

FINDING OF NO SIGNIFICANT IMPACT AND DECISION RECORD

ANN MASON EXPLORATION PROJECT MIM (U.S.A.) INCORPORATED PLAN OF OPERATIONS NVN-84570 NEPA COMPLIANCE NO. DOI-BLM-NV-C020-2010-0002-EA

INTRODUCTION

The Bureau of Land Management (BLM) has prepared an Environmental Assessment (EA) that analyzes the affected environment, environmental impacts and proposed mitigation measures associated with an exploration drilling project (Ann Mason Exploration Project) proposed by MIM (U.S.A.) Incorporated (MIM), of Reno, Nevada. The exploration project would occur in Lyon County, Nevada, six miles west of Yerington, Nevada, in parts of sections 10, 11, 13, 14, 15, 16, 23, and 24, Township 13 North, Range 24 East, Mount Diablo Base & Meridian (Project Area). The Project Area of approximately 2,060 acres is on public land administered by the Bureau of Land Management, Carson City District, Sierra Front Field Office. Access to the Project Area is from the unpaved Mason Pass Road on the west side of the Singatse Range between Mason Valley to the east and Smith Valley to the west. Under an existing notice filed with the BLM, MIM has disturbed approximately 5 acres of land. With the proposed exploration project, MIM would disturb an additional 45 acres over a 10 year period for a total of 50 acres. The first phase of the proposed exploration project includes 14.31 acres of surface disturbance.

The types of surface disturbance activities for this project would include constructing access roads, overland travel, constructing drill sites, overland drill sites, and trenching for bulk sampling (Proposed Action). During the exploration program, reclamation activities would involve management of drilling activities to contain cuttings and manage drilling fluids, monitoring road conditions during periods of inclement weather, and keeping sites clean and safe. During seasonal closure of the program and periods of inactivity between drilling phases, reclamation activities would involve filling sumps, cleaning sites, and maintaining the overall safety of the Project Area. Final reclamation activities are planned to be conducted after termination of exploration activities. Regrading and reshaping of all constructed drill sites and exploration roads would be completed to approximate the original topography. Reseeding of reclaimed areas would occur in the fall of the year.

PLAN CONFORMANCE AND CONSISTENCY

The Proposed Action is consistent with Federal law, BLM regulations and policy, and the BLM Carson City District Consolidated Resource Management Plan (2001). The U.S. Department of the Interior's surface management regulations at Title 43 Code of Federal Regulations Subpart 3809 (43 CFR 3809) and current BLM policy contain provisions that permit mineral exploration and extraction on public land if such activities do not cause unnecessary or undue degradation of public resources. The Proposed Action, with mitigation measures proposed by MIM and accepted by the BLM, as well as additional measures stipulated by the BLM, will not cause undue or unnecessary degradation of public lands.

FINDING OF NO SIGNIFICANT IMPACT DETERMINATION

Based on the analysis of the Ann Mason Exploration Project EA (DOI-BLM-NV-C020-2010-0002-EA), I have determined that the action will not have a significant effect on the human environment and an environmental impact statement (EIS) will not be prepared. This finding is based on the context and intensity of the project as described:

Context

The Proposed Action is to conduct mineral exploration activities on up to 50 acres over a ten year period on public land located in west central Lyon County, Nevada. The nearest community is Yerington, Nevada, six miles to the east. The first phase of this exploration project includes 14.31 acres of surface disturbance. The types of surface disturbance associated with this exploration are road construction, overland travel, drill site construction, and trenching. Reclamation of surface disturbance would be conducted after termination of exploration activities.

Intensity

The Council on Environmental Quality (CEQ) regulations include the following ten considerations for evaluating intensity:

1) *Impacts that may be both beneficial and adverse.* None of the environmental effects discussed in detail in the EA are considered significant, nor do the effects exceed any known threshold of significance, either beneficial or adverse. The Proposed Action is mineral resource exploration consisting of constructing roads, overland travel, constructing drill sites, and trenching that would disturb up to fifty acres of public land within the Project Area over a ten year period as well as reclamation of these disturbances when exploration activities are completed.

2) *The degree to which the selected alternative will affect public health or safety.*

The Proposed Action would not result in any impacts to public health or safety, surface disturbing activities operations would be conducted in conformance with all Federal and State health and safety requirements to protect public health and safety and reclamation of disturbed areas would be conducted as soon as practicable after operations are completed. Personnel working on site would keep the public away from active drilling operations. All trash would be contained and hauled to an approved disposal facility. Dust from traffic associated with project activities would be minimized by observance of prudent speed limits and strategic watering of access roads when conditions warrant.

3) *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, Wilderness, wild and scenic rivers, or ecologically critical areas.*

There are no park lands, prime farm lands, wild and scenic rivers or ecologically critical areas in or near the Project Area analyzed in the EA. The entire area of potential effect from the Proposed Action has been inventoried at an intensive level for the presence/absence of cultural resources. As a result of these investigations (Chambers Group Inc., 2008), some cultural resources are known within the areas of the Proposed Action. However, the Proposed Action will avoid any and all resources inventoried and evaluated as eligible or potentially eligible for listing on the National Register of Historic Places. If any cultural or paleontological resources that may be altered or destroyed by operations are discovered the discovery will be left intact and reported to the authorized BLM officer.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The Proposed Action would not have highly controversial effects on the quality of the human or natural environment. The parameters of drilling exploration and associated reclamation of drill sites and roads are well established. The Project Area is in a semi-remote area of west central Lyon County, six miles west of Yerington, Nevada, within a known mining area. Except for intermittent mining, mineral exploration and recreation the Project Area is typically uninhabited.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Proposed Action to explore for hard rock minerals is not unique or unusual. The action described in the EA is exploration drilling, access road construction and overland travel and trenching, bulk sampling for mineral resources and subsequent reclamation of associated surface disturbance. There are no predicted effects on the human environment that are considered highly uncertain or involve unique or unknown risks.

6) The degree to which the action may establish a precedent for future actions with Significant effects or presents a decision in principle about a future consideration.

The Proposed Action will not establish a precedent for future actions with significant effects or represent a decision about a future consideration. This EA does not establish a precedent for other assessments or authorization of other exploration projects. Any future projects within the Project Area or in surrounding areas will be analyzed on their own merits and implemented, or not, independent of the acceptance of the subject EA.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

Past, present and reasonably foreseeable future actions have been considered in the cumulative impacts analysis within Chapter 5 of the EA. The cumulative impacts analysis examined all of the other appropriate actions and determined that the Proposed Action would not incrementally contribute to significant impacts on any of the resources that are present and may be affected by the Proposed Action.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The entire area of potential effect from the Proposed Action has been inventoried at an intensive level for the presence/absence of cultural resources. As a result of these investigations (Chambers Group Inc., 2008), some cultural resources are known within the areas of the Proposed Action. However, the Proposed Action will avoid any and all resources inventoried and evaluated as eligible or potentially eligible for listing on the National Register of Historic Places. If any cultural or paleontological resources that may be altered or destroyed by operations are discovered the discovery will be left intact and reported to the authorized BLM officer.

9) *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under ESA of 1973.*

As described in the EA, no known threatened or endangered species or critical habitat has been identified within the Project Area. There are a number of BLM sensitive species with potential habitat in or adjacent to the Project Area as indicated in Appendix A of the EA. Because disturbances associated with the Proposed Action are created incrementally and dispersed throughout the Project Area, it has been determined that the Proposed Action would not result in substantial net loss of potential habitat and would not contribute to a loss of viability for any one special status species.

10) *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

As described in the EA, the Proposed Action does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment. An interdisciplinary team of specialists from the BLM CCDO were involved in preparation of the EA and officials from the State of Nevada and Yerington Paiute Tribe were notified of the proposal.

DECISION

As a result of the analysis presented in the EA, it is my decision to approve the Ann Mason Exploration Project with mitigation measures presented in the EA and listed below. This management decision for the Ann Mason Exploration Project is issued under 43 CFR 3809 and is effective immediately upon signing of this Decision Record (DR).

The preceding rationale for the Finding of No Significant Impact (FONSI) supports this decision. The Proposed Action coupled with operating, environmental mitigation and reclamation measures detailed in the EA and listed in this document have led to my decision that all practicable means to avoid or minimize environmental harm have been adopted and that unnecessary or undue degradation of the public lands would not result. This decision is consistent with the Carson City District Office Consolidated Resource Management Plan (2001) and Record of Decision.

All resource values impacted by the Proposed Action have been evaluated for cumulative impacts. It has been determined that cumulative impacts would be negligible for all resources.

Mitigation Measures/Environmental Protection Measures/Monitoring

The BLM approval of the Plan of Operations (Plan) is subject to operating, mitigation, reclamation and monitoring measures proposed by MIM in the Plan and additional BLM stipulations set forth in the EA and restated in this FONSI/DR. These measures and conditions are listed below.

The following section describes the operating procedures and mitigation measures that were proposed by MIM:

1. Pursuant to 43 CFR 8365.1-1(b)(3), no sewage, petroleum products, or refuse would be dumped from any trailer or vehicle.
2. Portable chemical toilets would be utilized and all human waste would be hauled off site.

3. Only nontoxic fluids would be used in the drilling process.
4. Drill cuttings and fluids would be contained on site utilizing appropriate control measures. Sediment traps would be used, as necessary, and filled following completion of exploration activities.
5. Regulated wastes would be removed from the Project Area and disposed of in a state, federally, or locally designated area.
6. MIM would follow the Spill Prevention Plan as specified in the Plan (MIM 2007).
7. All drill holes (i.e., boreholes) would be plugged prior to the drill rig moving from the drill site in accordance with NRS 534 and NAC 534.4369 and NAC 534.4371 with the exception of drill holes collared with a RC drill rig and completed with a core rig, which would be plugged prior to the core rig moving from the drill site. If any drill hole produces artesian flow, the drill hole would be contained pursuant to NRS 534.060 and NAC 534.378 and would be sealed by the method described in Subsection 2 of NAC 534.4371. If casings are set in a drill hole, either the drill hole must be completed as a well and plugged pursuant to NAC 534.420 or the casings would be completely removed from the drill hole and then the hole would be plugged according to NAC 534.4369 and NAC 534.4371.
8. Exploration would occur in phases that would be outlined by work plans and maps for activities that could occur anywhere within the Project Area. These work plans would be submitted to the BLM and the Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) for processing prior to commencement of activities. The maps would show the location of the planned surface disturbance. The BLM would inform MIM if their planned activities would be conducted in or near known cultural resources that are eligible for, or unevaluated relative to, inclusion in the National Register of Historic Places. Per the BLM's recommendation, MIM would avoid or mitigate disturbance to eligible or unevaluated sites.
9. Pursuant to 43 CFR 10.4(g), MIM would notify the BLM authorized officer, by telephone and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4 (c) and (d), the operator would immediately stop all activities in the vicinity of the discovery and not commence again for 30 days or when notified to proceed by the BLM authorized officer.
10. MIM would not knowingly disturb, alter, injure, or destroy any historical or archaeological site, structure, building, or object. If MIM discovers any cultural resource that might be altered or destroyed by operations, the discovery would be left intact and reported to the authorized BLM officer. MIM would also "ensure that all activities associated with the undertaking, within 100 meters of the discovery are halted and the discovery is appropriately protected, until the BLM Authorized Officer issues a Notice To Proceed" as outlined in the State Protocol Agreement between the BLM and the State Historic Preservation Office.

11. Any survey monuments, witness corners, or reference monuments would be protected to the extent economically and technically feasible.
12. Noxious weeds would be controlled through implementation of preventive BMPs, which would include, but not be limited to the following: (a) any heavy equipment moving into the Project Area would have wheel wells, undercarriage, etc., cleaned with high pressure water or air to remove any weed seeds prior to moving onto the site; (b) only certified weed-free seed would be used for reclamation seeding; and (c) all reclamation would be monitored for infestations of noxious weeds.
13. Eradication measures would be implemented if noxious weeds were found.
14. Sediment control structures would be used and could include, but not be limited to, fabric and/or straw bale (certified weed-free) filter fences, siltation or filter berms, mud pits, and downgradient drainage channels in order to prevent unnecessary or undue degradation to the environment. Sediment traps, constructed as necessary on drill pads, would be used to settle drill cuttings and prevent their release.
15. In the event that any existing roads are severely damaged as a result of MIM activities, MIM would return the roads to their original condition.
16. Prior to surface disturbance being conducted during the avian breeding season (April 1 through July 31), MIM would conduct an annual migratory bird nest survey within the Project Area. The nest survey would be conducted by a qualified biologist within potential breeding habitat prior to MIM conducting any surface disturbing activities during the avian breeding season. If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) would be delineated and the buffer area avoided to prevent destruction or disturbance to nests until they are no longer active.
17. Sumps would be constructed with ramps to minimize injury to wildlife that enter and exit them.
18. MIM would conduct the Proposed Action in accordance with the Carson City District Wildland Fire Mitigation Plan.
19. Emissions of fugitive dust from disturbed surfaces would be minimized by utilizing appropriate control measures such as reduced vehicle speeds and surface application of water from a water truck.
20. During the period of operation, MIM would provide adequate on-site dust control on all roads and exploration pads in accordance with federal, state, and local regulations.
21. MIM would be required to operate under a Surface Area Disturbance (SAD) Permit issued by the NDEP's Bureau of Air Pollution Control (BAPC) before the Proposed Action disturbs more than 20 acres. The SAD would require MIM to file a Dust Control Plan that itemizes the measures to be taken to control fugitive dust and vehicle emissions.

The following section describes the operating, mitigation, reclamation and monitoring measures required by the BLM or recommended by Nevada State agencies. Some of the measures duplicated those committed to by MIM but are included below for completeness. The measures are listed by resource:

Air Quality

1. Emissions of fugitive dust from disturbed surfaces would be minimized by utilizing appropriate control measures such as reduced vehicle speeds. Surface application of water from a water truck or use of a surface surfactant (e.g., magnesium chloride) will be employed for dust control as warranted by the conditions.
2. The operator shall obtain a SAD Permit issued by the NDEP-BAPC before disturbing more than 5 acres. Before disturbing more than 20 acres, the BAPC will require the operator to file a Dust Control Plan that itemizes the measures to be taken to control fugitive dust and vehicle emissions.

Water Resources

All drill holes (i.e., boreholes) shall be plugged prior to the drill rig moving from the drill site in accordance with NRS 534 and NAC 534.4369 and NAC 534.4371 with the exception of drill holes collared with a reverse circulation drill rig and completed with a core rig, which shall be plugged prior to the core rig moving from the drill site. If any drill hole produces artesian flow, the drill hole shall be contained pursuant to NRS 534.060 and NAC 534.378 and must be sealed by the method described in Subsection 2 of NAC 534.4371. If casings are set in a drill hole, either the drill hole must be completed as a well and plugged pursuant to NAC 534.420 or the casings shall be completely removed from the drill hole and then the hole must be plugged according to NAC 534.4369 and NAC 534.4371.

Wastes Hazardous or Solid

1. Regulated wastes will be removed from the Project Area and disposed of in a State, Federally, or locally designated facility. Any spill will be contained pursuant to the Spill Prevention Plan in Appendix D of the Plan.
2. All refuse generated during the Project will be removed and disposed of in an authorized landfill facility off site, consistent with applicable regulations. No refuse will be disposed of or left on site.
3. Portable chemical toilets will be utilized and all human waste will be hauled off site.
4. No sewage, petroleum products, or refuse would be dumped from any trailer or vehicle pursuant to 43 CFR 8365.1-1(b)(3).
5. Only nontoxic fluids will be used in the drilling process. Drill cuttings and fluids will be contained on site utilizing appropriate control measures.

Cultural Resources

1. Exploration phases shall be outlined by work plans and maps for activities that could occur anywhere within the Project Area. Work plans shall be submitted to the BLM and the NDEP-BMRR for processing prior to commencement of activities. The maps must show the location of all planned surface disturbance. The BLM will inform the operator if the planned activities are in or near known cultural resources that are eligible for, or unevaluated relative to, inclusion in the National Register of Historic Places. Per the BLM's recommendation, the operator shall avoid or mitigate disturbance to eligible or unevaluated sites.
2. The operator shall not knowingly disturb, alter, injure, or destroy any historical or archaeological site, structure, building, or object. If the operator discovers any cultural resource that might be altered or destroyed by operations, the discovery shall be left intact and reported to the authorized BLM officer. The operator shall also "ensure that all activities associated with the undertaking, within 100 meters of the discovery are halted and the discovery is appropriately protected, until the BLM authorized officer issues a Notice To Proceed" as outlined in the State Protocol Agreement between the BLM and the State Historic Preservation Office.
3. Pursuant to 43 CFR 10.4(g), the operator shall notify the BLM authorized officer, by telephone and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4 (c) and (d), the operator shall immediately stop all activities in the vicinity of the discovery and not commence again for 30 days or when notified to proceed by the BLM authorized officer.
4. Any survey monuments, witness corners, or reference monuments will be protected to the extent economically and technically feasible.

Invasive Nonnative Species

The Project Area will be surveyed annually for the presence of noxious weeds for the duration of Proposed Action. In the event noxious weeds are found, the operator will develop a noxious weed treatment plan that conforms to BLM standards. Depending on the type of weed eradication treatment needed, the following proposals and reports would be required, for any weed treatment activities occurring on Federal land: Pesticide Use Proposal; Pesticide Application Record and the Pesticide Use Report. For any biological control agents used, the following would be required: Biological Control Agent Release Proposal; and Biological Control Agent Release Record.

Migratory Birds

Prior to surface disturbance being conducted during the avian breeding season (April 1 through July 31), the operator shall conduct an annual migratory bird nest survey within the Project Area. The nest survey would be conducted by a qualified biologist within potential breeding habitat prior to the operator conducting any surface disturbing activities during the avian breeding season. If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) shall be delineated and the buffer area avoided to prevent destruction or disturbance to nests until they are no longer active.

Fire Management Objectives

1. The operator will, independently and in cooperation with the Government, take all reasonable action to prevent and suppress fires in the Project Area. Independent initial action will be prompt and will include the use of all personnel and equipment available in the Project Area.
2. All equipment will be properly muffled and equipped with suitable and necessary fire suppression equipment. Vehicle catalytic converters will be inspected often and cleaned of all vegetative debris. Adequate firefighting equipment (e.g. shovel, Pulaski, extinguishers), and/or an ample water supply will be kept at the drill site(s).
3. Welding operations will be conducted in areas free -or mostly free -of vegetation. An ample water supply and shovel will be on hand to extinguish any fires created from errant sparks. Extra personnel would also be at the welding site to act as look outs and to extinguish any fire that may ignite.
4. The operator shall contact the Carson City District Office, Division of Fire and Aviation when conducting operations during the months of May through September to determine if any fire restrictions are in place for the area of operation and to advise the BLM of approximate beginning and ending dates for project activities. BLM and/or other fire agencies may require that the operator comply with additional emergency measures during periods of high fire danger, including the necessary shutting down of equipment or portions of operations.
5. The operator shall report ALL wildland fires on or in the vicinity of the Project Area to the Sierra Front Interagency Dispatch Center by dialing (775) 883-5353 or by dialing 911. When reporting a fire, provide the following information: name, call back telephone number, project name, location, and fire description.
6. Under Title 43 CFR 9212 the operator may be held liable for any and all costs should a wildland fire occur caused by the activities associated with the construction, maintenance, or operation of the Proposed Action. Fire trespass action might be initiated and wildfire suppression costs may be collected from the operator.

Reclamation Objectives

1. The operator shall submit an "as built" map to BLM and BMRR annually on April 15th which accurately depicts locations of all permitted constructed and overland drill road and drill pad disturbances, and all reclaimed disturbances. The as-built map (due initially on or before April 15, 2011 and annually thereafter) shall be accompanied with a table that includes the following information: (1) A breakdown of lengths & widths of disturbed areas; (2) a summary of disturbance acreage by disturbance type and public/private land status; and, (3) a summary of reclaimed disturbance including type of reclamation performed (i.e. recontoured, scarified and/or seeded), dates of completed reclamation activities, disturbance type and land status.
2. In the event that any existing roads are severely damaged as a result of the Proposed Action, the operator shall return the roads to their original condition.

3. Sediment traps will be used, as necessary, and filled following completion of exploration activities.
4. Final reclamation of constructed roads, sumps, and drill pads will consist of fully recontouring disturbances to their approximate original contour and reseeding in the fall season immediately following completion of reclamation earthwork. Drill pads, sumps, and trenches will be reclaimed as soon as practicable after completion of logging and sampling. Reseeding will be consistent with all BLM recommendation for mix constituents, application rate, and seeding method identified below:

Species	Release	Mix %	Standard Seeding Rate (lb/acre)	Standard Seeds/ft2	Actual Seeding Rate (lb/acre)	Actual Seeds/ft2	Total PLS (lbs/50 acres)	Germ %	Purity %	*Total lb. Bulk
desert needlegrass	n.a.	26	7.74	40.0	2.01	10.4	100.61	÷	÷	=
fourwing saltbush	n.a.	5	19.7	20.0	0.98	1.0	49.25	÷	÷	=
little sagebrush	n.a.	6	0.88	20.0	0.05	1.2	2.63	÷	÷	=
Sandberg bluegrass	Canbar	26	1.66	40.0	0.43	10.4	21.58	÷	÷	=
scarlet globemallow	n.a.	3	3.48	40.0	0.1	1.2	5.22	÷	÷	=
squirreltail	n.a.	26	9.07	40.0	2.35	10.4	117.9	÷	÷	=
winterfat	Hatch	5	7.08	20.0	0.35	1.0	17.7	÷	÷	=
yellow spiderflower	n.a.	3	17.25	40.0	0.51	1.2	25.87	÷	÷	=

*Total Bulk Pounds is the actual amount of seed needed and can only be calculated at the time the seed is purchased. This is because the germination quality and the purity of the seed vary from year to year. The germination quality of the seed is dependent on the growing and climatic conditions found at the site. The purity of the seed is dependent on how the seed was collected and processed. The information on the germination and purity of the seed is available from the seed vendor and can be obtained in advance of seed purchase. This information is then used to calculate the Total Bulk Pounds needed for the job.

Total Mix: 100
Total Seeds/ft2: 36.8
Total Seed required(lb): 340.76

All seed must be certified as “weed free”. Broadcast seeding is the preferred seeding method for the Proposed Action. Seed should be broadcast during the late fall or early winter months. The native species listed above are adapted to the environmental conditions at the site. Availability of the seed for each species may vary. If certain species are not available, then a native species substitute may be used when approved by the BLM office.

Public Safety

1. Public safety will be maintained throughout the life of the Proposed Action. All equipment and other facilities will be maintained in a safe and orderly manner. Operations will be conducted in conformance with all applicable Federal and State health and safety requirements.
2. All trenches, sumps, and other small excavations that pose a hazard or nuisance to the public, wildlife or livestock will be built with a sloped end for easy egress or adequately fenced to preclude ingress.
3. Project-related traffic will observe prudent speed limits to enhance public safety, protect wildlife and livestock and minimize dust production.

Rationale for Full Force and Effect Decision

The reasons for issuing the decision for the Ann Mason Exploration Project under 43 CFR 3809 are as follows: The Proposed Action, as mitigated, meets the criteria described in the Federal Land Policy and Management Act of 1976 to prevent undue and unnecessary degradation of public land and the 43 CFR §3809. The Proposed Action is in conformance with the Carson City District Office Consolidated Resource Management Plan (2001) which states that the BLM desired outcome is to *encourage development of energy and mineral resources in a timely manner to meet national, regional and local needs consistent with the objectives for other public land uses* (page MIN 1). The Proposed Action is also in conformance with the President's National Energy Policy as put forth in Executive Order 13212 and will not have an adverse impact on energy development, production, supply and/or distribution. The action must also comply with applicable rules and regulations of other local, State, and Federal agencies.

APPEAL AND PETITION FOR STAY

If you do not agree and are adversely affected by this decision, in accordance with 43 CFR 3809.804, you may have the BLM State Director in Nevada review this decision. If you request a State Director review, the request must be received in the BLM Nevada State Office, 1340 Financial Blvd. 89502, P.O. Box 12000, Reno, Nevada 89520-0006, no later than 30 calendar days after you receive this decision. A copy of the request must also be sent to this office. The request must be in accordance with the provisions provided in 43 CFR 3809.805. If a State Director review is requested, this decision will remain in effect while the State Director review is pending, unless a stay is granted by the State Director.

If the Nevada State Director does not make a decision on whether to accept your request for review of this decision within 21 days of receipt of the request, you should consider the request declined and you may appeal this decision to the Interior Board of Land Appeals (IBLA). You then have 30 days in which to file your notice of appeal with the IBLA (see procedures below). If you wish to bypass the State Director review, this decision may be appealed directly to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701) within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulations 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of this notice of appeal and petition for a stay must also be submitted to each party named in the decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

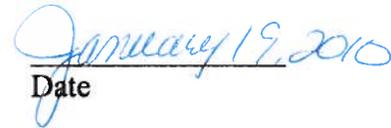
Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of immediate and irreparable harm if the stay is not granted, and
4. Whether the public interest favors granting the stay.



Linda J. Kelly
Field Manager,
Sierra Front Field Office



Date

Enclosure: Form 1842-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE INTERIOR BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS

1. This decision is adverse to you,
AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

- 1. NOTICE OF APPEAL.....** A person served with the decision being appealed must transmit the notice of appeal in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. If a decision is published in the FEDERAL REGISTER, a person not served with the decision must transmit a notice of appeal in time for it to be filed within 30 days after the date of publication (43 CFR 4.411 and 4.413).
- 2. WHERE TO FILE NOTICE OF APPEAL.....** Bureau of Land Management
5665 Morgan Mill Road, Carson City, NV 89701
- WITH COPY TO SOLICITOR...** Regional Solicitor, Pacific Southwest Region, U.S. Department of the Interior
2800 Cottage Way, Suite E2753, Sacramento, CA 95825
- 3. STATEMENT OF REASONS** Within 30 days after filing the Notice of Appeal, File a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. If you fully stated your reasons for appealing when filing the Notice of Appeal, no additional statement is necessary (43 CFR 4.412 and 4.413).
- WITH COPY TO SOLICITOR.....** Regional Solicitor, Pacific Southwest Region, U.S. Department of the Interior
2800 Cottage Way, Suite E2753, Sacramento, CA 95825
- 4. ADVERSE PARTIES.....** Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of: (a) the Notice of Appeal, (b) the Statement of Reasons, and (c) any other documents filed (43 CFR 4.413). If the decision concerns the use and disposition of public lands, including land selections under the Alaska Native Claims Settlement Act, as amended, service will be made upon the Associated Solicitor, Division of Land and Water Resources, Office of the Solicitor, U.S. Department of the Interior, Washington, D.C. 20240. If the decision concerns the use and disposition of mineral resources, service will be made upon the Associated Solicitor, Division of Mineral Resources, Office of the Solicitor, U.S. Department of the Interior, Washington, D.C. 20240.
- 5. PROOF OF SERVICE.....** Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (43 CFR 4.401(c)).
- 6. REQUEST FOR STAY.....** Except where program-specific regulations place this decision in full force and effect or provide for an automatic stay, the decision becomes effective upon the expiration of the time allowed for filing an appeal unless a petition for a stay is timely filed together with a *Notice of Appeal* (43 CFR 4.21). If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Interior Board of Land Appeals, the petition for a stay must accompany your notice of appeal (43 CFR 4.21 or 43 CFR 2804.1). A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the *Notice of Appeal* and Petition for a Stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.
- Standards for Obtaining a Stay.** Except as other provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) the relative harm to the parties if the stay is granted or denied, (2) the likelihood of the appellant's success on the merits, (3) the likelihood of immediate and irreparable harm if the stay is not granted, and (4) whether the public interest favors granting the stay.

Unless these procedures are followed your appeal will be subject to dismissal (43 CFR 4.402). Be certain that all communications are identified by serial number of the case being appealed.

NOTE: A document is not filed until it is actually received in the proper office (43 CFR 4.401(a)). See 43 CFR Part 4, subpart b for general rules relating to procedures and practice involving appeals.

43 CFR SUBPART 1821--GENERAL INFORMATION

Sec. 1821.10 Where are BLM offices located? (a) In addition to the Headquarters Office in Washington, D.C. and seven national level support and service centers, BLM operates 12 State Offices each having several subsidiary offices called Field Offices. The addresses of the State Offices can be found in the most recent edition of 43 CFR 1821.10. The State Office geographical areas of jurisdiction are as follows:

STATE OFFICES AND AREAS OF JURISDICTION:

Alaska State Office ----- Alaska
Arizona State Office ----- Arizona
California State Office ----- California
Colorado State Office ----- Colorado
Eastern States Office ----- Arkansas, Iowa, Louisiana, Minnesota, Missouri
and, all States east of the Mississippi River
Idaho State Office ----- Idaho
Montana State Office ----- Montana, North Dakota and South Dakota
Nevada State Office ----- Nevada
New Mexico State Office ---- New Mexico, Kansas, Oklahoma and Texas
Oregon State Office ----- Oregon and Washington
Utah State Office ----- Utah
Wyoming State Office ----- Wyoming and Nebraska

(b) A list of the names, addresses, and geographical areas of jurisdiction of all Field Offices of the Bureau of Land Management can be obtained at the above addresses or any office of the Bureau of Land Management, including the Washington Office, Bureau of Land Management, 1849 C Street, NW, Washington, DC 20240.

(Form 1842-1, September 2005)

ENVIRONMENTAL ASSESSMENT
DOI-BLM-NV-C020-2010-0002-EA

MIM (USA), Inc.

Ann Mason

Exploration Project



U.S. Department of the Interior
Bureau of Land Management
Carson City District
Sierra Front Field Office
5665 Morgan Mill Road
Carson City, Nevada 89701
775-885-6000

December 2009

Sierra Front Field Office, Nevada

BLM



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.

DOI-BLM-NV-C020-2010-0002-EA

COVER PHOTO: Jon Gant

**MIM (USA), INC.
ANN MASON EXPLORATION PROJECT
LYON COUNTY, NEVADA**

**Environmental Assessment
DOI-BLM-NV-C020-2010-0002-EA**

December 2009

Bureau of Land Management
Carson City District Office
5665 Morgan Mill Road
Carson City, Nevada 89801

**MIM (USA), INC.
ANN MASON EXPLORATION PROJECT
ENVIRONMENTAL ASSESSMENT**

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APPENDICES

APPENDIX A:	Bureau of Land Management Sensitive Species List
APPENDIX B:	Migratory Bird Species of Concern

ACRONYM LIST

amsl	above mean sea level
AUM	animal unit month
BAPC	Bureau of Air Pollution Control
BLM	Bureau of Land Management
BMP	Best Management Practice
BMRR	Bureau of Mining Regulation and Reclamation
CESA	Cumulative Effects Study Area
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
ESA	Endangered Species Act
°F	Degree Fahrenheit
FLPMA	Federal Land Policy and Management Act
IBA	Important Bird Area
MDB&M	Mount Diablo Base & Meridian
MIM	MIM (USA), Inc.
MOU	Memorandum of Understanding
MSHA	Mine Safety and Health Administration
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Division of Transportation
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act
NO _x	Nitrogen Oxide
NSAAQs	Nevada State Ambient Air Quality Standards
NSPS	New Source Performance Standards
NRCS	Natural Resource Conservation Service
NRS	Nevada Revised Statutes
O ₃	ozone
OHV	Off Highway Vehicle
PM _{2.5}	particulate matter of aerodynamic diameter less than 2.5 microns
PM ₁₀	particulate matter of aerodynamic diameter less than ten microns
PMU	Population Management Unit
PSD	Prevention of Significant Deterioration
RC	Reverse Circulation
RFFAs	reasonably foreseeable future actions
ROW	Right-of-Way
SAD	Surface Area Disturbance
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
USFWS	United States Fish and Wildlife Service
VRM	Visual Resource Management

**MIM (USA), INC.
ANN MASON EXPLORATION PROJECT
ENVIRONMENTAL ASSESSMENT**

1 INTRODUCTION / PURPOSE OF AND NEED FOR ACTION

1.1 Introduction

The Ann Mason Exploration Project (Project) is located approximately 4,380 feet above mean sea level (amsl) in Lyon County, Nevada, approximately six miles west of the town of Yerington and approximately 0.5 mile northeast of the Nevada Denver Mine in the Singatse Mountain Range (Figure 1.1.1). The Project is located on approximately 2,060 acres of public land administered by the Bureau of Land Management's Carson City District Office, Sierra Front Field Office (BLM) in Section 10, 11, 13, 14, 15, 16, 23, and 24, Township 13 North, Range 24 East (T13N, R24E), Mount Diablo Base & Meridian (MDB&M) (Project Area). The total proposed disturbance on public lands for the Project consists of 50 acres.

MIM (USA), Inc. (MIM) proposes to expand Notice-level (N-81448) mineral exploration activities on public land, which consists of exploration drilling from constructed drill pads that are accessed by constructed roads and overland travel (Proposed Action). The proposed acres of disturbance on BLM-administered land would be greater than five acres; therefore, a Plan of Operations/Application for Reclamation Permit (Plan) (Record Number NVN-84570/ Reclamation Permit No. 0291) has been submitted to the Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) and the BLM.

The Proposed Action would consist of approximately 50 acres of exploration-related surface disturbance including the approximately 4.89 acres of surface disturbance created under the Notice. Exploration related activities would be implemented in phases over the ten year life of the Project. The total acreage of existing and proposed surface disturbance, by type of disturbance, is outlined in Table 1.1-1 and depicted in Figures 1.1.2. and 1.1.3.

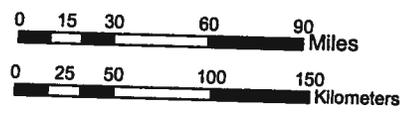
Table 1.1-1: Acreage of Existing and Proposed Action Disturbance

Exploration Activity	Notice Level Existing Surface Disturbance (acres)	Proposed Surface Disturbance (acres)		Total Surface Disturbance (acres)
		Phase 1	Subsequent Phases	
Constructed Roads	0.69	5.86	11.00	17.55
Overland Travel	0.06	0.00	0.49	0.55
Constructed Drill Sites (includes sumps and spoils)	2.47	6.15	14.51	23.13
Trenching and Bulk Sampling	0.00	0.92	0.00	0.92
Road Improvement	1.67	1.38	4.80	7.85
Total Disturbance	4.89	14.31	30.80	50.00



Explanation

- ★ Site Location
- City
- Major Roads

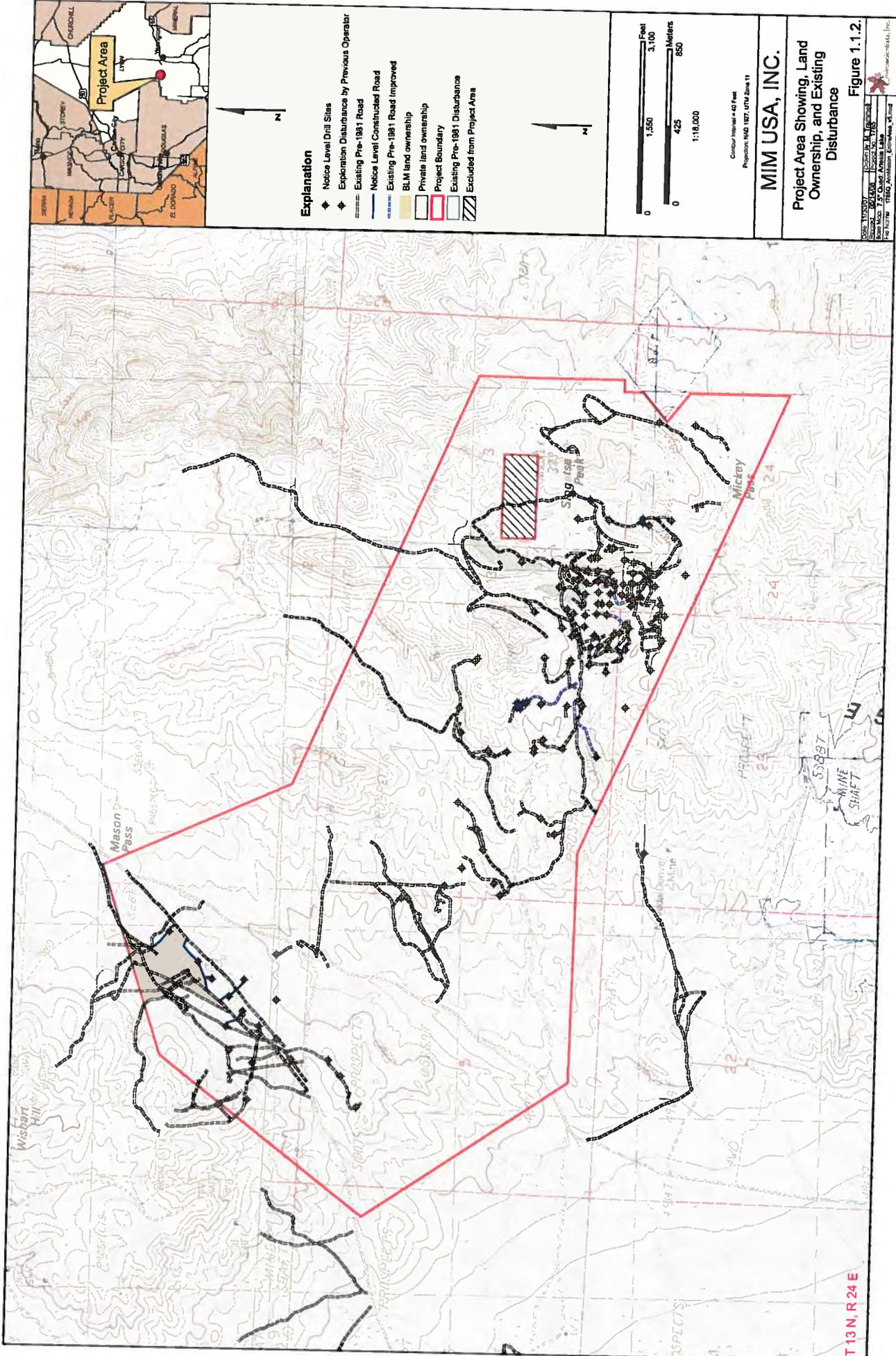


1:2,402,523
 1 inch equals 200,210.233885 feet
 Projection: NAD 27, UTM Zone 11

**Ann Mason Project
 Project Site Location**

Figure 1.1.1.

Date: 4/2/08	Drawn By: LW
Revised:	Project No. 1786
Base Map: 7.5' Quad, Coit Canyon and Oreans	
File Name: 1786_SiteMap_Ann Mason.mxd	



Explanation

- ◆ Notice Level Drill Sites
- ◆ Exponention Disturbance by Previous Operator
- Existing Pre-1981 Road
- Notice Level Constructed Road
- Existing Pre-1981 Road Improved
- BLM land ownership
- Private land ownership
- ▭ Project Boundary
- ▨ Existing Pre-1981 Disturbance
- ▩ Excluded from Project Area



Contour Interval = 40 Feet
 Projection: NAD 1983 UTM Zone 11

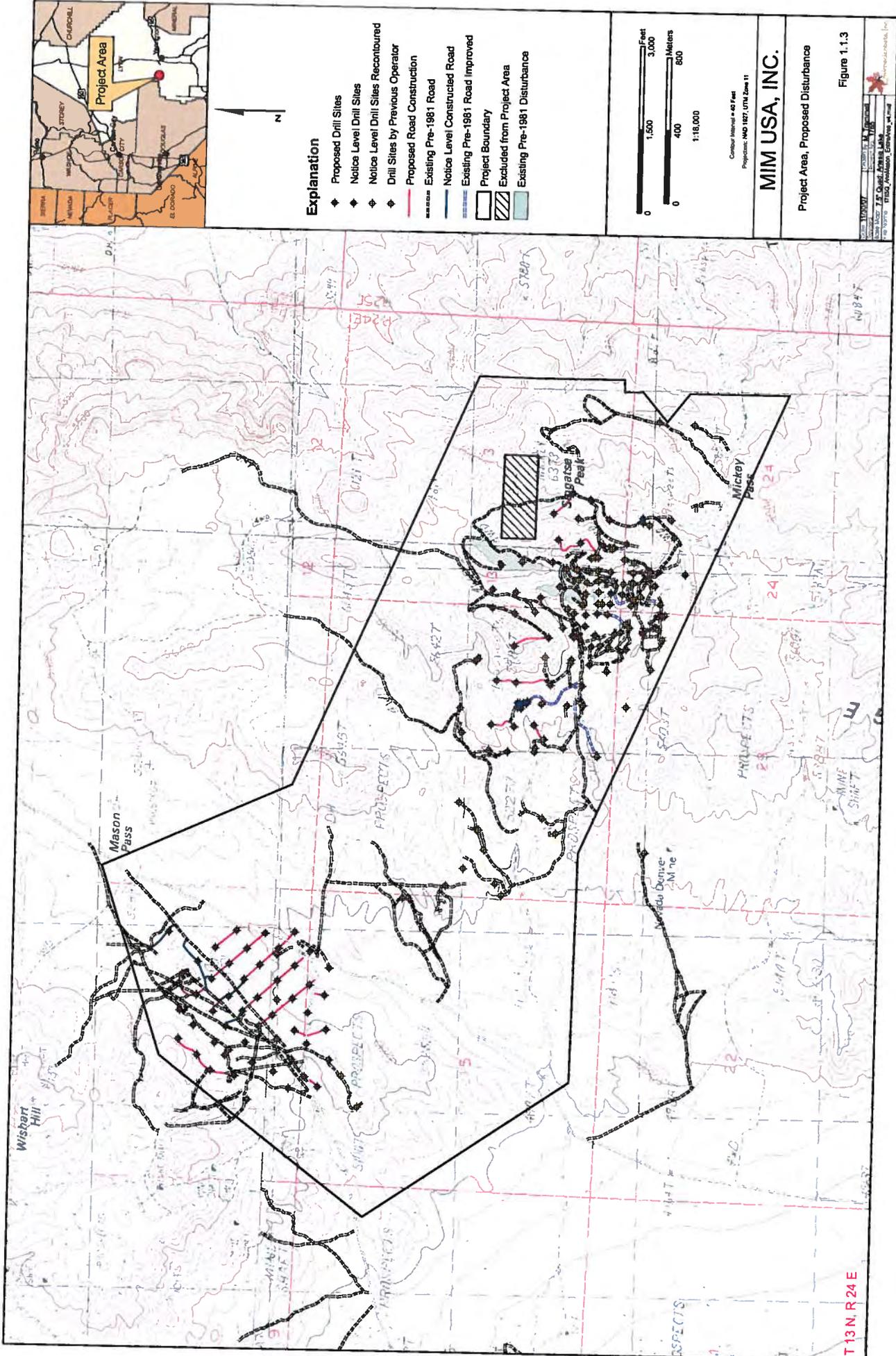
MIM USA, INC.

Project Area Showing Land Ownership, and Existing Disturbance

Figure 1.1.2.

DATE: 11/20/2013	PROJECT: MIM USA, INC.
DRAWN BY: J. L. GARDNER	SCALE: 1:15,000
CHECKED BY: J. L. GARDNER	PROJECT: MIM USA, INC.
APPROVED BY: J. L. GARDNER	PROJECT: MIM USA, INC.
PROJECT: MIM USA, INC.	PROJECT: MIM USA, INC.

T 13 N, R 24 E



1.2 Purpose of and Need for Action

The purpose of the Proposed Action is to locate and delineate base metal deposits within the Project Area. In order to conduct the proposed exploration activities on public lands, MIM submitted the Plan to the BLM in accordance with BLM Surface Management Regulations, 43 Code of Federal Regulations (CFR) 3809 (as amended). The BLM is required to comply with the National Environmental Policy Act (NEPA) to analyze the impacts that the Proposed Action and possible alternatives would have on the human environment. This Environmental Assessment (EA) is prepared in conformance with the NEPA, associated Council of Environmental Quality (CEQ) regulations (40 CFR 1500-1508), and BLM NEPA Handbook H-1790-1 (BLM 2008a).

1.3 Issues

BLM personnel identified the following issues and concerns regarding the Proposed Action that need to be addressed in this EA:

- Cultural Resources
- Noxious Weeds; and
- Wildlife.

1.4 Land Use Conformance Statement

The Proposed Action and the No Action Alternative described in this EA are in conformance with the Carson City Field Office Consolidated Resource Management Plan (BLM 2001). The EA is also consistent with federal, state and local laws, regulations, and plans.

2 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The Proposed Action is to expand the Notice-level activities in order to conduct further exploration. The existing surface disturbance of 4.89 acres includes exploration drill pads and sumps, road construction, road improvements, and overland travel. Under the Proposed Action, MIM would conduct the following activities: a) drilling reverse circulation (RC) and core holes; b) geologic mapping; c) construction of exploration roads, drill pads, and sediment traps, d) improvement of existing roads, and e) bulk sampling. The 4.89 acres of existing Notice-level disturbance is on land administered by the BLM and is included in the proposed phased disturbance of 50 acres. Phase I of the Proposed Action would create 14.31 acres of new surface disturbance for a total of 19.20 acres when combined with Notice-level disturbance. The remaining surface disturbance would be implemented in a phased manner over the next ten years. Surface disturbance beyond Phase I can not be specified at this time because the specific locations for the proposed activities would be based on the results of each phase of the Project. Work plans would be submitted to the BLM for processing prior to commencement of subsequent phases. The maps would show the location of the planned surface disturbance including cross country travel routes to ensure that all eligible and unevaluated cultural resources or other sensitive resources are avoided. The first phase and the subsequent phases of exploration are outlined in Table 1.1-1. The following discussion outlines the activities that would occur as a result of the Proposed Action.

2.1.1 Location and Access

The Project would be accessed by traveling west over Mason Pass toward Smith Valley on a road intersecting US Highway 95 approximately two miles north of the town of Yerington. The Project would then be accessed by traveling east on a dirt road toward Mickey Pass.

2.1.2 Exploration Drill Pads

MIM would construct drill pads to perform exploration drilling, each measuring approximately 40 feet by 80 feet. Drill pad construction within perennial drainages would be avoided. Drill pad construction within intermittent and ephemeral drainages would also be avoided except during dry summer months when no water is present. The disturbance would then be reclaimed prior to the occurrence of seasonal flows in those drainages. A total of 60 drill pads would be constructed under Phase I. Sediment traps measuring 12 feet wide by 30 feet long by ten feet deep, would be constructed at all drill pads to contain drill cuttings and manage drilling fluids. Sumps would be constructed with ramps to minimize injury to wildlife that enter and exit them. A total of 60 sediment traps would be constructed during Phase I; however, a sediment trap could be used by more than one drill pad. Spoil piles associated with each sediment trap would be located on the drill pad and would not create excess surface disturbance. Drill pads and sediment traps constructed during Phase I would disturb 6.15 acres in addition to the 2.47 acres disturbed under Notice-level activities (Table 1.1-1).

MIM would conduct exploration drilling with up to five drill rigs over the life of the Project. Only three drill rigs would be utilized during Phase I exploration activities. The majority of the drill holes would be vertical or angled, and drilled with RC and/or core drill rigs and would be

drilled to an approximate depth of 2,500 feet. Based on drilling conditions, some holes could be pre-collared to a depth of 500 feet with an RC rig and finished to an anticipated depth of 2,500 feet with a core rig. It is anticipated that up to six pre-collared holes could be open at one time in the Project Area while waiting for the core rig. Once the RC and/or core rig has completed drilling the hole, the hole would be plugged in accordance with Nevada Administrative Code (NAC) Chapter 534.4369 and 534.4371, or if ground water is encountered, plugged as a well pursuant to NAC 534.420. If the casings were set in a borehole, the boreholes would be completed as wells and plugged pursuant to Nevada Revised Statutes (NRS) 534.420, or the casings would be completely removed from the boreholes during plugging. The upper portion of the borehole would be permanently cased if the annulus was completely sealed from the casing shoe to surface pursuant to NAC 534.380.

2.1.3 Road Construction

MIM would access the Project Area utilizing existing pre-1981 roads and new road construction. MIM would construct approximately 13,720 feet of new road with a 15-foot running surface. Proposed roads would be constructed in areas with variable topography and once constructed would have disturbance widths ranging from 16 to 36 feet. The proposed constructed exploration roads would result in approximately 5.86 acres of new disturbance.

Exploration roads that require earth-moving would be constructed using standard construction practices for temporary mineral exploration roads to minimize surface disturbance, erosion and visual contrast, as well as to facilitate reclamation. Road construction would be implemented using a Cat D7L or equivalent. All road construction would be in accordance with the BLM roads manual 9113.

Balanced cut and fill construction would be used to the extent practicable to minimize the exposed cut slopes and the volume of fill material. Since the depth of the cut would be kept to a minimum, growth media removed during construction would be stockpiled as the fill slope to be used during reclamation. Road construction within perennial drainages would be avoided. In the event that a drainage crossing would be required, Best Management Practices (BMPs) established by NDEP and the Nevada Division of Conservation Districts through the State Environmental Commission (1994) would be followed to minimize the surface disturbance and erosion potential. No culverts would be installed. In the event that rock outcrops and areas of shallow soils occur on bedrock, they would be avoided whenever possible; however, it is anticipated that some blasting would be required during construction of roads. Routine road maintenance could be required and would consist of smoothing ruts, filling holes with fill material, grading, and reestablishing waterbars.

Pre-1981 access roads exist throughout the Project Area (Figure 1.1.2). It is anticipated that a portion of the existing roads would require some improvements. The actual length of existing roads requiring improvements would be determined as Project-related activities proceed; however, for the purposes of calculating the approximate surface disturbance and reclamation cost estimate for Phase I, it is assumed that approximately 5,000 linear feet of existing road

would be improved. Existing roads in the Project Area have an average travel width of 12 feet; therefore, it is assumed the road improvement would disturb 1.38 acres. Upon reclamation, improved roads would be returned to approximate pre-Project conditions.

MIM would access drill pads via overland travel if possible. Overland travel would have an average disturbance width of six feet to accommodate wheel tracks. No overland travel is anticipated for Phase I activities.

All Project-related traffic would observe prudent speed limits to enhance public safety, protect wildlife and livestock, and minimize dust emissions.

2.1.4 Trenching / Bulk sampling

MIM would conduct bulk sampling in the Project Area. It is anticipated that approximately 10,000 pounds of material could be removed for sampling purposes. Sampling would likely be conducted with an excavator or dozer through the construction of trenches or mini pits. Approximately 0.92 acre of surface disturbance would be related to bulk sampling in Phase I.

2.1.5 Equipment

The following is a list of anticipated equipment that could be used during the Proposed Action:

Number	Type of Equipment
Up to 5	RC drill rig, truck or buggy mounted or core rigs;
Up to 5	Water trucks;
Up to 10	Pickups or 1 ton trucks;
Up to 2	Compressor trailers;
Up to 2	Auxiliary compressor on trailers;
Up to 3	Pipe trailers;
Up to 5	Rod trucks;
Up to 2	Casing trailers;
Up to 2	Mud trailers;
Up to 5	Portable light plant or generators;
Up to 5	Portable drilling shelters;
Up to 2	Downhole survey trucks;
Up to 2	Water trucks;
Up to 2	Water pumps on trailers;
Up to 2	Service trucks;
1	Crane truck;
1	Bulldozer;
Up to 2	Excavators;
Up to 2	Backhoes.

MIM would take steps to prevent fires by ensuring that each field vehicle would carry hand tools and a fire extinguisher. Water trucks at the Project Area would be used in the event of a fire. All portable equipment, including drill rigs, support vehicles, and drilling supplies, would be removed from the Project Area during extended periods of non operation.

2.1.6 Water Use

Under the Proposed Action, MIM would obtain water rights and develop a water well site in the Project Area. The water well would be located on an approximately 40 feet by 40 feet constructed site. Well water would be stored in an approximately 20,000 to 40,000 gallon galvanized steel or polycarbonate water tank. A generator for pumping the water would also be located on the pad. Prior to construction of a water well, MIM would continue to obtain water from the Anaconda mill at the Yerington Mine.

2.1.7 Work Force

A maximum of five drill rigs and associated drill shifts would be utilized during various stages of the Project; however, only three drill rigs are expected to be used under Phase I. Each drill shift crew would include approximately three contract personnel, and a geologist. Standard drilling procedures usually require a geologist present at each drill rig to log the hole and advise the drill operator as needed. The geologist would generally travel to and from the drill pad in a separate four wheel drive pickup truck. The contract personnel would commute from the nearby town of Yerington to the Project Area during the period of operation. Drilling activities would generally be limited to daylight hours but could continue for 24 hours per day for some drill rigs. The drill schedule would generally include one shift lasting up to 12 hours per day up to seven days per week.

2.1.8 Surface and Ground Water Control

BMPs for sediment control would be utilized during construction, operation, and reclamation to minimize sedimentation from disturbed areas. Proposed construction and drilling activities would avoid springs and seeps. In order to facilitate drainage and prevent erosion, waterbars would be constructed on all bladed roads, as needed, at BLM-recommended spacings.

Sediment control structures would include, but not be limited to, fabric and/or hay bale (certified weed-free) filter fences, siltation or filter berms, mud pits, and downgradient drainage channels in order to prevent unnecessary or undue degradation to the environment. Sediment traps, constructed as necessary on drill pads, would be used to settle drill cuttings and prevent their release.

2.1.9 Hazardous Materials

All refuse generated by the Project would be disposed of at an authorized landfill facility off site, consistent with applicable regulations. No refuse would be disposed of on site. Hazardous substances to be utilized at the Project Area would include diesel fuel, gasoline, and lubricating grease. Approximately 2,500 gallons of diesel fuel and gasoline would be stored in fuel delivery systems on the drill rig and support vehicles. Approximately 500 gallons of gasoline would be stored in fuel delivery systems for light vehicles. Approximately 500 pounds of lubricating grease would be stored on the drill rig or transported by drill trucks. All containers of hazardous

substances would be labeled and handled in accordance with Nevada Department of Transportation (NDOT) and Mining Safety and Health Administration (MSHA). In the event that hazardous or regulated materials are spilled, measures would be taken to control the spill, and the BLM and/or the NDEP would be notified as required. Any hazardous substance spills would be handled in accordance with the Spill Contingency Plan contained in the Plan, including an immediate clean up and any resulting waste transferred off site in accordance with all applicable local, state, and federal regulations. Contract drillers would maintain spill kits on site for use in case of a spill. Water and/or nontoxic drilling fluids, including abantonite, Alcomer 120L, bentonite, EZ-mud, polyplus, and super plug, would be utilized as necessary during drilling and would be stored at the Project Area. Self-contained, portable, chemical toilets would be used for human waste. The human waste and toilet chemicals would be removed from the site and disposed of in an authorized facility.

2.1.10 Reclamation

Reclamation would be completed to the standards described in 43 CFR 3809.420. Existing roads would be utilized as much as possible, minimizing the need for new road construction. All MIM drill pads, sumps, road construction, and pre-1981 existing road improvement would be recontoured to match the surrounding topography or returned to pre-Project condition. Overland travel ways and overland drill pads would be ripped with a two prong ripper. All earthwork would be completed with a Caterpillar 325L excavator or equivalent and a Caterpillar D7 dozer or equivalent. The area would then be seeded with a BLM approved seed mix (Table 2.1-1) at the appropriate time of year for optimum seed sprouting and plant growth. The seeding would be completed using a broadcast method and then raked. The reclaimed surfaces would be left in a textured or rough condition (small humps, pits, etc.).

Broadcast seed application rate would be calculated based on the "Total Pounds of Bulk" seed needed for the project which is dependent on the germination and purity of the seed at the time the seed is purchased (see Table 2.1-1). Only certified weed-free seeds would be used for reclamation seeding. Native seed would be used, when available. Post-reclamation maintenance would consist of remedial dirt work and reseeding if required. Site monitoring for stability and revegetation success would be conducted once a year, during the spring or fall, for a minimum of three years until attainment of the revegetation standards established in the Nevada Guidelines for Successful Revegetation for the NDEP, BLM, and the United States Department of Agriculture, Forest Service (BLM 1997b).

Table 2.1-1: Proposed Seed Mix

Species	Release	Mix %	Standard Seeding Rate (lb/acre)	Standard Seeds/ft2	Actual Seeding Rate (lb/acre)	Actual Seeds/ft2	Total PLS (lbs/50 acres)	Germ %	Purity %	*Total lb. Bulk
desert needlegrass	n.a.	26	7.74	40.0	2.01	10.4	100.61	÷	÷	=
fourwing saltbush	n.a.	5	19.7	20.0	0.98	1.0	49.25	÷	÷	=
little sagebrush	n.a.	6	0.88	20.0	0.05	1.2	2.63	÷	÷	=
Sandberg bluegrass	Canbar	26	1.66	40.0	0.43	10.4	21.58	÷	÷	=
scarlet globemallow	n.a.	3	3.48	40.0	0.1	1.2	5.22	÷	÷	=
squirreltail	n.a.	26	9.07	40.0	2.35	10.4	117.9	÷	÷	=
winterfat	Hatch	5	7.08	20.0	0.35	1.0	17.7	÷	÷	=
yellow spiderflower	n.a.	3	17.25	40.0	0.51	1.2	25.87	÷	÷	=

* Total lb. Bulk is the actual amount of seed needed and can only be calculated at the time the seed is purchased. This is because the germination quality and the purity of the seed vary from year to year. The germination quality of the seed is dependent on the growing and climatic conditions found at the site. The purity of the seed is dependent on how the seed was collected and processed. The information on the germination and purity of the seed is available from the seed vendor and can be obtained in advance of seed purchase. This information is then used to calculate the Total Bulk Pounds needed for the job.

Reclamation activities would be designed to achieve post exploration land uses consistent with the BLM's land use management plans for the area as outlined in the Carson City Field Office Consolidated Resource Management Plan (2001). During the exploration program, reclamation activities would involve management of drilling activities to contain cuttings and manage drilling fluids, monitoring road conditions during periods of inclement weather, and keeping sites clean and safe. During seasonal closure of the program and periods of inactivity between drilling phases, reclamation activities would involve filling sumps, cleaning sites, and maintaining the overall safety of the Project Area. The BLM would be notified prior to any periods of inactivity greater than three months.

After termination of the program, reclamation would involve regrading disturbed areas related to this Project to their approximate original contour and seeding using the approved reclamation seed mixture and application rates furnished by the BLM. This would involve the use of mechanized equipment for earthwork and mechanical or broadcast seeding. Yearly visits to the site would be conducted to monitor the success of the revegetation once after three years or until revegetation success has been achieved. The anticipated reclamation schedule is presented in Table 2.1-2.

Table 2.1-2: Anticipated Exploration Reclamation Schedule

TECHNIQUES	Quarter				Year(s)
	1st Jan.- Mar.	2nd April- June	3rd July- Sept.	4th Oct.- Dec.	
Regrading					Within 2 years of Project completion
Seeding					Within 2 years of Project completion
Monitoring					3 years beyond regrading and reseeding

Note: Regrading activities could occur all year-round

The post-exploration and post-reclamation topography would be essentially the same as the pre-exploration topography because only limited amounts of linear surface disturbance would be created. The topography shown on Figure 1.1.2 would depict post-exploration and post-reclamation topography.

2.1.11 Environmental Protection Measures

MIM would commit to the following environmental protection measures to prevent unnecessary and undue degradation during construction, operation, and reclamation of the Project. The measures are derived from the general requirements established in the BLM's Surface Management Regulations at 43 CFR 3809 and BMRR mining reclamation regulations, as well as other water and air quality regulations.

Wastes

- Pursuant to 43 CFR 8365.1-1(b)(3), no sewage, petroleum products, or refuse would be dumped from any trailer or vehicle.
- Portable chemical toilets would be utilized and all human waste would be hauled off site.
- Only nontoxic fluids would be used in the drilling process.
- Drill cuttings and fluids would be contained on site utilizing appropriate control measures. Sediment traps would be used, as necessary, and filled following completion of exploration activities.
- Regulated wastes would be removed from the Project Area and disposed of in a state, federally, or locally designated area.
- MIM would follow the Spill Prevention Plan as specified in the Plan (MIM 2007).

Water Resources

- All drill holes (i.e., boreholes) would be plugged prior to the drill rig moving from the drill site in accordance with NRS 534 and NAC 534.4369 and NAC 534.4371 with the exception of drill holes collared with a RC drill rig and completed with a core rig, which would be plugged prior to the core rig moving from the drill site. If any drill hole produces artesian flow, the drill hole would be contained pursuant to NRS 534.060 and NAC 534.378 and would be sealed by the method described in Subsection 2 of NAC 534.4371. If casings are set in a drill hole, either the drill hole must be completed as a well and plugged pursuant to NAC 534.420 or the casings would be completely removed from the drill hole and then the hole would be plugged according to NAC 534.4369 and NAC 534.4371.

Cultural Resources

- Exploration would occur in phases that would be outlined by work plans and maps for activities that could occur anywhere within the Project Area. These work plans would be submitted to the BLM and BMRR for processing prior to commencement of activities. The maps would show the location of the planned surface disturbance. The BLM would inform MIM if their planned activities would be conducted in or near known cultural resources that are eligible for, or unevaluated relative to, inclusion in the National Register of Historic Places. Per the BLM's recommendation, MIM would avoid or mitigate disturbance to eligible or unevaluated sites.
- Pursuant to 43 CFR 10.4(g), MIM would notify the BLM authorized officer, by telephone and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4 (c) and (d), the operator would immediately stop all activities in the vicinity of the discovery and not commence again for 30 days or when notified to proceed by the BLM authorized officer.
- MIM would not knowingly disturb, alter, injure, or destroy any historical or archaeological site, structure, building, or object. If MIM discovers any cultural resource that might be altered or destroyed by operations, the discovery would be left intact and reported to the authorized BLM officer. MIM would also "ensure that all activities associated with the undertaking, within 100 meters of the discovery are halted and the discovery is appropriately protected, until the BLM Authorized Officer issues a Notice To Proceed" as outlined in the State Protocol Agreement between the BLM and the State Historic Preservation Office.
- Any survey monuments, witness corners, or reference monuments would be protected to the extent economically and technically feasible.

Invasive, Nonnative Species

- Noxious weeds would be controlled through implementation of preventive BMPs, which would include, but not be limited to the following: (a) any heavy equipment moving into the Project Area would have wheel wells, undercarriage, etc., cleaned with high pressure water or air to remove any weed seeds prior to moving onto the site; (b) only certified weed-free seed would be used for reclamation seeding; and (c) all reclamation would be monitored for infestations of noxious weeds.
- Eradication measures would be implemented if noxious weeds were found.

Soils and Access

- Sediment control structures would be used and could include, but not be limited to, fabric and/or straw bale (certified weed-free) filter fences, siltation or filter berms, mud pits, and downgradient drainage channels in order to prevent unnecessary or undue degradation to the environment. Sediment traps, constructed as necessary on drill pads, would be used to settle drill cuttings and prevent their release.
- In the event that any existing roads are severely damaged as a result of MIM activities, MIM would return the roads to their original condition.

Migratory Birds

- Prior to surface disturbance being conducted during the avian breeding season (April 1 through July 31), MIM would conduct an annual migratory bird nest survey within the Project Area. The nest survey would be conducted by a qualified biologist within potential breeding habitat prior to MIM conducting any surface disturbing activities during the avian breeding season. If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) would be delineated and the buffer area avoided to prevent destruction or disturbance to nests until they are no longer active.

Wildlife

- Sumps would be constructed with ramps to minimize injury to wildlife that enter and exit them.

Fire

- MIM would conduct the Proposed Action in accordance with the Carson City District Wildland Fire Mitigation Plan.

Air Quality

- Emissions of fugitive dust from disturbed surfaces would be minimized by utilizing appropriate control measures such as reduced vehicle speeds and surface application of water from a water truck.
- During the period of operation, MIM would provide adequate on-site dust control on all roads and exploration pads in accordance with federal, state, and local regulations.
- MIM would be required to operate under a Surface Area Disturbance (SAD) Permit issued by the NDEP's BAPC before the Proposed Action disturbs more than 20 acres. The SAD would require MIM to file a Dust Control Plan that itemizes the measures to be taken to control fugitive dust and vehicle emissions.

2.2 No Action Alternative

Under the No Action Alternative, the Proposed Action would not be approved by the BLM and exploration in the Project Area would continue under Notice N-81448. Surface disturbance under the Notice is approaching the five-acre limit. The level of exploration activities that would be allowed under the No Action Alternative would not be sufficient to meet the purpose and need for MIM's proposed Project.

3 AFFECTED ENVIRONMENT

3.1 Introduction

The affected environment for the Project Area covers portions of Sections 10, 11, 13, 14, 15, 16, 23 and 24, T13N, R24E, MDB&M in Lyon County, Nevada. The Proposed Action would disturb approximately 50 acres of public land, which includes 45.11 acres of proposed phased disturbance and 4.89 acres of Notice-level disturbance. Table 3.1-1 outlines the Supplemental Authorities and their status in the Project Area. Supplemental Authorities that may be affected by the Proposed Action are further described in this EA.

Table 3.1-1: Supplemental Authorities and Rationale for Detailed Analysis

Supplemental Authority	Not Present ¹	Present Not/Affected ¹	Present/ May Be Affected ²	The following rationale was used to determine that Supplemental Authorities present in the area would not be affected as a result of implementation of the Proposed Action
Air Quality			X	See Sections 3.2 and 4.1.1.
Areas of Critical Environmental Concern	X			Element is not present.
Cultural Resources		X		The entire area of potential effect from the Proposed Action has been inventoried at an intensive level for the presence/absence of cultural resources. As a result of these investigations (Chambers Group Inc., 2008), some cultural resources are known within the areas of Proposed Action. However, the Proposed Action will avoid any and all resources inventoried and evaluated as eligible or potentially eligible for listing on the National Register of Historic Places.
Environmental Justice	X			Element is not present.
Farm Lands (prime or unique)	X			Element is not present.
Fish Habitat	X			Element is not present.
Floodplains	X			Element is not present.
Invasive Nonnative Species			X	See Sections 3.3 and 4.1.2.
Migratory Birds			X	See Section 3.10.
Native American Religious Concerns			X	BLM-Tribal consultation is ongoing.
Threatened or Endangered Species (plants and wildlife)	X			Element is not present.

Supplemental Authority	Not Present ¹	Present Not/Affected ¹	Present/May Be Affected ²	The following rationale was used to determine that Supplemental Authorities present in the area would not be affected as a result of implementation of the Proposed Action
Wastes Hazardous or Solid		X		MIM's Spill Prevention Plan (MIM 2007) outlines how wastes and materials would be managed and how a spill would be addressed. Therefore, impacts associated with the Proposed Action from hazardous and solid wastes would be minimized. All containers of hazardous substances would be labeled and handled in accordance with NDOT and MSHA regulations. Although a spill prevention plan is not required for the existing Notice-level activities, the 43 CFR 3809.420 performance standards require that measures would be taken to isolate, remove, or control toxic materials.
Water Quality (surface and ground)		X		<p>The Proposed Action is unlikely to degrade water quality. A Spill Prevention Plan is included in the Plan and would be implemented to control drilling fluids and petroleum products. All containers of hazardous substances would be labeled and handled in accordance with NDOT and MSHA regulations. Impacts would be minimized by the use of nontoxic drilling fluids and adherence to NAC 534.4369 and 534.4371. By implementing BMPs for road and drill pad construction, impacts to surface water resources would be minimized. Any residual impacts would only be temporary, lasting until exploration roads and drill pads are successfully reclaimed and revegetated.</p> <p>All but six drill holes would be plugged prior to the drill rig moving from the drill site in accordance with NRS 534, NAC 534.4369, and NAC 534.4371. Up to six drill holes would be collared with a RC drill rig and completed with a core rig. If any drill hole produces artesian flow, the drill hole would be contained pursuant to NRS 534.060 and NAC 534.378 and would be sealed by the method described in Subsection 2 of NAC 534.4371. If the casings are set in a drill hole, either the drill hole must be completed as a well and plugged pursuant to NAC 534.420 or the casings would be completely removed from the drill hole and then be plugged according to NAC 534.4369 and NAC 534.4371.</p> <p>The Project design and environmental protection measures (2.1.11) would ensure that the Proposed Action does not cause a change in water quality that resulted in an exceedance of the applicable NDEP standards. By monitoring water quality before, during, and following exploration activities, MIM would be certain that no degradation of water quality occurred as a result of Project activities.</p>
Wetland/Riparian Zones	X			Element is not present.
Wild and Scenic Rivers	X			Element is not present.
Wilderness	X			Element is not present.

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

² Supplemental Authorities determined to be Present/May Be Affected must be carried forward in the document.

The following resources or uses, which are not Supplemental Authorities, are present in the Project Area. BLM specialists have evaluated the potential impact of the Proposed Action on these resources and commented their findings in the table below. Resources or uses that may be affected by the Proposed Action are further described in the EA.

Table 3.1-2: Summary of Resources or Uses Other Than Supplemental Authorities

Resource or Uses	Not Present ¹	Present Not/Affected ¹	Present/May Be Affected ²	The following rationale was used to determine that Supplemental Authorities present in the area would not be affected as a result of implementation of the Proposed Action
Land Use Authorizations		X		<p>The Proposed Action would be located entirely on public lands administered by the BLM. Land use in the Project Area consists of mineral exploration, recreation and grazing. Two organized off-road races occur in and around the Project Area on public land administered by the BLM and private land on an annual basis. The races traditionally occur on Memorial Day weekend and Labor day weekend. Various mineral exploration activities associated with other companies are active outside of the Project Area</p> <p>The Project Area would not be withdrawn from other authorized land uses during implementation of the Proposed Action. Any new applications for land uses would be evaluated according to the laws and policies for issuance of rights-of-way (ROWs) or other land use authorizations.</p> <p>Existing roads in the Project Area would continue to be open for access to mining and exploration operations, livestock management, dispersed recreation, and administrative purposes. MIM would ensure that roads utilized for off-road racing would be left open and free of any hazards during organized race events and that exploration activities would be clearly marked as stated in Section 2.1.11.</p> <p>The Proposed Action would result in a minimum of changes to land use in the Project Area with regard to recreation and grazing in the vicinity of the Project surface disturbance. Any potential impacts to livestock grazing and rangeland resources are addressed in Section 3.14 (Rangeland Management). The impacts to land use authorizations, access, and roads would be minimal.</p>
Minerals		X		The Proposed Action is an exploration project which will only extract a small quantity of minerals for analysis.
Rangeland Management			X	See Sections 3.5 and 4.1.4.
Social Value and Economics		X		The Project is located in Lyon County. The closest city providing a variety of services and lodging is the town of Yerington, Nevada. Contract workers associated with the Proposed Action would obtain lodging, meals, and supplies in the nearby towns and would most likely be based out of The town of Yerington. No additional facilities or housing would need to be constructed and the maximum workforce of 32 persons would not strain the local housing supply or other services. The workers would utilize local amenities for the life of the Proposed Action which would provide a temporary but positive economic stimulus.

Resource or Uses	Not Present ¹	Present Not/Affected ¹	Present/May Be Affected ²	The following rationale was used to determine that Supplemental Authorities present in the area would not be affected as a result of implementation of the Proposed Action
Soils			X	See Sections 3.6 and 4.1.5.
Special Status Species (plants and wildlife)			X	See Sections 3.7 and 4.1.6.
Wildlife and Fisheries			X	See Sections 3.9 and 4.1.8.
Vegetation			X	See Sections 3.8 and 4.1.7.
Visual Resources		X		<p>The Project Area is located in an area where no Visual Resource Management (VRM) objectives have been approved (BLM 2001). As a result, the Project Area is managed to achieve VRM Class III standards (personal communication with D. Schroeder, BLM Carson City Field Office, March 24, 2008). The objective of this class is to provide for management activities that would be evident in the landscape, but would remain subordinate to the existing landscape characteristics.</p> <p>The Proposed Action would result in short-term visual impacts principally affecting the visual elements of line and color. Horizontal and shallow diagonal lines from drill roads would cause moderate, temporary line contrasts with the natural landscape. Disturbance of vegetation would cause moderate, temporary color contrasts. With successful reclamation of exploration roads and revegetation, long-term visual impacts would be minimized. The effects of the Proposed Action on visual resources would be consistent with BLM prescribed Class III VRM objectives; therefore, the Project would not affect the VRM rating</p>

¹ Resources or uses determined to be Not Present or Present/Not Affected need not be carried forward or discussed further in the document.

² Resources or uses determined to be Present/May Be Affected must be carried forward in the document.

The remainder of this chapter addresses the Supplemental Authorities and other resources or uses that may be affected by the Proposed Action.

3.2 Air Quality

The Project Area lies on the west slope of the Singatse Range where the climate is arid, characterized by warm, dry summers and moderately cold, dry winters. The mean annual precipitation in the town of Yerington, located approximately six miles away, is 5.1 inches, and the mean annual snowfall is 6.5 inches. The mean annual low temperature is 33.6 degrees Fahrenheit (°F) and the mean annual high temperature is 68.8°F (Western Regional Climate Center 2008).

The Bureau of Air Pollution Control (BAPC) is the agency in the State of Nevada that has been delegated the responsibility for implementing a State Implementation Plan (SIP) (excluding Washoe and Clark Counties, which have their own SIP). Included in a SIP are the State of

Nevada air quality permit programs (NAC 445B.001 through 445B.3485, inclusive). Also part of a SIP are the Nevada State Ambient Air Quality Standards (NSAAQSs). The NSAAQSs are generally identical to the National Ambient Air Quality Standards, with the exception of the following: (a) an additional standard for carbon monoxide in areas with an elevation in excess of 5,000 feet amsl; (b) the recently promulgated NSAAQSs for particulate matter of aerodynamic diameter less than 2.5 microns (PM_{2.5}); (c) the revised NSAAQS for particulate matter of aerodynamic diameter less than ten microns (PM₁₀); (d) ozone (O₃) (Nevada has yet to adopt the new and revised standards); and (e) a violation of a state standard occurs with the first annual exceedance of an ambient standard, while federal standards are generally not violated until the second annual exceedance. In addition to establishing the NSAAQSs, the BAPC is responsible for the Prevention of Significant Deterioration (PSD) program; enforcing the New Source Performance Standards (NSPS); and implementing the Federal Operating Permit Program (Title V) throughout the State of Nevada.

Attainment status within the Project Area is determined by monitoring ambient levels of criteria pollutants. The attainment or unclassified designation means that no violations of Nevada or national air quality standards have been documented in the region. The Project Area is located within the Mason Valley Air Basin (108) and the Smith Valley Air Basin (107), which are classified as in attainment or unclassified for all pollutants.

PSD is a federally mandated construction permitting program for large sources such as large mines, power plants, and chemical plants. Under the PSD program the BAPC evaluates proposed construction to determine the maximum allowed increase in concentration of a pollutant above a baseline concentration in a specific area (i.e., air basin). The baseline concentration is the ambient concentration that existed in the area before the first PSD application was submitted in the area. Once a PSD application is submitted the baseline date is triggered, at which point, new sources must be evaluated. The Mason Valley Air Basin (108) and the Smith Valley Air Basin (107) are classified as a PSD triggered basin for Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), and PM₁₀. The baseline was triggered on August 23, 1995.

3.3 Invasive, Nonnative Species

An "invasive species" is defined as a species that is nonnative to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112). Invasive, nonnative species are species that are highly competitive, highly aggressive, and easily spread. They include plants designated as "noxious" and animals designated as "pests" by federal or state law.

The BLM defines "noxious weed" as "a plant that interferes with management objectives for a given area of land at a given point in time" (BLM 1996). The BLM Nevada strategy for noxious weed management is to "prevent and control the spread of noxious weeds through local and regional cooperative efforts... to ensure maintenance and restoration of healthy ecosystems on BLM-managed lands. Noxious weed control would be based on prevention, education, detection, and quick control of small infestations" (BLM 1997a). The BLM's Nevada State Office

maintains a "Nevada Noxious Weed List." Animal species designated as "pests" are generally species that are injurious to agricultural and nursery interests or vectors of diseases, which could be transmissible and injurious to humans.

There are laws, executive orders, regulations, policies, and agreements that pertain to invasive nonnative species, including the following: Executive Order 11312 (Prevention and Control of Invasive Species); Federal Noxious and Invasive Weed Laws; BLM Manuals and Partners Against Weeds Action Plan; BLM Cooperative Agreements; and NRS and NAC, Chapter 555.

There are no known invasive, nonnative animal species (e.g., pests) that are mandated for control in the Project Area; therefore, pests are not further addressed in this EA. Russian thistle (*Salsola kali*), redstem stork's bill (*Erodium cicutarium*), and cheatgrass (*Bromus tectorum*) which are nonnative plant species that are not "noxious" were found in the Project Area.

3.4 Native American Religious Concerns

Federal legislation and executive orders dictate that federal agencies must consider the repercussion of their actions when Native American traditions and religious practices are involved. Therefore, the BLM must make efforts to identify locations having traditional cultural or religious values to Native Americans and insure that land management actions do not unduly or unnecessarily burden the pursuit of traditional religion or life ways by inadvertently damaging important locations or hinder access to them.

The Native American tribe that has cultural affiliation with the project area is the Yerington Paiute Tribe (Tribe). Per 36 CFR Part 800 and 43 CFR Part 8100 (BLM), as amended, the BLM Carson City District presented a letter to the Tribe on April 18, 2008 that provided notification of project being proposed, a map of the Project area of potential effect, and a summary of the proposed cultural resources inventory. On June 26, 2008, a BLM Archaeologist discussed the project with Marlin Thompson, the Tribe's NAGPRA representative and Albert Roberts, the Environmental Director. At that time, there were stated specific concerns for sage grouse in the Sunrise Pass area, but no specific access or natural resource concerns for the Ann Mason project area in the Singatse Range. However, the Tribe has stated previously that any impacts to cultural resources should be avoided.

BLM cultural resource personnel have assessed areas of potential impact and determined that although there are historic properties present, they will not be impacted by the current project. The BLM Sierra Front Field Office forwarded a final copy of the report for the project's cultural resources inventory to the Tribe as an attachment to a November 20, 2008 consultation letter.

Any proposed activities may potentially have an effect on tribal concerns. BLM will review known tribal concerns and conduct Native American coordination and consultation with the Yerington Paiute Tribe for the remainder of this project, and in the case of any future proposed projects.

3.5 Rangeland Management

The Project Area is located within the Artesia and Mickey Pass Grazing Allotments, which together consist of 17,071 acres which are managed for approximately 1,832 animal unit months (AUMs) annually. The Artesia Allotment consists of 11,605 acres of which 11,365 acres are on public land and 240 acres are privately owned. All grazing in the Artesia allotment occurs on public land (11,365 acres). The Artesia Allotment is permitted for 1,268 AUMs annually for an average of approximately nine acres per one AUM.

The Mickey Pass Allotment covers a total of 5,466 acres with 4,986 acres on public land and 480 acres on private land. Mickey Pass is managed for 564 AUMs annually for an average of one AUM per nine acres. No grazing is currently permitted in the allotment (BLM 2008b).

3.6 Soils

Soils within the Project Area are typical of fan piedmonts, basin floor remnants, and steep mountain slopes. Slopes vary from valley fans with medium runoff to steep slopes with rapid runoff. Soils in the Project Area were mapped by the U.S. Soil Conservation Service, which is now known as the Natural Resource Conservation Service (NRCS). The map units delineated in the vicinity of the Project Area include the following soil associations: Delp-Lox, Uripnes-Chill Outcrops, and the Malpais-Yerington Complex. Characteristics of the soil series comprising these associations are outlined in Table 3.6-1.

Table 3.6-1: Soils in the Project Area

Association	Percent Slope	Profile Soil Texture	Surface Runoff	Permeability	Erosion Hazard by Water	Erosion Hazard by Wind
Delp-lox (231)	0 - 15	Loamy Fine Sand	Slow	Moderately Rapid	Slight	Moderate
	2 - 16	Gravelly Fine Sandy Loam	Medium - Rapid	Slow	Slight	Moderate
Patna (512)	15 - 30	Fine Sand	Low - Medium	Moderately Rapid	Moderate	Severe
Patna (516)	0 - 4	Sand	Medium - Rapid	Rapid	Moderate	Severe
Perazzo (532)	0 - 15	Gravelly Sandy Loam	Slow - Rapid	Moderately Slow	Slight	Moderate
Uripnes-chill-outcrop (541)	15 - 75	Very Gravelly Sandy Loam	Medium - Rapid	Moderately Rapid	Severe	Severe
	4 - 50	Gravelly Sandy Loam	Medium / Rapid	Moderately Slow	Severe	Severe
Rawe (551)	4 - 15	Gravelly Sandy Loam	Rapid	Slow	Slight	Severe

Association	Percent Slope	Profile Soil Texture	Surface Runoff	Permeability	Erosion Hazard by Water	Erosion Hazard by Wind
Theon (651)	4 - 75	Very Gravelly Sandy Loam	Medium - Rapid	Very Rapid	Moderate	Severe
Theon - Olac (652)	4 - 75	Very Gravelly Clay Loam	Medium	Rapid	Very Severe	Severe
	2 - 75	Extremely Gravelly Loam	Very Rapid	Moderately Slow	Very Severe	Severe
Toulon (671)	0 - 8	Gravelly Loam	Rapid	Moderately Rapid	Slight	Slight
Malpais (751)	2 - 8	Gravelly Loamy Sand	Rapid	Moderately Rapid	Slight	Slight
Malpais (753)	2 - 4	Cobbly Sandy Loam	Medium - Rapid	Rapid	Slight	Slight
Malpais-Yerington Complex (755)	4 - 8	Gravelly Loamy Sand	Medium	Moderately Rapid	Slight	Slight
	4 - 8	Stratified Coarse Loamy Sand	Low	Rapid	Slight	Moderate

Source: NRCS 1994

The soils consist of gravelly very fine sandy loam to very gravelly loam to very cobbly loam. According to the NRCS, the erosion potential by water for the various soils found in the Project Area varies from slight to very severe and the erosion potential by wind for all soils in the Project Area ranges from slight to severe (Table 3.6-1).

3.7 Special Status Species

BLM Manual 6840 - Special Status Species Management, establishes policy for management of species listed or proposed for listing pursuant to the Endangered Species Act and BLM sensitive species which are found on BLM-administered lands (BLM 2008c).

3.7.1 **Threatened and Endangered Species (Federally Listed Species)**

The Endangered Species Act (ESA) was passed in 1973 to address the decline of fish, wildlife, and plant species in the U.S. and throughout the world. The species and habitat administered under the ESA are collectively known as federally listed species. This includes those listed as threatened, endangered, proposed for listing, and candidate species. Each federally listed species carries its own level of management and habitat delineation including critical habitat designation.

In response to a request for identification of federally-listed species in the Project Area, the United States Fish and Wildlife Service (USFWS) memorandum of August 4, 2009 (Appendix

A) stated that no federally-listed wildlife or plant species are known to occur in the Project Area; therefore, federally-listed species are not addressed further in this EA.

3.7.2 BLM Sensitive Species

Species designated by the BLM as sensitive must be native species found on BLM-administered lands for which the BLM has the capacity to significantly affect the conservation status of the species through management, and either:

1. There is information that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or
2. The species depends on ecological refugia or specialized or unique habitats on BLM-administered lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.

Two terrestrial wildlife habitats are found in the Project Area, Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland (NDOW 2006a). Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland are described in Section 3.9.1 of this EA. The Project Area contains mountain peaks and valleys. Several southwest trending ephemeral drainages are located in the Project Area. No perennial streams, or fish habitat occur in the Project Area. Pre-1981 roads, permitted roads, and permitted drill sites exist in the Project Area. Two areas of pre-1981 disturbance occur in the eastern portion of the Project Area that lack vegetative cover. Areas of native vegetation occur between the segments of existing pre-1981 roads, permitted roads, and permitted drill sites. BLM sensitive species habitat is patchy in form and fragmented within the Project Area as a result of previous disturbance (Figure 1.1.3).

BLM sensitive species with potential habitat in or near the Project Area are listed in Appendix A (BLM 2003). There is a low potential for oryctes (*Oryctes nevadensis*), Nevada dune beardtongue (*Penstemon arenarius*), and Lahontan beardtongue (*Penstemon palmeri* var. *macranthus*), BLM sensitive species, to occur in or near the Project Area. None of these species were encountered in the Project Area during a vegetation survey conducted by Envirosientists, Inc. on April 28, 2009; therefore, BLM sensitive plants species are not further addressed in this EA.

The Nevada Department of Wildlife (NDOW) was contacted regarding the presence of wildlife species within and near the Project Area. The NDOW identifies that golden eagle (*Aquila chrysaetos*) is known to occur within or near the Project Area (NDOW 2009a, 2009b). Golden eagles are protected under state and federal laws and are BLM sensitive species. The Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities could provide nesting structure, protection from predators, and thermal cover for BLM sensitive birds such as loggerhead shrike (*Lanius ludovicianus*). The

friable soils within the Project Area could provide burrowing habitat for burrowing owl (*Athene cunicularia*), a BLM sensitive species. The Project Area would provide foraging or incidental use for BLM sensitive species such as birds and raptors.

The Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland could provide foraging or incidental use for BLM sensitive bat species (Appendix B) such as pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), Brazilian free-tailed bat (*Tadarida brasiliensis*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), California myotis (*Myotis californicus*), Small-footed myotis (*Myotis ciliolabrum*), and long-legged myotis (*Myotis volans*). The Intermountain Basin Mixed Salt Desert Scrub could provide foraging or incidental use for BLM sensitive bat species such as western pipistrelle bat (*Pipistrellus hesperus*). The Great Basin Xeric Mixed Sagebrush Shrubland could provide foraging or incidental use for BLM sensitive bat species such as spotted bat (*Euderma maculatum*) and big brown bat (*Eptesicus fuscus*). No perennial surface water resources occur within the Project Area; therefore, foraging or incidental use for BLM sensitive bat species would be limited within the Project Area.

There are several mine shafts and old mine workings within and adjacent to the Project Area (Figure 1.1.2). Rocky outcrops occur within the Project Area; however they are limited. Western pipistrelle bat, pallid bat, spotted bat, long-eared myotis, California myotis, and long-legged myotis could roost in rocky outcrops or crevices, mines, and caves within the Project Area. Townsend's big-eared bat, big brown bat, Brazilian free-tailed bat, fringed myotis, and small footed myotis could roost in mines or caves within the Project Area.

Desert bighorn sheep (*Ovis Canadensis nelsoni*), a BLM sensitive species have distribution that overlaps the Project Area. Desert bighorn sheep are discussed in Section 3.9.2.

3.8 Vegetation

The Project Area has vegetation typical of the lowland and foothill areas of the Great Basin normally sparse on soils high in salinity. The quality of vegetation is either low or moderate and a mixture of native and nonnative species. The eastern portion of the Project has some areas without any vegetation with thick crusts of alkaline salts. Two terrestrial vegetation communities have been identified within the Project Area: Great Basin Xeric Mixed Sagebrush Shrubland and Intermountain Basin Mixed Salt Desert Scrub. The majority of the Project is covered by Intermountain Basin Mixed Salt Desert Scrub (USGS 2009). The following shrub species were documented in the Project Area during the vegetation survey conducted on April 28, 2009: Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*); fourwing saltbush (*Atriplex canescens*); yellow rabbitbrush (*Chrysothamnus viscidiflorus*); green rabbitbrush (*Ericameria teretifolia*); bud sagebrush (*Artemisia spinescens*); Bailey's greasewood (*Sarcobatus baileyi*); winterfat (*Krascheninnikovia lanata*); spiny hopsage (*Grayia spinosa*); snowberry (*Symphoricarpos* sp.); Nevada jointfir (*Ephedra nevadensis*); shadscale (*Atriplex confertifolia*); littleleaf horsebrush (*Tetradymia glabrata*); and Russian thistle (*Salsola kali*).

Additional plant species found in the Project Area include prince's plume (*Stanleya pinnata*), orange globemallow (*Sphaeralcea munroana*), sandwort (*Arenaria* sp.), Palmer's buckwheat (*Eriogonum palmerianum*), kochia (*Bassia* sp.), whitestem blazingstar (*Mentzelia albicaulis*), cushion buckwheat (*Eriogonum ovalifolium*), milkvetch (*Astragalus* sp.), desert paintbrush (*Castilleja angustifolia*), bristly fiddleneck (*Amsinckia tessellata*), rockcress (*Arabis* sp.), phlox (*Phlox* sp.), lupine (*Lupinus* sp.), ground nama (*Nama aretioides*), leafy nama (*Nama densum*), Sandberg bluegrass (*Poa secunda*), cheatgrass, Indian ricegrass (*Oryzopsis hymenoides*), bottlebrush squirreltail (*Elymus elymoides* ssp. *elymoides*), and Idaho fescue (*Festuca idahoensis*).

3.9 Wildlife and Fisheries

3.9.1 General Wildlife and Fisheries

Two terrestrial wildlife habitats are found in the Project Area as described in the NDOW Nevada Wildlife Action Plan, Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland (NDOW 2006a). Intermountain Basin Mixed Salt Desert Scrub, the dominant vegetation community in the Project Area, provides dependable herbivorous food staples and sheltering functions to burrowing and denning wildlife as a result of the soils accumulating and forming hummocks at the base of shrubs. Thorny shrubs in this vegetation community provide a safe nesting place for many species of birds. Great Basin Xeric Mixed Sagebrush Shrubland occurs in the western portion of the Project Area. This vegetation community provides habitat for various Great Basin wildlife species and supports a wide diversity of wildlife species.

The Project Area contains mountain peaks and valleys. Several southwest trending ephemeral drainages are located in the Project Area. No perennial streams, or fish habitat occur in the Project Area. The NDOW data identifies that a small game guzzler is located within the central portion of the Project Area in Section 17 T13N, R24E. Guzzlers are metal structures that collect rainwater to provide an additional source of water for wildlife. The nearest perennial water sources include a pit lake approximately 1.95 miles east of the Project Area, the East Walker River which is approximately three miles east of the Project Area, and Artesia Lake which is approximately 4.11 miles southwest of the Project Area. Several pre-1981 roads, permitted roads, and permitted drill sites exist in the Project Area. Two areas of pre-1981 disturbance occur in the eastern portion of the Project Area that lack vegetative cover. Areas of native vegetation occur between the segments of existing pre-1981 roads, permitted roads, and permitted drill sites. Wildlife habitat is patchy in form and fragmented within the Project Area as a result of previous disturbance (Figures 1.1.2. and 1.1.3.).

Invertebrates such as scorpions (Family: Arachnid) often occur in the Intermountain Basin Mixed Salt Desert Scrub vegetation community and could occur in the Project Area.

The sandy soils and rocky features within Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities could provide burrows,

dens, or protection from predators for reptiles such as Great Basin collared lizard (*Crotaphytus bicinctores*), horned lizard (*Phrynosoma* sp.), and long-nosed leopard lizard (*Gambelia wislizenii*).

The Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities could provide nesting structure, protection from predators, and thermal cover for birds such as Brewer's sparrow (*Spizella breweri*) and sage sparrow (*Amphispiza belli*).

The NDOW data identifies raptors and game species that could occur in or near the Project Area. Raptor species known to occur near the Project Area include the turkey vulture (*Cathartes aura*), western screech owl (*Otus kennicottii*), barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), and golden eagle (NDOW 2009a, 2009b). These species are protected by state and federal laws. The Project Area would provide foraging habitat for turkey vulture, western screech owl, barn owl, great horned owl, red-tailed hawk, and Cooper's hawk. Golden eagle, a BLM sensitive species, is discussed in Section 3.7.2.

The sandy soils and rocky features within Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities could provide burrows, dens, or protection from predators for small mammals such as kangaroo mouse (*Microdipodops* sp.), vole (Family: Cricetidae), shrew (Family: Soricidae), California black-tailed jackrabbit (*Lepus californicus*), and kit fox (*Vulpes macrotis*).

3.9.2 Game Species

According to the NDOW, game species that may utilize the Project Area include black bear (*Ursus americanus*), desert bighorn sheep, mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), mountain lion (*Puma concolor*), California quail (*Callipepla californica*), and chukar (*Alectoris chukar*) (NDOW 2008, 2009a, 2009b). Black bear distribution occurs approximately 0.5 mile west of the Project Area (NDOW 2009b). It is unlikely that black bear utilize the Project Area due to the sparse vegetative height and cover within the Project Area.

Designated bighorn sheep range encompasses the Singatse Range and extends both north and south of the Project Area (NDOW 2006b). Bighorn sheep range covers approximately 88 percent of the eastern portion of the Project Area (NDOW 2009a). Bighorn sheep habitat is currently unoccupied and is not likely to be occupied in the near future.

There is all year mule deer habitat within one mile to the east of the Project Area (NDOW 2009a). The mule deer range encompasses the eastern flank of the Singatse Range to the north and south of the Project Area; therefore, mule deer are likely to browse in the Great Basin Xeric Mixed Sagebrush Shrubland vegetation community within the Project Area.

Pronghorn antelope distribution occurs approximately one mile northwest of the Project Area (NDOW 2009b). Pronghorn antelope could utilize the Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities within the Project Area.

Because mule deer are the primary prey for mountain lions, mountain lions may occur within the Project Area.

The Project Area is located approximately two miles east of the greater sage-grouse (*Centrocercus urophasianus*) Pine Nut Population Management Unit (PMU) (NDOW 2006a). According to the NDOW, there are no greater-sage grouse in the Project Area (NDOW 2009a).

There is habitat for California quail in the Project Area; therefore, California quail would likely utilize the Project Area. In addition, chukar is known to occur in the Project Area (NDOW 2008). California quail and chukar would utilize the Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities within the Project Area. The small game guzzler within the Project Area would primarily serve California quail and chukar.

3.10 Migratory Birds

On January 11, 2001, President Clinton signed Executive Order 13186 (Land Bird Strategic Project) placing emphasis on conservation and management of migratory birds. The species are not protected under the Endangered Species Act; however, most are protected under the Migratory Bird Treaty Act of 1918. Management for these species is based on Instruction Memorandum - IM 2008-050 dated December 18, 2007 (BLM 2007).

The Intermountain West is the center of distribution for many migratory western birds. Over half of the biome's species of continental importance have 75 percent or more of their population in the Intermountain West (Beidleman 2000). The migratory bird species that may utilize the Project Area are listed in Appendix B. Not every species listed would use the Project Area for a life cycle function; however, some would simply fly over the Project Area.

There are two general vegetation communities described by Neel, 1999 and Beidleman, 2000 within the Project Area that support life cycle functions of migratory birds listed in Appendix B. These general vegetation communities are salt desert and sagebrush. Salt desert and sagebrush are equivalent to the Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland vegetation communities described in Section 3.9.1. Most of the migratory bird species using or potentially using the Project Area would be associated with more than one habitat type. The open, sparse vegetation found within the salt desert and sagebrush vegetation communities in combination with the mountain peaks in the Project Area provide foraging habitat for the raptor species listed in Appendix B. The Passerine birds in Appendix B would utilize the Project Area for both nesting and foraging.

The National Audubon Society has established a program of identifying areas of importance for migratory birds. Although Important Bird Areas (IBA) have no legal status or recognition within the official BLM wildlife program, they are useful for planning analysis. There are no IBAs associated with the Project Area (McIvor 2005)

4 ENVIRONMENTAL CONSEQUENCES

The direct and indirect effects of the Proposed Action on Supplemental Authorities present in the Project Area are discussed in this section. Cumulative impacts are discussed separately in Section 5. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).

4.1 Proposed Action

4.1.1 Air Quality

Travel on dirt roads, drilling, and excavation activities within the area of the Proposed Action would create fugitive dust, causing a minor impact to air resources. As described in the Proposed Action, fugitive dust would be controlled by minimizing surface disturbance. Speed limits on access roads would be observed, and travel on roads within the Project Area would be conducted at prudent speeds. Impacts would also be controlled by using water trucks for dust suppression, if required. Pursuant to NAC 445B.22037.4(b), MIM would be required to operate under a SAD Permit issued by the NDEP's BAPC before the Proposed Action disturbs more than 20 acres. The SAD would require MIM to file a Dust Control Plan that itemizes the measures to be taken to control fugitive dust and vehicle emissions. Reclamation of proposed surface disturbance would gradually eliminate long-term impacts to air resources.

4.1.2 Invasive, Nonnative Species

The strategy for noxious weed management is to, "prevent and control the spread of noxious weeds through local and regional cooperative efforts ... to ensure maintenance and restoration of healthy ecosystems on BLM managed lands." Noxious weed control would be based on a program of "prevention, education, detection and rapid response (control) of small infestations."

New surface disturbance from the Proposed Action would increase the potential for and promote the spread and establishment of noxious weeds, invasive, and nonnative species. These impacts would be minimized based on implementation of the environmental protection measures outlined in Section 2.1.11. and the following Proposed Action BMPs: avoidance of known noxious weeds; invasive and nonnative species infestation areas by vehicles; removal of noxious weeds, invasive and nonnative species on reclaimed areas, and washing of vehicles prior to entering weed free areas and exiting areas of known noxious weeds, invasive, and nonnative species infestation. In addition, mitigation would be required such that the Project Area would be surveyed annually for the presence of noxious weeds for the duration of the time the area is occupied by the Project proponent. In the event that noxious weeds are found, the Project proponent would develop a noxious weed treatment plan that conforms to BLM standards.

4.1.3 Native American Religious Concerns

BLM has been engaged in consultation with The Yerington Paiute Tribe concerning the Proposed Action, specifically via a face-to-face meeting and consultation letter in April 2008, and through providing detailed data to the Tribe in June 2008. To date, the Tribe has not stated that there were specific cultural or Native American religious concerns for this Proposed Action.

Any proposed activities may potentially have an effect on tribal concerns. Per federal regulations, BLM will continue to review known tribal concerns and conduct Native American coordination and consultation with the Yerington Paiute Tribe for the remainder of the Project, and in the case of any future proposed projects.

4.1.4 Rangeland Management

Approximately 82 acres of the Project Area (approximately four percent) would be located in the Artesia grazing allotment which is managed for one AUM per nine acres. Completion of approximately four percent of the Proposed Action in the Artesia grazing allotment (i.e., two acres of surface disturbance) would result in a potential loss of less than 0.5 AUM. This is less than one percent of the initial stocking level for the allotment.

Approximately 1,978 acres of the Project Area (approximately 96 percent) would be located in the Mickey Pass grazing allotment which is currently managed for one AUM per nine acres; however, no grazing is currently permitted in the area. As a result no AUMs would be lost in the Mickey Pass allotment. In the event that grazing activities commenced during the life of the Proposed Action, the creation of approximately 48 acres of surface disturbance would result in a loss of approximately 5.5 AUMs, which is approximately one percent of the total.

As discussed in Section 2.1.11, exploration sumps would be constructed with ramps to minimize injury to livestock that enter or exit the sumps.

4.1.5 Soils

Exploration activities associated with the Proposed Action would increase the erosion potential for wind and water of approximately 50 acres of soils disturbed in phases until reclamation was successfully completed. Soil erosion would be reduced by measures incorporated in the Project design, including the use of waterbars and other BMPs such as weed-free straw bales, and the concurrent reclamation of drill pads, sumps, and drill roads no longer needed for access. Following successful reclamation, which would include regrading, ripping, and revegetation of disturbed areas, soil loss due to the Proposed Action would be temporary and minimal.

4.1.6 Special Status Species

Direct impacts to BLM sensitive species would consist of temporary habitat loss and disturbance from human activity and noise. Approximately 50 acres of BLM sensitive species habitat would

be temporarily impacted by exploration activities over approximately a ten-year period. Two terrestrial wildlife habitats are found in the Project Area, Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland. Similar terrestrial wildlife habitats are located adjacent to the Project Area.

There are a number of BLM sensitive species with potential habitat in or near the Project Area (Appendix A). The NDOW identified potential habitat in the Project Area for golden eagle (NDOW 2009a, 2009b). Golden eagle is analyzed in Section 3.7.2. Golden eagles would likely use the Project Area for foraging and would continue to be able to use the Project Area during Project activities. Although golden eagles are not known to nest within the Project Area, MIM would abide by environmental protection measures as outlined in Section 2.2.11 including migratory bird nesting surveys, in order to avoid impacts to active nests of breeding birds. Disturbance would be created incrementally and dispersed throughout the Project Area; therefore, minimal impacts to BLM sensitive bird and raptor species are anticipated. Several BLM sensitive bat species may utilize the Project Area. The lack of perennial surface water resources within the Project Area would provide limited foraging habitat and incidental use for BLM sensitive bat species. Roosting habitat is available for BLM sensitive bat species that roost in caves and mines; however, rocky outcrops and cliff crevices are limited within the Project Area and would provide limited roosting habitat for BLM sensitive bat species that roost in rocky outcrops and cliff crevices. Project-related disturbance is proposed in locations greater than 1,000 feet from adits and mine shafts (Figure 1.1.3). BLM sensitive bat species could continue to forage and roost within the Project Area during Project activities. Disturbance would be created incrementally and dispersed throughout the Project Area. In addition, the Proposed Action would not result in a substantial net loss of potential habitat and would not contribute to a loss of viability for any one special status species. Therefore, minimal impacts to special status wildlife species are anticipated.

4.1.7 Vegetation

The Proposed Action would result in surface disturbance of approximately 50 acres of vegetation over the life of the Project. The disturbance would be created incrementally and dispersed throughout the Project Area. Reclamation would begin upon completion of exploration activities using a BLM recommended seed mix of native species (Table 2.1-1). In addition, the disturbance would be mostly linear (i.e., roads) or patchy (i.e., drill pads) in form, and therefore highly likely to be recolonized by surrounding vegetation. No native plant communities would be eliminated from the Project Area as a result of the Proposed Action.

4.1.8 Wildlife and Fisheries

4.1.8.1 General Wildlife

Direct impacts to wildlife would consist of temporary habitat loss and disturbance from human activity and noise. Approximately 50 acres of wildlife habitat would be temporarily impacted by exploration activities over approximately a ten-year period. Two terrestrial wildlife habitats are

found in the Project Area, Intermountain Basin Mixed Salt Desert Scrub and Great Basin Xeric Mixed Sagebrush Shrubland.

Wildlife, especially individual invertebrates, reptiles, and small mammals, displaced by Project-related disturbance or habitat loss into already saturated habitats might perish; however, similar habitat is located adjacent to the Project Area and wildlife could be expected to move into nearby areas during Project activities. Construction of roads and drill pads and the operation of drilling equipment could disturb wildlife due to the presence of humans and by creating noise and dust during the life of the Proposed Action. Wildlife foraging activities within the Project Area could continue to be dispersed and wildlife allowed to move around and between Project activities because a maximum of five drill rigs and associated drill crews would be utilized during various stages of the Project and only three drill rigs are expected to be used under Phase I.

Impacts to wildlife would also occur as a result of loss of vegetation due to Project-related surface disturbance. Effects on disturbed habitat would occur in the Project Area as surface disturbance would be reclaimed and revegetated and a greater amount of forb species would become available for wildlife foraging. Reclamation and reestablishment of vegetation would take place within two years of Project completion. Therefore, no long-term impacts to wildlife habitat are likely to occur and the Proposed Action would have minimal direct impacts on wildlife species.

4.1.8.2 Game Species

Any disturbance to key game species, (i.e., bighorn sheep, mule deer, pronghorn antelope, mountain lion, California quail, and chukar) would likely be limited to temporary auditory and/or visual perturbation of individuals in or near the Project Area. The area is currently not occupied by bighorn sheep and is not likely occupied by mule deer or pronghorn antelope. Effects on big game species habitat are limited to 50 acres and will be minimized through reclamation efforts. Under the Proposed Action, no impacts are proposed to the small game guzzler within the Project Area that primarily serves California quail and chukar. The small game guzzler is located approximately 1,820 feet from the nearest proposed Project-related disturbance.

Individual key game species foraging in the Project Area during exploration activities would likely leave the immediate area, resulting in a temporary spatial redistribution of individuals or habitat-use patterns during Project activities. Such redistribution would not likely have a long-term effect because undisturbed and suitable habitat exists around the Project Area. The quality, quantity, and distribution of suitable key game species habitat are not expected to be greatly altered by Project implementation and no long-term impacts are likely to occur because reclamation and reestablishment of vegetation would take place within two years of Project completion.

4.1.9 Migratory Birds

The Proposed Action would result in a maximum of 50 acres of surface disturbance, which could potentially result in temporary habitat loss and disturbance from human activity and noise. Disturbance would be spread over ten years and would be localized throughout the Project Area. MIM would abide by environmental protection measures as outlined in Section 2.2.11 including migratory bird nesting surveys, in order to avoid impacts to active nests of breeding migratory birds. In addition, the Proposed Action would not result in a substantial net loss of potential habitat and would not contribute to a loss of viability for any one migratory bird species. Therefore, minimal impacts to migratory bird species are anticipated.

4.2 No Action Alternative

Under the No Action Alternative, ongoing mineral exploration activities currently permitted in the Project Area, which are similar to those described for the Proposed Action, would continue under the Notice. Potential impacts identified in the following sections would be proportionally less than those associated with the Proposed Action. The Proposed Action would have a total of 50 acres of disturbance while the planned disturbance under the No Action Alternative is 4.89 acres with a potential surface disturbance of five acres (see Section 2.2).

4.2.1 Air Quality

Under the No Action Alternative, the level of impact to air quality associated with the Proposed Action would not occur; however, ongoing Notice-level mineral exploration activities currently occurring in the Project Area, which are similar to but proportionally less than those associated with the Proposed Action, would continue. Travel on dirt roads, drilling, and excavation activities within the Project Area would create fugitive dust, causing a minor impact to air resources. Fugitive dust would be controlled by minimizing surface disturbance. Speed limits on access roads would be observed, and travel on roads within the Project Area would be conducted at prudent speeds. Impacts would also be controlled by using water trucks for dust suppression, if required. Pursuant to NAC 445B.22037.4(b), reclamation of proposed surface disturbance would gradually eliminate long-term impacts to air resources.

4.2.2 Invasive, Nonnative Species

Under the No Action Alternative, none of the impacts associated with the Proposed Action would occur; however, ongoing activities currently permitted in the Project Area would continue to occur and may impact noxious weeds, invasive and nonnative species.

4.2.3 Native American Religious Concerns

Consultation with the Yerington Paiute Tribe is ongoing. Similar to the Proposed Action, the Tribe has general concerns for access and protection of cultural and natural resources in the

region containing the No Action Alternative. However, there would be considerably less potential for impact with the No Action Alternative, and it is unlikely to result in any affect to Native American religious concerns.

4.2.4 Special Status Species

No impacts to threatened, endangered, and special status species are anticipated under the No Action Alternative. Due to the small and dispersed nature of the surface disturbance resulting from Notice-level activities (i.e., not all proposed sites would be disturbed at once), the No Action Alternative would not result in a substantial net loss of potential habitat and would not contribute to a loss of viability for any special status species.

4.2.5 Rangeland Management

Under the No Action Alternative, Notice-level exploration work would continue entirely within the Mickey Pass grazing allotment. The Mickey Pass allotment is currently managed for 564 AUMs (one AUM per nine acres); however, no grazing is permitted in the allotment. As a result no AUMs would be lost in the Mickey Pass allotment and there would be no impacts to rangeland management. In the event that grazing activities commenced during the life of the Notice a potential temporary loss of approximately 0.6 AUM could result. This is less than one percent of the initial stocking level for the allotment. Therefore, the impact of the No Action Alternative on rangeland resources would be minimal.

4.2.6 Soils

Surface disturbance associated with the No Action Alternative would impact up to five acres of soils. The erosion potential by water for the various soils found in the Project Area varies from slight to very severe and the erosion potential by wind for all soils in the Project Area ranges from slight to severe (Table 3.6-1).

Exploration activities associated with the No Action Alternative would increase the erosion potential for wind and water of disturbed soils until reclamation was successfully completed. The potential impacts to soils would be reduced by measures in the existing Notice, including the use of waterbars and other BMPs, and the concurrent reclamation of drill pads, sumps, and drill roads no longer needed for access. Following successful reclamation, which would include regrading, ripping, and revegetation of disturbed areas, soil loss due to the No Action Alternative would be temporary and minimal.

4.2.7 Vegetation

The No Action Alternative would result in surface disturbance of approximately five acres of vegetation. The disturbance would be created incrementally and dispersed throughout the Project Area. Reclamation would begin upon completion of exploration activities using a seed mix of native species incorporated into the existing Notice. In addition, the disturbance would be mostly

linear (roads) or patchy (drill pads) in form, and therefore highly likely to be recolonized by surrounding vegetation. No native plant communities would be eliminated from the Project Area as a result of the No Action Alternative.

4.2.8 Wildlife and Fisheries

4.2.8.1 General Wildlife

Under the No Action Alternative, none of the impacts associated with the Proposed Action would occur to wildlife; however, ongoing activities currently permitted in the Project Area would continue to occur, which would result in the temporary loss of 4.89 acres of wildlife habitat. Impacts to wildlife as a result of the No Action Alternative would be similar, although, proportionally less than the Proposed Action.

4.2.8.2 Game Species

Under the No Action Alternative, none of the impacts associated with the Proposed Action would occur to game species (i.e., bighorn sheep, mule deer, pronghorn antelope, mountain lion, California quail, and chukar); however, ongoing activities currently permitted in the Project Area would continue to occur, which would result in the temporary loss of 4.89 acres of wildlife habitat. Impacts to wildlife as a result of the No Action Alternative would be similar, although, proportionally less than the Proposed Action.

4.2.9 Migratory Birds

Under the No Action Alternative, ongoing Notice-level mineral exploration activities in the Project Area, which are similar to those described for the Proposed Action, would continue to occur. However, migratory bird nesting surveys would not be conducted under the current Notice-level activities.

5 CUMULATIVE IMPACTS

5.1 Introduction

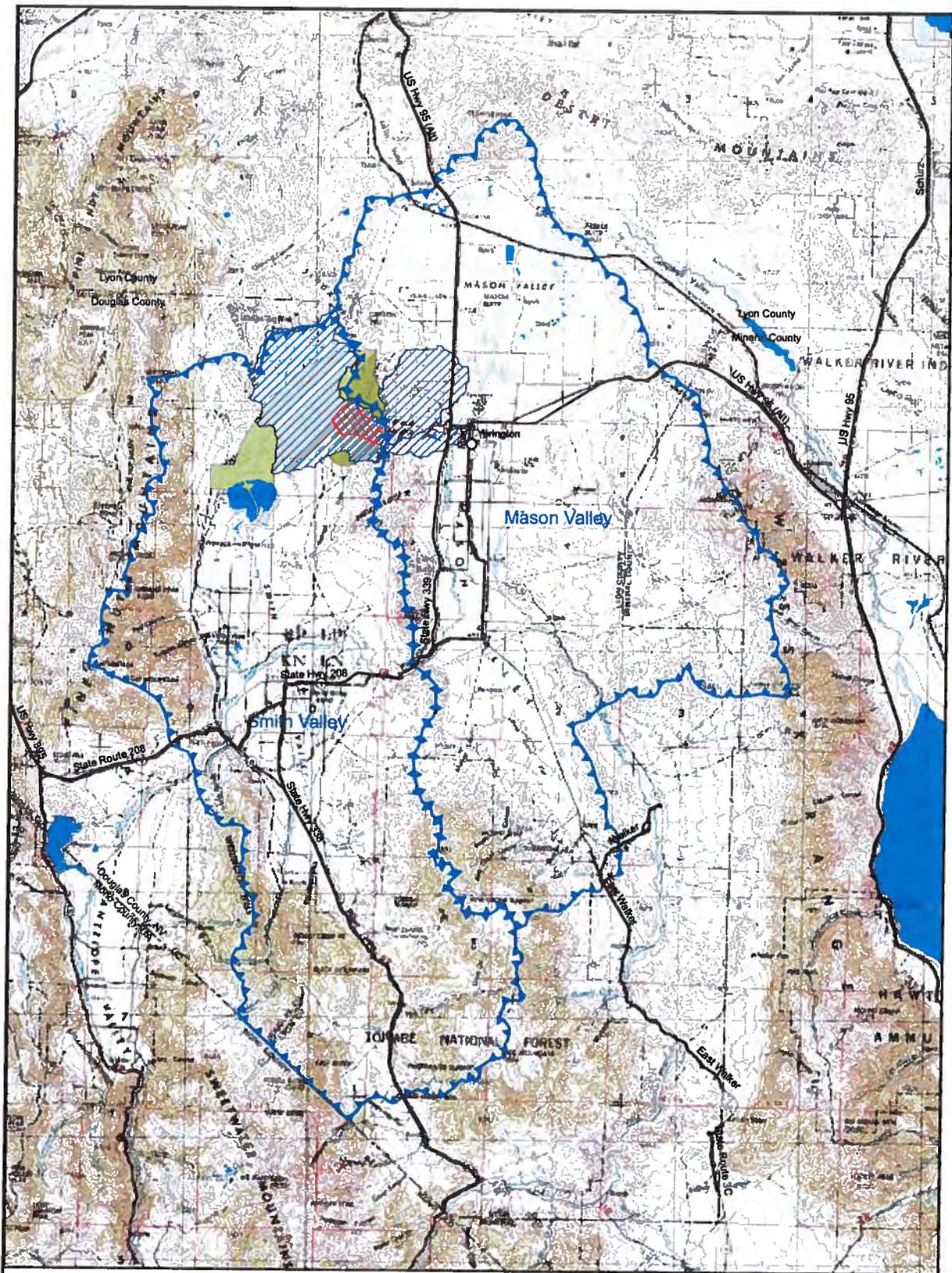
As defined in 40 CFR 1508.7 (CEQ regulations for implementing NEPA) a cumulative impact is an impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (RFFAs), regardless of which agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. The significance of effects should be determined based on context (i.e., the setting of the Proposed Action) and intensity (40 CFR § 1508.27.(b).(7)). Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts. Intensity refers to the severity of effect. Factors that could be used to define the intensity of effects include the magnitude (relative size or amount of an effect), geographic extent, duration, and frequency of the effects.

Thresholds and criteria (i.e., levels of acceptable change) used to determine the significance of effects vary depending on the type of resource being analyzed, the condition of the resource, and the importance of the resource as an issue (as identified through scoping). Criteria can be either quantitative or qualitative units of measure and should be directly related to relevant cause-and-effect relationships (CEQ 1997).

Resources potentially affected by cumulative effects vary by the type and location. Four different cumulative effects study areas (CESAs) have been developed to address the resources that could be impacted cumulatively based on the extent or geographic distribution of the resource. The four CESAs are the Project Area (2,060 acres) the immediate watersheds (33,787 acres), the Mason Valley and Smith Valley Hydrographic Basins (approximately 636,800 acres), and the Artesia and Mickey Pass Grazing Allotments (17,071 acres). Table 5.5-1 lists potentially impacted resources, the CESA, and the figure number on which the CESA(s) is shown.

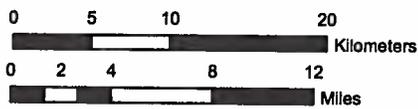
Table 5.1-1: Cumulative Effects Study Areas

Resource	Cumulative Effects Study Area	Size (acres)	Figure
Soils, Invasive, Nonnative Species, and Vegetation	Project Area	2,060	5.1.1
Special Status Species, Visual Resources, Land Use Authorizations, Wildlife and Vegetation, and Migratory Birds	Immediate Watersheds	33,787	5.1.1
Rangeland Management	Artesia Grazing Allotment and Mickey Pass Grazing Allotment	17,071	5.1.1
Air Quality, Surface Water Resources, and Ground Water Resources	Smith Valley Hydrographic Basin (107) and Mason Valley Hydrographic Basin (108)	636,800	5.1.1



Explanation

-  Major Roads
-  Water
-  Hydrographic Basins
-  Project Area
-  Immediate Watersheds
-  Artesia Grazing Allotment
-  Mickey Pass Grazing Allotment
-  County Boundary



1:300,000

Projection: UTM Zone 11, NAD27

MIM USA, INC.

**Ann Mason Project
Cumulative Effects Study Area**

Figure 5.1.1.

Date: 5/14/2008	Drawn by: LW
Revised:	Project No.: 1788
Base Map: Topographic Quads (Terra Server 1971 scale 1:250,000)	
File Name: 1788_AnnMason_CESA_v2.mxd	

No cumulative impacts would occur to cultural resources, Native American religious concerns, wastes, hazardous or solid, land use authorizations and access, or social values and economics; therefore, a cumulative analysis for those resources has not been completed.

The past actions, present actions, and RFFAs discussed in the following sections have occurred or may occur in numerous geographic locations (e.g. mineral exploration) and therefore, could have impacts to resources within the various CESAs. The CESA(s), which may be impacted by each project or activity is identified in Table 5.1-2.

Table 5.1-2: Areas Potentially Impacted by Past Actions, Present Actions, or Reasonably Foreseeable Future Actions

Project or Activity	Project Area	Immediate Watersheds	Mickey Pass and Artesia Grazing Allotments	Smith Valley and Mason Valley Hydrographic Basins
PAST				
Livestock Grazing	X	X	X	X
Agriculture		X	X	X
Road Construction and Maintenance	X	X	X	X
OHV Use and Recreation	X	X	X	X
Mineral Exploration	X	X	X	X
Placer Mining		X	X	X
Mining Projects	X	X	X	X
Oil and Gas Exploration				X
Geothermal Exploration				X
Industrial Mineral Mining		X		X
Town of Yerington		X		X
Wildland Fire	X	X	X	X
PRESENT				
Livestock Grazing	X	X	X	X
Agriculture		X	X	X
Road Construction and Maintenance	X	X	X	X
OHV Use and Recreation	X	X	X	X
Mineral Exploration	X	X	X	X
Placer Mining				X
Oil and Gas Exploration				X
Geothermal Exploration				X
Industrial Mineral Mining		X		X

Project or Activity	Project Area	Immediate Watersheds	Mickey Pass and Artesia Grazing Allotments	Smith Valley and Mason Valley Hydrographic Basins
Town of Yerington		X		X
RFFAs				
Livestock Grazing	X	X	X	X
Agriculture		X	X	X
Road Construction and Maintenance	X	X	X	X
OHV Use and Recreation	X	X	X	X
Mineral Exploration	X	X	X	X
Oil and Gas Exploration				X
Geothermal Exploration				X
Industrial Mineral Mining		X		X
Town of Yerington		X		X
Wildland Fire	X	X	X	X

5.2 Past and Present Actions

Past activities in the four CESAs include the following: livestock grazing; agriculture; off highway vehicle (OHV) and recreational use; wildland fires; road construction and maintenance; transmission line construction and maintenance; notice-level (minerals activities on BLM administered land with less than five acres of surface disturbance) and plan-level exploration activities (minerals activities on BLM administered land with greater than five acres of surface disturbance); geothermal exploration; oil and gas exploration; mining projects including the Nevada Denver Mine; the MacArthur Copper Mine; the Yerington Copper Mine; and historic placer mining. These activities or projects are described in further detail below.

In addition to projects and activities on public lands, the town of Yerington, Nevada, is located within the Mason Valley Hydrographic basin. The town of Yerington has a population of approximately 3,200 people with services including shopping, lodging, and dining. Employment in the town includes customer service, agriculture, mineral exploration, and work at several industrial material mines in the general vicinity. The town of Wellington is located within the Smith Valley Hydrographic Basin and is a small agriculture community with very few amenities.

Historic recreational use included rockhounding, hunting, and OHV use. Currently, two organized off road races occur within the Project Area annually.

Placer mining was conducted in the area in the 1870s, 1950s, and 1980s including the Guild Placer Mine; however, the exact locations and amount of disturbance associated with the majority of the work are not available. Mineral exploration has also been conducted throughout the area. There have been 78 notice-level authorizations (under five acres disturbance for each)

for a total of approximately 172 acres of potential disturbance (LR2000 Database as compiled by the BLM). Disturbance associated with notice-level work includes drill roads, pads, trenches, and maintenance. In addition, five plans of operations were authorized for a total of approximately 34 acres of disturbance.

Present actions on public lands in the four CESAs (Table 5.1-2) include the following: OHV use and recreation; livestock grazing; agriculture; notice-or plan-level exploration; reclamation of the Yerington Mine; and road and transmission line maintenance.

Six notice-level authorizations with a total of approximately 14.56 acres of proposed disturbance are underway in the CESAs. Disturbance associated with notice-level work includes drill roads, pads, trenches, and maintenance. Two plans of operation are currently authorized within the CESA. A total of approximately 28.35 acres are authorized under the plans.

5.3 Reasonably Foreseeable Future Actions

The RFFAs within the CESAs include continued livestock grazing, agriculture, transmission line and road maintenance, OHV use and recreation, precious metal exploration, reclamation of the Yerington Mine, general activity associated with the town of Yerington (i.e., construction, traffic, general industry, etc.), and wildland fire that would persist, or continue through the ten-year period of the Proposed Action.

Livestock grazing, agriculture, road maintenance, reclamation activities, and OHV use and recreational activities are expected to continue consistent with the present actions discussion. Wildland fires are also likely to occur within some or all of the CESAs in the next ten years.

Two notice-level activities are pending with a total of approximately 1.05 acres of proposed disturbance. Disturbance associated with notice-level work includes drill roads, pads, trenches, and maintenance. In addition, there are three plans of operations that are pending for a total of approximately 411 acres of proposed disturbance.

A plan of operations has been submitted for the MacArthur exploration project located in Sections 24, 25, and 26, T14N, R24E and Sections 19 and 30, T14N, R25E approximately 4.25 miles northeast of the Proposed Action. Activities associated with the MacArthur exploration Project would result in approximately 200 acres of surface disturbance. Additionally, an application for a reclamation permit for the Pumpkin Hollow exploration project has been submitted to the NDEP. The project is located on private land approximately eight miles southeast of the Proposed Action.

5.4 Proposed Action Impact Analysis

The CEQ does not give clear guidance in describing the intensity of impacts for a given resource; however, “low adverse effect,” “moderate adverse effect,” “high adverse effect,” “beneficial effect,” and “no effect” are used in an example shown on page A-8 of Considering Cumulative Effects Under the National Environmental Policy Act (CEQ 1997). For the purpose of cumulative assessments in this EA, high impacts would be those impacts that were considered significant; medium impacts would be those that are discernable to moderate and would occur over an extended time frame; and low impacts would be short term in length and de minimus to minor.

5.4.1 Air Quality

Past Actions: Impacts to air quality from past actions have resulted from background emission sources including windblown dust and dust from OHV use and recreation, traffic related to exploration and mining activities, road construction and maintenance, and fugitive emissions from wildland fire. The impacts due to emissions from background sources and mineral exploration are considered to have been low. Since 1977, emissions from mining have been regulated by permits issued by the NDEP/BAPC, resulting in moderate impacts to air quality from past actions in the CESA.

Present Actions: Impacts to air quality from present actions include emissions from ongoing OHV use and recreation, mineral exploration, mine reclamation, industrial mineral mining and processing, traffic on unpaved and paved roads, road maintenance, and general activities occurring in the town of Yerington. Mineral exploration projects that disturb up to 20 acres are considered to have a minimal impact on air quality and are not regulated by the NDEP/BAPC as long as BMPs are utilized to minimize impacts to air quality. Impacts from present actions in the CESA are considered to be moderate.

Reasonably Foreseeable Future Actions: Impacts to air quality from RFFAs could result from the generation of dust from OHV use and recreational traffic on unpaved roads, livestock grazing, mineral exploration, industrial mineral mining and processing, general activities associated with the town of Yerington, and fugitive emissions from wildland fire. Dust from public traffic on unpaved roads would likely create a low impact to air quality. Impacts from mineral exploration, mining, and reclamation would be regulated by the NDEP/BAPC and the BLM, and impacts to air quality from RFFAs in the CESA would be moderate.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. The cumulative impact on air resources from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs would be fugitive, point source, and mobile combustion emissions, which would remain moderate. The air quality regulations implemented by the NDEP/BAPC and the BLM help to maintain the moderate condition.

5.4.2 Invasive, Nonnative Species

Past Actions: Past actions, particularly recreational OHV use, mineral exploration and mining, wildland fire, grazing, and road construction and maintenance, have resulted in occurrences of Russian thistle and cheatgrass within the Project Area. The presence of invasive, nonnative species in the CESA due to all of the past actions is localized and considered to be a moderate impact.

Present Actions: Impacts to invasive, nonnative species from present actions would result from grazing, notice-level activities, OHV use and recreation, and road maintenance. Impacts would result in the introduction or spread of invasive, nonnative species as a result of vegetation removal. Impacts from invasive, nonnative species from present actions in the CESA are expected to be low due to an aggressive BLM program to control invasive, nonnative species and limit their spread.

Reasonably Foreseeable Future Actions: Impacts from RFFAs could result from grazing, OHV use and recreation, notice- and plan-level exploration activities, mine reclamation, industrial mineral mining, wildland fire, and road maintenance. Impacts would result in the introduction or spread of invasive, nonnative species.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. Impacts would result in the introduction or spread of invasive, nonnative species. The cumulative impacts of invasive, nonnative species from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs is a minimal increase in the disturbed area within the CESA. The impact would remain at a moderate level.

5.4.3 Rangeland Management

Past Actions: OHV use and recreation, mineral exploration and mining, road construction and maintenance, wildland fire, and maintenance of the electric transmission lines would have had impacts to rangeland resources. Reclamation of areas disturbed from these past actions, and natural revegetation are considered to result in overall low impacts to rangeland resources.

Present Actions: Impacts to rangeland resources from present activities are considered to be the same as past actions with the exception of the removal of AUMs associated with notice- and plan-level activities. Impacts from the ongoing activities would be considered low. Approved notice- and plan-level authorizations could disturb up to approximately 45 acres (30.35 acres under plans, 14.56 acres under notices), which includes disturbance in the hydrographic basin outside of the CESA for rangeland resources. The Project Area is located within the Artesia and Mickey Pass Grazing Allotments, which consist of 17,071 acres and are managed for approximately 1,832 AUMs annually. The Artesia Allotment consists of 11,605 acres and the Mickey Pass Allotment covers a total of 5,466 for a total of 17,071 acres; therefore, present notice- and plan-level actions equate to less than 0.1 percent of the CESA and would impact approximately 45 acres. In addition, reclamation, including revegetation, of disturbed lands

following mineral exploration would result in a temporary loss of AUMs; therefore impacts from notice- and plan-level activities are anticipated to result in a low impact to rangeland resources in the CESA.

Reasonably Foreseeable Future Actions: Impacts to rangeland resources within the CESA could result from OHV use and recreation, wildland fires, mineral exploration and mining, oil and gas exploration, geothermal exploration, wildland fire, and maintenance of the electric transmission line. However, reclamation following the completion of exploration and mining activities would mitigate impacts to BLM-administered public lands and revegetation measures would be implemented for areas burned by wildland fire. It is expected that impacts from RFFAs would be low to moderate, pending implementation of permit requirements and reclamation and revegetation measures.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. The cumulative impact on rangeland resources from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs is considered to be low because the additional disturbance of 50 acres would result in the additional reduction of at most one AUM, which would be mitigated through reclamation measures outlined in the Proposed Action.

5.4.4 Soils

Past Actions: Impacts to soils could have occurred during past actions as a result of OHV use and recreation, livestock grazing, agriculture, wildland fire, surface disturbance and salvage during mineral exploration and mining, oil and gas exploration, geothermal exploration, construction and maintenance of electric transmission lines, and road construction and maintenance. Impacts from OHV use and recreation and exploration activities were considered low due to the small amount of surface area disturbed in the 2,060 acre CESA. Impacts from historic mining and exploration were considered moderate because of the extent of surface disturbance. Overall impacts to soils from past actions are considered to have been low to moderate.

Present Actions: Impacts to soils could result from OHV use and recreation, livestock grazing, agriculture, surface disturbance and salvage during mineral exploration and mining, oil and gas exploration, geothermal exploration, maintenance of electric transmission lines, and road construction. However, the impacts on soils in the CESA due to present actions are considered to be low based on the use of approved methods of soil handling, erosion prevention techniques, concurrent reclamation when possible, and seeding at appropriate times of year for successful revegetation. Successful revegetation of notice- and plan-level activities is mandated before the release of a bond; therefore, impacts associated with present actions is considered low.

Reasonably Foreseeable Future Actions: Impacts to soils from RFFAs are considered to be similar to those described for present actions with the addition of wildland fire. The impacts on soils in the CESA due to RFFAs are considered to be low based on the use of approved methods of soil handling, erosion prevention techniques, and seeding.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. The cumulative impact on soils from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs is considered to be low because of the limited disturbance from the Proposed Action (50 acres, or two percent of the CESA) and based on the use of approved methods of soil handling, erosion prevention techniques, and seeding.

5.4.5 Special Status Species

Past Actions: Impacts to special status species, such as loss of habitat and noise have resulted from OHV use and recreation, wildland fire, surface disturbance created during exploration, mining and construction activities, livestock grazing, agriculture, and general activities associated with the town of Yerington (i.e., construction, vehicle use, industry etc.). Reclamation of areas disturbed from past actions, and natural revegetation have helped reduce the impacts on habitats for sensitive species listed in Appendix A.

Present Actions: Impacts to special status species, such as the loss of habitat could result from OHV use and recreation, exploration and mining activities, construction and maintenance activities, livestock grazing and agriculture. Exploration and construction activities include implementation of environmental protection measures to minimize disturbance to special status species or their habitat in the CESA. Therefore, incremental cumulative impacts to special status species are considered to be low to moderate.

RFFAs: Impacts to special status species from RFFAs are considered to be similar to those described for present actions with the addition of potential wildland fires. Disturbance of special status species and their habitat would be minimized through implementation of environmental protection measures. Impacts to special status species are considered to be low to moderate.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. For all of the species listed in Appendix A, the Proposed Action would have little or no impact on local or regional populations. Therefore, there would be no cumulative impact for those species when added to the impacts of the past, present, and RFFAs. Impacts to these local and regional populations would remain low to moderate.

5.4.6 Vegetation

Past Actions: Impacts to vegetation within the immediate watershed CESA could have occurred during past actions as a result of recreation and OHV use, surface disturbance during mineral exploration and mining, oil and gas exploration, geothermal exploration, industrial mineral mining, wildland fire, livestock management, agriculture, construction and maintenance of the roads and electric transmission lines, and construction activities associated with the town of Yerington. Impacts from OHV use and recreation and past exploration and construction were considered low due to the small amount of surface disturbance in the 2,060-acre CESA. Reclamation of some disturbed areas and natural revegetation were considered to result in overall low to moderate impacts to vegetation.

Present Actions: Impacts to vegetation could result from OHV use and recreation, livestock grazing, agriculture, notice-level exploration activities, industrial mineral mining, maintenance of electric transmission lines and roads and construction activities associated with the town of Yerington. In addition, impacts could result from plan-level activities during construction of access roads and drill pads and the disturbance of vegetation by vehicles traveling cross country or on two track roads; however, reclamation and revegetation following mineral exploration is anticipated to result in a low to moderate impact to vegetation in the CESA.

Reasonably Foreseeable Future Actions: Impacts to vegetation from RFFAs are considered to be similar to those described for present actions with the addition of potential future wildland fires. Impacts on vegetation are considered to be low based on the use of environmental protection measures, and the reclamation and reseeding and natural revegetation of disturbed areas.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. The cumulative impact on vegetation from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs is a minimal increase in disturbed area (excluding wildland fire) within the CESA. The impact would remain low because of the limited disturbance from the Proposed Action and the other activities within the CESA, as well as the implementation of reclamation measures and reseeding with a BLM-approved seed mix.

5.4.7 Wildlife and Fisheries

Past Actions: Impacts to general wildlife and game species, such as loss of habitat and noise have resulted from OHV use and recreation, wildland fire, surface disturbance created during exploration, mining and construction activities, livestock grazing, agriculture, and general activities associated with the town of Yerington (i.e., construction, vehicle use, industry etc.). Reclamation of areas disturbed from past actions, and natural revegetation have helped reduce the impacts on habitats for wildlife and game species.

Present Actions: Impacts to general wildlife and game species, such as the loss of habitat could result from OHV use and recreation, exploration and mining activities, construction and maintenance activities, livestock grazing, and agriculture. Exploration and construction activities include implementation of environmental protection measures to minimize disturbance to general wildlife and game species or their habitat in the CESA. Therefore, incremental cumulative impacts to wildlife are considered to be low to moderate.

RFFAs: Impacts to general wildlife and game species from RFFAs are considered to be similar to those described for present actions with the addition of potential wildland fires. Disturbance of general wildlife and game species and their habitat would be minimized through implementation of environmental protection measures. Impacts to general wildlife and game species are considered to be low to moderate.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. The cumulative impact on general wildlife and game species from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs is minimal (excluding wildland fire) within the CESA. The impact would remain low to moderate because the present actions and RFFAs should implement environmental protection measures to minimize disturbance to general wildlife and game species or their habitat. In addition, reclamation and natural revegetation will help alleviate impacts to general wildlife and game species and their habitat.

The Proposed Action area is currently not occupied by bighorn sheep and is likely not to be occupied by mule deer, pronghorn antelope, or black bear. Habitat disturbances for these species resulting from the Proposed Action are minimal; therefore, there are no cumulative impacts related to these species.

5.4.8 Migratory Birds

Past Actions: Impacts to migratory birds, such as loss of habitat and noise have resulted from OHV use and recreation, wildland fire, surface disturbance created during exploration, mining and construction activities, livestock grazing, agriculture, and general activities associated with the town of Yerington (i.e., construction, vehicle use, industry etc.). Reclamation of areas disturbed from past actions and natural revegetation have helped reduce the impacts on habitats for the migratory birds listed in Appendix B.

Present Actions: Impacts to migratory birds, such as the loss of habitat or the destruction of active nests or disturbance of the breeding behavior of migratory bird species could result from OHV use and recreation, exploration and mining activities, construction and maintenance activities, livestock grazing and agriculture. Exploration and construction activities include implementation of environmental protection measures to minimize disturbance to migratory birds or their habitat in the CESA. Therefore, incremental cumulative impacts to migratory birds are considered to be low to moderate.

RFFAs: Impacts to migratory birds from RFFAs are considered to be similar to those described for present actions with the addition of potential wildland fires. Disturbance of migratory birds and their habitat would be minimized through implementation of environmental protection measures. Impacts to migratory birds are considered to be low to moderate.

Cumulative Impact: The Proposed Action is analyzed in Chapter 4. For all of the species listed in Appendix B, the Proposed Action would have little or no impact on local or regional populations. Therefore, there would be no cumulative impact for those species when added to the impacts of the past, present, and RFFAs. Impacts to these local and regional populations would remain low to moderate.

5.5 No Action Impact Analysis

Potential impacts to resources from the No Action Alternative were analyzed in Chapter 4 of this EA. Based on the Chapter 4 impacts analysis, there would be no cumulative impacts from the incremental impact of the No Action Alternative when added to the past action, present action, and RFFAs.

6 CONSULTATION AND COORDINATION

This EA was prepared at the direction of the BLM, Carson City, Nevada, by Enviroscientists, Inc., under a contract with MIM. The following is a list of individuals responsible for preparation of the EA.

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Edwina Okoh	Invasive, Nonnative Species, Rangeland Resources, Soils, and Vegetation
Sara Thorne	Special Status Species, Wildlife and Fisheries, and Migratory Birds

6.2 Persons, Groups, and Agencies Consulted

The following individuals, organizations, and agency representatives were contacted during the preparation of this EA.

Nevada Division of Environmental Protection
Nevada Department of Wildlife
U.S. Fish and Wildlife Service
Yerington Paiute Tribe

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APPENDIX A

BLM SENSITIVE SPECIES LIST FOR THE ANN MASON EXPLORATION PROJECT

APPENDIX A

BLM sensitive species expected, or found in or adjacent to the Project Area are listed below (BLM 2003).

Golden eagle (*Aquila chrysaetos*)
Prairie falcon (*Falco mexicanus*)
Peregrine falcon (*Falco peregrinus*)
Ferruginous hawk (*Buteo regalis*)
Swainson's hawk (*Buteo swainsoni*)
Burrowing owl (*Athene cunicularia*)
Loggerhead shrike (*Lanius ludovicianus*)
Vesper sparrow (*Pooecetes gramineus*)
Gray Vireo (*Vireo vicinior*)
Western pipistrelle bat (*Pipistrellus hesperus*)
Pallid bat (*Antrozous pallidus*)
Spotted bat (*Euderma maculatum*)
Townsend's big-eared bat (*Corynorhinus townsendii*)
Big brown bat (*Eptesicus fuscus*)
Brazilian free-tailed bat (*Tadarida brasiliensis*)
Long-eared myotis (*Myotis evotis*)
Fringed myotis (*Myotis thysanodes*)
California myotis (*Myotis californicus*)
Small-footed myotis (*Myotis ciliolabrum*)
Long-legged myotis (*Myotis volans*)
Desert bighorn sheep (*Ovis canadensis nelsoni*)



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

August 4, 2009
File No. 2009-SL-0417

Ms. Sara Thorne
Environmental Specialist
Enviroscientists, Incorporated
4600 Kietzke Lane, Suite C129
Reno, Nevada 89502

Dear Ms. Thorne:

Subject: Species List Request for the Ann Mason Exploration Project, Lyon
County, Nevada

This responds to your letter received on July 16, 2009, requesting a species list for the Ann Mason Exploration Project in Lyon County, Nevada. To the best of our knowledge, no listed, proposed, or candidate species occur in the subject project area. This response fulfills the requirements 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 (Act), as amended, for projects that are authorized, funded, or carried out by a Federal agency.

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.

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For a list of sensitive species by county, visit Heritage's website at 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 775-688-1500).

Because wetlands, springs, or streams occur in the vicinity of the project area, 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 Corps of Engineers (COE) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the COE's Regulatory Section, 300 Booth Street, Room 2103, Reno, Nevada 89509, (775) 784-5304, regarding the possible need for a permit.

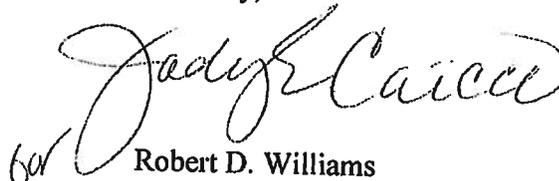
Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703 *et seq.*), we are concerned about potential impacts the proposed project may have on migratory birds in the area. Given these 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.

Ms. Sara Thorne

File No. 2009-SI-0417

Please reference File No. 2009-SL-0417 in future correspondence concerning this species list. If you have any questions regarding this correspondence or require additional information, please contact me or Chad Mellison at (775) 861-6300.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert D. Williams". The signature is written in dark ink and is positioned above the printed name.

Robert D. Williams
State Supervisor

APPENDIX B

**MIGRATORY BIRD SPECIES OF CONCERN
FOR THE ANN MASON EXPLORATION
PROJECT**

APPENDIX B

Migratory bird Species of Concern that may occur within the Project Area are listed below as per BLM Instruction Memorandum-IM 2008-050 dated December 18, 2007 (BLM 2007).

Golden eagle (*Aquila chrysaetos*) - foraging only, no nesting habitat available
Prairie falcon (*Falco mexicanus*) - foraging only, no nesting habitat available
Peregrine falcon (*Falco peregrinus*) - foraging only, no nesting habitat available
Northern harrier (*Circus cyaneus*) - foraging only, no nesting habitat available
Ferruginous hawk (*Buteo regalis*)
Swainson's hawk (*Buteo swainsoni*) - foraging only, no nesting habitat available
Burrowing owl (*Athene cunicularia*)
Loggerhead shrike (*Lanius ludovicianus*)
Brewer's sparrow (*Spizella breweri*)
Sage sparrow (*Amphispiza belli*)
Gray Vireo (*Vireo vicinior*)