

# DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

## Betze Pit Expansion Project



August 2008

BLM

Elko District Office - Nevada



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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Photo by S. Duncan May 22, 2007



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

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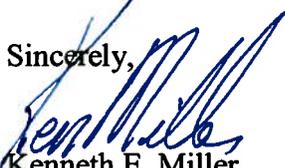
August 22, 2008

Dear Reader:

Enclosed for your review and comment is the Betze Pit Expansion Project Draft Supplemental Environmental Impact Statement (EIS) prepared by the Bureau of Land Management (BLM), Elko District Office. The EIS analyzes the direct, indirect, and cumulative impacts associated with the proposed extended mining and processing activities at Barrick Goldstrike Mines Inc.'s Goldstrike Mine in Eureka and Elko Counties, Nevada.

Comments should be postmarked or otherwise delivered to the Elko District Office by close of business October 6, 2008, to ensure full consideration. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment - including your personal identifying information in your comment - may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public view, we cannot guarantee that we will be able to do so. Comments on the EIS can be sent to the above address, Attn: Kirk Laird. A Final Supplemental Environmental Impact Statement will be prepared that will consider the comments received during the public review and comment period. If you would like any additional information, please contact Kirk Laird at (775)-753-0272.

Sincerely,

  
Kenneth E. Miller  
District Manager

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**DRAFT**  
**SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (SEIS)**  
**BETZE PIT EXPANSION PROJECT**

**Lead Agency:** U.S. Department of the Interior  
Bureau of Land Management  
Elko District Office

**Cooperating Agencies:** Nevada Department of Wildlife  
Elko County

**Project Location:** Elko and Eureka counties, Nevada

**Correspondence on this SEIS  
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**Date by which Comments  
Must be Received by the BLM:** October 6, 2008

**ABSTRACT**

Barrick Goldstrike Mines Inc. (BGMI), a wholly owned subsidiary of Barrick Gold Corporation, proposes to construct and operate the Betze Pit Expansion Project (Proposed Action), which would include the development of new facilities and expansion of existing open-pit gold mining and processing operations at the Goldstrike Mine located in north-central Nevada, approximately 25 miles northwest of Carlin in Eureka and Elko counties. The Proposed Action would include expansion of the existing Betze Pit, construction of the Clydesdale Waste Rock Facility and haul road, construction and operation of the Goldstrike No. 3 Tailings Facility, and extension of employment at the Goldstrike Mine for an additional 4 years. The Proposed Action would utilize some of the existing primary facilities, including ore processing facilities and ancillary support facilities.

The Proposed Action would result in surface disturbance on a total of 1,180 acres, of which 494 acres are public lands administered by the Bureau of Land Management and 686 acres are private land owned by BGMI. If approved, the anticipated mine life would be extended approximately 4 years through 2015, followed by an estimated 15 years for ongoing ore processing from stockpiles, and an additional 4 years for site closure and reclamation.

The Supplemental Environmental Impact Statement (SEIS) analyzes the environmental effects of the Proposed Action, one Alternative, and the No Action Alternative.

**Responsible Official for SEIS:** Kenneth E. Miller  
District Manager  
Elko District Office

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# **EXECUTIVE SUMMARY**

## Executive Summary

Barrick Goldstrike Mines Inc. (BGMI), a wholly owned subsidiary of Barrick Gold Corporation, proposes to construct and operate the Betze Pit Expansion Project (Proposed Action), which would include development of new facilities and expansion of existing open-pit gold mining and processing operations at the Goldstrike Mine located in north-central Nevada, approximately 25 miles northwest of Carlin in Eureka and Elko counties. The Proposed Action would include expansion of the existing open pit (Betze Pit), construction of the Clydesdale Waste Rock Facility and haul road, construction and operation of the Goldstrike No. 3 Tailings Facility, and extension of employment at the Goldstrike Mine for 4 additional years. The Proposed Action would utilize many of the existing Goldstrike Mine facilities, including ore processing facilities and ancillary support facilities.

The Proposed Action would result in surface disturbance on a total of 1,180 acres, of which 494 acres are public lands administered by the Bureau of Land Management (BLM), and 686 acres are private land owned by BGMI. If approved, the anticipated mine life would be extended approximately 4 years through 2015, followed by an estimated 15 years for ongoing ore processing from stockpiles. The Proposed Action would accelerate reclamation of the existing Bazza Waste Rock Facility by 7 years compared with the No Action Alternative; reclamation of the Bazza Waste Rock Facility would be substantially completed by the end of 2011.

Under the Bazza Waste Rock Facility Alternative, the Clydesdale Waste Rock Facility and haul road would not be constructed, resulting in 572 fewer acres disturbed. The existing Bazza Waste Rock Facility would continue to be used and not fully reclaimed until 2018 (except for several existing ore stockpiles and an access road). All other aspects of the Bazza Waste Rock Facility Alternative would be the same as the Proposed Action.

Under the No Action Alternative, the proposed facilities that comprise the Betze Pit Expansion Project will not be constructed. BGMI will continue to recover gold at the existing facilities as currently authorized by the BLM and State of Nevada. Rodeo Creek will be diverted from its existing channel alignment north of the Betze Pit to a new alignment south of the pit to accommodate expansion of mining under current authorizations. Groundwater pumping in the area of the Betze Pit will continue through 2015 to maintain groundwater levels below the Meikle underground mine.

Rodeo Creek may be diverted into the Betze Pit at the end of mining as a closure option, under either the Proposed Action or the No Action Alternative, if approved by the State of Nevada.

### Summary of Impacts Associated with the Proposed Action

The Proposed Action does not require dewatering of the Betze Pit; therefore, there are no resource impacts from dewatering under the Proposed Action. Pit dewatering impacts were addressed in the Betze Project Supplemental Environmental Impact Statement (SEIS) through year 2011. The potential impacts associated with dewatering operations for an additional 4 years, through 2015, from current State of Nevada authorizations for the Meikle underground mine are analyzed under the No Action Alternative. It is important to note that mine dewatering operations will occur regardless of the alternative selected.

### Geology and Minerals

Direct impacts of the Proposed Action on geologic and mineral resources would include the generation and disposal of approximately 315 million tons of waste rock and 12.44 million tons of tailings; the removal of 0.5 million tons of Carlin Formation material suitable for reclamation use; and the extraction of 12.44 million tons of ore. Mined ore would be permanently removed from existing reserves. The Proposed Action would result in an extension of the permanent alteration of the landscape and disturbance of approximately 1,180 acres. This disturbance would include unreclaimed areas disturbed by the Betze Pit and reclaimed waste rock disposal areas and a tailings impoundment that would permanently alter the natural topographic and geomorphic features in the area. There is a low probability that ground motion would present a hazard at

the site. There are no identified geologic conditions that would be exacerbated by project activities and result in geologic hazards. The proposed waste rock and tailings facilities are not located in areas that have been susceptible to subsidence.

### **Groundwater Resources and Geochemistry**

Following the completion of mining and the associated dewatering operations, groundwater elevations would rebound and eventually result in the development of a lake in the expanded Betze Pit. The pit lake is predicted to start forming approximately 14 years after the end of dewatering and to ultimately behave as a groundwater sink with no throughflow to the groundwater system. The development of the pit lake is predicted to be similar to the development of the pit lake described for the currently permitted pit under the No Action Alternative.

The results of the hydrochemical modeling of pit lake water quality were used to evaluate potential impacts to the Betze Pit lake water quality with and without diversion of Rodeo Creek into the pit at mine closure. Regardless of the closure option, the water quality of the expanded Betze Pit lake is predicted to be similar to the pit lake analyzed in the previous Betze Project SEIS at steady state (approximately year 400). The Proposed Action would have slightly higher concentrations of some constituents, including total dissolved solids, sulfates, and trace metals. Diversion of Rodeo Creek into the Betze Pit at closure would result in slightly improved water quality compared with no diversion of the creek into the pit. The expanded pit lake has predicted water chemistries that exceed some water quality standards under both closure options. The predicted water quality would meet Nevada wildlife propagation standards under both closure options. As discussed above, this pit lake is predicted to be a terminal pit lake and would serve as a groundwater sink.

Based on the geochemical tests conducted on potential waste rock from the proposed pit expansion area, the low percentage of potentially acid-generating (PAG) rock that would be placed in the Clydesdale Waste Rock Facility, the method of encapsulation of PAG rock within the facility, the cover design, and the proposed reclamation methods, acidic or metals-laden seeps are not expected from the proposed waste rock facility.

Construction design of the proposed Clydesdale Waste Rock Facility would be similar to the previously approved Bazza Waste Rock Facility. This design, including isolation of PAG cells and an evapotranspiration cover, limits the potential for seepage. Field observations and monitoring of the Bazza Waste Rock Facility over the past 15 years have shown no evidence of seepage. Therefore, surface water and underlying groundwater resources are unlikely to be affected by construction of the Clydesdale Waste Rock Facility.

### **Surface Water Resources**

The Proposed Action is not expected to have a substantial impact on perennial streams in the project area. If approved by the Nevada State Engineer and Nevada Division of Environmental Protection, the closure option of diverting Rodeo Creek into the Betze Pit at the end of mining would not affect surface water quantity or quality because most runoff in Rodeo Creek is lost to seepage and evapotranspiration in Boulder Valley. The overall loss of contributing watershed (24 square miles) in the Boulder Flat Basin (560 square miles) represents approximately 4.3 percent of the basin. Since flows originating in the Rodeo Creek watershed do not contribute to downstream flows, the re-routing of Rodeo Creek into the Betze Pit would not cause a loss of surface water in Boulder Valley or the Humboldt River. No impacts to seeps or springs are expected from the proposed mine expansion activities.

No impacts to surface water quality are anticipated in association with the proposed waste rock disposal facility, haul road, or tailings facility based on the proposed Storm Water Pollution Prevention Plan, facility designs, reclamation procedures that would be implemented, and the 100-foot setback from Bell and Rodeo creeks. Implementation of runoff, erosion, and sedimentation best management practices would reduce these impacts to negligible levels during construction.

## **Soils and Reclamation**

Approximately 1,180 acres of soil would be disturbed as a result of the proposed project development. Suitable topsoil material and growth media (Carlin material from alluvial deposits) in the proposed disturbance areas would be salvaged for subsequent use in reclamation. Expedited reclamation and improved success would be associated with the Proposed Action because the Bazza Waste Rock Facility would be reclaimed sooner. A permanent loss of soil productivity would occur on approximately 129 of the 1,180 acres in association with the expanded pit and perimeter buffer, which would not be reclaimed.

## **Vegetation Resources**

The proposed project would remove or disturb approximately 1,180 acres of vegetation, the majority of which (approximately 1,051 acres) subsequently would be reclaimed. Project-related activities would result in the conversion of primarily shrub-dominated communities to grass/forb-dominated communities in the short term. Over the long term, shrubs would become re-established and increase in abundance within the majority of the disturbed areas as a result of reclamation and natural colonization. Reclamation would be completed on all mine disturbance areas except the 129 acres associated with the pit expansion. No wetland/riparian vegetation or special status plant species would be removed, disturbed, or affected as a result of the proposed project. Continuation of BGMI's weed control program in conjunction with the reclamation plan substantially would reduce the potential for noxious weed establishment in the proposed disturbance areas.

## **Aquatic Resources/Special Status Aquatic Species**

No project-related disturbance would occur within perennial stream habitat. Surface disturbance would occur during haul road construction across an intermittent/ephemeral segment of one creek; however, this area does not provide fisheries habitat on a consistent basis. No impacts to special status aquatic species are anticipated as a result of the proposed project.

## **Wildlife Resources/Terrestrial Wildlife**

Wildlife Habitat. Approximately 943 acres of native wildlife habitat would be disturbed as a result of the proposed project. Approximately 129 acres of terrestrial habitat associated with the pit expansion would not be reclaimed. Development of a post-mining pit lake, which is projected to be within Nevada wildlife propagation standards, potentially would result in an increase in habitat for waterfowl and aquatic species.

Big Game. Approximately 943 acres of low-density mule deer range consisting primarily of sagebrush shrubland habitat would be disturbed as a result of mine expansion-related activities. Approximately 101 acres of this disturbance would be associated with the pit expansion and would not be reclaimed. The construction of the proposed Clydesdale Waste Rock Facility would decrease the width of an important existing big game migration corridor located along Bell Creek and further fragment mule deer habitat. Direct impacts include the incremental long-term reduction of approximately 66 acres of summer range and 360 acres of crucial winter range for pronghorn.

Small Game. Direct impacts to small game species would include the temporary reduction of approximately 943 acres of potentially suitable habitat until vegetation is re-established, and the permanent loss of approximately 101 acres of potential habitat.

Impacts to Breeding Birds. Direct impacts to bird species as a result of the proposed project would include the temporary loss of approximately 943 acres and the permanent loss of approximately 101 acres of potentially suitable breeding, roosting, and foraging habitat. Potential direct impacts to breeding birds (i.e., loss of nests, eggs, or young) would be minimized through the clearing of vegetation outside of the breeding season, to the extent possible, and the implementation of breeding bird surveys and appropriate mitigation as needed in coordination with the BLM and Nevada Department of Wildlife.

Human Presence and Noise. Increased noise, traffic, and human presence associated with mine expansion and operation is expected to result in negligible to low impacts to wildlife species.

Potential for Hazardous Materials Spill Effects to Wildlife. The potential for impacts to wildlife in the event of a hazardous materials spill would be the same as the No Action Alternative, but extended for 4 additional years.

Potential Impacts to Wildlife Associated with Pit Lake Water Quality. An ecological risk assessment (ERA) was conducted to evaluate potential impacts to wildlife, livestock, and fish as a result of exposure to pit lake water. The ERA followed U.S. Environmental Protection Agency (USEPA) guidelines for conducting risk assessments as well as Nevada BLM ERA guidance. Predicted pit lake water metal constituents at Year 50 without the Rodeo Creek Diversion were used for the analysis because constituent of potential concern (COPC) concentrations are expected to be higher without Rodeo Creek water input. These higher, more conservative COPC concentrations were compared to Nevada water quality criteria, No Adverse Effect Level-based Hazard Quotients, and Low Adverse Effect Level-based Hazard Quotients to assess risk. The evaluation indicated that the predicted pit lake water quality would not pose unacceptable risks to wildlife, fish, or livestock.

### **Wildlife Resources/Special Status Wildlife Species**

Bats. Direct impacts would include the long-term disturbance of foraging habitat, including approximately 867 acres of sagebrush shrubland habitat. Impacts also would result in the permanent loss of approximately 101 acres of sagebrush shrubland habitat from the development of the proposed facilities.

Preble's Shrew and Dark Kangaroo Mouse. Direct impacts would result in the long-term reduction of approximately 943 acres and permanent loss of approximately 101 acres of potentially suitable habitat for these species. This impact would be considered low, considering the large amount of suitable habitat located within the study area. Project construction likely would result in the direct mortality of individuals, if present. The loss of individuals would not result in population-level effects.

Pygmy Rabbit. Direct impacts would result in the long-term reduction of approximately 867 acres and permanent loss of approximately 101 acres of potentially suitable sagebrush habitat (big sagebrush-dominated habitats) for this species. This impact would be considered low to moderate, considering that potentially suitable habitat is located within the study area, but no rabbits have been documented in a recent study. Project construction likely would result in the direct mortality of individual rabbits, if present. The loss of individual pygmy rabbits would not result in population-level effects.

Bald Eagle. No bald eagle nest sites occur within the project boundary. Occurrence of this species would be limited to migrating and dispersing individuals. Impacts would include the long-term reduction of approximately 943 acres of potential foraging habitat until reclamation has been completed and vegetation has been re-established. The permanent loss of approximately 101 acres of potential foraging habitat associated with development of the proposed facilities would occur. Indirect impacts associated with mine-related noise and human presence currently occur at the site and would continue under the proposed project. Based on implementation of BGMI's committed environmental protection measures, the lack of existing nest sites within the project boundary, and the existing level of mining activity at the site, potential impacts to this species as a result of the Proposed Action would be considered low.

Swainson's Hawk and Ferruginous Hawk. No direct impacts to nesting Swainson's or ferruginous hawks would be anticipated from project construction due to the lack of breeding habitat within the project boundary. Direct impacts would include the long-term reduction of approximately 943 acres of potential foraging habitat; until reclamation has been completed and vegetation has been re-established. The permanent loss of approximately 101 acres of potential foraging habitat associated with development of the proposed facilities would occur. However, this impact would be considered negligible based on the overall availability of suitable foraging habitat in the vicinity of the study area. Indirect impacts would continue to result from mine-related noise and human presence. Based on implementation of BGMI's committed environmental protection

measures, the lack of existing nest sites within the project vicinity, and the existing level of mining activity, potential impacts to these species as a result of the Proposed Action would be considered low.

Golden Eagle. No golden eagle nest sites occur within the project boundary. In addition, no suitable nesting habitat (e.g., exposed rocky outcrops) occurs within the project boundary. Direct impacts would include the long-term reduction of approximately 943 acres of potential foraging habitat until reclamation has been completed and vegetation has been re-established. The permanent loss of approximately 101 acres of potential foraging habitat associated with development of the proposed facilities would occur. Indirect impacts associated with mine-related noise and human presence currently occur at the site and would continue under the proposed project. Based on implementation of BGMI's committed environmental protection measures, the lack of existing nest sites within the project boundary, and the existing level of mining activity, potential impacts to this species as a result of the Proposed Action would be considered low.

Prairie Falcon and Peregrine Falcon. No direct impacts to nesting falcons would be anticipated from project construction due to the lack of breeding habitat within the project boundary. Direct impacts to migrating and foraging falcons would include the long-term reduction of approximately 943 acres of potential foraging habitat until reclamation has been completed and vegetation has been re-established. The permanent loss of approximately 101 acres of habitat associated with development of the proposed facilities would occur. Indirect impacts would continue to result from mine-related noise and human presence. Based on the implementation of BGMI's committed environmental protection measures, the lack of existing nest sites within the project boundary, and the existing level of mining activity, potential impacts to these species as a result of the Proposed Action would be considered low.

Greater Sage-grouse. No impacts to breeding greater sage-grouse would be anticipated from project activities. Although greater sage-grouse could nest in upland habitats within the project boundary, it is anticipated that brooding activity would be low, due to the limited availability of surface water and riparian vegetation in the study area. Direct impacts to this species would include the long-term reduction of approximately 867 acres of sagebrush shrublands habitat and the permanent loss of approximately 101 acres of sagebrush shrublands habitat in association with the development of the proposed facilities. Indirect impacts would continue to result from mine-related noise and human presence. This impact would be considered negligible based on the overall availability of suitable habitat in the project vicinity.

Burrowing Owl. Although no burrowing owl nest sites have been documented within the project boundary, sagebrush shrubland and grassland vegetation that would be disturbed as a result of the Proposed Action would be suitable habitat for foraging birds within the study area. Direct impacts to this species would include the short-term reduction of approximately 943 acres of potential sagebrush shrubland breeding and foraging habitat until reclamation has been completed and vegetation has been re-established. The permanent loss of approximately 101 acres of habitat associated with development of the proposed facilities would occur. Indirect impacts would continue to result from mine-related noise and human presence. Based on implementation of BGMI's committed environmental protection measures and the existing level of mining activity, potential impacts to this species as a result of the Proposed Action would be considered low.

Long-eared and Short-eared Owls. Although no nests have been identified, suitable breeding habitat is present within the study area. Impacts to breeding birds as a result of proposed mine-related activities would be anticipated based on potentially suitable breeding habitat (e.g., open shrublands) in the proposed disturbance areas. Direct impacts to these species would result from the long-term reduction of approximately 943 acres of potential foraging habitat and the permanent loss of approximately 101 acres of potential foraging habitat in association with the development of the proposed facilities. These impacts would be considered negligible based on the overall availability of suitable habitat in the project vicinity. Indirect impacts would continue to result from mine-related noise and human presence. Based on the implementation of BGMI's committed environmental protection measures, the overall availability of suitable habitat in the project vicinity, and the existing level of mining, potential impacts to these species as a result of the Proposed Action would be considered low.

Loggerhead Shrike, Yellow-breasted Chat, and Vesper Sparrows. Based on the presence of potentially suitable breeding habitat, direct impacts to breeding pairs as a result of proposed mine-related activities could include abandonment of a breeding territory or nest site or the potential loss of eggs or young, which would reduce productivity for that breeding season. Direct impacts to this species would include the long-term reduction of approximately 943 acres of potential breeding and foraging habitat until reclamation has been completed and vegetation has re-established. The permanent loss of approximately 101 acres of breeding and foraging habitat in association with the development of the proposed facilities would occur. Indirect impacts would continue to result from mine-related noise and human presence. These impacts would be considered negligible based on implementation of BGMI's committed environmental protection measures, the overall availability of suitable habitat in the project vicinity, and the existing level of mining activity at the site.

## **Cultural Resources**

Five known historic properties (i.e., those properties eligible for, or listed on, the National Register of Historic Places [NRHP]) are located in the area of potential effect. Adverse effects to the five NRHP-eligible sites were mitigated in accordance with the treatment plan and Programmatic Agreement (PA). The PA is an agreement among the BLM Elko District Office, Nevada State Historic Preservation Officer (SHPO), Advisory Council on Historic Preservation, and BGMI that defines the measures to be undertaken to ensure that BLM's objectives and responsibilities regarding the protection of historic properties are fulfilled. Although data recovery was completed at the five historic properties and Section 106 of National Historic Preservation Act provides for findings of no adverse effect through mitigation, some data about the site and the site itself are lost. Direct effects to NRHP-eligible properties, including surface or subsurface disturbance during project construction or operations, could occur. The historic properties treatment plan specifies BLM- and SHPO-approved mitigation procedures for each NRHP-eligible property potentially affected by the proposed project. Based on the PA and the results of consultation and implementation of the treatment plan, the proposed project is not anticipated to have adverse effects on historic properties.

## **Native American Traditional Values**

Native American consultation regarding potential effects and possible mitigation are ongoing between the BLM Elko District Office and tribal representatives. If a traditional cultural property (TCP) or place of cultural or religious importance is identified by tribal representatives, no surface disturbance would occur within or immediately adjacent to the boundary of the property prior to completion of all consultation required by law. If data recovery or other form of mitigation is required at a TCP or place of cultural or religious importance, a data recovery or mitigation plan would be reviewed and approved by the BLM and SHPO. Tribal representatives would be asked to participate in the development of any such data recovery or mitigation plan. Therefore, no adverse effects to Native American traditional values are anticipated as a result of the proposed project.

## **Air Quality**

Based on air quality dispersion modeling results for the existing Goldstrike Mine operations, the maximum concentrations of particulate matter with an aerodynamic diameter of 10 microns or less, nitrogen dioxide, carbon monoxide, and sulfur dioxide would not exceed Nevada or National Ambient Air Quality Standards for the proposed project. The proposed project would continue to operate at current levels of production, design capacity, or emission limits, and therefore is not anticipated to increase emission rates over current levels. There would be no impacts to Prevention of Significant Deterioration Class I areas as a result of the proposed project.

Particulate mercury is naturally present in the soils, waste rock, and ore at the mine; therefore, it would be present as a small fraction of all particulate emissions produced during the various mine processes. Material handling, crushing, conveying, and stacking are potential emission sources of particulate mercury. Controls would be applied to each of the processes to reduce overall particulate emissions. The estimated total airborne process emissions of mercury from the proposed project would be approximately 625 pounds over 5 years of roaster operation based on the 12.44 million tons of ore to be processed and current emission controls. The

USEPA Regional Modeling System for Aerosols and Deposition (REMSAD) model was used to predict the relative contribution of mercury deposition from the Goldstrike Mine compared to other local, regional, and global sources to watersheds located in Nevada. Modeling results indicated that the Goldstrike Mine contributes from 0.01 to 2.47 percent of the mercury deposition to watersheds bordering Nevada, Idaho, and Utah. Annual deposition rates of mercury from Goldstrike operations ranged from approximately 2.25 grams per square kilometer per year ( $\text{g}/\text{km}^2\text{-yr}$ ) near the source to  $<0.1 \text{ g}/\text{km}^2\text{-yr}$  at a distance of 30 to 100 kilometers from the source based on REMSAD model isopleth output. The statewide average global background deposition of mercury is approximately  $11.1 \text{ g}/\text{km}^2\text{-yr}$ . Based on mercury assay data from drill core samples taken from the proposed layback areas, annual mercury emissions under the Proposed Action would be similar to, or less than, current emissions. It is anticipated that BGMI's installation of Nevada maximum achievable control technology would further minimize mercury emissions associated with the Proposed Action.

The combined hazardous air pollutant (HAP) emissions would be less than the major source limit of 25 tons per year; therefore, the Proposed Action would not constitute a major HAP source.

### **Social and Economic Values**

The Proposed Action would continue to employ the current mine workforce of approximately 1,600 workers for 4 additional years (through 2015) beyond the currently permitted operation. There would be no increase in permanent workforce, thus no additional population growth as a result of the proposed project. There may be an increase in temporary contract workers to perform prestripping operations, but this work would be of relatively short duration. Annual tax revenues anticipated for the proposed project are expected to be approximately \$11.4 million from net proceeds taxes, \$21.6 million from sales and use taxes, \$0.6 million from business activity taxes, and \$3.4 million from *ad valorem* property taxes for the State and Eureka and Elko counties based on the 2004-2006 data. These levels are likely to continue for the additional years of mine life. Housing, public facilities and services, and schools in the study area are adequate since there would be no increase in employment as a result of the Proposed Action. The public revenue generated by the Proposed Action is expected to be a direct benefit to the communities because there would be no major public service shortfalls. The social and economic effects of the Proposed Action would be beneficial to study area communities.

### **Visual Resources**

The Proposed Action would result in an expansion of the existing BGMI mining and processing operations in Boulder Valley. The most visible proposed features would include the new Clydesdale Waste Rock Facility, the new Goldstrike No. 3 Tailings Facility, and expansion of the Betze Pit to the northwest. After completion of reclamation activities, visual effects of the waste rock facilities would be reduced due to BGMI's commitment to vary their topography to mimic natural landforms to the degree possible. The tailings facility reclamation also would use native vegetation to blend in with the surrounding area. The long-term visual impact in Visual Resource Management Class IV areas would be low.

### **Hazardous Materials and Solid Waste**

The proposed project would require the continued transport, handling, storage, use, and disposal of materials classified as hazardous under various regulatory frameworks for an additional 4 years. All hazardous materials would continue to be shipped to and from the site in accordance with applicable U.S. Department of Transportation (USDOT) hazardous materials regulations. All shipping containers and vehicles would continue to be USDOT-approved for the specific materials. Historical incident analysis indicates that there would be a low probability of an accident involving the release of hazardous materials or fuel releases during the life of the Proposed Action.

Storage, containment, transportation, handling of hazardous waste, and all operations would be in accordance with BGMI's existing Environmental Incident Response Manual and Spill Prevention, Control and Countermeasures Plan, which would ensure that impacts from potential spills would be minimized and the spilled materials contained and removed. All hazardous waste generated at the mine would be disposed of in

accordance with applicable federal and state regulations. Non-hazardous solid waste would be disposed of in a Class III waived landfill or in the existing on site landfills. All hazardous substances would be handled in accordance with applicable Mine Safety and Health Administration or Occupational Safety and Health Administration regulations (Titles 30 and 29 of the Code of Federal Regulations [CFR]).

### **BLM-preferred Alternative**

The Council on Environmental Quality Regulations (40 CFR 1502.14e) direct that an EIS “identify the agency’s preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.” The BLM has selected a preferred alternative based on the analysis in this SEIS. This preferred alternative is the alternative that best fulfills the agency’s statutory mission and responsibilities, considering economic, environmental, technical, and other factors. The BLM has determined that the preferred alternative is the Proposed Action as outlined in Chapter 2.0 with mitigation measures specified in Chapter 3.0 of this SEIS.

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