Long-term impact of heap leaching
  - Impacts to aquifer level
  - Impacts of water in the pit during mining operations
  - Impacts to waters of the United States
  - Impact of ground water recharge following mine closure
  - Impacts from sediment loads to streams
  - Co-mingling of aquifers
  - Impacts of catastrophic event on surface waters and ground water
  
- Air Resources
  - Impacts to air quality
  - Impacts from use of cyanide and associated volatilization
  - Impact of mercury emissions
  
- Wildlife and Fisheries Resources
  - Impacts to threatened and endangered species

- Impacts to terrestrial and aquatic wildlife and habitats
- Impacts to wildlife from hazardous materials and toxic solutions
- Impacts to breeding, nesting and cover habitats of wildlife
- Impacts to wildlife diversity
- Impacts to native flora
- Impact of waste dump design on wildlife resources
- Impacts of pit water quality on wildlife
- Impacts to wildlife from Project-generated noise
- Impacts to migratory water fowl and shorebirds attracted to the infiltration facilities
- Reclamation impacts to wildlife
- Impact to riparian areas
- Cultural Resources
  - Impacts on native cultural sites
  - Impacts on historic sites
- Geology
  - Impacts of seismic activity on Project components
- Visual Resources
  - Impacts to visual resources
- Auditory Resources
  - Impacts from Project-related noise
- Land Use, Access and Public Safety
  - Impacts to public safety
  - Impacts to local traffic
- Recreation and Wilderness
  - Impacts to wilderness resources
  - Impacts of potential use of pit lake as a recreation site
- Socioeconomic Values and Public Services
  - Impacts to public services
  - Impacts on economics in Lander County
  - Impacts on economics of State of Nevada
  - Impacts on alternative land use

All of the identified issues or potential Project impacts are addressed in the Project Scoping Document and/or the SEIS. The comments were reviewed for relevance to the Proposed Action and those which addressed potential impacts of the Proposed Action have been included in the SEIS. Data used in this SEIS are based on information available as of August 31, 2003.

**Table 1.5.1: Summary of Permits and Approvals Required for the Pipeline/South Pipeline Project**

<b>Permit/Approval</b>	<b>Granting Agency</b>
Plan of Operations	U.S. Department of the Interior, Bureau of Land Management; Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Mining Regulation and Reclamation
Permit to Operate (Air Quality)	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Air Pollution Control
Water Pollution Control Permit	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Mining Regulation and Reclamation
Permit for Reclamation	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Mining Regulation and Reclamation
Permit to Appropriate Water	Nevada Department of Conservation and Natural Resources, Division of Water Resources
Industrial Artificial Pond Permits	Nevada Department of Wildlife
Approval to Operate a Sanitary Landfill	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Waste Management
General Discharge Permit (Stormwater)	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Water Pollution Control
Road Rerouting Applications	U.S. Department of the Interior, Bureau of Land Management and Lander County
Hazardous Materials Storage Permit	State of Nevada, Fire Marshal Division
Encroachment Permit	Nevada Department of Transportation, District III
Permit to Construct Tailings Dam	Nevada Department of Conservation and Natural Resources, Division of Water Resources
Permit to Operate	Nevada State Minerals Commission, Division of Minerals