

3.27 Irreversible and Irretrievable Commitment of Resources

The Proposed Action could result in the irreversible commitment of resources (e.g., the loss of future options for resource development or management, especially of nonrenewable resources such as minerals or cultural resources) or the irretrievable commitment of resources (e.g., the lost production or use of renewable natural resources during the life of the operations). Irreversible and irretrievable impacts of the Proposed Action are summarized for each resource in **Table 3.27-1**.

Table 3.27-1 Irreversible and Irretrievable Commitment of Resources by the Proposed Action

Resource	Irreversible Impacts	Irretrievable Impacts	Explanation
Land Use and Access	No	No	There would be no irreversible or irretrievable impacts to access; public access patterns would be maintained.
Geology and Minerals	Yes	Yes	Approximately 2 to 3 million tons of gold ore would be mined during operations. This would result in the irreversible and irretrievable commitment of this resource.
Groundwater Resources and Geochemistry	No	Yes	The loss of groundwater as a result of groundwater pumping and discharge activities would be an irretrievable impact. Groundwater recharge would occur in the long term. Therefore, groundwater impacts would not be irreversible.
Surface Water Resources and Watersheds	No	Yes	The loss of surface water as a result of groundwater drawdown would be an irretrievable impact. Groundwater recharge would occur in the long term. Therefore, surface water impacts would not be irreversible.
Soils and Reclamation	No	Yes	Suitable growth media would be salvaged from the mine disturbance areas for use in reclamation. There would be a loss of soil productivity during operations on approximately 117 acres, resulting in an irretrievable commitment of this resource. There would not be an irreversible commitment of the resource because all disturbed land would be reclaimed.
Vegetation Resources	No	Yes	There would be an irretrievable commitment of vegetation resources on approximately 117 acres during operations. Vegetation subsequently would be re-established on all areas via reclamation; therefore, vegetation would not be irreversibly lost as a result of development of the proposed project.
Riparian and Wetland Areas	No	Yes	Approximately 12 acres of wetland vegetation may be affected by groundwater drawdown, which may result in an irreversible loss of wetland vegetation. An irreversible impact to wetland vegetation would not occur with recharge of groundwater.
Noxious and Invasive Weeds	No	No	Disturbance areas within the project area would be monitored to identify any noxious or invasive species. If populations are observed within the project area during operations, they would be removed. Successful reclamation of past and proposed disturbed areas also would minimize the potential for establishment of noxious and invasive species within the project area.
Range Resources	No	Yes	There would be an irretrievable loss of less than 1 animal unit month (AUM) for each of the Squaw Valley and Twenty-Five allotments during the life of the project. An irreversible loss of AUMs would not occur because all surface disturbance areas would be reclaimed.

Table 3.27-1 Irreversible and Irretrievable Commitment of Resources by the Proposed Action

Resource	Irreversible Impacts	Irretrievable Impacts	Explanation
Wildlife Resources	No	Yes	Approximately 117 acres of habitat would be irretrievably lost until vegetation has re-established following reclamation. Wildlife habitat would not be irreversibly lost because all surface disturbance would be reclaimed.
Aquatic Resources	Yes	Yes	Groundwater drawdown may result in the loss of springs that support aquatic species in the long term. Even if springs are lost as a result of groundwater drawdown and become re-established after groundwater recharge, some aquatic species may not become re-established in these aquatic habitats, which would be an irreversible impact.
Special Status Species	Yes	Yes	Irreversible impacts to special status species could occur as a result of the Proposed Action. Applicant-committed environmental measures and mitigation may lessen the impacts.
Paleontological Resources	No	No	No disturbance to scientifically important paleontological resources is anticipated.
Cultural Resources	Yes	Yes	National Register of Historic Places-eligible sites could be irreversibly and irretrievably lost if inventory, avoidance, and/or mitigation efforts are not sufficient to identify and protect these sites.
Native American Traditional Values	Yes	Yes	Adverse effects to religious, spiritual, or sacred values cannot be monitored or mitigated.
Air Quality	No	No	Project emissions would not exceed federal or state Ambient Air Quality Standards. Air quality would return to existing conditions after completion of the project.
Recreation and Wilderness	No	Yes	There would be an irretrievable loss of public land available for dispersed recreational opportunities during operations and reclamation; an irreversible loss would not occur because all surface disturbance areas would be reclaimed.
Social and Economic Resources	No	Yes	Labor and some capital resources would be irretrievable after committed and expended.
Environmental Justice	No	No	The proposed project would not disproportionately affect minority or low-income populations.
Visual Resources	No	No	Impacts to visual resources would be reduced through successful reclamation procedures and implementation of the applicant-committed environmental protection measures.
Noise	No	No	Noise is not considered irreversible because it would cease following the completion of mine operations.
Hazardous Materials and Solid Waste	No	No	No irreversible or irretrievable commitment of resources or impact is anticipated. However, if a spill were to affect a sensitive resource, an irretrievable impact could occur pending the recovery of the resource.