



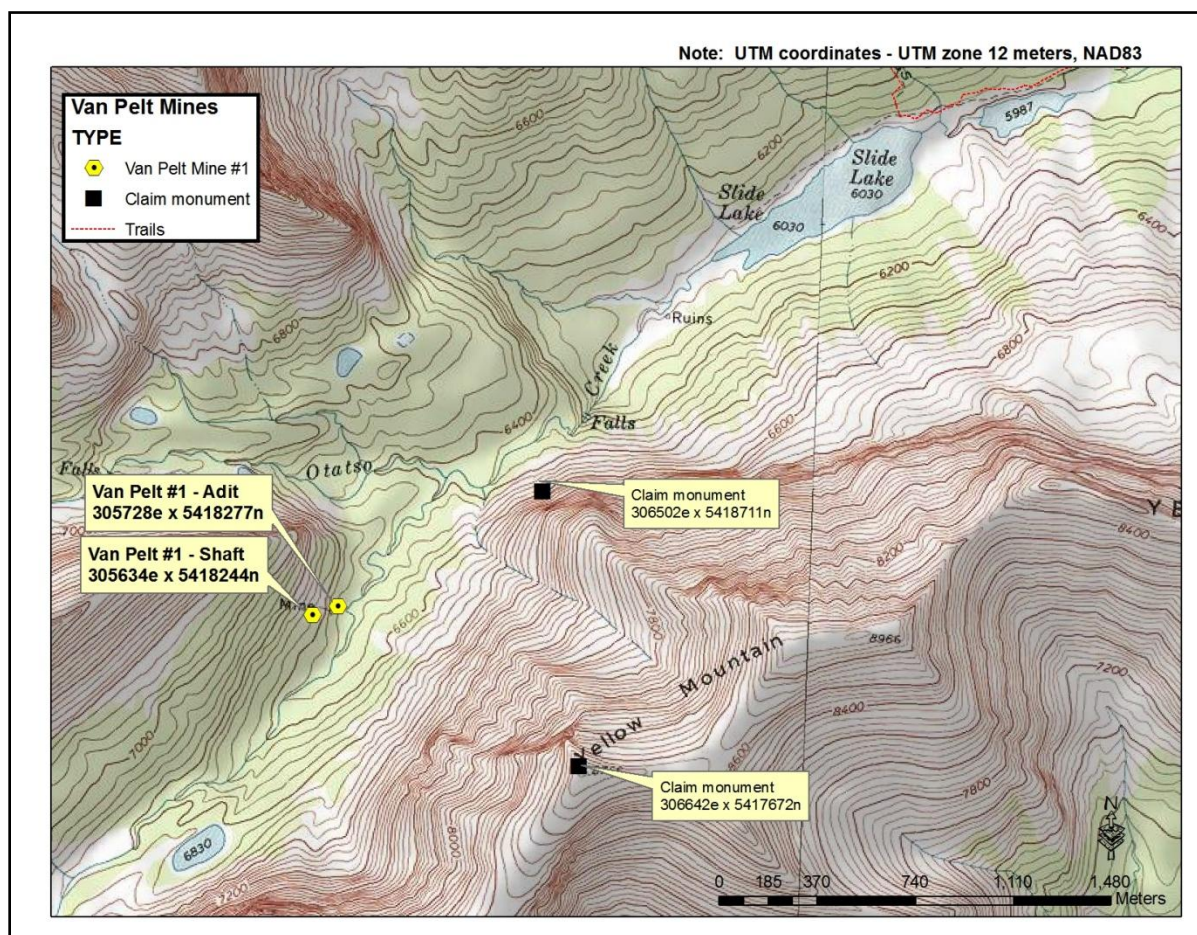
Categorical Exclusion Form

Project: Closure of Van Pelt #1 abandoned mine shaft at Glacier National Park, an American Recovery and Reinvestment Act of 2009 (ARRA) Project, and installation of Abandoned Mine Lands Warning Signs at Nine Other Locations

PEPC ID (PIN): 26285

Project Location: The Van Pelt #1 mine is located in the Gable Mountain area in Glacier National Park, as depicted in Figure 1. The other mine sites are listed in Table 1.

Figure 1. Van Pelt Mine Location



Project Description: During the mid- 19th century to early 20th century, the area which is now Glacier National Park (the park) was prospected for gold, silver, and copper. Mining districts were established, and innumerable prospect pits, adits, and shafts were opened to test or mine what turned out to be marginal deposits. These sites were subsequently abandoned. Potential hazards associated with long-abandoned mines include the potential for falling into shafts, loose rock falling from the roofs of adits, cave-ins, and decayed timbers. These health and safety hazards present dangers to park staff, visitors, and wildlife.

A team of contracted specialists and Park staff evaluated the various mining features located within Glacier National Park. It was determined based on condition of the features and the remote locations that only one feature (the Van Pelt #1 shaft) required closure due to safety concerns. This shaft is a vertical hole measuring 7 by 9 feet by approximately 30 feet deep. At the bottom may be one or two drifts of undetermined length. The park will install either a bat-accessible gate or a non-accessible grate over the shaft collar, after conducting additional bat surveys to determine whether the mine feature indicates bat use. Closure of the shaft is planned for no later than September 2010. Other abandoned mine features at the park are listed in Table 1. Abandoned mine land warning signs will be placed at each feature and the sites will continue to be monitored.

Table 1. Abandoned Mine Land Features for which Continued Monitoring is Proposed

Mine (Feature)	Notes	Proposed Action
Van Pelt #1 Mine (Lower Adit)	Rectangular hole carved horizontally into rock	Continue routine monitoring to check whether hazards or resource issues have changed, and post an abandoned mine land warning sign near the mine opening
Lower Josephine Mine	Confirmed mine adit (6' x 4' x 225')	Same as above
Bullshead Mine	a.k.a. Harrisville Mine	Same as above
Many Glacier Mine	Confirmed large mine adit (12' x 15' x 25')	Same as above
Josephine Mine (Adit #1)	Confirmed mine adit, branched (6' x 4' x 350')	Same as above
Josephine Mine (Adit #2)	Confirmed small mine adit (5' x 3' x 35')	Same as above
Boulder Creek #1 Mine (Adit)	Confirmed mine adit, opening (approx. 5' x 5')	Same as above
Boulder Creek #1 Mine (Possible Prospect)	Possible mine prospect, above adit (caved in)	Same as above
Boulder Creek #2 Mine (Possible Adit or Prospect)	Unconfirmed adit or prospect	Same as above

The closure of the Van Pelt #1 shaft will reduce exposure of park staff, visitors, and wildlife to the dangers posed at this site by inadvertently falling into the 30' shaft and becoming trapped, while protecting cultural resources, and other important park resources and values. The need

for this project stems from the presence of unsafe conditions at the site from the open and deep shaft.

If bat surveys indicate no use by bats, the shaft will be closed by grating. The grate will be placed over the shaft, extending approximately 2 feet outside the shaft collar, flush to the ground. Due to the stability of the rock around the shaft collar, the grate will be bolted to the rock. The grate will be constructed from EM3 3lb grating with spacing of grids measuring 0.938 x 3.438" over a framework of 3" x 3" x 38" angle iron or similar strength steel that meets the 100% American-made requirement under the American Recovery and Reinvestment Act of 2009 (ARRA). The grate will prevent park staff, visitors, and wildlife from falling into the shaft. A photo of a similar grate at Big Bend National Park is shown on the right.

Figure 2. Example Grate



If evidence of bat use is confirmed, the park will close the shaft by installing a bat-accessible gate flush with the surface. There is variability in bat-accessible gating design, and the agency strongly supports innovation in designing bat-accessible gates that are based more importantly on bat species, type of use, population size, and the particular characteristics of the given mine or cave feature (Dansby pers. comm. 2009). Bat-accessible gates can be fabricated out of 3" x 3" x 3/8" or 4" x 4" x 3/8" angle iron, 2" x 2" x 3/8" or 3" x 3" x 3/8" square tube. One-inch Manganal® roundbar has also been used to fabricate bat-gates; however, the NPS elected not to consider using 1-inch round Manganal® because it does not meet the ARRA standard for 100% American-made materials. The 1-inch Manganal® roundbar is not manufactured in the United States because its manufacturing exceeds pollution standards. Regardless of the material used in fabricating bat-accessible gates, the standard distance between bars is 5 3/4". Due to the differences in strength of square tube and angle iron, use of square tube would require additional supports, while 3" or 4" angle is strong enough to span the shaft opening without supports. A bat-gate installed flush to the ground will allow bat access vertically out of the shaft, but because it would not be raised off the ground, the flush gate will not incorporate side panels for bat access. At right is a photo of a bat-gate using 3" square tube, Hells Canyon, Idaho (photo courtesy of Rich Sherwin, Christopher Newport University).

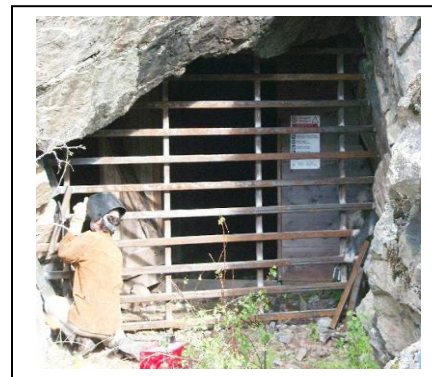


Figure 3. Example Bat-accessible Gate

Construction of either type of closure will take approximately one day. The pre-fabricated grate or bat-gate will be sling loaded to the site by helicopter, including equipment required to install it. The grate or bat-gate designs are the minimum necessary and the least weight for equipment and materials. Helicopter flight time will only require approximately two 20-minute flights.

The American Recovery and Reinvestment Act of 2009 (ARRA), passed on February 18, 2009, invests in projects to rebuild the nation's infrastructure. Closure of this site to mitigate hazards at this mine feature will be completed under ARRA funding.

Threatened, Endangered, or Special Status Species and Wildlife

Glacier National Park contains several special status species, including federally listed grizzly bear (*Ursus arctos horribilis*), Canada lynx (*Lynx canadensis*) and bull trout, (all threatened). In September of 2009, a survey was conducted to determine whether any federally listed species were present at the Van Pelt #1 mine as well as other selected abandoned mine sites in the park. Although the mine adits that were surveyed could serve as denning sites for bears, or lynx, there was no indication that any of the mines had been so used since their creation, and no signs of listed species use were noted at any of the sites including the Van Pelt #1 mine location. State-listed species of concern include five bat species, only one of which has been reported in Glacier County, but none have been reported in the Park.

Construction and installation of the grate or bat-gate will incorporate mitigation measures to ensure that federally listed species that could be using the area nearby or state-listed bats will not be affected during, or as a result of, closure activities. Installation of the grate or bat-gate will be restricted to September, which will avoid sensitive summer roosting times for bats, as well as sensitive times for grizzly bears, which are more likely to be present at nearby high elevation talus slopes in August. This timing will also avoid adverse impact to non-listed bighorn sheep (lambing season from May to June). Mitigation will include a pre-construction bat survey. Post-construction routine monitoring will be conducted to check for continuing competency of the grate or bat-gate. If a bat-gate is installed, a post-construction bat survey will be conducted. A National Park Service (NPS) biologist will monitor installation. The installation of a bat-gate, flush to the surface, could present a health and safety hazard to these species should the individual animal not see the bat-gate and fall into it. The 5 ¾" spacing between panels that allow for bat access could allow animals to get its legs through the panels, resulting in potential injury or death. In the event the bat-gate is covered with snow sufficient to obscure the bat-gate but thin enough to break through, animals may not see the bat-gate and avoid it.

Installation of abandoned mine warning signs at the other features will be done via foot access during the summer months and will not result in more than negligible impacts to grizzly bears, Canada lynx and other federally listed species and wildlife in general due to the short time needed (no more than a few hours) to install a sign at each of the sites. No power tools will be used.

Compliance with Section 7 of the Endangered Species Act

There was no evidence of federally listed species use of the mine features during the surveys conducted in 2009. Glacier National Park completed a Biological Assessment (BA) for administrative helicopter use in the park subject to a limited number of flights, restrictions on time of year and other mitigation measures. The BA concluded No Effect on bull trout,

Spalding's catchfly and water howellia and May Affect, but is Not Likely to Adversely Affect, Canada lynx, gray wolf and grizzly bear. The US Fish and Wildlife Service concurred on March 4, 2008. The proposed flights for this project will take place under the restrictions and limitations in accordance with the BA. Placing signs at the other sites will have No Effect on listed species.

Compliance with Section 106 of the National Historic Preservation Act

Historic research was conducted on all of the abandoned mine sites including the Van Pelt mining operation, and a determination of eligibility was completed. All of the sites with the exception of the Many Glacier mine were determined to be eligible for listing in the National Register. The Van Pelt mine was a representative small operation for the area, and although the property yielded little if any ore, it saw activity over the course of a decade and a half. Due to the amount of interest drawn by investors, the Van Pelt mine workings were quite extensive for the area. The site currently retains archeological integrity, artifacts, cabin ruins, and mine workings relative to the early 1900s, when John Van Pelt conducted the most work. As stated, the site is considered eligible for the National Register of Historic Places under Criteria A (associated with events that have made a significant contribution to the broad patterns of our history), B (associated with the lives of persons significant in our past), and D (have yielded, or may be likely to yield, information important in prehistory or history) as one of the later workings of the Swift Current Mining District. The NPS recommended all of the sites, except for Many Glacier mine, as eligible for listing in the National Register of Historic Places and the Montana State Historic Preservation Officer concurred on January 15, 2010. Long-term closures that are reversible, such as grating or bat-gating, will protect the historic fabric of the Van Pelt mine site. Moreover, the grate or bat-gate design will not detract from the historic setting and integrity of the mine (height, material, color, texture, etc.). Therefore, the proposed closure will have no adverse effect on historic resources under Section 106 of the National Historic Preservation Act. The State Historic Preservation Officer concurred with this determination on March 1, 2010.

Installation of compatible signs at the other sites will have no adverse effect on historic resources under Section 106 of the National Historic Preservation Act because their size and design will not detract from the historic setting and integrity of the mine sites.

Compliance with the 1964 Wilderness Act

A Minimum Requirements/Minimum Tool Analysis is attached.

Determination of No Measurable Impacts: An NPS interdisciplinary team consisting of natural and cultural resource specialists determined that the proposed abandoned mine reclamation project consisting of the installation of a grate/gate at the Van Pelt #1 mine shaft and installation of signs at the other sites will not result in measurable impacts, meaning there will be minor effects or less. Because there will be no measurable effects, the project qualifies under a categorical exclusion under the National Environmental Policy Act of 1969 (NEPA). A list of resources and potential impacts is summarized below:

- A bat survey was conducted at the Van Pelt #1 shaft on September 9, 2009. An internal survey was not performed and therefore the presence of lateral shafts or drifts was not confirmed. No bats or evidence of bat use (guano or insect parts) was observed.

Another bat survey will be conducted in 2010. Bat surveys were conducted at the other locations as well and none were noted, although they offer potential habitat.

- As discussed above, grates and bat-gates are reversible and will protect the historic fabric of the Van Pelt mine site, and the grate or bat-gate design will not detract from the historic setting and integrity of the mine. Therefore, the proposed closure will have no adverse effect on historic resources under Section 106 of the National Historic Preservation Act and minor impacts on cultural resources.
- The proposed construction of the grate or bat-gate at Van Pelt #1 will be located in an area of the park that does not contain significant topographic or geologic features. Furthermore, the project site has been disturbed by past mining activities and continues to undergo natural restoration processes. Given that there are no significant topographic or geological features in the project area, and that the area has been previously disturbed, the proposed actions will result in negligible to minor, temporary adverse effects to topography, geology, and soils. The proposed installation of signs at the other sites will result in negligible disturbance to soils from installation of a post.
- Impacts to vegetation during construction will be confined to the immediate vicinity of the work site and will be of short duration. Installation of the grate or bat-gate will be monitored to minimize potential impacts. Care will be taken to minimize erosion and trampling of vegetation. No roads or trails will be constructed and the helicopter staging area will occur at the park's designated helicopter site. The sling loads will be dropped in an already disturbed area in the immediate vicinity of the mine shaft. Therefore, there will be negligible impact to vegetation in the project area. Installation of the signs at the other sites will result in negligible or less impacts to vegetation from placement of the sign post.
- Abandoned mine land (AML) closure work, including construction of the closure and gaining access to the site with required equipment, could result in some short-term adverse impacts to wildlife, including disruption of wildlife feeding, denning, nesting, or reproduction. These activities could also result in avoidance of the area by wildlife due to increased noise and human presence. However, measures would be taken to reduce impacts to wildlife, including reducing helicopter flight time to 20 minutes each way, limiting construction to approximately one day, and constructing a grate or bat-accessible gate if the shaft is suitable bat habitat. The timing restrictions for constructing the grate or bat-gate would include no construction during May or June during bighorn sheep lambing season, or during August when grizzly bears use the high elevation talus slopes. The installation of a bat-gate, flush to the surface, could present a health and safety hazard to wildlife should an animal not see the bat-gate and fall into it. The 5 ¾" spacing between panels that allow for bat access could allow an animal to get its legs through the panels, resulting in potential injury or death. In the event the bat-gate is covered with snow sufficient to obscure the bat-gate but thin enough to break through, animals may not see the bat-gate and avoid it. As a result, adverse impacts to wildlife from closure activities and the long-term hazard posed by the potential for animals to fall into the gate and sustain leg injuries or death would result in minor adverse effects. The signs at the other sites will be installed on foot, using only hand tools; therefore there will be negligible to minor impacts on wildlife.

- Increased emissions of particulate matter resulting from combustion of gasoline and diesel-powered helicopter used to transport equipment and supplies to the AML site, could affect air quality. However, these affects would be temporary and localized and very small. Therefore, the proposed action will result in negligible temporary adverse effects to air quality. No impacts to air quality are anticipated from installation of signs at the other sites.
- Helicopter transport of materials and supplies used in the AML closure, and fabrication of the closure itself will introduce temporary noise that could affect the quality of the natural soundscape in the general vicinity of the Van Pelt mine site and helicopter flight path. Construction activities will be limited to daylight hours and will occur over approximately one day. The duration of two helicopter flights will be approximately 20 minutes each (10 minutes each way), for a total of 40 minutes. The use of a grate or bat-gate is the minimum tool necessary to address a safety issue and has the least amount of impact to park resources including noise. Overall, the effect of noise from the proposed closure will result in minor, temporary adverse effects to natural soundscapes. Noise will not be an issue in installation of the signs at the other sites because no power tools will be used.
- The nearest surface waters to the Van Pelt #1 mine are Otatso Creek (approximately 450 feet) and Slide Lake (approximately 1.25 miles). Due to the distance from the shaft to these surface waters, localized minor surface disturbances associated with the construction of the AML closure will not increase soil erosion and sedimentation in these waters. Closure activities will not adversely affect water quality and quantity, and impacts to water resources will be negligible or less. Water resources will not be affected by the installation of signs at the other sites.
- The Van Pelt mine is not located within the floodplain or wetland areas of neighboring Otatso Creek. As a result, closure activities will not adversely affect wetlands or floodplains, and there will be no impacts to wetlands or floodplains. Installation of signs will not affect floodplains or wetlands at the other site locations.
- The Van Pelt mine site is located within recommended wilderness in Glacier National Park. The use of mechanized equipment including helicopters to transport closure materials and equipment could adversely affect wilderness values. A *Minimum Requirement Minimum Tool Analysis* was conducted (attached) which demonstrates that addressing this safety hazard is the minimum requirement and the grate/gate and use of a helicopter is the minimum tool given the location of the feature in a very remote and rugged area that precludes transport of materials by overland methods. The work crew will walk into and out of the site. As a result, the project will have short-term, localized, minor adverse effects on wilderness during the construction period for approximately 1 day. Installation of signs is consistent with wilderness management at Glacier National Park.
- Due to the lack of established trails and the rugged terrain which makes visitor access very difficult, there is a very low frequency of visitation in the vicinity of the Van Pelt mine. Work at this site will increase background sound levels over the short term while the work is occurring and adversely affect visitor experience. As a mitigation measure,

helicopter trips will be limited to 10 minutes each way, and to one flight in and one flight out. The closure activities proposed will result in localized, short-term minor adverse effects on visitor use and experience as the project area will be temporarily closed to visitor access during the period of activity and the helicopter noise will contribute only a short-term disturbance. Despite these temporary effects, however, the closure of the abandoned mine will provide for a safer visitor experience by preventing human access and reducing the potential for injuries and or fatalities from falling into the shaft. However, the installation of a bat-gate, flush to the surface, could present a health and safety hazard to park staff and visitors should an individual not see the bat-gate and fall into it. The 5 ¾" spacing between panels that allow for bat access could allow a person to get its legs through the panels, resulting in potential injury or death. In the event the bat-gate is covered with snow sufficient to obscure the bat-gate but thin enough to break through, a person may not see the bat-gate and know to avoid it. Overall, the AML closure will have long-term minor beneficial effects on visitor use and experience by providing for a greater degree of human health and safety. Visitor access to the other sites is also infrequent; therefore impacts to visitors from installation of signs will be temporary and negligible.

Per the determination of the NPS interdisciplinary team, the reclamation of this abandoned mine in Glacier National Park is excluded from further NEPA analysis as per Director's Order 12, Section 3.4(C), Actions Related to Development, No. 17, *Construction of fencing enclosures or boundary fencing posing no effect on wildlife migrations*.

Members of the Interdisciplinary Team

- Richard Menicke, Project Coordinator, Glacier National Park
- Mary Riddle, Planning and Compliance/NEPA Specialist, Glacier National Park
- Lon Johnson, Cultural Resource Specialist/NHPA Glacier National Park
- Jack Potter, Chief, Science and Resources Management, Glacier National Park
- Hattie Oswald, Seasonal Biologist, Glacier National Park
- Linda Dansby, Intermountain Region AML ARRA Program Manager/Regional Minerals Coordinator, Santa Fe, New Mexico
- John Waller, Wildlife Biologist, Glacier National Park
- Lisa Bate, Seasonal Wildlife Biologist, Glacier National Park
- Chris Downs, Fisheries Biologist, Glacier National Park
- Joyce Lapp, Restoration Biologist, Glacier National Park
- Dawn LaFleur, Integrated Pest Management Specialist, Glacier National Park

Public Involvement

The categorical exclusion was released for public review and comment for 30 days from February 17, 2010 until March 22, 2010. One comment was received from a member of the public expressing their opinion that the proposed action was not necessary due to the remoteness of the site and depth of the shaft. This concern was considered however the NPS evaluated each site in accordance with the *NPS Abandoned Mine Lands Assessment* and assigned a “hazard rating” of five (Any coal mine-vertical shafts, winzes, or underhand collapsed stopes greater than six feet, irrespirable air, instantaneous fatal injury could occur due to mine-related hazard). Despite the remoteness of the site, the size and depth of the man-made shaft posed an unnatural hazard to visitors that requires a protection measure. The comment was not substantive as defined by the National Environmental Policy Act and did not result in any change to the project design or decision.

On the basis of the environmental impact information in the statutory compliance file, with which I am familiar, I am categorically excluding the described project from further NEPA analysis. No exceptional circumstances (e.g., all boxes in the Environmental Screening Form are marked "no") or conditions in Section 3-6 apply, and the action is fully described in Section 3-4 of Director's Order 12.

Park Superintendent / Date: /s/ Stephanie Dubois April 6, 2010

NPS Contact Person: Jack Potter

Title: Chief of Science and Resources Management

Phone number: 406-888-7901