



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Mount Lewis Field Office  
50 Bastian Road  
Battle Mountain, Nevada 89820  
<http://www.blm.gov/nv/st/en.html>



In Reply Refer to:  
2800 (LLNVB01000)  
NVN-87348

Dear Interested Public:

The Bureau of Land Management (BLM) Mount Lewis Field Office (MLFO) is seeking public input on an Environmental Assessment (EA) for the proposed Homestake Ruby Hill Mine Direct Land Sale. The EA analyzes the impacts from the direct sale of 150 acres of public land to Homestake Mining Company which would be authorized under the authority of the Federal Land Policy and Management Act of 1976, as amended. Only the surface estate of the 150 acres is proposed for sale. The mineral estate is currently held by Homestake through their unpatented mining claims. The 150 acres are the site of an active open pit mining operation and a waste rock disposal facility.

Pursuant to the National Environmental Policy Act (NEPA) and Council on Environmental Quality regulations for implementing NEPA, the EA identifies, describes and evaluates resource protection measures that would mitigate the possible impacts of a decision to complete the proposed direct sale.

According to the regulations found at 43 CFR 4.410, you have the right to appeal the decision analyzed in this EA if you have a legally recognizable interest which has been, or could be, adversely affected by it. An adversely affected party can be one who has participated in the decision making process by commenting on an environmental document however, such comments must be substantive in content.

The EA will be available for a 30-day public comment period. Written comments on this EA will be accepted at the above address until 4:30 p.m., August 30, 2010. The EA can be viewed on the BLM Battle Mountain District website at: [http://www.blm.gov/nv/st/en/fo/battle\\_mountain\\_field/blm\\_information/national\\_environmental.html](http://www.blm.gov/nv/st/en/fo/battle_mountain_field/blm_information/national_environmental.html)

Before including your address, phone number, e-mail, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

If you have any questions or to obtain a hard copy of this document, please contact Chuck Lane, Project Lead, or Angelica Rose, Planning and Environmental Coordinator, at the above address or at (775) 635-4000.

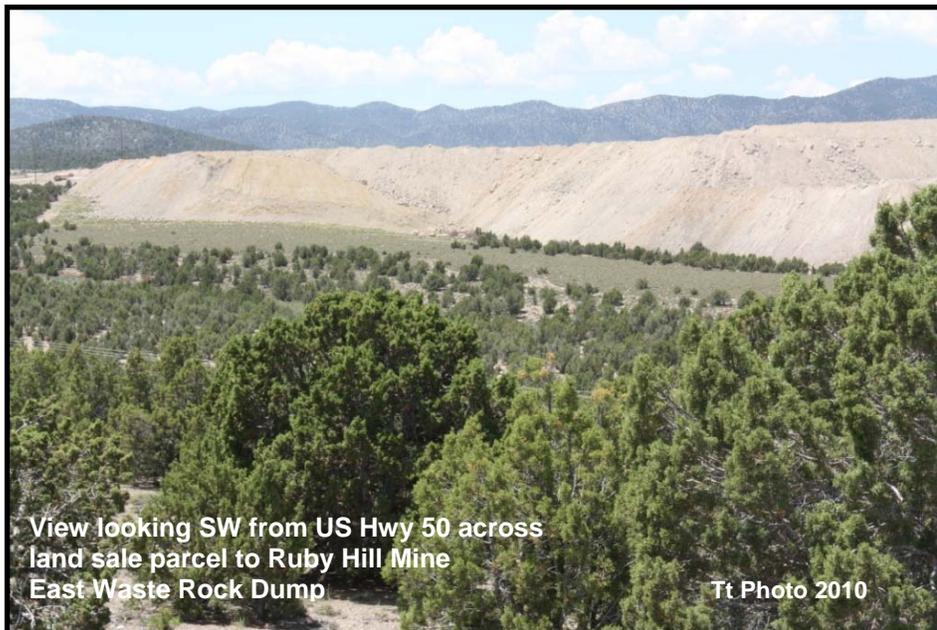
Sincerely,

Douglas W. Furtado  
Field Manager  
Mount Lewis Field Office

**DRAFT ENVIRONMENTAL ASSESSMENT  
DOI-BLM-NV-B010-2009-0075-EA  
NVN-87348**

**Ruby Hill Mine Land Sale**

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**June 2010**

**U.S. Department of the Interior  
Bureau of Land Management  
Mount Lewis Field Office  
50 Bastian Road  
Battle Mountain, Nevada 89820**



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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Appendix A: Agency Consultation Letters

## LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ASTM	American Standard Testing Method
AUM	Animal Unit Month
BLM	Bureau of Land Management
BMRR	Bureau of Mining Regulation and Reclamation
CFR	Code of Federal Regulations
COE	U.S. Army Corps of Engineers
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
FESA	Federal Endangered Species Act
FLPMS	Federal Land Policy and Management Act
MDB&M	Mount Diablo Base and Meridian
NAC	Nevada Administrative Code
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act
NNHP	Nevada Natural Heritage Program
NHPA	National Historic Preservation Act
NORA	Notice of Realty Action
NRS	Nevada Revised Statutes
PA	Programmatic Agreement
RECs	Recognized Environmental Conditions
RFFA	Reasonably Foreseeable Future Actions
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-Way
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Office
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
USFWS	United States Fish and Wildlife Service
WSAs	Wilderness Study Areas

## **1.0 INTRODUCTION**

In 2008, the Mount Lewis Field Office of the United States Department of the Interior Bureau of Land Management (BLM) received a proposal from HOMESTAKE Mining Company of California (HOMESTAKE) to enter into a direct sale for the purchase of 150 acres of public lands utilized by HOMESTAKE for surface facilities associated with their Ruby Hill Mine. Figure 1 illustrates the general location of the Ruby Hill Mine. As illustrated by Figure 2, the Ruby Hill Mine is located in Eureka County, Nevada, approximately 1.5 miles northwest of the town of Eureka. The surface lands identified for the direct sale are located in Sections 2 and 11, Township 19 North, Range 53 East, Mount Diablo Base and Meridian (MDB&M). Figure 2 also illustrates the lands identified for direct sale in the Proposed Action.

The proposal for the direct sale is in accordance with the requirements of Title 43 of the Code of Federal Regulations (CFR), part 2711.3-3 that allows for the direct sale of public lands, and meets criteria provided for in Section 203 (a)(3) of the Federal Land Policy and Management Act of 1976 (43 USC 1713). The lands identified for the direct sale have been previously identified for disposal in the BLM's existing Shoshone-Eureka Resource Management Plan (RMP) (BLM, 1986). This direct sale was also discussed as a Reasonably Foreseeable Future Action (RFFA) in the 2005 Supplemental Environmental Impact Statement (SEIS) for the Ruby Hill Mine Expansion, East Archimedes Project (BLM, 2005).

In order to assess the transfer of public lands into private ownership, the BLM determined that an Environmental Assessment (EA) would be necessary as required by the National Environmental Policy Act of 1969 (NEPA). The BLM is the lead agency for preparing this EA. This document follows the Council on Environmental Quality regulations implementing the provisions of NEPA (40 CFR 1500-1508) and the BLM's NEPA Handbook (H-1790-1).

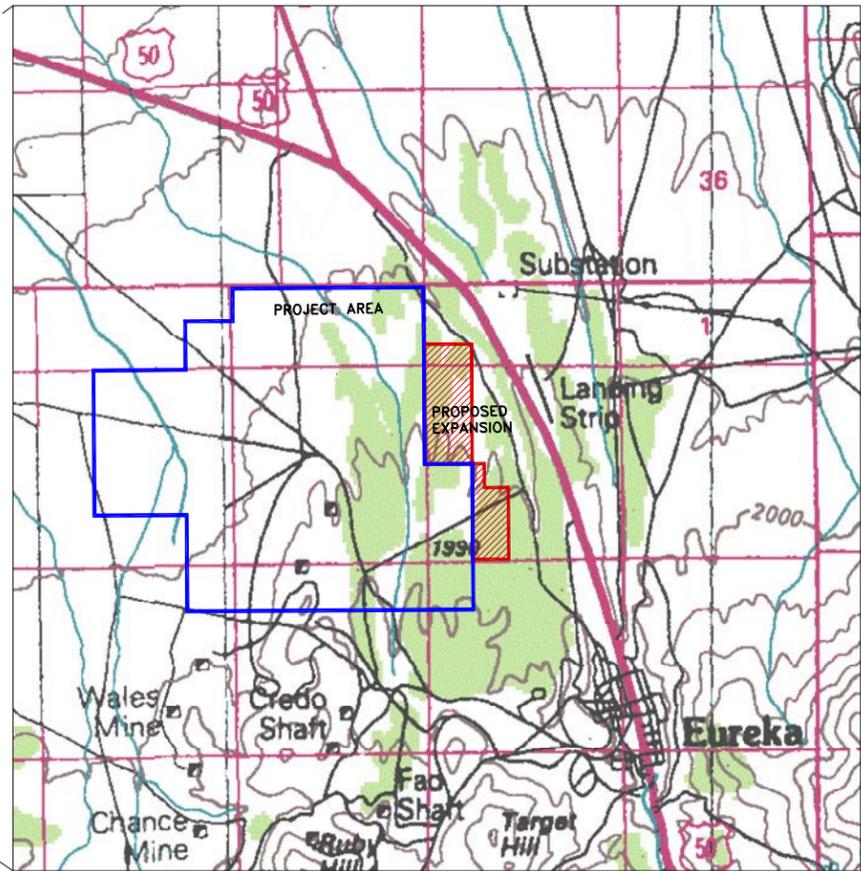
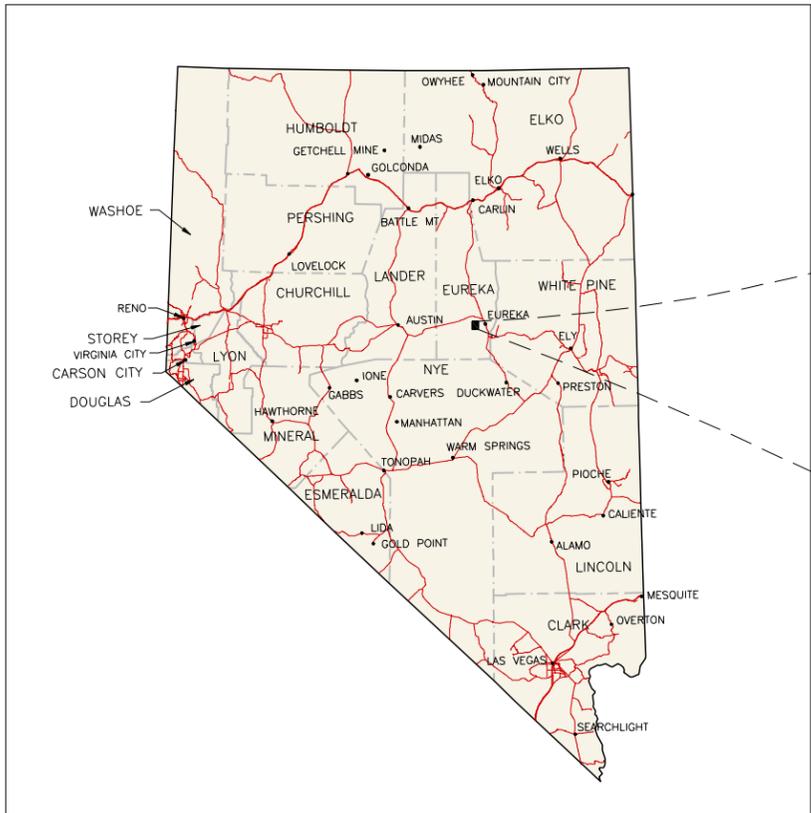
This EA describes the reasonable alternatives and potential environmental consequences of the direct sale (Proposed Action). Chapter 1 describes the purpose and need for the Proposed Action, the role of the BLM, public participation, conformance with existing BLM land use plans, and the relationship to other statutes, regulations, policies, plans, and environmental analyses. Chapter 2 provides a brief history of the Ruby Hill Mine including the existing operations, the Proposed Action, and alternatives to the Proposed Action. Chapter 3 describes the existing environment in the project area, and discusses potential environmental consequences and cumulative effects that could occur as a result of the implementation of the Proposed Action or the No Action Alternative. Chapter 4 presents the list of preparers and reviewers for the preparation of this EA. Chapter 5 presents a list of references used in the development of this EA.

### **1.1 Purpose and Need for Proposed Action**

The Proposed Action is for HOMESTAKE to purchase the surface estate associated with the 150 acres of public lands illustrated by Figure 2. This surface estate acreage is currently utilized by HOMESTAKE for surface mining operations including waste rock dumps and open pit mine operations as approved under the BLM's Surface Management regulations contained in 43 CFR 3809. The acreage proposed for the direct sale is immediately adjacent to the east boundary of the 1,644.94-acre Ruby Hill Mine site, where HOMESTAKE owns the surface estate. Completion of the direct sale would allow HOMESTAKE to consolidate its surface estate land holdings at the Ruby Hill Mine site.

The BLM has the responsibility to manage the surface and subsurface resources on public lands located within the jurisdiction of the Mount Lewis Field Office. The acreage proposed for the direct sale has been designated as suitable for disposal in the Shoshone-Eureka RMP (BLM, 1986) (Figure 3). The RMP contains no constraints that conflict with the Proposed Action. The BLM must review the Proposed Action under the RMP management decision guidelines to ensure compliance with applicable federal laws is achieved.

# RUBY HILL MINE LAND SALE EA EUREKA COUNTY, NEVADA



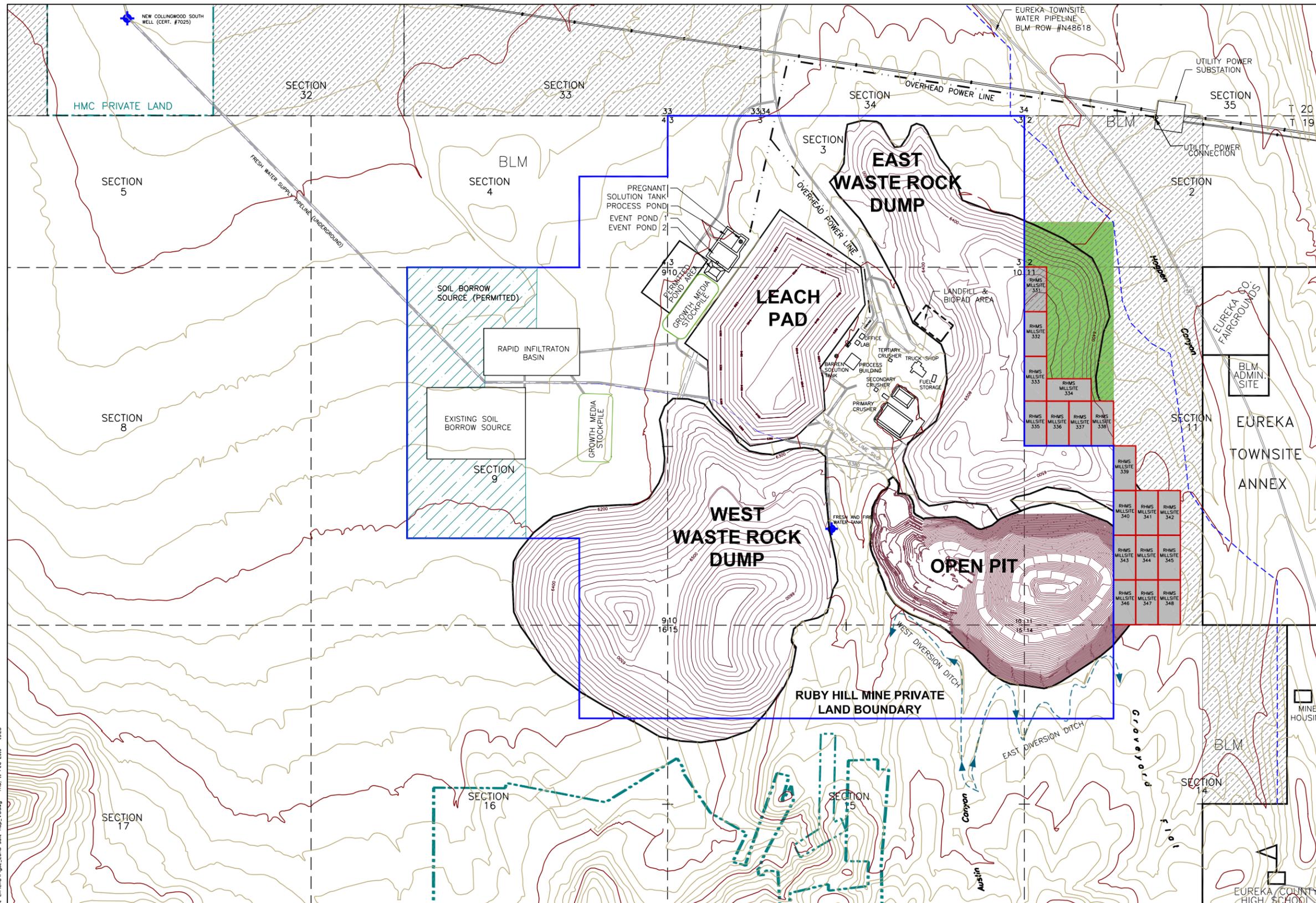
RHD - J. Barrick Ruby Hill Land Sale EA CAD/fig1\_Site and Area Map\_2009 - Thu, 4 Feb 2010 - 1:00  
 MAP PREPARED BY TETRA TECH (Project No. 114-330563)  
 BASE MAP PROVIDED BY HOMESTAKE MINING COMPANY



Project:		RUBY HILL MINE LAND SALE EA	
Location:	Date:	EUREKA COUNTY, NEVADA	02/10

Title:	RUBY HILL MINE LOCATION MAP
FIGURE 1	





### LEGEND

- HOMESTAKE MILL SITE CLAIMS PROPOSED FOR DIRECT SALE
- HOMESTAKE LODE MINING CLAIMS ACREAGE PROPOSED FOR DIRECT SALE
- HOMESTAKE MINING COMPANY RUBY HILL MINE SITE PRIVATE LAND
- PRIVATE LAND OWNED BY HOMESTAKE MINING COMPANY
- US HIGHWAY 50
- MINE ACCESS ROADS
- MINE POWER LINE
- TRANSMISSION LINE
- EUREKA TOWNSITE WATER PIPELINE BLM ROW #N48618
- GROWTH MEDIA STOCKPILE
- STORM DIVERSION CHANNEL
- SOIL LINER BORROW SITE
- BLM PUBLIC LANDS IDENTIFIED FOR DISPOSAL IN SHOSHONE-EUREKA RESOURCE MANAGEMENT PLAN

N

SCALE  
750' 0 750' 1500'

CONTOUR INTERVAL N.A.

MIB - J:\Barrick\_Ruby\_Hill\Ruby\_Hill\_Land\_Sale\_EA\CAD\Fig02\_Land\_Sale\_Map\_V6.dwg - Thu, 11 Feb 2010 - 15:26

MAP PREPARED BY TETRA TECH (Project No. 114-330563)  
 BASE MAP PROVIDED BY HOMESTAKE MINING COMPANY



Project: RUBY HILL MINE LAND SALE EA

Location: EUREKA COUNTY, NEVADA

Date: 02/10

Title: RUBY HILL MINE BLM PUBLIC LANDS IDENTIFIED FOR DISPOSAL

FIGURE 3

## **1.2 BLM Land Use Plan Conformance**

The BLM has the responsibility and authority to manage mineral resources on public lands within its charge in accordance with the requirements of applicable federal laws and regulations. Current operations at the Ruby Hill Mine, including the proposed direct sale lands, are in compliance with the Shoshone-Eureka RMP (BLM, 1986) that allows mineral resource development on public lands, and 43 CFR 3809.

The public lands HOMESTAKE has proposed to purchase in Sections 2 and 11 Township 19 North, Range 53 East, MDB&M, have been identified for disposal in the existing RMP (BLM, 1986). Figure 3 illustrates the locations of the lands previously identified for disposal. The entire land sale proposal is in conformance with the Shoshone-Eureka RMP (BLM, 1986).

## **1.3 Other Applicable Statutes, Regulations, Policies, Plans, and Environmental Analyses**

The Ruby Hill Mine is located on BLM administered public lands, and private lands owned by HOMESTAKE. Mining operations on the BLM administered public lands are conducted in accordance with the General Mining Law of 1872; the requirements of 43 CFR 3809; the Mining and Mineral Policy Act of 1970; and the Federal Land Policy and Management Act of 1976.

Mining operations on federal and private land in the State of Nevada are also conducted in accordance with Nevada Administrative Code (NAC) 445A.350 through 445A.447, Mining Facilities; Nevada Revised Statute (NRS) 519A, Reclamation of Land Subject to Mining Operations or Exploration Projects; and NAC 519A, Regulation of Mining Operations and Exploration Projects. In addition, HOMESTAKE maintains all other applicable permits and approvals to conduct operations at the Ruby Hill Mine as required by federal, state, and local laws and regulations.

HOMESTAKE maintains a reclamation surety bond for the Ruby Hill Mine in accordance with the requirements of 43 CFR 3809, NRS 519A, and NAC 519A. This bond presently is held by the BLM. The Proposed Action would only transfer surface ownership of the identified lands from the public domain to private ownership. The subsurface mineral estate would remain in the public domain and be administered by the BLM under applicable federal laws, statutes and regulations including the General Mining Law of 1872, the Federal Land Policy and Management Act, and 43 CFR 3809.2. HOMESTAKE would maintain control of the subsurface mineral estate via their existing mining claims.

An Environmental Impact Statement (EIS) was completed in 1997 for the original Ruby Hill Mine project as required by NEPA (BLM, 1997). The Record of Decision (ROD) for this EIS determined that the proposed mining action was in conformance with BLM policies, plans, and programs including the existing RMP. In 2003, an EA was completed as required by NEPA to assess the 1,644.94-acre Ruby Hill Mine direct land sale program (BLM, 2003a). In 2005, an SEIS was completed as required by NEPA to assess the East Archimedes expansion project at the mine site. The natural and environmental resource information and data contained in these NEPA documents provides the basis for this EA. In addition, the lands proposed for this direct sale are within the Areas of Impact assessed in these previous NEPA programs. Revisions and updates for specific issues including special status species, Native American consultation and coordination, and hazardous materials are discussed in this EA.

## **1.4 Public Involvement**

The BLM will make this EA available for a 30-day public review and comment period. A news release will be published in the local newspapers.

A Notice of Realty Action (NORA) for the proposed sale, as required by 43 CFR 2711.1-2, will be published and sent to all interested parties by the BLM. The NORA will be published for a single time in

the Federal Register, and once a week for three weeks in the local newspaper. The NORA will be sent to the Nevada Congressional Delegation and the Office of the Governor of the State of Nevada.

As part of the scoping process, consultation letters advising of the proposed sale were sent to the United States Fish and Wildlife Service (USFWS), the Nevada Natural Heritage Program (NNHP), and the Nevada Department of Wildlife (NDOW). The purpose of these letters was to determine if the USFWS or the NDOW have any specific issues concerning the Proposed Action in regards to special status species, or other species of concern. Copies of the consultation letters and the agency responses are contained in Appendix A.

## 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

This chapter describes HOMESTAKE’s Proposed Action to purchase, via direct sale, the surface estate of 150 acres of public land located adjacent to the east boundary of the Ruby Hill Mine site. This acreage is currently utilized by HOMESTAKE for surface mining operations, including waste rock dumps and open pit mine operations, as approved by the BLM under 43 CFR 3809. Also discussed in this chapter are the No Action Alternative; information pertaining to exploration and mining history of the project area; and the location and land status of the lands identified for the Proposed Action.

### 2.1 Project Area History and Existing Operations

The Ruby Hill Mine is located in the historic Eureka Mining District. The district produced approximately \$60 million in gold and silver and approximately 225 thousand tons of lead between 1869 and 1883. The district is considered to be the birthplace of American silver and lead smelting technology. Sixteen lead furnaces were operating in the town of Eureka by 1879. Eureka was known as the “Pittsburgh of the West” because of the numerous smelters located in the district (Mollinelli, 1879). The Ruby Hill Mining Company acquired the mining claims for the existing Ruby Hill Mine in 1960. HOMESTAKE purchased the mining claims in 1994 from Ruby Hill Mining Company.

HOMESTAKE initiated mineral exploration activities in the general Ruby Hill project area in July of 1992. In February 1995, HOMESTAKE filed the Plan of Operation to conduct mining activities at the Ruby Hill site with the BLM. In December 1996, HOMESTAKE filed the Final Plan of Operations for the Ruby Hill Mine with the BLM. In February 1997, the BLM issued the ROD approving the Final Plan of Operations for the Ruby Hill Mine. Construction and mine operations commenced in February 1997. In August 2003, HOMESTAKE purchased the surface estate associated with the 1,644.94 acres of BLM administered public lands upon which the Ruby Hill mine is located. In 2007, HOMESTAKE initiated several expansion activities at the mine, including mining of the East Archimedes open pit and the expansion of the east waste rock dump. The open pit expansion, along with the engineering and construction, increased height, long-term stability, reclamation, and overall visual impacts of the east waste rock dump, were assessed in the July, 2005, Ruby Hill Mine – East Archimedes Project Final Supplemental Environmental Impact Statement (BLM, 2005).

### 2.2 Location and Land Status

The Ruby Hill Mine is located in Eureka County, Nevada, approximately 1.5 miles northwest of the town of Eureka (Figure 2). The BLM-administered public lands under consideration for the direct (noncompetitive) sale in the Proposed Action are in Sections 2 and 11, Township 19 North, Range 53 East, MDB&M. Table 1 presents the legal descriptions for these lands.

**Table 1: Legal Descriptions for the Direct Sale Lands**

<b>Section</b>	<b>Legal Description</b>	<b>Acreage</b>
2	S ½, SW ¼, SW ¼	20
11	W ½, NW ¼	80
11	W ½, NW ¼, NE ¼, SW ¼	5
11	SW ¼, NE ¼, SW ¼	10
11	W ½, SE ¼, NE ¼, SW ¼	5
11	W ½, SE ¼, SW ¼	20
11	W ½, E ½, SE ¼, SW ¼,	10
<b>Total Acreage</b>		<b>150</b>

## **2.3 Proposed Action**

HOMESTAKE proposes to purchase, via direct sale, the surface estate for 150 acres of BLM-administered public lands, a portion of which are currently being utilized by HOMESTAKE for their Ruby Hill Mine facilities. The direct sale would be conducted in accordance with the requirements of 43 CFR 2711.3-3, inclusive. Figure 2 illustrates the public lands identified for the direct sale. The lands would be purchased for their fair market value, as determined by the BLM during a formal real estate appraisal process that would be completed prior to the publishing of the Notice of Realty Action (NORA). The direct sale would transfer the subject lands into private ownership, and move the lands onto the County tax rolls.

The lands identified for direct sale in the Proposed Action are currently utilized for the Ruby Hill Mine surface facility operations. HOMESTAKE conducted a condemnation drilling during the exploration and mine development program to ensure that the lands upon which the surface facilities would be located do not contain economic surface or sub-surface mineral values. A Mineral Potential Report (BLM, 2003b), using detailed geologic information collected by HOMESTAKE during exploration and mine development operations, was prepared and approved by the BLM in January 2003 as part of the August 2003 Public Land Sale N-66188 to evaluate the mineral potential of the lands identified for the 2003 direct sale. These lands were examined and found suitable for disposal by direct sale at the appraised fair market value. The information contained in the 2003 report covered a regional area surrounding the Ruby Hill Mine, including the lands proposed for the direct sale under the Proposed Action. The BLM determined the information contained in the 2003 Mineral Potential Report is valid to assess the Proposed Action.

Under the Proposed Action, HOMESTAKE would purchase only the surface estate of the identified 150 acres of public lands. The subsurface mineral estate would remain in the public domain and would still be administered by the BLM under the authority of applicable federal laws, statutes, and regulations including the General Mining Law of 1872, the Federal Land Policy and Management Act and 43 CFR 3809, inclusive. HOMESTAKE would maintain control of the subsurface mineral estate via their existing federal mining claims. The real estate and regulatory process for the Proposed Action follows the same procedures used during the August 2003 direct sale of the existing Ruby Hill Mine site surface estate.

As the subsurface mineral estate for the current Ruby Hill Mine site, and the proposed direct sale lands would remain in the Public domain, BLM regulatory management of the approved Plan of Operations would continue under 43 CFR 3809.2. The BLM would remain the lead agency for the Ruby Hill Mine project and continue to hold the reclamation surety bond.

Once the direct sale is approved, the lands identified for sale would pass from the public domain into private ownership. Mine operations would continue as described in the BLM Bureau of Mining Regulation and Reclamation (BMRR) approved Mine Plan of Operations. BLM regulatory management of the Mine Plan of Operations would continue under 43 CFR 3809.2. All environmental protection measures and permit requirements would remain in force. Mine reclamation and closure activities would proceed in accordance with the closure plans submitted to the BLM and BMRR.

Upon the completion of the direct sale, HOMESTAKE would become the owner of record for the surface estate, and would assume the responsibility for all environmental liabilities associated with the property. Since the surface estate would no longer be in the public domain, the Federal Government would be removed as a Principal Responsible Party for any environmental liabilities associated with the property.

## **2.4      Project Alternatives**

### **2.4.1      No Action Alternative**

Under the No Action Alternative, the BLM would not approve the direct sale of the surface ownership of the identified lands to HOMESTAKE. These lands would remain in the public domain. Mine operations would continue as described in the current Mine Plan of Operations, and as allowed by applicable federal, state, and local regulations.

### **3.0 AFFECTED ENVIRONMENT**

This chapter describes the environment that would be affected by the Proposed Action and the No Action Alternative. The information used to describe the resources in this chapter tiers from published and unpublished sources including the July 2005 *Ruby Hill Mine Expansion East Archimedes Project, Final Supplemental Environmental Impact Statement* (BLM, 2005); the April 2003 *HOMESTAKE Mining Company Ruby Hill Land Sale Environmental Assessment* (BLM, 2003a); the January 2003 *Mineral Potential Report for the Proposed Direct Sale* (Ruby Hill Mine) (BLM, 2003b); and the February 1997 *Ruby Hill Project Final Environmental Impact Statement* (BLM, 1997), along with various natural resource baseline study programs that were completed to support the previous mine site permitting and environmental analyses programs.

The 2005 SEIS assessed the 150 acres of BLM administered public lands proposed for this direct sale for potential impacts that could result from the implementation of mining operations that were subsequently approved under 43 CFR 3809. The proposed direct sale would only transfer ownership of the 150 acres of BLM administered public lands. It would not generate any surface disturbance that would result in natural resource impacts or other unnecessary or undue degradation of federal lands. The information contained in the 2005 SEIS provides the majority of the data used for the impact assessments described in this chapter.

The BLM is required to address specific elements of the environment (Supplemental Authorities) that are subject to requirements specified in statute or regulation or by executive order in all environmental documents (BLM, 2008). Table 2 lists the elements that must be addressed in all environmental analyses, and denotes if the Proposed Action or No Action Alternative affects those elements. The rationale for not carrying a specific element through the document is presented in Table 2.

Other resource elements, which are not Supplemental Authorities that have been considered for this EA, are listed in Table 3 below. These other elements that may be affected are further described in the EA. The rationale for those elements that would not be affected by the Proposed Action or the No Action Alternative is presented in Table 3.

**Table 2: Supplemental Authorities**

<b>Supplemental Authority</b>	<b>Not Present</b>	<b>Present/ Not Affected<sup>1</sup></b>	<b>Present/ May be Affected<sup>2</sup></b>	<b>Rationale</b>
Air Quality			X	See discussion below in Section 3.1
Area of Critical Environmental Concern (ACEC)	X			There are no designated ACECs located near the Ruby Hill Mine that would be impacted by the Proposed Action
Cultural/Historical			X	See discussion below in Section 3.2
Environmental Justice			X	See discussion below in Section 3.3
Farmlands - Prime or Unique	X			There are no designated prime or unique farmlands located near the Ruby Hill Mine that would be impacted by the Proposed Action
Noxious Weeds and Invasive Non-native Species			X	See discussion below in Section 3.4
Native American Religious Concerns			X	See discussion below in Section 3.5
Floodplains	X			There are no federally designated floodplains located near or adjacent to the Ruby Hill Mine that would be impacted by the Proposed Action
Riparian/Wetland	X			There are no jurisdictional wetlands/riparian areas or waters of the United States located adjacent or near to the Ruby Hill Mine that would be impacted by the Proposed Action
Special Status Species			X	See discussion below in Section 3.16
Migratory Birds			X	See discussion below in Section 3.6
Hazardous and Solid Waste			X	See discussion below in Section 3.7
Hydrology/Water Quality			X	See discussion below in Section 3.8
Wild and Scenic Rivers	X			There are no designated wild or scenic rivers located near the Ruby Hill Mine that would be impacted by the Proposed Action
Wilderness	X			There are no designated wilderness or wilderness study areas (WSAs) located near the Ruby Hill Mine that would be impacted by the Proposed Action
Forests and Rangelands (HFRA only)	X			This project does not meet the requirements for an HFRA Project
Human Health and Safety	X			The Proposed Land Sale would not contribute to any impacts to human health or safety per Executive Order 13045

<sup>1</sup> Supplemental Authorities determined to be Not Present or Present/Not Affected need not be carried forward for analysis or discussed further in the document.

<sup>2</sup> Supplemental Authorities determined to be Present/May be Affected must be carried forward for analysis in the document.

**Table 3: Other Resource Elements**

<b>Other Resources</b>	<b>Not Present<sup>1</sup></b>	<b>Present/ Not Affected</b>	<b>Present/ May be Affected<sup>2</sup></b>	<b>Rationale</b>
Fire Management			X	See discussion below in Section 3.9
Grazing Management			X	See discussion below in Section 3.10
Land Use Authorization			X	See discussion below in Section 3.11
Minerals			X	See discussion below in Section 3.12
Paleontological Resources	X			Previous surveys and assessments have determined that the Ruby Hill mine does not contain the geologic structures that would support paleontological resources
Recreation			X	See discussion below in Section 3.13
Socio-Economic Values			X	See discussion below in Section 3.14
Soils			X	See discussion below in Section 3.15
Vegetation			X	See discussion below in Section 3.17
Visual Resources			X	See discussion below in Section 3.18
Wild Horses and Burros	X			There are no wild horse or burro management areas located near the Ruby Hill Mine that would be impacted by the Proposed Action
Wildlife			X	See discussion below in Section 3.19

<sup>1</sup> Other Resources determined to be Not Present or Present/Not Affected need not be carried forward for analysis or discussed further in the document based on the rationale provided.

<sup>2</sup> Other Resources determined to be Present/May be Affected must be carried forward for analysis in the document.

### **3.1 Air Quality**

#### **3.1.1 Affected Environment**

The air resources study area assessed in Section 3.1 of the 2005 SEIS included the area within an approximate seven-mile radius of the mine site, including the proposed direct sale lands. Baseline meteorology, air quality, and dispersion conditions at the mine site were characterized from on-site data collected between 1997 and 2002, and from data records for a meteorological station located in the town of Eureka. This data was used to assess potential air quality impacts that would result from the implementation of the Ruby Hill Mine Expansion, East Archimedes Project (BLM, 2005).

#### **3.1.2 Environmental Consequences**

The Proposed Action would not generate any surface disturbance activities in the proposed direct sale area that would result in direct or indirect air quality impacts. Air quality impacts would remain the same as those assessed by the 2005 SEIS for the Ruby Hill Mine Expansion, East Archimedes Project.

#### **3.1.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. Air quality impacts in the direct sale area would remain the same as those assessed by the 2005 SEIS for the Ruby Hill Mine Expansion, East Archimedes Project.

### **3.1.4 Cumulative Impacts**

Cumulative impacts for air quality were assessed for the proposed direct sale lands as part of the 2005 SEIS. Implementation of the Proposed Action would not result in additional air quality cumulative impacts beyond what was assessed in the 2005 SEIS.

### **3.1.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not proposed as the Proposed Action would not result in any adverse air quality impacts.

## **3.2 Cultural Resources**

### **3.2.1 Affected Environment**

Beginning in the 1980's and continuing through the mid to late 1990's, numerous cultural resource surveys have been completed in the vicinity of the Ruby Hill Mine project area. These surveys were completed by HOMESTAKE to support exploration and mine site permitting activities, and associated NEPA programs. The following list identifies the cultural resource surveys completed.

Archaeological Research Services, Inc. 1994a. Archaeological Monitoring Results of the Ruby Hill Project, Eureka County, Nevada. BLM Report No. CR-6-1553-3(P). July 1994.

Archaeological Research Services, Inc. 1994b.. A Cultural Inventory of 1,045 Acres for the Homestake Mining Company, Ruby Hill Project, Eureka County, Nevada. BLM Report No. CR-6-1553-4. November, 1994.

Christensen, T, and R. Kautz. 1994. A Class III Cultural Resources Survey of Sample Corridors near Eureka, Nevada. Kautz Environmental Consultants, Inc. BLM Report No. CR-6-1751. December 1994.

Christensen, T, J. Berryman, and R. Kautz. 1995. The Ruby Hill Project. A Cultural Resources Inventory of Selected Blocks, Eureka County, Nevada. Kautz Environmental Consultants, Inc. BLM Report No. CR-6-1771. November 1995.

Christensen, T, J. Berryman, and R. Kautz. 1996. The Ruby Hill Project. A Cultural Resources Inventory of Selected Blocks, Eureka County, Nevada. Kautz Environmental Consultants, Inc. BLM Report No. CR-6-1771. Revised June 1996.

Foulkes, G. 1993. Contract Cultural Resources Report BLM Report No. CR- 6-1533(P). July 15, 1993.

Johnson, F. 1993. An Archaeological Survey of Approximately 470 Acres at Mineral Point Prospect Area in Eureka County, Nevada for Homestake Mining Company. FWJ Project #171. BLM Report No. CR-6-1553-1(P). April 26, 1993. (Johnson, 1993)

Kautz, J. Marvin and R. Thomssen. 1994. A Historic Context of the Eureka Mining District, Eureka County, Nevada. BLM Report No. CR-6-1759. December 1994.

Kautz, R, J. Berryman, and T. Christensen. 1995. A Cultural Resources Inventory of the Mineral Point Block; Ruby Hill Project, Eureka County, Nevada . Kautz Environmental Consultants, Inc. BLM Report No. CR-6-1761. August 1995.

Kautz, R, P. Mires, and J. Hutchins. 1996. An Historic Preservation Treatment Plan for a Portion of the Eureka Mining District, Eureka County, Nevada: The Ruby Hill Project. Kautz Environmental Consultants, Inc. BLM Report No. CR-6-1902. January 1996

Mires, Peter B. 1996a. Letter Report on the Results of Archaeological Monitoring of Proposed HMC Drill sites, the Ruby Hill Project. BLM Report No. CR-6-1771-2. June 1996.

Mires, P. B. 1996b. Initial Report of the Historic Preservation Treatment Efforts (Data Recovery), Homestake Mining Company's Ruby Hill Project, Eureka, Nevada. August 1996.

Mires, P. B. 1997a. Archaeology of the Ruby Hill Project, Eureka County, Nevada. Kautz Environmental Consultants, Reno, Nevada. BLM Report No. CR-6-1902-1(P).

Mires, Peter B. 1997b. Letter Report on the Results of Archaeological Monitoring of Proposed HMC Drill Sites, the Ruby Hill Project. BLM Report No. CR-6-1771-4.

Swift, M. and R. Harper. 1994. An Archaeological Survey of Approximately 325 Acres at the Mineral Point Prospect in Eureka County, Nevada, for Homestake Mining Company. Frank W. Johnson Environmental Consultants. BLM Report No. CR-6-1553-2(P). January 10, 1994.

In 1995, HOMESTAKE, BLM, the Nevada State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) entered into a Programmatic Agreement (PA), outlined in BLM Cultural Resource Report No. CR-6-1763, that defines general and specific measures to ensure the mutual objectives and individual requirements of the National Historic Preservation Act (NHPA) are fulfilled. This PA remains active and is on file at the BLM Mount Lewis Field Office in Battle Mountain, Nevada (BLM, 1995).

As discussed in Section 3.15 of the 2005 SEIS, the direct sale area associated with the Proposed Action was assessed by several previous cultural resource surveys as part of the Ruby Hill Mine Expansion, East Archimedes Project permitting program. The results of these surveys indicate cultural resource sites are not located within the direct sale area (BLM, 2005).

### **3.2.2 Environmental Consequences**

There are no cultural resource sites located in the direct sale area. The Proposed Action would not result in direct or indirect impacts to cultural resources. Cultural resource impacts would remain the same as those assessed by the 2005 SEIS (BLM, 2005).

### **3.2.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. Cultural resource impacts would remain the same as those assessed by the 2005 SEIS for the Ruby Hill Mine Expansion, East Archimedes Project.

### **3.2.4 Cumulative Impacts**

Cumulative impacts for cultural resources were assessed for the proposed direct sale lands as part of the 2005 SEIS. Implementation of the Proposed Action would not result in additional cumulative impacts to cultural resources beyond what was assessed in the 2005 SEIS.

### **3.2.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not proposed as the Proposed Action would not result in any cultural resource impacts.

## **3.3 Environmental Justice**

### **3.3.1 Affected Environment**

As discussed in Section 3.19 of the SEIS (BLM, 2005), an environmental justice analysis was conducted to assess potential impacts to minority and low income populations that would result from the implementation of the Ruby Hill Mine Expansion, East Archimedes Project. The environmental justice analysis area for the 2005 SEIS included the mine expansion project area and all of Eureka County. The

mine expansion project area includes the direct sale area for the Proposed Action assessed by this EA. The environmental justice review determined there would be no impacts or effects to minority or low-income populations resulting from the implementation of the mine expansion project

### **3.3.2 Environmental Consequences**

The Proposed Action is a realty process. It would not result in any mine operation or management changes that would affect minority or low income populations.

### **3.3.3 No Action Alternative**

Under the No Action Alternative, environmental justice effects would be the same as those addressed in the SEIS (BLM, 2005).

### **3.3.4 Cumulative Impacts**

There are no environmental justice cumulative impacts associated with the Proposed Action.

### **3.3.5 Mitigation and Monitoring**

Mitigation and monitoring is not required for environmental justice.

## **3.4 Noxious Weeds and Invasive, Non-Native Species**

### **3.4.1 Affected Environment**

Between 1995 and 2004, the general Ruby Hill Mine project area, including the Proposed Action's direct sale area, has been evaluated by several baseline studies to assess baseline vegetation conditions, including the presence of noxious weeds and invasive, non-native species. These studies were completed to support various mine permitting and NEPA programs. Section 3.9 of the 2005 SEIS summarizes the results of these previous studies, including the June 2004 invasive and non-native plant survey (JBR, 2004) completed to support the 2005 SEIS.

### **3.4.2 Environmental Consequences**

The Proposed Action would not generate any surface disturbance activities in the direct sale area that would contribute to the establishment of invasive, non-native species or noxious weeds.

### **3.4.3 No Action Alternative**

Under the No Action Alternative, impacts associated with invasive, non-native species and noxious weeds would remain the same as those assessed by the 2005 SEIS.

### **3.4.4 Cumulative Impacts**

There are no noxious weeds or invasive non-native species cumulative impacts associated with the Proposed Action.

### **3.4.5 Mitigation and Monitoring**

Mitigation or monitoring activities for noxious weeds and invasive, non-native species are not required for the Proposed Action.

## **3.5 Native American Traditional Values**

### **3.5.1 Affected Environment**

As a federal, multiple use, land management agency, the BLM is mandated to provide consultation opportunities to Native American tribes concerning the identification of traditional/cultural properties, sites, resources, and associated activities that may be affected by federal actions. This consultation includes the identification of places (i.e. physical locations) of traditional cultural importance to Native American tribes and is conducted in accordance with the requirements of various federal laws including the National Historic Preservation Act, the American Indian Religious Freedom Act, the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and Executive Order 13007.

The 1986 Shoshone-Eureka RMP designated specific lands as suitable for disposal. However, little if any Native American Consultation occurred during that effort. During the 1997 Ruby Hill Mine EIS process and the 2005 SEIS (expansion) process, the BLM conducted Native American consultation/coordination programs with appropriate Tribal Governments, other interested parties, and individuals. In addition, a 1995 Programmatic Agreement between the BLM, HOMESTAKE, the Nevada State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP) to evaluate and mitigate potential impacts to cultural resources at the Ruby Hill Mine site is still in effect. The BLM has determined the information collected during the 1997 and 2005 Native American consultations and coordination programs, and the Programmatic Agreement is valid for the Proposed Action, as the only significant change to the subject lands has been the implementation of the mine operations as described in the approved Plans of Operations.

For the 1997 Ruby Hill Mine EIS, recognized tribes invited to participate were the Yomba Shoshone Tribe, Duckwater Shoshone Tribe, Battle Mountain Band, Duck Valley Sho-Pai Tribes, Elko Band, Ely Shoshone, South Fork Band, Te-Moak Tribe of Western Shoshone, and Wells Band. Other entities invited were the Western Shoshone Defense Project (WSDP), Indian Environmental Coalition, Western Shoshone Historical Preservation Society, Western Shoshone National Council, and a known "spiritual leader." Of those originally notified, the Yomba Shoshone Tribe, WSDP, and a single spiritual leader were the most active participants.

During the 2005 Ruby Hill Mine Expansion SEIS, the following tribes were contacted: Yomba Shoshone Tribe, South Fork Band, Elko Band, Duckwater Shoshone Tribe, Battle Mountain Band, Wells Band, Te-Moak Tribe of Western Shoshone, and the Ely Shoshone Tribe. The Western Shoshone Defense Project was also notified. Although no new information was received, the 1997 input, recommendations, avoidance measures, and mitigation are still in effect.

Given the previous consultation/coordination efforts, participation, and input received, the proposed direct sale is not expected to result in any impacts to previously identified traditional/cultural sites, resources, or associated activities. In an effort to gather further input, other than what was given during the 1997 and 2005 efforts, BLM notified the Yomba Shoshone Tribe, Duckwater Shoshone Tribe, Ely Shoshone Tribe, and the Te-Moak Tribe of Western Shoshone of the proposed sale in September 2009. To date, no new information has been received.

### **3.5.2 Environmental Consequences**

The direct sale area is located within the existing Ruby Hill Mine area that was assessed for Native American Traditional Values under the 1995 and 2004 consultation programs. The Proposed Action would not impact previously identified or known Native American traditional values.

### 3.5.3 No Action Alternative

There would be no impacts to Native American Traditional Values under the No Action Alternative.

### 3.5.4 Cumulative Impacts

There are no Native American Traditional Value cumulative impacts associated with the Proposed Action.

### 3.5.5 Mitigation and Monitoring

Mitigation or monitoring activities for Native American Traditional Values are not required for the Proposed Action.

## 3.6 Migratory Birds

### 3.6.1 Affected Environment

The general mine site supports habitat for a variety of migratory bird species, including various raptor and passerine species. Of the 37 different avian species identified in the general mine site area during the breeding surveys conducted in June 1995 (WESTEC, 1995a), 22 species were identified as migratory species; while 15 species were identified as year-round residents. Although these birds were observed during the 1995 surveys, other birds may also utilize the area. Of these 37 species identified as being in the project area, only the California quail (*Callipepla californica*) is not covered under the Migratory Bird Treaty Act of 1918. Table 4 presents a list of these species and identifies the individual migratory and year-round residents. Section 3.10.2.1 of the 2005 SEIS assessed the Proposed Action area for potential impacts to migratory birds that would result from the implementation of mine operation activities.

**Table 4: Avian Species in the Ruby Hill Mine Project Area**

Common Name	Scientific Name
Turkey vulture	<i>Cathartes aura</i>
Northern harrier <sup>1</sup>	<i>Circus cyaneus</i>
Red-tailed hawk <sup>1</sup>	<i>Buteo jamaicensis</i>
Ferruginous hawk <sup>1</sup>	<i>Buteo regalis</i>
American kestrel <sup>1</sup>	<i>Falco sparverius</i>
Prairie falcon <sup>1</sup>	<i>Falco mexicanus</i>
California quail <sup>1</sup>	<i>Callipepla californica</i>
Common nighthawk <sup>1</sup>	<i>Chordeiles minor</i>
Northern flicker <sup>1</sup>	<i>Colaptes auratus</i>
Western kingbird	<i>Tyrannus verticalis</i>
Gray flycatcher	<i>Empidonax wrightii</i>
Mourning dove	<i>Zenaida macroura</i>
Horned lark <sup>1</sup>	<i>Eremophila alpestris</i>
Scrub jay <sup>1</sup>	<i>Aphelocoma coerulescens</i>
Pinyon jay <sup>1</sup>	<i>Gymnorhinus cyanocephalus</i>
Common raven <sup>1</sup>	<i>Corvus corax</i>
Mountain chickadee <sup>1</sup>	<i>Parus gambeli</i>
Rock wren	<i>Salpinctes obsoletus</i>
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>
Mountain bluebird	<i>Sialia currucoides</i>

Common Name	Scientific Name
Loggerhead shrike <sup>1</sup>	<i>Lanius ludovicianus</i>
Sage thrasher	<i>Oreoscoptes montanus</i>
Solitary vireo	<i>Vireo solitaries</i>
Yellow-rumped warbler	<i>Dendroica coronate</i>
Black-throated gray warbler	<i>Dendroica nignescens</i>
Black-headed grosbeak	<i>Pheuticus melanocephalus</i>
Green-tailed towhee	<i>Pipilo chlorurus</i>
Rufous-sided towhee <sup>1</sup>	<i>Pipilo erythrophthalmus</i>
Vesper sparrow	<i>Pooecetes gramineus</i>
Lark sparrow	<i>Chondestes grammacus</i>
Sage sparrow	<i>Amphispiza belli</i>
Chipping sparrow	<i>Spizella passerine</i>
Brewer's sparrow	<i>Spizella breweri</i>
Western meadowlark	<i>Stumella neglecta</i>
Brown-headed cowbird	<i>Molothrus ater</i>
Western tanager	<i>Piranga ludoviciana</i>
Cassin's finch <sup>1</sup>	<i>Carpodacus cassinii</i>

<sup>1</sup>Species that occur in the project area or project vicinity year-round.

### 3.6.2 Environmental Consequences

The Proposed Action would not result in any impacts to migratory bird species. However, in order to mitigate potential impacts to these species from any future mine development activities within the land sale area, HOMESTAKE would not conduct land-disturbing activities during the following periods:

- March 1<sup>st</sup> thru August 31<sup>st</sup> to protect nesting raptors; and
- April 1<sup>st</sup> thru July 31<sup>st</sup> to protect other nesting species.

Should habitat removal be required during these time periods, HOMESTAKE would coordinate appropriate mitigation measures with BLM, NDOW and the USFWS. Prior to any surface disturbance, breeding bird and nest surveys will be conducted by a qualified biologist. If nests are located or nesting behavior is observed (i.e. carrying of nest material, transporting food, mated pairs or territorial defense), then a protective buffer would be created (size of buffer would be species dependent). Destruction or disturbance would be avoided in the buffered area until the nest is no longer active.

### 3.6.3 No Action Alternative

Under the No Action Alternative, the proposed direct sale would not be implemented. Impacts to migratory bird species in the direct sale area would remain the same as those assessed by the 2005 SEIS.

### 3.6.4 Cumulative Impacts

Cumulative impacts for migratory bird species were assessed for the proposed direct sale lands as part of the 2005 SEIS. Implementation of the Proposed Action would not result in additional cumulative impacts to these species beyond what was assessed in the 2005 SEIS.

### 3.6.5 Mitigation and Monitoring

Mitigation or monitoring activities are not proposed as the Proposed Action would not result in any impacts to any migratory bird species.

## **3.7 Hazardous or Solid Wastes**

### **3.7.1 Affected Environment**

The acreage associated with the direct sale is utilized for expansions of the East Waste Rock Dump and the East Archimedes Open pit as approved under the current Ruby Hill Mine Plan of Operations. There are no facilities in the direct sale area that are used to store any hazardous or solid wastes. The only hazardous materials utilized in the direct sale area are fuel and other petroleum products used by standard mine equipment working within the area, and blasting agents used in open pit mine operations (BLM, 2005).

HOMESTAKE has a Spill Prevention, Control, and Countermeasures Plan (SPCC Plan) in place that provides procedures for handling petroleum products, and preventing, and controlling spills of these types of products. The SPCC Plan was prepared in accordance with the requirements of 40 CFR 112. Any spills or releases of hazardous materials are reported to the following agencies as appropriate: the Nevada Division of Environmental Protection BMR, the Nevada Division of Emergency Management, the BLM, the U.S. Environmental Protection Agency, the National Response Center, and the Eureka County Emergency Response Coordinator (BLM, 2003a; BLM, 2005).

An American Standard Testing Method (ASTM, 2000) E 1527-05 Phase I Environmental Site Assessment (ESA) was conducted on July 21, 2009 to determine if any Recognized Environmental Conditions (RECs), including the presence of any hazardous or solid wastes, are located within the direct sale area (Tetra Tech, 2009).

### **3.7.2 Environmental Consequences**

The Proposed Action would not result in the use or storage of any hazardous or solid wastes in the direct sale area. The only hazardous materials occurring within the direct sale area would continue to be fuel and other petroleum products associated with heavy equipment use, and blasting agents used in open pit mine operations. The results of the July 2009, Phase I ESA determined there are no RECs, hazardous or solid wastes located or contained within the direct sale area.

### **3.7.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented, and there would be no impacts related to hazardous or solid wastes beyond what was assessed in the 2005 SEIS.

### **3.7.4 Cumulative Impacts**

Implementation of the Proposed Action would not result in additional cumulative impacts associated with hazardous or solid wastes beyond what was assessed in the 2005 SEIS.

### **3.7.5 Mitigation and Monitoring**

Mitigation or monitoring activities for hazardous and solid wastes are not required for the Proposed Action.

## **3.8 Hydrology and Water Quality**

### **3.8.1 Affected Environment**

Section 3.4 of the SEIS presents a detailed discussion of the surface and groundwater hydrology, and water quality, within the Ruby Hill Mine project area. The mine is located in the southern portion of the Diamond Valley Hydrographic Basin #153. The Diamond Valley Hydrographic Basin is a closed basin except for surface and subsurface inflows through Devils Gate, which is located northwest of the mine

site. No perennial streams are found in the southern region of Diamond Valley, where the Ruby Hill Mine is located. Sixteen intermittent drainages are located within the general mine site area. These are ephemeral drainages and carry flow in small portions of the drainages for short periods only during extreme precipitation events or seasonal snowmelt. Seven of these drainages were identified as Waters of the United States during the mine permitting process. However, the U.S. Army Corps of Engineers (COE) determined these drainages were not jurisdictional waters of the United States. In addition, the Ruby Hill Mine project area does not contain any jurisdictional wetlands..

Seven springs and one seep are located between 2.5 and 3.5 miles south and southeast of the mine site. These springs and seep are located hydrogeologically upgradient of the mine site. As such, mine operations do not impact them.

Numerous studies have been conducted to investigate and define the hydrogeologic and geochemical conditions beneath the Ruby Hill mine site. Groundwater within the Diamond Valley Hydrographic basin generally flows toward the north portion of the basin. Groundwater under the Ruby Hill Mine flows in a northerly direction toward Diamond Valley. The studies conducted indicate that groundwater in the mine site area is generally of good quality, and is within Nevada drinking and stock water standards.

### **3.8.2 Environmental Consequences**

The Proposed Action would not result in any surface disturbing activities that would impact surface or groundwater resources and water quality.

### **3.8.3 No Action Alternative**

Under the No Action Alternative, impacts to surface and groundwater resources and water quality would remain the same as those assessed in the 2005 SEIS.

### **3.8.4 Cumulative Impacts**

Cumulative impacts for surface and groundwater resources were assessed for the proposed direct sale lands as part of the 2005 SEIS. Implementation of the Proposed Action would not result in additional cumulative impacts to these items beyond what was assessed in the 2005 SEIS.

### **3.8.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not proposed as the Proposed Action would not result in any impacts to surface or groundwater resources.

## **3.9 Fire Management**

### **3.9.1 Affected Environment**

HOMESTAKE maintains strict management procedures, as part of normal mine operations, for fire protection. Section 2.3.12 of the 2005 SEIS presents specific fire protection measures implemented by HOMESTAKE. As discussed in Section 2.6 of the 2005 SEIS, the BLM has a vegetation treatment program in place in the vicinity of the Ruby Hill Mine site to reduce the severity and duration of wildland fires on public lands near population centers.

### **3.9.2 Environmental Consequences**

Under the Proposed Action, HOMESTAKE would maintain the current fire protection measures as part of normal mine operations. In addition, HOMESTAKE would coordinate with BLM in regards to a vegetation treatment program to assist in reducing the severity and duration of wildland fires on private lands owned or controlled by HOMESTAKE, and BLM managed public lands adjacent to the Ruby Hill Mine site.

### 3.9.3 No Action Alternative

There would be no changes to fire and fuels management activities under the No Action Alternative.

### 3.9.4 Cumulative Impacts

Cumulative impacts are not associated with the fire and fuels management activities.

### 3.9.5 Mitigation and Monitoring

Mitigation or monitoring activities are not required for fire and fuels management activities.

## 3.10 Grazing Management

### 3.10.1 Affected Environment

The Ruby Hill Mine is located within the 13,945-acre Ruby Hill Grazing Allotment. The allotment has both a sheep permit and a cattle permit. The sheep permit for the Ruby Hill Allotment is currently being leased from James Ithurralde of Eureka, Nevada to Gary Snow Livestock and Grain of Fallon, Nevada. Table 5 identifies the permitted grazing use for the allotment use as identified in the 2004 Fish Creek Complex Final Multiple Use Decision (BLM, 2004).

**Table 5: Ruby Hill Grazing Allotment Permitted Use**

Livestock Kind	Season of Use	Percent Public Land	Number of Livestock	AUMs <sup>1</sup>
Cattle	March 16 to August 29	100%	50	275
Sheep	May 1 to September 30	100%	1,005	1,011
Total			1,055	1,286

<sup>1</sup>Animal Unit Month (AUM)

The BLM calculates the average stocking rate for the allotment at 10.8 acres per AUM.

### 3.10.2 Environmental Consequences

Under the Proposed Action, the 150 acres of BLM administered public lands would be transferred to private ownership. Based on the stocking rate of 10.8 acres per AUM, 14 AUMs (three cattle AUMs and eleven sheep AUMs) would be removed from the Ruby Hill grazing allotment. This removal is approximately 1% of the total AUMs available in the grazing allotment. The permanent removal of 14 AUMs is not considered significant for the following:

- The loss represents approximately one percent of the active allotment grazing preference.
- Approximately 130 acres of the direct sale lands that support 12 AUMs may become available for grazing after successful site reclamation is completed through a lease arrangement between HOMESTAKE and the allotment permittee. The potential for leasing would be determined by HOMESTAKE based on the revegetation success.
- The 150 acres of direct sale lands and their associated AUMs are located within an area previously identified for disposal by the BLM in the 1985 RMP.
- Mine operations would not impact any range improvements, as there are no improved or developed facilities within the mine site area.
- An unconditional waiver was signed on September 22, 2009 in regards to the reduction in grazing for the allotment.

### **3.10.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. Impacts to range resources and grazing management would remain the same as those assessed in the 2005 SEIS (BLM, 2005).

### **3.10.4 Cumulative Impacts**

As discussed in Section 3.7 of the 2005 SEIS, cumulative impacts from past, present and Reasonably Foreseeable Future Actions (RFFAs) could result in the permanent loss of six percent of the available grazing land, and 79 AUMs from the Ruby Hill Grazing Allotment. The Proposed Action would result in the removal of 150 acres of vegetation from BLM administered public land that supports 14 AUMs within the Ruby Hill Grazing Allotment. Upon the completion of successful revegetation, approximately 130 acres of grazing land supporting 12 AUMs could be recovered for potential grazing on a lease basis by HOMESTAKE. The cumulative grazing loss from the Proposed Action, along with the past, present, and RFFAs is estimated at 81 AUMs. This is not considered a significant cumulative impact.

### **3.10.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not proposed for grazing management since no substantial impacts are anticipated.

## **3.11 Land Use Authorizations**

### **3.11.1 Affected Environment**

Sections 3.9 of the 2003 Land Sale EA (BLM, 2003a), and 3.11 of the 2005 SEIS present detailed land use authorization discussions. The mine site is located approximately 0.7 mile northwest of the town of Eureka, on public lands administered by the BLM, and private land owned or controlled by HOMESTAKE. Figure 2 illustrates the land status of the general mine site project area. Land use within the general vicinity of the mine site consists primarily of mining and mineral exploration, agricultural enterprises including livestock grazing and the production of alfalfa, oats and barley, and dispersed recreation. Access to the mine site is from U.S. Highway 50 at the intersection with State Route 278 (Figure 2).

Eureka County's 1995 *Overall Economic Development Plan* designates the mine site project area as "Land Class C", Open Space and Appropriate Uses. The classification includes mining, recreational use, limited grazing and watershed protection measures. In 1985, Eureka County, in cooperation with the Nevada Division of State Lands, adopted a *Policy Plan for Public Lands* within its jurisdiction. This plan contains policies promoting expansion of mining operations/areas, and promoting opportunities for local economic development through the disposal of select public lands within the county.

The BLM manages public lands under its jurisdiction for multiple uses including recreation, range, forestry, mineral extraction, watershed, fish and wildlife habitat, wilderness, and natural, scenic, scientific, and historical values. The mine site is contained entirely within the BLM's Battle Mountain District. The current land use plan for this region is the 1986 Shoshone-Eureka RMP. Mineral resource development is one of the authorized land use activities in the RMP. The public lands identified for the direct sale under the Proposed Action have been identified in the RMP as suitable for disposal (Figure 3), based on needs for recreation or other public purposes, community expansion, economic development, agriculture, and the creation of blocked ownership patterns. Disposal of these lands would contribute to the economic development of Eureka County through the increased private land tax base.

As illustrated by Figure 2, there is one BLM right of way (ROW) located immediately adjacent to the direct sale area lands. ROW No. N-48618 is a buried freshwater water pipeline that crosses the southwest

corner of Section 2, Township 19 North, Range 53 East, MDB&M. This pipeline services the town of Eureka.

### **3.11.2 Environmental Consequences**

The Proposed Action would impact land use authorizations. Under the Proposed Action, the surface estate would be transferred into private ownership. However, BLM regulatory management of the previously approved Mine Plan of Operations, and the subsurface mineral estate would continue under 43 CFR 3809.2 after the direct sale has been completed.

Transfer of the lands into private ownership would contribute to the economic development of Eureka County through the increased private land tax base.

The Proposed Action would not impact access to public and private lands. Alternate routes to public and private lands are available. Access to the mine site would continue to be controlled by HOMESTAKE's routine security procedures to prevent unauthorized public access.

ROW N-48618 (Figures 2 and 3) is a buried water pipeline currently authorized to Eureka County by BLM that crosses Sections 2 and 11, Township 19 North, Range 53 East, MDB&M. The pipeline supplies fresh water to the town of Eureka. The patent for the direct sale, when issued, will be subject to this ROW as appropriate.

### **3.11.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. Land use authorizations would remain the same as those assessed in the 2005 SEIS.

### **3.11.4 Cumulative Impacts**

The Proposed Action would result in minimal cumulative impacts associated with land use authorizations. As discussed in Section 3.11 of the 2005 SEIS, the original Ruby Hill Mine land sale of 1,644 acres had minimal impact to the town of Eureka and the surrounding area. The 150-acre direct sale area is immediately adjacent to the Ruby Hill Mine site, on lands previously identified for disposal (BLM, 1986), and would result in minimal impacts to local land use.

The Proposed Action would not impact access to public or private lands, would not impact the freshwater pipeline ROW # N-48618, and would have a long-term positive economic impact to the Eureka County tax base.

### **3.11.5 Mitigation and Monitoring**

Land use authorization mitigation or monitoring activities are not required for the Proposed Action.

## **3.12 Minerals**

### **3.12.1 Affected Environment**

The general Ruby Hill Mine site, including the direct sale area, lies within the Prospect Ridge block, which is a faulted and folded antiform. The geology at the general mine site is comprised of lower Paleozoic shelf sediments consisting of Cambrian to Devonian carbonates, shales, and quartzites. In the pit areas, a Quaternary Alluvium layer overlays the Pogonip Group rocks, specifically those of the Ninemile Formation and the Goodwin Limestone that are the main host formations for the ore body, along with a tertiary quartz porphyry formation in the East Archimedes pit. The major faults in the pit areas include the Jackson, Holly, Bowman-150, the East Archimedes, and Austin Canyon Faults. Complete geologic descriptions for the Ruby Hill Mine site are included in the 1997 EIS, the 2003 Land

Sale EA, the 2003 Mineral Potential Report, and the 2005 SEIS (BLM, 1997; BLM, 2003a; BLM, 2003b; BLM, 2005).

### **3.12.2 Environmental Consequences**

The Proposed Action would not result in any impacts to mineral resources. The Proposed Action would transfer the surface estate associated with the 150-acre direct sale area into private ownership. The subsurface mineral estate would remain in the public domain.

As discussed in the 2003 Mineral Potential Report, the surface estate does not contain viable economic mineral resources including uranium, thorium, coal, oil, gas, geothermal, or other leasable or industrial minerals (BLM, 2003b).

### **3.12.3 No Action Alternative**

There would be no impacts to mineral resources under the No Action Alternative.

### **3.12.4 Cumulative Impacts**

There are no mineral resource cumulative impacts associated with the proposed action.

### **3.12.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not proposed as the Proposed Action would not result in any impacts to mineral resources.

## **3.13 Recreation**

### **3.13.1 Affected Environment**

Section 3.12 of the SEIS presents a discussion on recreation uses for the Ruby Hill Mine site and the surrounding area. Dispersed outdoor recreation is the predominant type of recreation in the area. Dispersed recreational use within the vicinity of the mine site is limited. These activities include off-road vehicle use, hunting, and rock hounding. There are no developed campgrounds or picnic areas within Eureka County, and there are no designated wilderness areas, or wilderness study areas (WSAs) within ten miles of the mine site.

### **3.13.2 Environmental Consequences**

The Proposed Action would not impact existing recreational uses in the vicinity of the mine site. The 150 acres of direct sale land are located adjacent to the existing, HOMESTAKE owned Ruby Hill Mine site, and have been approved by the BLM for mine operations. This acreage has already been used for the expansions of the east waste rock dump and the East Archimedes Open Pit, and would remain in private ownership after final mine site reclamation and closure.

The transfer of the direct sale acreage into private ownership is considered a minimal adverse impact since existing recreational use of the general project area is light, and the surrounding area supports abundant public land for dispersed recreation activities. The Proposed Action would not block recreation access to public or private lands used for these dispersed activities.

### **3.13.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not be implemented. Recreational impacts would remain the same as assessed in the 2005 SEIS.

### **3.13.4 Cumulative Impacts**

Cumulative impacts to recreation associated with the Proposed Action would remain the same as assessed in the 2005 SEIS.

### **3.13.5 Mitigation and Monitoring**

Mitigation or monitoring activities for recreational impacts are not required for the Proposed Action.

## **3.14 Socio-Economics**

### **3.14.1 Affected Environment**

The local economy in the vicinity of the town of Eureka is dependent on mining, agriculture, tourism and the federal government for its economic base. The Ruby Hill Mine has contributed significantly to the local economy. Mine operations contribute to increases in local business activity and county revenues. Section 3.17 of the 2005 SEIS presents a detailed discussion of socio-economic issues for the Ruby Hill Mine.

### **3.14.2 Environmental Consequences**

Transfer of the direct sale lands from the public domain to private ownership would require HOMESTAKE to pay additional real property taxes to Eureka County. These taxes would contribute to the overall economic development of Eureka County.

### **3.14.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. HOMESTAKE would not be obligated to pay increased property taxes to Eureka County related to the direct sale lands.

### **3.14.4 Cumulative Impacts**

Cumulative impacts for socio-economic issues were assessed for the proposed direct sale lands as part of the 2005 SEIS. Implementation of the Proposed Action would not result in additional socio-economic cumulative impacts beyond what was assessed in the 2005 SEIS (BLM, 2005).

### **3.14.5 Mitigation and Monitoring**

Mitigation or monitoring activities for socio-economic issues are not proposed as the Proposed Action would not result in any substantial impacts.

## **3.15 Soils**

### **3.15.1 Affected Environment**

Six soils occur in the mine site area. These are the Umil association; the Rubyhill fine sandy loam, 2 to 8 percent slopes; the Bartine-Overland association; the Shipley complex; the Kobeh gravelly fine sandy loam, two to four percent slopes; and the Shipley silt loam, 0 to 2 percent slopes. Section 3.13 of the 2003 Land Sale EA and Section 3.5 of the 2005 SEIS present detailed descriptions of the mine site soil associations.

The Proposed Action area is located within the Umil association. Portions of the soil within this area have been previously disturbed by the approved expansion of the East Waste Rock Dump and the East Archimedes Open Pit. Section 3.5 of the 2005 SEIS discusses the environmental impacts associated with this disturbance.

### 3.15.2 Environmental Consequences

The Proposed Action would not create or contribute to any surface disturbance activities that would impact soils with the direct sale area. Soil impacts in the Proposed Action area remain the same as those addressed in the 2005 SEIS.

### 3.15.3 No Action Alternative

There would be no additional soils impacts to the direct sale under the No Action Alternative. Impacts to Soils impacts would remain the same as those assessed in the 2005 SEIS (BLM, 2005).

### 3.15.4 Cumulative Impacts

The Proposed Action would not result in any additional cumulative impacts to soils.

### 3.15.5 Mitigation and Monitoring

Mitigation or monitoring activities are not proposed as the Proposed Action would not create additional soils impacts.

## 3.16 Special Status Species

### 3.16.1 Affected Environment

In accordance with the Federal Endangered Species Act of 1973 (FESA), the BLM must ensure that any action that they authorize, fund or carry out would not adversely affect a federally listed threatened or endangered species. As part of this EA process, the USFWS and the NNHP provided information and an updated list of threatened or endangered species that could occur in the mine site project area, including the Proposed Action area (Appendix A). Table 6 identifies these species.

**Table 6: Special Status Species**

Common Name	Scientific Name	Agency Status
<i>Avian Species</i>		
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	C <sup>1</sup>
<i>Mammals</i>		
Small-footed myotis	<i>Myotis ciliolabrum</i>	SC <sup>2</sup>
Pygmy Rabbit	<i>Brachylagus idahoensis</i>	N <sup>3</sup>
<i>Plants</i>		
Lahontan beardtongue	<i>Penstemon palmeri, var. macranthus</i>	N <sup>3</sup>

<sup>1</sup> USFWS Candidate under the FESA

<sup>2</sup> Species of Concern under the FESA

<sup>3</sup> BLM Nevada Special Status Species

The yellow-billed cuckoo is a neotropical migrant whose summer range included most of the United States, southern Canada, and northern Mexico. This species migrates to South America during the winter season. It is extremely rare in the interior western United States. General habitat requirements include deciduous woodlands with large trees and broadleaf riparian woodlands. In the western United States, habitat would include riparian zones with established willow and cottonwood forest components (CBD, 2000; FG, 2001; Uvardy, 1977). The vegetation communities surrounding the Ruby Hill Mine do not support the required deciduous woodland habitat/riparian habitat. There were no sightings of the western

yellow-billed cuckoo during the 1994 wildlife baseline study (WESTEC, 1994), and the 1995 migratory bird surveys (WESTEC, 1995a).

The small-footed myotis is a summer resident of the Great Basin desert, shrub-steppe, and woodlands, with occasional reports in montane forests. It inhabits rocky areas and forages for insects in clearings, near rocks and over forests. It is known to hibernate in caves and mines, and summer roosts have been recorded in buildings and mines, under tree bark, and beneath rocks. This species has been documented using all major historic mine workings within the Ruby Hill Mine project area (BLM, 2005).

Lahontan beardtongue is a tall perennial herb with wand-like stems and showy pink tubular flowers with darker markings. Its flowers are the largest of any beardtongue in its range. The species occurs along washes, roadsides and canyon floors, particularly on carbonate-containing substrate soils, usually where subsurface moisture is available throughout most of the summer. It is found at elevations ranging between 3,400 feet and 4,600 feet above mean sea level. Lahontan beardtongue is established in the general mine site area, including the juniper woodland-black sagebrush, Wyoming big sagebrush-grassland, and juniper woodland-Wyoming big sagebrush communities which are the dominant plant communities that occur in the project Proposed Action (WESTEC, 1995b).

There were no sage grouse strutting grounds observed in the vicinity of the Ruby Hill Mine site during the 1995 wildlife baseline surveys. A single historic sage grouse strutting ground is located more than one mile west of the mine site, in Section 8, Township 19 North, Range 53 East, MDB&M. Coordination with the BLM indicated sage grouse did not use these grounds during the April 1995 strutting season (WESTEC, 1995a).

Pygmy rabbits are small burrowing rabbits, which require areas of soft, friable soils and dense stands of big sagebrush or bitterbrush for cover and food. The pygmy rabbit is considered a game species in Nevada, and managed by the BLM as a sensitive species. The results of previous vegetation and wildlife baseline studies completed to support the *1997 Ruby Hill Project Final Environmental Impact Statement* (BLM, 1997) and the *2005 Ruby Hill Mine Expansion, East Archimedes Project, Final Supplemental Environmental Impact Statement* (BLM, 2005) indicate specific portions of the general mine project area supports suitable pygmy rabbit habitat (WESTEC, 1994; 1995a; 1995b; 1997). However, the findings of the Ruby Hill Project Phase 2 Wildlife Baseline Study (WESTEC 1995a) and the Ruby Hill Project Phase 2 Vegetation Baseline Study (WESTEC, 1995b) indicate the dominant plant community within the Proposed Action area is a juniper woodland (*Juniperus osteosperma*)/black sagebrush (*Artemisia nova*) community, with minor inclusions of a Wyoming big sagebrush (*Artemisia tridentata ssp. wyomingensis*)/grassland plant community. The Proposed Action area supports marginal habitat for the pygmy rabbit.

### **3.16.2 Environmental Consequences**

The Proposed Action would not create any surface disturbance that would impact any special status species or habitat. Impacts to the small-footed myotis, Lahontan beardtongue, and pygmy rabbit would remain the same as assessed in the 2005 SEIS for the Ruby Hill Mine Expansion, East Archimedes project.

### **3.16.3 No Action Alternative**

There would be no impacts to special status species under the No Action Alternative.

### **3.16.4 Cumulative Impacts**

There are no cumulative impacts to special status species associated with the Proposed Action. These impacts would remain the same as those assessed in the 2005 SEIS.

### **3.16.5 Mitigation and Monitoring**

Mitigation or monitoring activities for special status species are not required for the Proposed Action as it would not create any surface disturbance that would impact special status species or habitat.

## **3.17 Vegetation**

### **3.17.1 Affected Environment**

Five plant communities are located in the mine site area. These are the juniper woodland-black sagebrush, Wyoming big sagebrush-grassland, juniper woodland-Wyoming big sagebrush, basin big sagebrush-Great Basin wildrye, and the winterfat-grassland plant communities. The juniper woodland-black sagebrush, Wyoming big sagebrush-grassland, and juniper woodland-Wyoming big sagebrush communities are the dominant plant communities that occur in the project area. The distribution of the individual plant communities is directly related to differences in landscape position, soil type, texture and moisture, and aspect. Section 3.10 of the 2003 Land Sale EA, and Section 3.6 of the 2005 SEIS present detailed descriptions of the mine site plant communities.

The Proposed Action area is located within the juniper woodland-black sagebrush and Wyoming big sagebrush-grassland plant communities. Portions of these vegetation types within this area have been previously disturbed by the approved expansion of the East Waste Rock Dump and the East Archimedes Open Pit. Section 3.6 of the 2005 SEIS discusses the environmental impacts associated with this disturbance.

### **3.17.2 Environmental Consequences**

The Proposed Action would not create or contribute to any surface disturbance activities that would impact vegetation with the direct sale area. Vegetation impacts in the Proposed Action area remain the same as those addressed in the 2005 SEIS.

### **3.17.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. Vegetation impacts would remain the same as those assessed in the 2005 SEIS (BLM, 2005).

### **3.17.4 Cumulative Impacts**

The Proposed Action would not result in any additional cumulative impacts to vegetation.

### **3.17.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not proposed as the Proposed Action would not create additional vegetation impacts.

## **3.18 Visual Resources**

### **3.18.1 Affected Environment**

The BLM manages visual resources according to four levels of management classes ranging from Class I to Class IV. Class I is the most protective, allowing only very limited management activity. Class II allows management activities that would not attract the attention of the casual observer. Class III allows management activities that may attract attention, but should not dominate the view of the casual observer. Class IV allows major landscape modifications. No Class I and few Class II visual management areas exist in the BLM's Battle Mountain District; most of the planning area has been designated as Class IV.

The 2003 Land Sale EA and the 2005 SEIS present detailed discussions on visual resources for the Ruby Hill Mine site.

As discussed in Section 3.13 of the 2005 SEIS, the eastern portion of the Ruby Hill mine site, including the Proposed Action area, lies within a Class III visual management landscape. This area was assessed for visual resource impacts associated with the Ruby Hill Mine Expansion, East Archimedes Project, and it was determined the expansion activities were consistent with the Class III objectives.

### **3.18.2 Environmental Consequences**

The Proposed Action would not contribute to any visual resource impacts.

### **3.18.3 No Action Alternative**

Under the No Action Alternative, the proposed direct sale would not be implemented. Visual impacts would remain the same as those assessed in the 2005 SEIS (BLM, 2005).

### **3.18.4 Cumulative Impacts**

There are no visual cumulative impacts associated with the Proposed Action.

### **3.18.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not required as the Proposed Action would not contribute to any visual impacts.

## **3.19 Wildlife**

### **3.19.1 Affected Environment**

Six wildlife habitat types are located in the general mine site area including juniper woodland/black sagebrush; Wyoming big sagebrush/grassland; juniper woodland/Wyoming big sagebrush; Basin big sagebrush/Great Basin wildrye; winterfat/grassland; and altered grazing type. A variety of terrestrial wildlife species is associated with all of these upland communities. Available water for wildlife consumption is limited in the project area. There are no open water areas or riparian habitat in the immediate vicinity of the mine site. Section 3.10 of the 2005 SEIS provides a detailed description of wildlife including game and non-game species, and habitat in the general mine site area.

The Proposed Action area is located within the juniper woodland-black sagebrush and Wyoming big sagebrush-grassland habitat types. Portions of these habitat types within this area have been previously disturbed by the approved expansion of the East Waste Rock Dump and the East Archimedes Open Pit. Section 3.10 of the 2005 SEIS discusses the impacts to the wildlife species and habitat associated with this disturbance.

### **3.19.2 Environmental Consequences**

The Proposed Action would not create any surface disturbance that would impact wildlife species or habitat.

### **3.19.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not be implemented. Wildlife impacts would remain the same as those assessed in the 2005 SEIS (BLM, 2005).

### **3.19.4 Cumulative Impacts**

The Proposed Action would not contribute to any cumulative impacts to wildlife species or habitat.

### **3.19.5 Mitigation and Monitoring**

Mitigation or monitoring activities are not required as the Proposed Action would not create any surface disturbance that would impact wildlife species or habitat.

#### 4.0 LIST OF PREPARERS AND REVIEWERS

<b>BLM MOUNT LEWIS FIELD OFFICE</b>	
<b>Responsibility</b>	<b>Name</b>
Field Office Manager	Douglas Furtado
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Minerals and 3809 Lead	Cory Gardner
Lands and Rights of Way	Charles Lane
Fire Management	Lisa Walker
Air Quality	Dan Tecca
Water Quality and Quantity	Bob Hassmiller
Cultural Heritage	Janice George
Native American Coordination	Gerald Dixon
Soils	Tom Darrington
Range Resources, Vegetation	Tom Darrington
Invasive, Non-native Species	Michael Vermeys
Migratory Birds, Special Status Species	Ryan Sandefur
Wildlife	Ryan Sandefur
Hazardous Materials, Solid Waste	Dan Tecca
Recreation and Visual Resources	Todd Neville
Environmental Justice and Socio-economics	Angelica Rose

<b>COOPERATING AGENCIES</b>	
<b>Agency</b>	<b>Name</b>
Nevada Division of Wildlife	Rory Lamp
Eureka County	Board of County Supervisors

<b>TETRA TECH (THIRD PARTY CONSULTANT)</b>		
<b>Responsibility</b>	<b>Name</b>	<b>Degree(s) and Experience</b>
Project Manager, Lead Preparer	William Reich	BS Forestry, 30 years experience
Hazardous and Solid Waste	Chet Littlelyke	25 years mine operations and compliance experience
NEPA Compliance, Technical Review	Ronald Rimelman	BS Engineering, 25 years of Experience
NEPA Document Coordinator	Tracey Rozelle	11 years of environmental and engineering project management and coordination experience

<b>HOMESTAKE MINING COMPANY</b>	
<b>Title</b>	<b>Name</b>
General Manager, Ruby Hill Mine	Andy Cole
Environmental Manager, Ruby Hill Mine	Brian Mason
Senior Landman, Barrick Gold North America	R. L. Brock
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**APPENDIX A**

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**AGENCY CONSULTATION LETTERS**

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STATE OF NEVADA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
**Nevada Natural Heritage Program**  
<http://heritage.nv.gov>

28 September 2009

Bill Reich  
Tetra Tech, Inc.  
639 Isbell Road, Suite 390  
Reno, NV 89509

RE: Data request received 24 September 2009

Dear Mr. Reich:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded on or near the Ruby Hill Mine Expansion Project area in Eureka County. We searched our database and maps for the following, a five kilometer radius around:

Township 20N Range 53E Sections 33-35  
Township 19N Range 53E Sections 02-04, 09-11 and 14-16

The enclosed printout lists the taxa recorded within the given area. Please be aware that habitat may also be available for, the dark sandhill skipper, *Polites sabuleti nigrescens*, a Taxon determined to be Vulnerable by the Nevada Natural Heritage Program. We do not have complete data on various raptors that may also occur in the area; for more information contact Ralph Phenix, Nevada Division of Wildlife at (775) 688-1565. Note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including taxa not tracked by this office.

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric S. Miskow".

Eric S. Miskow  
Biologist /Data Manager



# At Risk Taxa Recorded Near the Ruby Hill Mine Expansion Project Area

Compiled by the Nevada Natural Heritage Program for Tetra Tech, Inc.

28 September 2009

<u>Scientific name</u>	<u>Common name</u>	<u>Usfws</u>	<u>Blm</u>	<u>Usfs</u>	<u>State</u>	<u>Srank</u>	<u>Grank</u>	<u>Lat</u>	<u>Long</u>	<u>Prec</u>	<u>Last observed</u>
<b>Plants</b>											
<i>Penstemon palmeri</i> var. <i>macranthus</i>	Lahontan beardtongue		N			S2?	G4G5T2?	393314N	1155920W	S	1981-06-26
<b>Birds</b>											
<i>Coccyzus americanus occidentalis</i>	Western Yellow-billed Cuckoo	C	S	I	YES	S1B	G5T3Q	T19N R53E		G	1976-08-07

U. S. Fish and Wildlife Service (Usfws) Categories for Listing under the Endangered Species Act:

C Candidate

Bureau of Land Management (Blm) Species Classification:

S Nevada Special Status Species - USFWS listed, proposed or candidate for listing, or protected by Nevada state law  
 N Nevada Special Status Species - designated Sensitive by State Office

United States Forest Service (Usfs) Species Classification:

I Region 5 (Inyo NF) sensitive species

Nevada State Protected (State) Species Classification:

Fauna:  
 YES Species protected under NRS 501.

Precision (Prec) of Mapped Occurrence:

Precision, or radius of uncertainty around latitude/longitude coordinates:  
 S Seconds: within a three-second radius  
 M Minutes: within a one-minute radius, approximately 2 km or 1.5 miles  
 G General: within about 8 km or 5 miles, or to map quadrangle or place name

Nevada Natural Heritage Program Global (Grank) and State (Srank) Ranks for Threats and/or Vulnerability:

G Global rank indicator, based on worldwide distribution at the species level  
 T Global trinomial rank indicator, based on worldwide distribution at the infraspecific level  
 S State rank indicator, based on distribution within Nevada at the lowest taxonomic level  
 1 Critically imperiled and especially vulnerable to extinction or extirpation due to extreme rarity, imminent threats, or other factors  
 2 Imperiled due to rarity or other demonstrable factors  
 3 Vulnerable to decline because rare and local throughout its range, or with very restricted range  
 4 Long-term concern, though now apparently secure; usually rare in parts of its range, especially at its periphery  
 5 Demonstrably secure, widespread, and abundant  
 A Accidental within Nevada  
 B Breeding status within Nevada (excludes resident taxa)  
 H Historical; could be rediscovered  
 N Non-breeding status within Nevada (excludes resident taxa)  
 Q Taxonomic status uncertain  
 U Unrankable  
 Z Enduring occurrences cannot be defined (usually given to migrant or accidental birds)  
 ? Assigned rank uncertain

ALLEN BIAGGI  
Director

Department of Conservation  
and Natural Resources

JENNIFER E. NEWMARK  
Administrator

JIM GIBBONS  
Governor



Nevada Natural Heritage Program  
Richard H. Bryan Building  
901 S. Stewart Street, suite 5002  
Carson City, Nevada 89701-5245  
U.S.A.

tel: (775) 684-2900  
fax: (775) 684-2909



STATE OF NEVADA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
**Nevada Natural Heritage Program**  
<http://heritage.nv.gov>

RECEIVED JUN 25 2008

*W. Glenn*  
*TT/Reno*

23 June 2008

William J. Reich  
Tetra Tech  
639 Isbell Road, Suite 390  
Reno, NV 89509

RE: Data request received 12 June 2008

Dear Mr. Reich:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded within or near the Ruby Hill Mine Site project. We searched our database and maps for the following, a five kilometer radius around:

Township 19N Range 53E Sections 01-18  
Township 20N Range 53E Sections 32-35

The enclosed printout lists the taxa recorded within the given area. Please be aware that habitat may also be available for, the dark sandhill skipper, *Polites sabuleti nigrescens*, a Taxon determined to be Vulnerable by the Nevada Natural Heritage Program, and the pygmy rabbit, *Brachylagus idahoensis*, a Nevada Bureau of Land Management (BLM) Sensitive Species. We do not have complete data on various raptors that may also occur in the area; for more information contact Ralph Phenix, Nevada Division of Wildlife at (775) 688-1565. Please note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including species not tracked by this office.

In addition to the species location data provided with this response, the Nevada Natural Heritage Program (NNHP) has other location records in [and/or] near your project area that are awaiting final quality-control and data input processes. Within the boundary that was searched for your project, these include:

*Penstemon palmeri* var. *macranthus* (Lahontan beardtongue, a Nevada BLM Sensitive Species, located near T20N R53E Sec. 34.

If you have further questions concerning [this/these] occurrence[s] please contact me at (775 684-2905) for more specific location data.

**Mount Rose – Ski Tahoe**  
**26 March 2008**

**page 2 of 2**

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

A blue ink handwritten signature, appearing to read "Eric S. Miskow", with a long horizontal flourish extending to the right.

Eric S. Miskow  
Biologist III/Data Manager

# Data Sensitive Taxa Recorded Near the Ruby Hill Mine Site Project Area

Compiled by the Nevada Natural Heritage Program for Tetra Tech

23 June 2008

<u>Scientific name</u>	<u>Common name</u>	<u>Usfws</u>	<u>Blm</u>	<u>Usfs</u>	<u>State</u>	<u>Srank</u>	<u>Grank</u>	<u>TownRange</u>	<u>Prec</u>	<u>Last observed</u>
<b>Mammals</b>										
<i>Myotis ciliolabrum</i>	western small-footed myotis	xC2	N;C			S3	G5	T19N R53E	M	1941-12
<b>Birds</b>										
<i>Coccyzus americanus occidentalis</i>	Western Yellow-billed Cuckoo	C	S	I	YES	S1B	G5T3Q	T19N R53E	G	1976-08-07

U. S. Fish and Wildlife Service (Usfws) Categories for Listing under the Endangered Species Act:

C Candidate  
 x C2 Former Category 2 Candidate, now species of concern

Bureau of Land Management (Blm) Species Classification:

S Nevada Special Status Species - USFWS listed, proposed or candidate for listing, or protected by Nevada state law  
 N Nevada Special Status Species - designated Sensitive by State Office  
 C California Special Status Species (see definition S and N)

United States Forest Service (Usfs) Species Classification:

I Region 5 (Inyo NF) sensitive species

Nevada State Protected (State) Species Classification:

Fauna:  
 YES Species protected under NRS 501.

Precision (Prec) of Mapped Occurrence:

Precision, or radius of uncertainty around latitude/longitude coordinates:

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 M Minutes: within a one-minute radius, approximately 2 km or 1.5 miles  
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 T Global trinomial rank indicator, based on worldwide distribution at the infraspecific level  
 S State rank indicator, based on distribution within Nevada at the lowest taxonomic level

- 1 Critically imperiled and especially vulnerable to extinction or extirpation due to extreme rarity, imminent threats, or other factors
- 2 Imperiled due to rarity or other demonstrable factors
- 3 Vulnerable to decline because rare and local throughout its range, or with very restricted range
- 4 Long-term concern, though now apparently secure; usually rare in parts of its range, especially at its periphery
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# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Nevada Fish and Wildlife Office

1340 Financial Blvd., Suite 234

Reno, Nevada 89502

Ph: (775) 861-6300 ~ Fax: (775) 861-6301



July 21, 2008  
File No. 2008-SL-0392

Mr. William Reich  
Tetra Tech  
639 Isabell Road, Suite 390  
Reno, Nevada 89509

Dear Mr. Reich:

Subject: Species List Request for Ruby Hill Mine Sale Project, Eureka County, Nevada

This responds to your letter received on June 17, 2008, requesting a species list for the Ruby Hill Mine Sale Project in Eureka County, Nevada. To the best of our knowledge, no listed or proposed species occur in the subject project area; however, the following is a list of candidate species which may occur in the subject project area:

- Yellow billed-cuckoo (*Coccyzus americanus*) [Western U.S. distinct population segment], candidate

This list fulfills the requirement of the Fish and Wildlife Service (Service) to provide a list of species pursuant to section 7(c) of the Endangered Species Act of 1973, as amended (Act), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species receive no legal protection under the Act, but could be proposed for listing in the near future. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions.

The Nevada Fish and Wildlife Office no longer provides species of concern lists. Most of these species for which we have concern are also on the sensitive species list for Nevada maintained by the State of Nevada's Natural Heritage Program (Heritage). Instead of maintaining our own list, we are adopting Heritage's sensitive species list and partnering with them to provide distribution data and information on the conservation needs for sensitive species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities

of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. Consideration of these sensitive species and exploring management alternatives early in the planning process can provide long-term conservation benefits and avoid future conflicts.

For a list of sensitive species by county, visit Heritage's website at [www.heritage.nv.gov](http://www.heritage.nv.gov). For a specific list of sensitive species that may occur in the project area, you can obtain a data request form from the website or by contacting Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the Act. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address. Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (see <http://www.leg.state.nv.us/NAC/NAC-503.html>). Before a person can hunt, take, or possess any parts of wildlife species classified as protected, they must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (visit <http://www.ndow.org> or call 775-777-2300).

We note that the pygmy rabbit (*Brachylagus idahoensis*) may occur within the planning area and could be affected by it. On January 8, 2008, the Service published a substantial 90-day finding on a petition to list the pygmy rabbit as threatened or endangered under the Act, thus initiating a status review of the species. Draft survey guidelines have been developed for this species and are available upon request from the Nevada Fish and Wildlife Office. We encourage you to survey the proposed project area for pygmy rabbits prior to any ground disturbing activities and to consider the needs of this species as you complete project planning and implementation. The Bureau of Land Management State Director for Nevada has directed all Field Office staff in Nevada to address the pygmy rabbit in all upcoming Land Use Plan revisions.

We are concerned that the proposed project may impact the greater sage-grouse (*Centrocercus urophasianus*), a species listed as sensitive under the Heritage Program. On February 26, 2008, the Service published in the Federal Register an initiation of a status review for the species as threatened or endangered under the Act. The Western States Sage and Columbian Sharp-tailed Grouse Technical Committee, under direction of the Western Association of Fish and Wildlife Agencies, has developed and published guidelines to manage and protect sage grouse and their habitats in the Wildlife Society Bulletin (Connelly *et al.* 2000). We ask that you consider incorporating these guidelines (<http://ndow.org/wild/sg>) into the proposed project. On a more local level, the Sage Grouse Conservation Plan for Nevada and Portions of Eastern California was completed in June 2004. The Plan is available online at: <http://www.ndow.org/wild/sg/plan/index.shtm>. We encourage you to adopt all appropriate management guidance from this Plan as you implement your proposed action.

Because wetlands, springs, or streams are known to occur in the vicinity of the project areas, we ask that you be aware of potential impacts project activities may have on these habitats.

Discharge of fill material into wetlands or waters of the United States is regulated by the U.S. Army Core of Engineers (Corps) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the Corps' regulatory Section 300 Booth Street, Room 2103, Reno, Nevada 89509, (775) 784-5304 regarding the possible need for a permit.

Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703 *et seq.*), we are concerned about potential impacts the proposed project may have on migratory birds in the area. Given these concerns, we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible, we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Please reference File No. 2008-SL-0392 in future correspondence concerning this species list. If you have any questions regarding this correspondence or require additional information, please contact me or James Harter at (775) 861-6300.

Sincerely,



 Robert D. Williams  
Field Supervisor