1.0 APPLICANT-COMMITTED ENVIRONMENTAL PROTECTION MEASURES

Gold Standard Ventures (US) Inc. (GSV) has committed to the following applicant-committed environmental protection measures (ACEPMs) to address potential effects to air, land, water, wildlife, cultural resources, and human health and safety and to prevent undue or unnecessary degradation of the environment as part of the proposed standard operating procedures. ACEPMs are prepared by the proponent and included as part of the Proposed Action. These measures are outlined by resource below.

1.1 General Applicant-Committed EPMs

GE-1: Speed limits would be posted at 35 miles per hour (mph) on haul roads and 45 mph on access roads. When road conditions are poor, drivers would be required to travel at reduced speeds to ensure safe passage to and from the mine site as per Mine Safety and Health Administration (MSHA) regulations. Speed limits would be reduced in some areas of the access road to enhance safety based on curve radius, slope, or other design factors. Other areas of the access road may have reduced speed for other regulatory reasons (like wildlife protection). The final access road speed limit would be set by the engineering guidance of the predominant road design manual (preliminarily Elko County, as it is the most detailed and restrictive versus Bureau of Land Management [BLM] and Eureka County) and abide by applicable regulations including state, federal, and local.

GE-2: Speed limits within the open pit and inside fenced process areas would be based on site-specific safety requirements and would be set based on factors such as ramp slopes, ramp widths, and curve radius and abide by applicable regulations including state, federal, and local.

GE-3: GSV would schedule deliveries and shift change to minimize traffic during school bus pick-up and drop-off times.

GE-4: New hire and annual refresher training for all employees and contractors would include wildlife protection training that specifically addresses the commitment of GSV to implement the protection program and the need for all employees to avoid disturbance of wildlife, especially during breeding seasons. The training would include discussion of mitigation measures to protect Lahontan cutthroat trout (*Oncorhynchus henshawi*). GSV would work with the Nevada Department of Wildlife (NDOW) and BLM in the development of training materials.

GE-5: Site-specific training would also include internal contact numbers for reporting sick or injured animals in the Plan of Operations (Plan) boundary, as well as reporting procedures per NDOW's Industrial Artificial Pond Permit requirements including reporting by the next business day any mortalities of wildlife species.

GE-6: Fences surrounding the active mine area would be a continuous barbed-wire fence constructed to BLM and NDOW standards. Surrounding the process pond area, fences would be constructed to meet applicable permits.

GE-7: All lined ponds would be constructed with escape ramps consisting of textured liner to assist in a safe footing during egress, should any wildlife manage to gain access and inadvertently fall into one of the ponds.

GE-8: Leach lines on the heap leach pad (HLP) would be managed to preclude surface ponding on the heap surface that could attract avian or terrestrial resources to potentially toxic leach solutions as described in the Water Pollution Control Permit (WPCP) issued by the Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR).

GE-9: Hazardous material storage would include secondary containment to preclude contamination of surface water or groundwater resources that animals could access.

GE-10: During all phases of the Project, all food, waste, and other trash would be placed in containers with lids or covers that can be closed to discourage scavenging by wildlife.

GE-11: GSV would prohibit employees, contractors, and subcontractors from feeding wildlife or making food available for scavenging wildlife.

GE-12: All contract and full-time workers would be required to adhere to all Nevada driving laws as specified under Nevada Revised Statutes (NRS), including, but not limited to: General Traffic Laws (NRS 484A); Rules of the Road (NRS 484B); Driving Under the Influence (NRS 484C); Equipment & Loads (NRS 484D); and Accidents (NRS 484E).

GE-13: GSV would provide vans or buses for transport of most employees to/from the site. Use of private vehicles on the mine site would be limited. Staff of GSV may have company vehicles assigned to them.

GE-14: Maintenance of the access road to the Project would be done in cooperation with the Elko County Road Department. The mine would provide resources as required to supplement the county in any required upgrades and maintenance of the road to ensure safe access to and from the mine site. A cooperative maintenance agreement would be developed between GSV, Elko County, and the BLM which defines the responsibilities and services to be provided.

GE-15: All shipping of petroleum products (gasoline and diesel fuels) and other hazardous chemicals to the site would be by an approved transport company on a regular schedule using a predetermined route. Pilot guide vehicles would be utilized when necessary to comply with applicable U.S. Department of Transportation regulations. All unloading and transfers would be done by trained personnel.

GE-16: GSV would schedule deliveries to minimize traffic during holidays and weekends when recreational use along the access road is higher.

GE-17: Site access to the Project would be restricted to employees and authorized visitors for safety and security reasons and compliance with applicable regulations.

GE-18: Monitoring of the stability of the open pit would be performed in accordance with requirements under the WPCP and Reclamation Permit and would include daily visual stability monitoring of the highwall and the crest area behind the highwall for any signs of movement. If any signs of instability are detected, geotechnical engineers would inspect the highwall and advise next steps that would be reported to the BLM and NDEP.

GE-19: GSV would implement regular fence inspections/maintenance to ensure livestock do not get into the active mining area, and GSV would work with the BLM and permittee to resolve any unexpected issues that may arise.

GE-20: GSV has developed compensation agreements with grazing permittees to ensure no economic impact would occur either during operations or post-closure.

GE-21: Except for the open pits, all the surface disturbance associated with the mine components would be reclaimed according to the Reclamation Plan in Volume I Section 3 of the Plan.

GE-22: Fence construction would maintain a 200-foot buffer around known and encountered least phacelia (*Phacelia minutissima*) populations to the extent that safety and terrain allows.

GE-23: Prior to ground disturbance, protocol-level special status plant surveys approved by the BLM would be conducted to confirm presence or absence of special status species. If special status plants are identified during the surveys, GSV would coordinate with the BLM to identify the appropriate mitigation.

GE-24: Springsnail (*Pyrgulopsis* sp.) populations would be monitored through approved Monitoring and Contingency Mitigation Plan.

1.2 Air Quality

AQ-1: GSV would comply with State air permits and any stipulations outlined in the Record of Decision. GSV would also implement a Fugitive Dust Control Plan for all mine operations and Project access roads. In general, the fugitive dust control program would provide for water application on haul roads and other disturbed areas; chemical dust suppressant application (such as lignin sulfate or magnesium chloride) where appropriate; and other dust control measures, as per accepted and reasonable industry practice. Also, disturbed areas would be seeded with an interim seed mix to minimize fugitive dust emissions from unvegetated surfaces where appropriate.

AQ-2: The dust generated from the use of roads and excavation activities would be minimized to the extent reasonable and practicable by minimizing vehicular traffic, application of approved dust suppressants on gravel roads, including Elko County gravel access roads, and using prudent vehicle speeds.

AQ-3: Fugitive emissions in the process area would be controlled at the crusher and conveyor drop points using approved dust suppression equipment where necessary. Other process areas requiring dust and/or emission controls would include the adsorption, desorption, and recovery (ADR) plant, refinery, generators, and the laboratory.

AQ-4: Appropriate emission-control equipment would be installed and operated in accordance with an NDEP-issued Air Quality Operating Permit.

AQ-5: Equipment and machinery would be maintained in good working condition to minimize emissions. Equipment and machinery would use Tier 4 Final non-road engines or better for all major equipment when practicable.

AQ-6: Small amounts of volatile organic compound fugitive emissions likely would result from the on-site storage of petroleum-based fuels. These emissions would be mitigated by using best management practices (BMPs) such as regular inspections and maintenance of storage tanks, placing tight fitting lids on all containers and properly labeling the contents of storage tanks and containers, ensuring trained personnel would be present during all fueling or fuel transfer operations, and using light-colored paint for tank exteriors as described in the Class II Air Permit (AP1041-4525).

AQ-7: Effects from emergency diesel generators would be mitigated by using engines that are compliant with the appropriate New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants requirements for reciprocating internal combustion engines. Diesel engines would be maintained and operated in accordance with the manufacturer's specifications. Effects also would be mitigated by using ultra-low sulfur diesel fuel with a sulfur content of 15 parts per million or lower.

1.3 Water Resources

1.3.1 Groundwater

GWQ-1: Mine processing components would be designed, constructed, and operated in accordance with NDEP regulations and include engineered liner systems.

GWQ-2: The process facilities would be zero-discharge, and the heap leach ponds would have an engineered liner and leak detection system in accordance with Nevada Administrative Code (NAC) 445A design criteria.

GWQ-3: GSV would sample groundwater on a quarterly basis from monitoring wells. Groundwater sampling would be conducted using NDEP and U.S. Environmental Protection Agency-approved sampling methodologies. Groundwater monitoring well locations are described in the Plan. Sampling would be consistent with NDEP Profiles I and III, pursuant to the WPCP.

GWQ-4: Mineral exploration and development drill holes, monitoring and observation wells, and production dewatering wells would be properly abandoned per state regulations, including NAC 534, following completion of their functions, to prevent migration of potential contaminants to groundwater.

GWQ-5: As additional groundwater data are collected over the life of the mine, the groundwater model would be updated per requirements in the NDEP BMRR Water Pollution Control Permit, and the results would be used to revise the monitoring or mitigation measures as appropriate.

GWQ-6: GSV has prepared a Monitoring and Contingency Mitigation Plan to monitor water quality and quantity, and to provide a contingent mitigation plan if impacts to groundwater are detected during monitoring.

1.3.2 Surface Water Quality

SWQ-1: GSV would monitor and sample surface water on a quarterly basis. Sampling would be consistent with NDEP Profiles I and III, pursuant to the WPCP.

SWQ-2: Water produced by dewatering would be processed through a water treatment plant and cooling tower to meet Nevada Profile I and Humboldt River Basin water quality standards prior to being discharged into an unnamed tributary of Dixie Creek.

SWQ-3: The discharge point from the water treatment plant and cooling tower would be designed with plunge pools and energy dissipation to protect the receiving drainages from scour and erosion, protecting the habitat and surface water quality in the unnamed tributary and lower Dixie Creek.

SWQ-4: GSV has prepared a Monitoring and Contingency Mitigation Plan to monitor water quality and quantity, and to provide a contingent mitigation plan if impacts to surface water are detected during monitoring.

1.4 Cultural and Paleontological Resources

1.4.1 Cultural Resources

CR-1: Avoidance is the BLM-preferred management response for preventing impacts to historic properties (a historic property is any prehistoric or historic site eligible for listing in the National Register of Historic Places) or unevaluated cultural resources. If avoidance is not possible, or is not adequate to prevent adverse effects, GSV would undertake prescribed data recovery from such sites. Development of a treatment plan, data recovery, archaeological documentation, and report preparation would be based on the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, 48 Code of Federal Regulations (CFR) 44716 (September 29, 1983), as amended or replaced. If an unevaluated site could not be avoided, additional information would be gathered, and the site would be evaluated. If the site does not meet eligibility criteria, as defined by the Nevada State Historic Preservation Office, no further cultural work would be performed. If a site meets eligibility criteria, a data recovery plan or appropriate mitigation would be completed.

CR-2: A treatment plan would be developed, and mitigation activities completed and approved by the BLM and Nevada State Historic Preservation Office prior to construction activities in any eligible cultural sites.

CR-3: If previously unidentified cultural resources are discovered or an unanticipated impact situation occurs, all project-related activities within 100 meters (or approximately 328 feet) of the discovery/impact would cease immediately, and GSV would secure the location to prevent vandalism or other damage and would notify the BLM Authorized Officer immediately.

CR-4: Cultural monitors from affected Tribes would be notified of cultural mitigation activities and initial ground disturbance with sufficient advance notice to be on-site during these activities.

CR-5: Pursuant to 43 CFR 10.4(g), GSV 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.

CR-6: Any cultural resource discovered by the permit holder, or any person working on their behalf, during activities on federal land would be immediately reported to the BLM Authorized Officer by telephone, with written confirmation. The permit holder would suspend all operations in the immediate area of such discovery and protect it until an evaluation of the discovery can be made by the BLM Authorized Officer. This evaluation would determine the significance of the discovery and what mitigation measures are necessary to allow activities to proceed. The holder is responsible for the cost of evaluation and mitigation. Operations may resume only upon written authorization to proceed from the BLM Authorized Officer.

1.4.2 Paleontology

PR-1: All Project personnel would receive training that covers the importance of paleontological resources and that if any potential fossils are discovered during the life of the Project, the fossils should be left in place untouched, the BLM would be notified, and a qualified BLM-permitted paleontologist would be employed to assess the discovery and make further recommendations.

PR-2: If any significant paleontological resource is discovered by the Project personnel, or any person working on their behalf, during activities on federal lands, it would be immediately reported to the BLM Authorized Officer by telephone, with written confirmation. The permit holder would suspend all operations in the immediate area of such discovery and protect it until an evaluation of the discovery can be made by the BLM Authorized Officer. This evaluation would determine the significance of the discovery and what mitigation measures are necessary to allow activities to proceed. The permit holder is responsible for the cost of evaluation and mitigation. Operations may resume only upon written authorization to proceed from the BLM Authorized Officer.

1.5 Erosion and Sediment Control

SWM-1: GSV would manage stormwater discharges in accordance with provisions set forth in the NDEP Stormwater General Permit NVR300000 and would submit a Stormwater Pollution Prevention Plan to the NDEP to ensure that appropriate stormwater BMPs would be employed in the mine permit area. In accordance with NVR300000, BMPs for the Project would include “erosion and sediment controls, conveyance, stormwater diversions, and treatment structures, and any procedure or facility used to minimize the exposure of pollutants to stormwater or to remove pollutants from stormwater.”

- Erosion and sediment control structures such as diversions (e.g., runoff interceptor trenches, check dams, or swales), siltation or filter berms, filter or silt fences, filter strips, sediment barriers, and/or sediment basins.
- Collection and conveyance structures, such as rock-lined ditches and/or swales.
- Vegetative soil stabilization practices such as seeding, mulching, and/or brush layering and matting.
- Non-vegetative soil stabilization practices such as rock and gravel mulches, jute and/or synthetic netting.
- Slope stabilization practices such as slope shaping, and the use of retaining structures and riprap.
- Infiltration systems such as infiltration trenches and/or basins.

SWM-8: Following construction activities, areas such as cut and fill slopes and embankments and growth media/cover stockpiles would be seeded as soon as practicable and safe.

SWM-9: Concurrent reclamation would be maximized to the extent practicable to accelerate revegetation of disturbed areas. All sediment and erosion control measures would be routinely inspected, and maintenance/repairs performed, as needed. Concurrent reclamation would be conducted on inactive mine and exploration areas when reclamation is practical and safe, and the area is no longer needed.

SWM-10: The dust generated from the use of roads and excavation activities would be minimized to the extent reasonable and practicable by minimizing vehicular traffic, application of water and/or approved dust suppressants on gravel roads and using prudent vehicle speeds.

SWM-11: Collected sediments in the sediment control structures would be analyzed prior to clean out of these structures and the contained sediments would be managed in compliance with NDEP or Nevada Division of Health standards. Sediments exceeding levels in these standards would be transported off-site to an appropriate waste management facility. If levels are below these standards, the sediments would be relocated to either the HLP or the waste rock disposal facilities (WRDFs).

SWM-12: Culverts would be routinely inspected for vegetation and debris blockages and erosion issues.

SWM-13: GSV would maintain road surface drainage systems to intercept, collect, and remove water from the road surface and surrounding slopes to reduce concentrated flow in ditches and culverts.

ESC-1: The surfaces of the growth media stockpiles would be shaped after construction with overall slopes of 3 feet horizontal to each 1 foot of vertical (3H:1V) to minimize erosion.

ESC-2: To further minimize wind and water erosion, the growth media stockpiles would be seeded after shaping with an interim seed mix developed in coordination with the BLM.

ESC-3: Diversion channels and/or berms would be constructed around the growth media stockpiles, as needed, to prevent erosion from overland runoff.

ESC-4: BMPs such as straw wattles or staked straw bales would be used as necessary to contain sediment during precipitation events.

ESC-5: Access roads would be monitored for erosion. Any ruts exceeding 3 inches in depth or 25 feet in length would be corrected immediately.

1.6 Noxious Weeds, Invasive, and Non-native Species

NWIS-1: A Noxious and Invasive Species Plan (Appendix I of the Plan) would be implemented during construction and mining operations in consultation with the BLM and Elko County. The plan contains management strategies and provisions for annual monitoring and treatment. The results from annual monitoring would be the basis for updating the plan and developing annual treatment programs.

NWIS-2: A noxious weed survey would be completed prior to any earth-moving disturbance. Areas of concern for noxious weeds would be flagged by a weed specialist or qualified biologist to alert all personnel to avoid those areas, as practicable.

NWIS-3: Information and training regarding noxious weeds management and identification would be provided to all personnel affiliated with the implementation and maintenance of the Project. Training would include the avoidance of spraying herbicides in the vicinity of listed sensitive species habitat.

NWIS-4: All vehicles and heavy equipment that may have been exposed to noxious weeds would be inspected, and if required, cleaned with a power or high-pressure washer prior to entering or leaving the mine permit area. Vehicle cleaning would minimize the transport of vehicle-borne weed seed, roots, or rhizomes.

NWIS-5: To minimize the transport of soil-borne noxious weed seeds, roots, or rhizomes, infested soils or material would be stockpiled adjacent to the areas from which they were stripped. Appropriate measures would be taken to avoid wind or water erosion of the affected stockpile.

NWIS-6: All interim and final seed mixes, hay, and straw products would be certified weed-free.

NWIS-7: Weed monitoring would be conducted for the life of the operation or until the site is released and the reclamation financial surety is released. If the spread of noxious weeds is noted, weed control procedures would be determined in consultation with BLM personnel and would follow BLM handbooks and applicable laws and regulations. GSV would coordinate with the Elko County Natural Resource Department regarding weed control efforts.

NWIS-8: As detailed in the Noxious and Invasive Species Plan (Appendix I of the Plan), weed control would be conducted by a licensed applicator who would submit a Pesticide Use Proposal for BLM approval.

1.7 Safety and Fire Protection

SFP-1: The Project would operate in conformance with all MSHA safety regulations (30 CFR 1–199). Site access would be restricted to employees and authorized visitors. Fire protection equipment and a fire protection plan would be established for the mine permit area in accordance with MSHA, State Fire Marshal, building codes, and commercial insurance standards. The primary focus of the fire protection plan typically includes engineering and administrative controls that would be developed to reduce the risk of fire and the safety measures that would be implemented to respond to a fire in a manner that first protects the health and safety of all people working at the mine; second, protects against environmental impacts; and third, protects the mine's physical assets.

SFP-2: The raw water and fire suppression tank would contain a minimum volume of firewater for fire emergency (volume determined by the local fire districts) and would be in the southwestern portion of the mine fence line. Water in the tank would have a separate plumbing system from the potable water tank and would be designated for fire suppression use only. Fire suppression would also be provided by the Pine Valley Volunteer Fire Department, the Elko Fire Department, or the Elko County Fire District.

SFP-3: GSV would take steps to prevent wildland fires by ensuring that hand tools and a fire extinguisher are part of vehicle kits. Employees and contractors would be instructed to avoid parking over vegetation. Water trucks or other equipment would be used in the event of a fire when and where practicable. In the event of a wildland fire, Elko County Fire District and Elko BLM would be notified immediately.

1.8 Hazardous Materials and Solid Waste

HMSW-1: GSV would construct, operate, and close the Class III waivered industrial landfill in accordance with NAC 444.731 through 444.737. Signs would be installed at the landfill reminding employees of appropriate disposal practices.

HMSW-2: GSV would develop a Radiation Protection Plan that describes procedures for the safe identification, receipt, storage, transport, and disposal of radioactive materials, which minimize risk to staff, public and the environment, in compliance with regulatory permits and agencies that govern the handling and disposal of radioactive materials.

HMSW-3: A Solid and Hazardous Waste Management Plan (SHWMP) would be developed that would include employee training on the appropriate landfill disposal practices such as the allowable waste that can be placed in the landfill, management of used oil filters, oily rags, fluorescent light bulbs, aerosol cans, and other regulated substances. Any liquid waste would be specifically banned from disposal in the on-site landfill and would be managed under the SHWMP in full compliance with Resource Conservation and Recovery Act (RCRA) and NDEP regulations.

HMSW-4: Hazardous materials and wastes would be transported, stored, and used in accordance with federal, state, and local regulations. Employees would be trained in the proper transportation, storage, and use of hazardous materials and the management of solid and hazardous waste per the SHWMP and Radiation Protection Plan. The Emergency Response and Spill Contingency Plan (see Appendix G of the Plan) has been developed, which provides the information required to manage spills both inside and outside of containment areas.

HMSW-5: All shipping of petroleum products (i.e., gasoline and diesel fuels) and other regulated chemicals to the site would be by an approved transport company on a regular schedule using a predetermined route. All unloading and transfer would be performed by trained personnel.

HMSW-6: The term "hazardous materials" is defined in 49 CFR 172.101; hazardous substances are defined in 40 CFR 302.4 and the Comprehensive Environmental Response, Compensation, and Liability Act as amended by the Superfund Amendments and Reauthorization Act (SARA) Title III, also known as the Emergency Planning and Community Right to Know Act. Hazardous materials would be transported to the mine permit area by Department of Transportation (DOT)-regulated transporters and stored on-site in DOT-approved containers. Spill containment structures would be provided for storage containers. Hazardous waste would be managed in accordance with regulations identified in 40 CFR 262 (Standards Applicable to Generators of Hazardous Waste).

HMSW-7: Hazardous materials and substances that may be transported, stored, and used by the Project in quantities less than the Threshold Planning Quantity designated by SARA Title III for emergency planning include blasting components, petroleum products, and small quantities of solvents for laboratory use. The only chemicals on-site that would exceed the Threshold Planning Quantity are mercury and cyanide. Small quantities of other hazardous materials, such as materials that are contained in commercially produced paints, office products, and automotive maintenance products, would also be managed by mine personnel.

HMSW-8: Blasting components, including ammonium nitrate fuel oil (ANFO), would be stored on site. Prill (without fuel oil) would be stored in a silo. Explosive agents, boosters, and blasting caps would be stored away from the plant site within a secured explosives storage area. All explosive materials would be stored in compliance with MSHA, Nevada State Mine Inspector's regulations, and Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF) and U.S. Department of Homeland Security (DHS) requirements.

HMSW-9: Management of hazardous materials for the Project would comply with all applicable federal, state, and local requirements, including the inventorying and reporting requirements of SARA Title III.

HMSW-10: All petroleum products and reagents would be stored in aboveground tanks within a secondary containment area capable of holding 110 percent of the volume of the largest vessel in the area. The Emergency Response and Spill Contingency Plan is reviewed and updated regularly and whenever major changes are made in the management of these materials. Inspections, maintenance schedules and procedures are set forth in sections of the Spill Contingency Plan. All employees involved in the transport or use of petroleum products at the Project or involved in maintenance of petroleum storage and dispensing systems would receive training and instruction in the Spill Contingency Plan.

HMSW-11: Fuel and oil for diesel- and gas-powered equipment would be stored in aboveground, sealed tanks generally in the maintenance facilities area. The tanks would be installed in lined or concrete containments. The storage area would be surrounded by berms or containment walls designed to provide secondary containment capacity of 110 percent of the largest vessel in the containment in case of rupture. Surface piping would lead from each tank to the fuel dispensing area. The refueling hoses would be equipped with overflow prevention devices, and refueling would occur on concrete drip pads. Monitoring of these facilities are described in the Monitoring Plan (Appendix H of the Plan).

HMSW-12: Hazardous waste would be managed in the designated storage facility prior to their shipment to an off-site licensed disposal facility per state and federal RCRA regulations. These materials may include waste paints and thinners. Spent cleaning solvents and used oils would be returned to recycling facilities. Used oil and lubricants would be collected and hauled off-site by a buyer/contractor for recycling. Solvents would be collected by a contractor and recycled or disposed of off-site.

HMSW-13: On-site equipment and supplies including bagged absorbent, booms, weirs, and tools would be readily available for timely deployment by trained personnel, and applicable regulations posted conspicuously regarding reporting spills and emergency procedures.

HMSW-14: Designated personnel would be properly instructed in the operation and maintenance of equipment to prevent and clean-up spills. GSV's Environmental Manager would also be responsible for oil spill prevention and training employees with the spill prevention and response program and procedures.

1.9 Growth Media Salvage and Storage

GMS-1: Suitable growth media would be salvaged and stockpiled during the development of the mine open pit, and during construction of the WRDFs, heap leach facilities, and other mine facility areas.

GMS-2: Growth media would be stockpiled within proposed disturbance areas. Stockpiles would be located where they would be optimally situated for post-mining reclamation. The surfaces of the stockpiles would be shaped after construction with slopes no steeper than 3H:1V to reduce erosion.

GMS-3: To further minimize wind and water erosion, the growth media stockpiles would be seeded after shaping with an interim seed mix developed in coordination with the BLM.

GMS-4: Diversion channels or berms would be constructed around growth media stockpiles as needed to prevent erosion from overland runoff. BMPs such as straw wattles or staked straw bales would be used as necessary to contain sediment during precipitation events.

1.10 Wildlife

WILD-1: All artificial bodies of water that regularly contain any chemical in solution at levels lethal to wildlife (e.g., barren and pregnant solution ponds) would be covered or contained in a manner that would prevent access by frogs, birds, bats, and other small mammals in accordance with the NDOW Industrial Artificial Pond Permit.

WILD-2: If historic workings are discovered, underground openings would be secured as per consultation with BLM and NDOW. This effort could include the installation of bat gates. BLM would be consulted prior to the disturbance or removal of historic workings with habitat potential.

WILD-3: Process facilities including the warehouse/shop, office, laboratory, ADR plant, crushing facilities, HLP, and ponds would be fenced to specifications outlined in the BLM Handbook 1741-1 (BLM 1989), as applicable. Solution ponds would be fenced, in accordance with the required NDOW Industrial Artificial Pond Permit, with eight-foot-high chain-link or field fencing.

WILD-4: Primary pond liners would be constructed of textured geomembrane to facilitate wildlife egress.

WILD-5: Operators would be trained to monitor the mining and process areas for the presence of larger wildlife, such as greater sage-grouse (*Centrocercus urophasianus*), mule deer (*Odocoileus hemionus*), and pronghorn (*Antilocapra americana*) using BLM- and NDOW-provided guidance. Mortality information for any wildlife would be collected and reported to the NDOW, as necessary.

WILD-6: GSV would establish wildlife protection policies that prohibit feeding or interaction with wildlife within the Plan boundary. All trash would be placed in covered containers to prevent wildlife from getting into trash receptacles and to avoid trash from being wind-blown into surrounding areas. Activities prohibited would include, but not be limited to, feeding, chasing, approaching, luring, calling or other actions that could result in habituating wildlife to approach human activity.

WILD-7: New hire and annual refresher training for all employees and contractors would include wildlife protection training that specifically addresses the commitment of GSV to implement the protection program and the need for all employees to avoid disturbance of wildlife.

WILD-8: Design features would be considered for buildings and other structures that minimize nest building by ravens.

WILD-9: To reduce effects on bats and other wildlife, lights would be selected and sited, and the light they produce directed, so that they illuminate only the area needed to support a particular task (e.g., parking, driving, walking, working) while maintaining MSHA safety requirements. To the extent possible within safety parameters, lighting would be directed and shielded to reduce the backlight, uplight, and glare (BUG) rating as described in BLM Technical Note 457 (BLM 2023). Additionally, the minimum level of energy efficient lighting acceptable for MSHA safety requirements would be used.

WILD-10: If emergency generators are employed, noise muffling devices and practices would be implemented to reduce disturbance.

1.11 Migratory Birds

MB-1: If surface-disturbing activities occur during the avian breeding and nesting season (March 15 through July 31), GSV would commission a BLM-qualified avian biologist to survey in accordance with BLM policy to determine if nesting activity is occurring around proposed disturbance. Surveys would be limited to the footprint of the area of disturbance and an additional buffer of at least 300 feet. If an active nest is found, a species-specific buffer would be established until a qualified avian biologist confirms the nest has become vacant. Surveys for migratory birds would be valid for 14 days. If the disturbance does not occur within 14 days of the survey, another survey would be conducted. Surveys would be conducted in accordance with BLM policy for migratory bird nest clearance surveys.

1.12 Raptors

GEBE-1: Annual raptor surveys would be conducted for an area inclusive of the mine permit area and its two-mile radius for all raptors and a 10-mile-radius for golden eagles (*Aquila chrysaetos*) and bald eagles (*Haliaeetus leucocephalus*). Survey buffers may change based on coordination with the BLM and U.S. Fish and Wildlife Service (USFWS). The survey would be performed in accordance with the USFWS's Interim Golden Eagle Technical Guidance (Pagel et al. 2010) and the Interim Golden Eagle Breeding Survey Recommendations in Nevada (USFWS 2023). This guidance states that a project should be surveyed at least twice for nesting raptors during the breeding season and that surveys should be conducted at least 30 days apart. Other migratory bird surveys would also be conducted, and raptors or their nests may be discovered during these surveys and would be appropriately protected.

GEBE-2: GSV would prepare an Eagle Conservation Plan (ECP) to assess risks to eagles posed by the Project and develop appropriate environmental protection measures to minimize risks. The ECP would be submitted to the BLM and USFWS for review prior to commencement of construction.

GEBE-3: GSV would remove carcasses from all roadways within the Plan boundary and dispose of them appropriately to reduce the risk of eagle vehicle collisions.

GEBE-4: Raptor nest building activities or behavior of nesting raptors would be identified during annual surveys. The raptor nesting season is defined as March 15 through July 31 in the Elko District, although golden eagle breeding season can occur from December 15 through July 31. Prior to the issuance of an Eagle Take Permit by USFWS, GSV would establish a one-mile activity buffer around in-use golden eagle and some raptor nests and a two-mile activity buffer around in-use golden eagle nests for blasting activity. GSV would coordinate with the BLM biologist and NDOW on appropriate avoidance distances for other raptors, as determined by the species identified. The standard buffer for golden eagles may decrease if, in agreement with the BLM, USFWS, and NDOW, the nest is out of the line of sight of the construction activities. The avoidance measures would be in place until a BLM-qualified biologist has determined the young have fledged. The start and end dates of the seasonal restriction may be based on site-specific information, such as elevation and winter weather patterns, which affect breeding chronology. Surveys would be conducted in accordance with BLM policy for migratory bird nest clearance surveys.

GEBE-5: Standard raptor protection designs as outlined by the Avian Power Line Interaction Committee (APLIC 2006, 2012) would be incorporated into the construction of power lines.

1.13 Big Game

BG-1: Established mule deer and pronghorn trails would be identified by BLM-qualified biologists, and NDOW would be consulted for identification of big game crossing points. Warning signs would be posted at appropriate locations along the haul roads to warn drivers of crossing points.

BG-2: Berms constructed along haul roads would include openings at major trails to encourage road crossing at these locations where signage can warn drivers. Berms would be constructed per MSHA regulations.

1.14 Greater Sage-grouse

GRSG-1: GSV would continue to conduct lek attendance monitoring annually from construction through final reclamation following NDOW's monitoring protocols for leks identified by the BLM and NDOW. All annual monitoring data would be provided to NDOW no later than June 1.

GRSG-2: GSV would implement the Nevada Conservation Credit System (CCS) to mitigate habitat impacts from the Project to ensure an overall benefit for the species, while allowing for mine development.

GRSG-3: GSV would implement applicable Required Design Features of the 2015 Approved Resource Management Plan Amendment (ARMPA) when practicable. Chapter 2 of the ARMPA states "However, this ARMPA does not repeal valid existing rights on public lands. A valid existing right is a claim or authorization that takes precedence over the decisions developed in this plan (ARMPA)." Therefore, GSV would adhere to the ARMPA for the Project to the extent practical while maintaining their valid existing rights. The 2015 ARMPA Defines Valid Existing Rights as: "Documented legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include fee title ownership, mineral rights, rights-of-way, easements, permits, and licenses. Such rights may have been reserved, acquired, leased, granted, permitted, or otherwise authorized over time." The applicable Required Design Features include, but are not limited to the following:

- Limit discretionary activities (during construction, operation, and maintenance) to ensure noise levels do not exceed BLM's threshold requirement for ambient sound levels, as measured with appropriate noise monitoring equipment according to BLM's requirements from two hours before to two hours after sunrise and sunset during the breeding season. Noise monitoring would be performed for a sufficient period to demonstrate conformance with the ACEPM.

- During Project construction and operation, establish and post speed limits in greater sage-grouse habitat to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds. Require dust abatement practices when authorizing use on roads.

- Instruct all construction employees to avoid disturbance of wildlife, especially during the greater sage-grouse breeding (e.g., courtship and nesting) season. In addition, pets shall not be permitted on site during all Project phases.

- To reduce predator perching in greater sage-grouse habitat, limit the construction of vertical facilities and fences to the minimum number and amount needed and install anti-perch devices where applicable.

GRSG-4: Berms would be constructed along the haul roads in conformance with MSHA requirements that would also assist in the attenuation of noise along the haul roads.

GRSG-5: Blasting would be limited to once per day during the afternoon to ensure any blasting noise produced is outside of greater sage-grouse lekking hours (from 6:00 AM to 9:00 AM) and is after the time of day when inversions are likely to occur that could affect the propagation of blasting noise.

GRSG-6: A blasting plan would be developed and included in the Plan to specifically limit blasting during atmospheric conditions (inversions) that could propagate blasting noise beyond the mine area.

GRSG-7: Generators would include enhanced generator silencing packages which includes high ambient and sound-attenuated enclosures, use of noise absorbent materials, and an internal exhaust silencer system.

GRSG-8: Routine road maintenance-related work conducted by GSV within four miles of an active lek are subject to timing restrictions during lekking season (March 1 – May 15) from 6:00 AM to 9:00 AM.

GRSG-9: Flight diverters would be installed on any fencing within 3 miles of a lek using the Natural Resources Conservation Service Fence Collision Risk Tool, or other appropriate analysis to determine best locations for diverters.

GRSG-10: New hire and annual refresher training for all employees and contractors would include greater sage-grouse specific protection training that specifically addresses the commitment of GSV to protecting sage-grouse and the need for all employees to avoid disturbance of greater sage-grouse, especially during the breeding season. GSV would work with NDOW in the development of training materials.

1.15 Pygmy Rabbits and Burrowing Owls

PRBO-1: Pygmy rabbit (*Brachylagus idahoensis*) and burrowing owl (*Athene cunicularia*) preconstruction surveys would be conducted prior to ground-disturbing activities. If occupied burrows/colonies are encountered, consultation with the BLM and NDOW would occur to determine the appropriate avoidance buffer. If removal of the burrow/colony is required, GSV would coordinate with the BLM and NDOW to determine the appropriate monitoring and management measures and mitigation to be implemented.

1.16 Survey Monuments

SUMO-1: To the extent practicable, GSV would protect all survey monuments, witness corners, reference monuments, bearing trees, and line trees against unnecessary or undue destruction, obliteration, or damage. If, during operations, any monuments, corners, or accessories are destroyed, GSV would immediately report the matter to the BLM Authorized Officer. Prior to obliteration, destruction, or damage during surface-disturbing activities, GSV would contact the BLM to develop a plan for any necessary restoration or re-establishment activity of the affected monument in accordance with 43 CFR 3809.420 and the NRS. GSV would bear the cost for the restoration or re-establishment activities including the fees for a Nevada Professional Land Surveyor.

1.17 Visual Resources

VIS-1: To reduce light pollution, lights would be selected and sited, and the light they produce directed, so that they illuminate only the area needed to support a particular task (e.g., parking, driving, walking, working) while maintaining MSHA safety requirements. To the extent possible within safety parameters, energy efficient lighting would be directed and shielded to reduce the BUG rating as described in BLM Technical Note 457 (BLM 2023). Additionally, the minimum level of energy efficient lighting acceptable for MSHA safety requirements would be used.

VIS-2: Berms required for haul roads may reduce vehicle lights emanating from haul roads and the pit areas that may be directed toward public roads during travel.

VIS-3: All lighting, where practicable, would be located to avoid light pollution onto any adjacent land as viewed from a distance and reduce effects on bats and other wildlife. All light fixtures would be hooded and

shielded, oriented downward, and located within soffits and directed on to the operating site. Light fixtures would incorporate shields and/or louvers where possible and be full cut-off type.

VIS-4: Buildings would be painted or stained to produce flat-toned, non-reflective surfaces and meet BLM visual resource management requirements per BLM's *Standard Environmental Colors Chart – Updated* (BLM 2008).

VIS-5: The use of dimmers, timers, and motion sensors would be installed where appropriate.

VIS-6: Fugitive dust would be minimized to reduce "sky glow," by reducing the light reflectance from the dust particles.

VIS-7: During operations, the margins of the WRDF would be constructed to provide a footprint that allows for variable topography during final regrading where practicable, thereby providing a more natural post-mining landscape.

References

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Pagel et al. 2010. Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance. Available online at: https://tethys.pnnl.gov/sites/default/files/publications/Pagel-2010.pdf

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