

CHAPTER I

INTRODUCTION

The United States (U.S.) Department of Interior, Bureau of Land Management's (BLM) Elko District Office prepared this Final Supplemental Environmental Impact Statement (SEIS) for the South Operations Area Project Amendment (SOAPA) to provide responses to comments received by BLM during the public comment period on the Draft SEIS for the SOAPA Project (BLM 2007a) and additional information regarding cumulative effects associated with the SOAPA Project when combined with past, present, and reasonably foreseeable future land use activities in the Carlin Trend area (**Figure I-1**). The SOAPA Project was authorized in 2002, has been constructed, and is currently being operated by Newmont Mining Corporation (Newmont).

This Final SEIS supplements the cumulative effects analyses originally presented in the SOAPA EIS (BLM 2002a) by providing expanded and updated analyses of cumulative effects consistent with the recent decision by the U.S. Court of Appeals for the Ninth Circuit: *Great Basin Mine Watch v. Hankins*, 456 F.3d 955 (Ninth Circuit 2006).

Descriptions of the SOAPA Project, affected environment, and potential direct and indirect impacts of the SOAPA Project are included in the SOAPA EIS document (BLM 2002a). In addition, the SOAPA EIS provides descriptions of irreversible and irretrievable commitment of resources, residual adverse impacts, and potential mitigation and monitoring measures for the SOAPA Project.

The SOAPA EIS (BLM 2002a) evaluated the Proposed Action (expansion of the Gold Quarry Mine); two alternatives to the Proposed Action: Alternative 1) Backfilling the Mac Pit and, Alternative 2) Modified Waste Rock

Disposal Facilities; and the No Action Alternative in detail. BLM evaluated the potential direct, indirect, and cumulative effects of the Proposed Action and alternatives and selected the Proposed Action as the agency-preferred alternative (BLM 2002a). The rationale for BLM's selection of the Preferred Alternative is included in the SOAPA EIS (BLM 2002a). BLM has considered the range of alternatives evaluated in the SOAPA EIS in the cumulative effects analysis included in the Draft SEIS and has determined that neither of the action alternatives would appreciably change the level of cumulative effects within the study areas evaluated in this Final SEIS.

The cumulative effects analysis in this Final SEIS incorporates qualitative and quantitative data collected since 2002 and incorporates by reference the information and analyses contained in the SOAPA Project (BLM 2002a) and Leeville Project (BLM 2002b) EIS documents; expanded analyses of cumulative effects of mining and other land uses where appropriate; and additional detail with respect to the analytical processes used. The purpose and need for the action, project history for existing operations (including legal background for the analysis), and issues raised during scoping are discussed in the sections below.

PURPOSE AND NEED

The purpose of Newmont's SOAPA Project is to use the existing work force to conduct mining on unpatented mining claims and fee land within Newmont's South Operations Area to produce gold from ore reserves contained in the ore deposit. Gold is an established commodity with international markets and demand. Uses include jewelry, investments, as a standard for monetary systems, electronics, and other industrial applications.

BLM is responsible for managing mineral rights access on certain public land as authorized under the General Mining Law of 1872, as amended. Under the law, persons are entitled to reasonable access to explore for and develop mineral deposits on public domain land that has not been withdrawn from mineral entry.

In order to use public land managed by the BLM Elko District Office, Newmont must comply with BLM Surface Management Regulations (43 CFR 3809) and other applicable statutes, including the Mining and Mineral Policy Act of 1970 (as amended) and Public Land Policy and Management Act of 1976. BLM must review Newmont's plans to ensure the following:

- Adequate provisions are included to prevent unnecessary or undue degradation of public land and to protect non-mineral resources of public land;
- Measures are included to provide for reclamation of disturbed areas; and
- Compliance with applicable state and federal laws is achieved.

PROJECT HISTORY AND STATUS

The area of gold mining activity and development in the vicinity of Carlin, Nevada is known as the Carlin Trend. The Carlin Trend is an approximately 50-mile-long, 5-mile-wide belt of multiple major gold deposits extending from approximately 10 miles southeast (Emigrant deposit) to approximately 40 miles northwest (Hollister deposit) of Carlin (**Figure I-2**). Although the area has been mined for the past 120 years, major mining activity began with development of the Carlin Pit in 1965. As a result of mining since 1965, the Carlin Trend has become the most prolific gold field in the Western Hemisphere.

In March 1997, Newmont submitted to the Elko District Office of the BLM a proposed Plan

Amendment for the South Operations Area Project (SOAP) plan of operations. This project, originally permitted in 1982, is located about 6 miles northwest of Carlin (**Figure I-2**). The Plan Amendment proposed activities that supported continued operations and expansion of the Gold Quarry open pit mine and ore processing operations at the SOAP site.

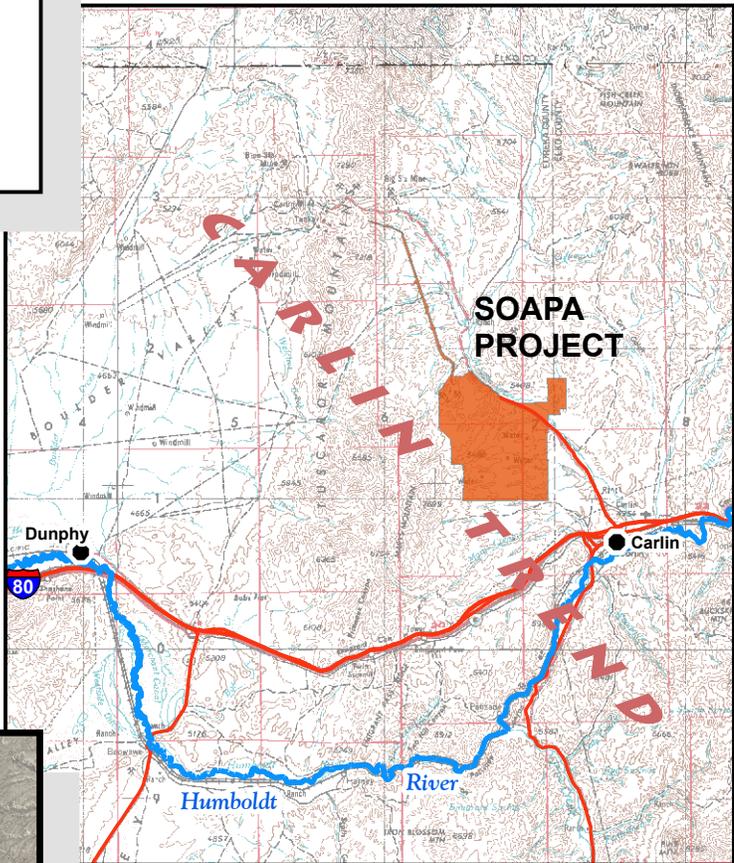
BLM compiled a Draft EIS for SOAPA which was released in September 2000, and a SOAPA Final EIS completed in April 2002 (BLM 2002a). BLM issued a Record of Decision (ROD) for SOAPA in July 2002 that selected an agency-preferred alternative and identified mitigation measures to be implemented for the project. In April 2000, BLM released the *Cumulative Impact Analysis (CIA) of Dewatering and Water Management Operations for the Betze Project, South Operations Area Project Amendment, and Leeville Project* (BLM 2000). The CIA report analyzed potential effects to surface water and groundwater that could result from dewatering and subsequent discharge of excess water associated with proposed and existing mining projects in the Carlin Trend.

In November 2002, two special interest groups filed an action in U.S. District Court for the District of Nevada challenging BLM's RODs for the SOAPA and Leeville mine projects, as well as BLM's bonding decisions for SOAPA. The groups alleged violations of the National Environmental Policy Act (NEPA), Clean Water Act, and several other legal authorities.

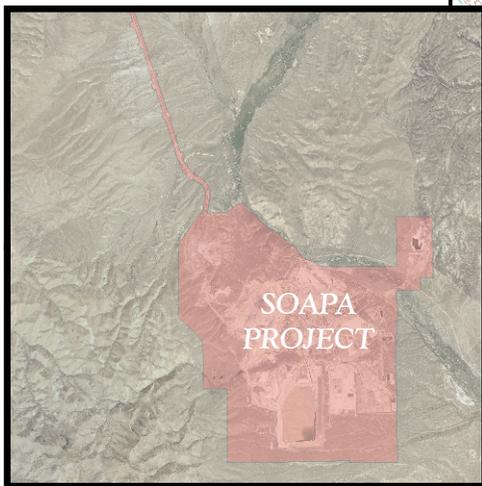
In March 2004, the district court rejected the challenge on cross-motions for summary judgment, and the special interest groups appealed. On August 1, 2006, the U.S. Court of Appeals for the Ninth Circuit concluded that, with the exception of dewatering and discharge of water, BLM's analysis of certain cumulative effects in the Leeville and SOAPA EIS documents did not meet requirements of NEPA (*Great Basin Mine Watch v. Hankins*, 456 F.3d



SCALE 1:500,000



SCALE 1:250,000



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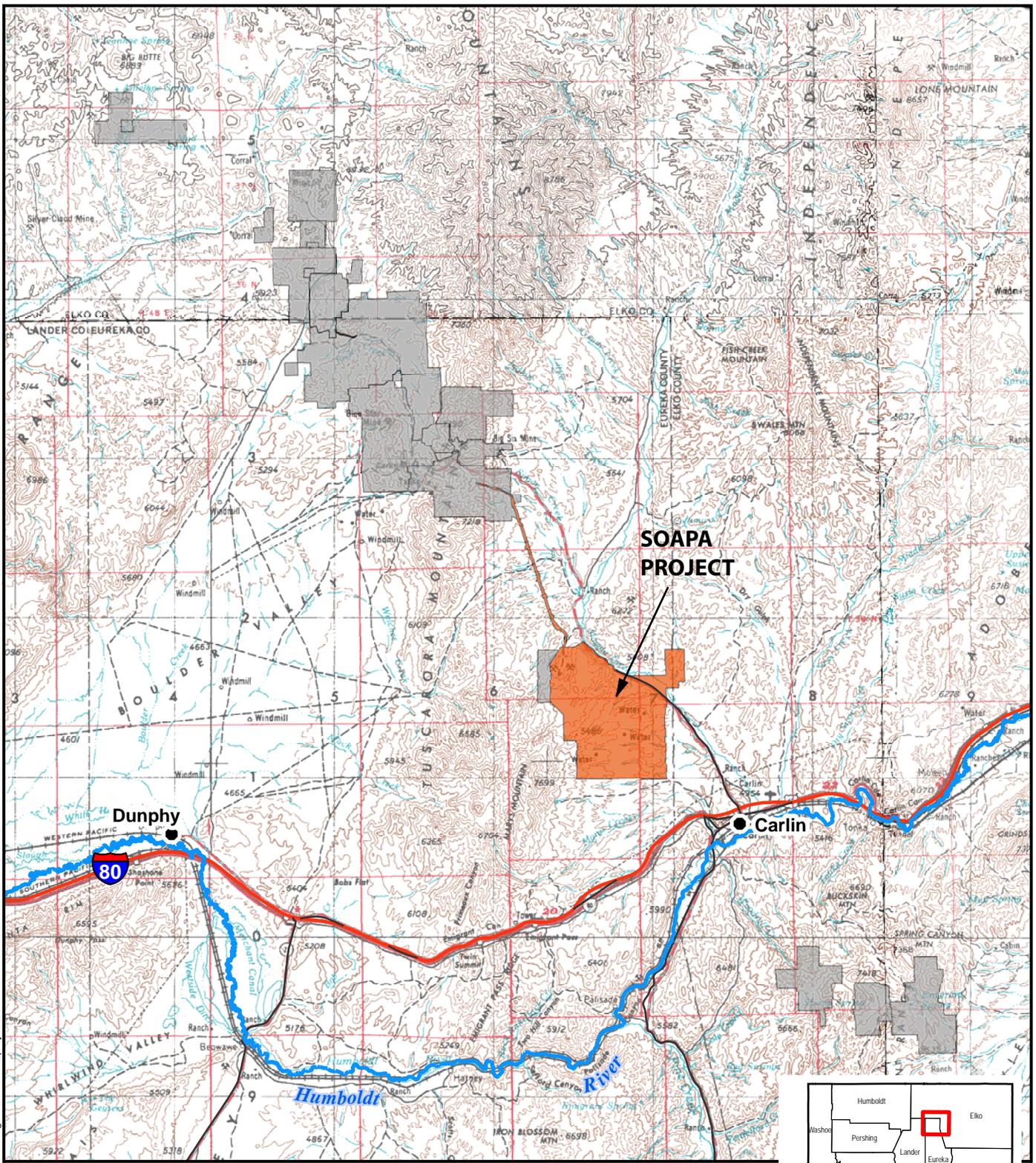


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Elko, Nevada

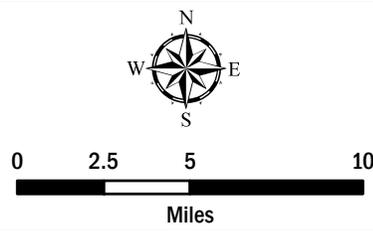
GENERAL LOCATION
SOAPA Project
Final Supplemental EIS
Eureka and Elko Counties, Nevada

FIGURE

1-1



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Legend

- Cities
- Plan Boundaries
- Humboldt River
- Interstate Highway
- Other Major Roads



U.S. Department of the Interior
 Bureau of Land Management
 Elko District Office
 Tuscarora Field Office
 Elko, Nevada

PROJECT LOCATION
SOAPA Project
Final Supplemental EIS
Eureka and Elko Counties, Nevada

FIGURE
1-2

955, 9th Circuit 2006). The Ninth Circuit substantially affirmed the district court's decision upholding the SOAPA and Leeville EIS documents in all other respects.

Since BLM's issuance of the SOAPA ROD in 2002, much of the SOAPA Project has been constructed and is being operated by Newmont. Those project components include:

- Deepening Gold Quarry mine pit by approximately 350 feet.
- Installing additional dewatering wells that discharge to Maggie Creek. Dewatering wells remain operational in and near Chukar Gulch. Since 2002, two additional wells have been drilled and one existing well was deepened. One well has been taken out-of-service.
- The Gold Quarry South Waste Rock Disposal Facility has been expanded but has not reached full build-out.
- Ore production from the expanded pit is ongoing. Total tonnage to be produced for the remaining life-of-operations is approximately 118 million tons, of which 57 million tons would be oxide and mill-grade sulfide ore, and the remaining 61 million tons would be low-grade sulfide ore.
- Relocating tailing within the existing footprint of the James Creek Tailing Storage Facility. Construction is in progress and completion is expected in 2008.
- Expanding the West Tailing Dam, including sediment and drainage control, under-drainage pipeline corridor to the existing south under-drain pond.
- Relocating a portion of the North-South Haul Road.
- Constructing a truck shop and radio tower.

- Constructing a Refractory Leach Facility for heap leaching carbonaceous sulfidic refractory ore.
- Placing topsoil in stockpiles.
- Construction of the Phase III Property and Phase VI of the Non-Property leach pads was completed in 2006. Phase VII of the Non-Property leach facility was constructed in 2008. The remaining phases (Property Phase IV and Non-Property Phase VIII) would be constructed as needed for additional ore as capacity dictates (Newmont 2009a). All expansions occurred on land previously disturbed within the Plan of Operations boundary.
- During the period of 2010 to 2015, Newmont would transport approximately 915,000 tons of ore from the South Operations Area to the Sage Mill at Newmont's Twin Creeks Mine located near Winnemucca.

All phases for both leach pad facilities will be constructed on currently disturbed land with the exception of a 6-acre portion contained within the Property Phase IV. Acreage for each phase is presented in **Table I-1** below:

A detailed description of the SOAPA Project is contained in the Proposed Action section of the SOAPA EIS (BLM 2002a). Other components of the SOAPA Project have not yet been constructed or have been partially completed as of the date of this Final SEIS. These components include the James Creek Waste Rock Disposal Facility, and expansion of the Property and Non-Property leach pad into Section 18. These facilities are described in the SOAPA EIS (BLM 2002a).

Leach Pad	Phase	Public Acres	Private Acres	Total Acres
Property	III	0	40	40
Property	IV	0	34	34
Non-Property	VI	3	42	45
Non-Property	VII	1	16	17
Non-Property	VIII	2	23	25
Totals	All	6	155	161

Source: Newmont 2007a.

Various amendments have occurred to the SOAPA Plan of Operations since initiation of mining activities. These amendments include relocation of tailing from the James Creek Tailing Storage Facility to the Mill 5/6 Tailing Storage Facility; expanding the Property and Non-Property leach pads; expanding the 5/6 West Tailing Dam; relocating a portion of the North-South Haul Road; and constructing a truck shop and radio tower. These amendments were reviewed under a determination of NEPA applicability (43 CFR 3809.432).

SCOPING SUMMARY

BLM filed a Notice of Intent (NOI) to prepare a Final SEIS for SOAPA to update cumulative effects analysis. The NOI appeared in the Federal Register on March 7, 2007 (Volume 72,

No. 44, page 10241). The NOI announced a 21-day public comment period ending March 29, 2007. The Notice of Availability (NOA) for the Draft SEIS was published in the Federal Register (Vol. 72, No. 172), September 6, 2007 (Notice 51249) which initiated a 60-day public comment period. A total of six letters were received during the comment period which ended on October 31, 2007.

As stated in 40 CFR 1501.7, scoping comments are used to determine the scope and substantive issues to be addressed for the project. **Table I-2** contains a summary of scoping comments, along with the location in this Final SEIS where each comment is addressed, if any.

Comment	Disposition
All the water of the State belongs to the public and may be appropriated for beneficial use pursuant to the provisions under Chapter 533 and 534 of the Nevada Revised Statutes (NRS). All mineral exploration boreholes must be plugged and abandoned according to the Nevada Administrative Code Chapter 534.	Noted
Use consistent lighting mitigation measures that follow "Dark Sky" lighting practices.	Noted
Use consistent mitigation measures that address logical placement of improvements and use of appropriate screening and structure colors. Existing utility corridors, roads, and areas of disturbed land should be used wherever possible.	Noted
Consider alternatives and mitigation to reduce impacts.	Noted
The Draft Supplemental EIS should focus on the following issues; water resources, surface water quality, waste rock, heaps, pit lakes, air quality, mercury, aquatic habitat and fisheries, and Native American issues.	Cumulative Effects – Chapter 3

TABLE I-2 Scoping Summary	
Comment	Disposition
For surface water, the whole Humboldt River drainage must be considered. Any salt or metals added to the river will have cumulative impacts with those from other mines, or power plants.	Water Quantity and Quality – Chapter 3
The study area boundaries should be defined for each resource based on the resource and level of disturbance to the resource	Noted
Detail each of the past, present and reasonably foreseeable exploration and development operations.	Chapter 2 - Past, Present, and Reasonably Foreseeable Future Activities
Verify the predictions of the drawdown modeling done in 1998 by comparing them to monitoring data collected since. Recalibrate the model if predictions not substantially accurate. Make future predictions after recalibration (if needed).	Water Quantity and Quality – Chapter 3
Update the pit lake models.	Water Quantity and Quality - Chapter 3
Include changes in surface water flow along the Humboldt River in the modeling.	Water Quantity and Quality - Chapter 3
Analyze effects on federal reserved water rights, catalogue each potential affected water right, and the impacts.	Water Quantity and Quality – Chapter 3
Complete a cumulative analysis of waste rock, including an evaluation of potential releases of toxic substances	Geology - Chapter 3
Evaluate acid mine drainage potential using quarterly reporting for water pollution control permits.	Water Quantity and Quality – Chapter 3
Map heaps, including current disposal proposals.	Chapter 2 - Past, Present, and Reasonably Foreseeable Future Activities
Review all other facilities at mines within the broad cumulative impact review area.	Noted
Map pit lakes. Use the Lone Tree pit lake to verify models. Analyze effects of pit lake water quality on migratory birds and other wildlife, and groundwater.	Water Quantity and Quality – Chapter 3
Review air quality in light of the proposed coal-fired power plant and other sources.	Air Quality – Chapter 3
Analyze releases of mercury from all sources (mines, coal burning, limestone kilns, wildfires, other).	Air Quality – Chapter 3
Study the airshed of northern Nevada, including local and regional impacts.	Air Quality – Chapter 3
Impacts on fish of changes in flows in the Humboldt River system, contaminant loading, and mercury emissions.	Water Quantity and Quality; Air Resources; Aquatic Resources – Chapter 3
Ability of Native Americans to fully practice the traditional religions, including sacred and spiritual sites, and traditional food and medicine gathering.	Native American Religious Concerns – Chapter 3