ENVIRONMENTAL ASSESSMENT

FOR A PLAN TO REOPEN ADIT #3 ON THE COMSTOCK #2 UNPATENTED MINING CLAIM IN THE KANTISHNA HILLS AREA OF DENALI NATIONAL PARK

Prepared by
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DENALI NATIONAL PARK AND PRESERVE

June 2006

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The National Park Service, Alaska Regional Office, provided publication services.

June 2006

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I. PURPOSE AND NEED

Milan Martinek of Palmer, Alaska, has requested the opportunity to reopen Adit #3 on the Comstock #2 lode mining claim in the Kantishna Hills part of Denali National Park. The request resulted from the October 20, 2005, order from Office of Hearings and Appeals Administrative Law Judge Sweitzer entitled "Department Must Permit Martinek to Take the Opportunity to Attempt to Re-expose the Alleged Discovery Point." Judge Sweitzer's order was prompted by the Interior Board of Land Appeals (IBLA) decision entitled United States v. Milan Martinek, 166 IBLA 347 (2005)[1]. Judge Sweitzer's order directed the National Park Service (NPS) to permit Mr. Martinek to attempt to re-expose the alleged discovery point in the uppermost adit 3 on the Comstock No. 2 mining claim.. Mr. Martinek faxed a plan to NPS on March 23, 2006, and supplemented it on April 26, 2006.

A mineral report was prepared by the NPS under delegated authority, and approved by the Bureau of Land Management (BLM) in 1997. The report concluded that the Comstock #2 claim and three other nearby lode claims lacked sufficient mineralization to support a "discovery" under the General Mining Law and associated case law. Based upon the report a government contest was issued alleging the Comstock #2 and other claims were invalid. Mr. Martinek timely filed an answer. Following a hearing Administrative Law Judge Sweitzer issued a decision declaring the claims null and void. Mr. Martinek appealed to the IBLA In the decision referenced above IBLA affirmed Judge Sweitzer's decision in all aspects except to permit Martinek the opportunity to attempt to re-expose the alleged discovery point on Comstock #2.

The face of Adit #3 has sloughed in (Figure 8), and some of the interior walls of the adit may also have collapsed, so that taking samples from the adit would require some cleanout and an unknown amount of shoring up the adit walls and ceiling.

Mr. Martinek estimates that his plan to open up and sample the inside of adit #3 would take 3-10 people up to 40 days. His plan states that he will camp at Kantishna or at the mine site.

This Environmental Assessment (EA) analyzes the proposed plan to re-open adit #3 on the Comstock #2 claim with two action alternatives. It has been prepared according to the National Environmental Policy Act of 1969 and regulations of the Council of Environmental Quality (40 CFR 1508.9).

Background

Gold was discovered in the Kantishna Hills in 1903 by Judge James Wickersham while on his way to attempt to climb Mt. McKinley. The resulting stampede of miners in 1905 lasted less than a year, but miners have found gold in some of the drainages for most of the 20th century.

The Kantishna Hills area was added to Denali National Park by the Alaska National Interest Lands Conservation Act (ANILCA) in 1980 (Figures 1 and 2). Gold mining in the Kantishna

[1] Martinek submitted a petition for reconsideration to IBLA. By order dated January 12, 2006, IBLA denied the petition for reconsideration in part and granted it in part for clarification. The January 12, 2006 order did not affect Judge Sweitzer's October 20, 2005 order.

Hills has not occurred since a 1985 Approximately 178 acres of unpatented claims are located in the Kantishna area. The largest group of unpatented claims (118 acres) remaining in the Kantishna Hills is on Eldorado Creek, starting at about one and one-half miles upstream of Kantishna and ending just short of Slate Creek. These placer claims have seen no mining activity since 1984 and no plans of operation have been submitted for them. A fuller explanation of the history of mining in the area is contained in the IBLA decision at 166 IBLA 347.

The Comstock lode claims are on Eldorado Creek, approximately 3 miles upstream of its confluence with Moose Creek. The claims were originally established by Johnnie Busia in 1931 and, although there was no known production, the site was known as the Neversweat Mine. A small cabin on the claim is in good shape and appears to have been constructed in the late 1950s. The claims were re-staked in 1969 by Jim Fuksa, who may have renamed them the Comstock claims, and then were inherited by Milan Martinek in 1987 after Mr. Fuksa died.

The September 13, 2005, IBLA decision set aside the portion of the February 14, 2000 decision by Administrative Law Judge Harvey Sweitzer that declared the Comstock #2 mining claim null and void for lack of discovery;

> "We make no finding that the Comstock No. 2 claim was valid. We make no finding that Martinek is entitled to use heavy equipment or the equipment of his choice in re-exposing a discovery on the claim. In fact the record and photographs within it show that such equipment may be difficult, if not impossible, to use, given the topography. We merely find that Martinek was 'effectively foreclosed from proving that a discovery exists…"

and remanded the case to Judge Sweitzer for further instructions. Those instructions are:

> "…to permit Martinek to take the opportunity within the next available field season, should he so desire, to attempt to re-expose the alleged discovery point in the uppermost adit 3 on the Comstock No. 2 mining claim, using methods permitted by NPS consistent with its regulations implementing the Mining in the Parks Act at 36 CFR Part 9 and any statutory and regulatory authority governing restrictions on exploration activities. The purpose of such activity would be to assemble evidence from adit 3 to rebut the Government's prima facie case by proving the continued existence of a pre-existing discovery of gold, silver, and lead on the mining claim."

Legal Context

The 1916 Organic Act directed the Secretary of the Interior and the NPS to manage national parks and monuments to:

> "…conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." (16 U.S.C. 1.)

The Organic Act also granted the Secretary the authority to implement "rules and regulations as he may deem necessary or proper for the use and management of the parks, monuments and reservations under the jurisdiction of the National Park Service." (16 U.S.C. 3.)

In 1917, Congress established Mount McKinley National Park:

> "…as a public park for the benefit and enjoyment of the people . . . said park shall be, and is hereby established as a game refuge." (39 Statute 938).

1978 amendments to the 1916 NPS Organic Act and 1970 NPS General Authorities Act expressly articulated the role of the national park system in ecosystem protection. The amendments further reinforce the primary mandate of preservation by stating:

> "The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided for by Congress." (16 U.S.C. 1-a1.)

The Alaska National Interest Lands and Conservation Act of 1980 (ANILCA) added approximately 2,426,000 acres of pubic land to Mt. McKinley National Park and approximately 1,330,000 acres of public land as Denali National Preserve, and re-designated the entire unit Denali National Park and Preserve. ANILCA directs the NPS to preserve the natural and cultural resources in the park additions and preserve for the benefit, use, education, and inspiration of present and future generations. The Act further directs the NPS to manage for the continuation of customary and traditional subsistence uses in the park and preserve additions in accordance with provisions in Title VIII.

The NPS Organic Act and the General Authorities Act prohibit impairment of park resources and values. The 2001 NPS Management Policies uses the terms "resources and values" to mean the full spectrum of tangible and intangible attributes for which the park is established and managed, including the Organic Act's fundamental purpose and any additional purposes as stated in the legislation establishing the park. The impairment of park resources and values may not be allowed unless directly and specifically provided by statute. The primary responsibility of the NPS is to ensure that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities to enjoy them.

The evaluation of whether impacts of a proposed action would lead to an impairment of park resources and values is included in this environmental assessment. Impairment is more likely when there are potential impacts to a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the legislation or proclamation establishing the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or

- identified as a goal in the park's general management plan or other relevant NPS planning documents.

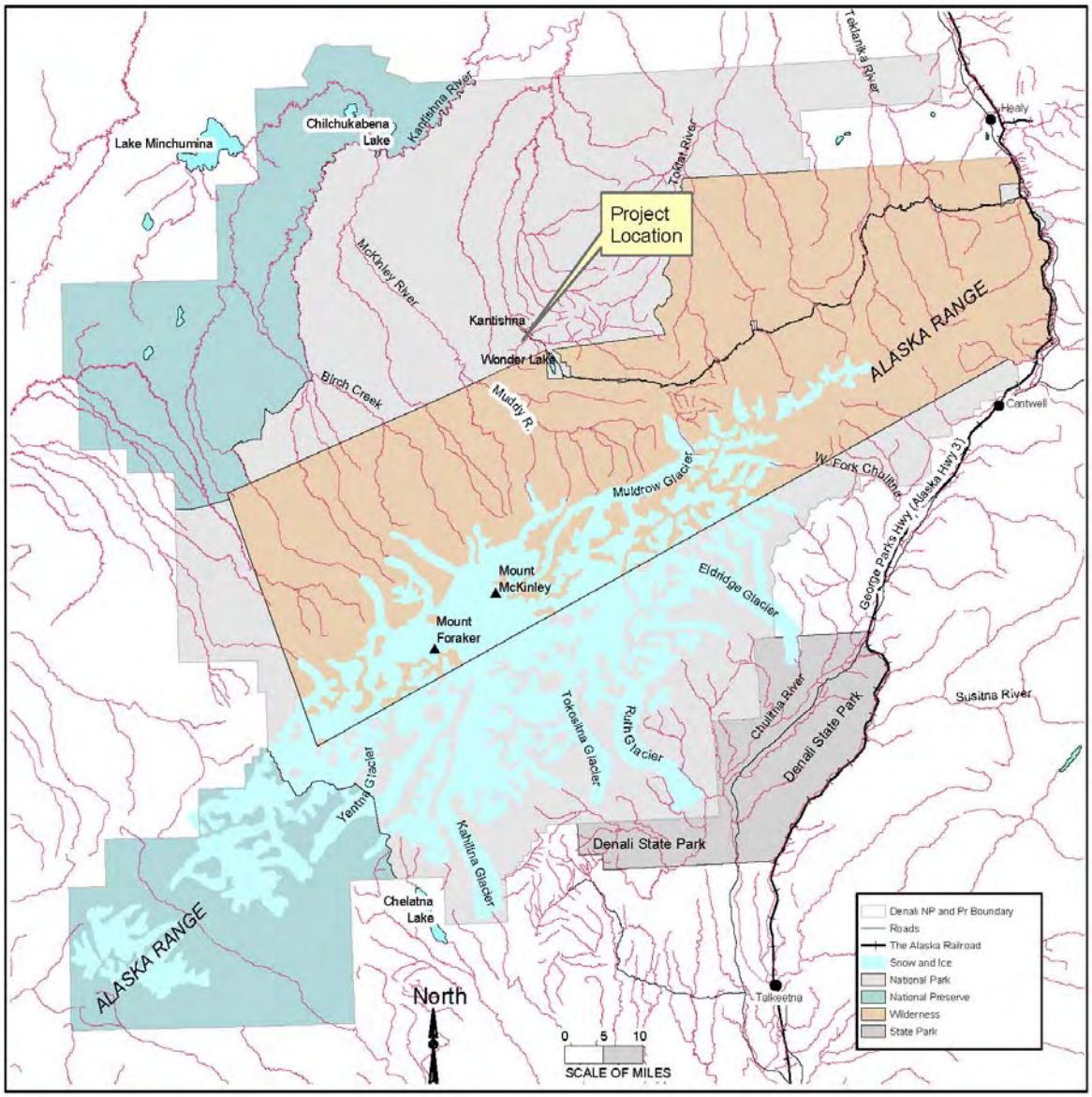
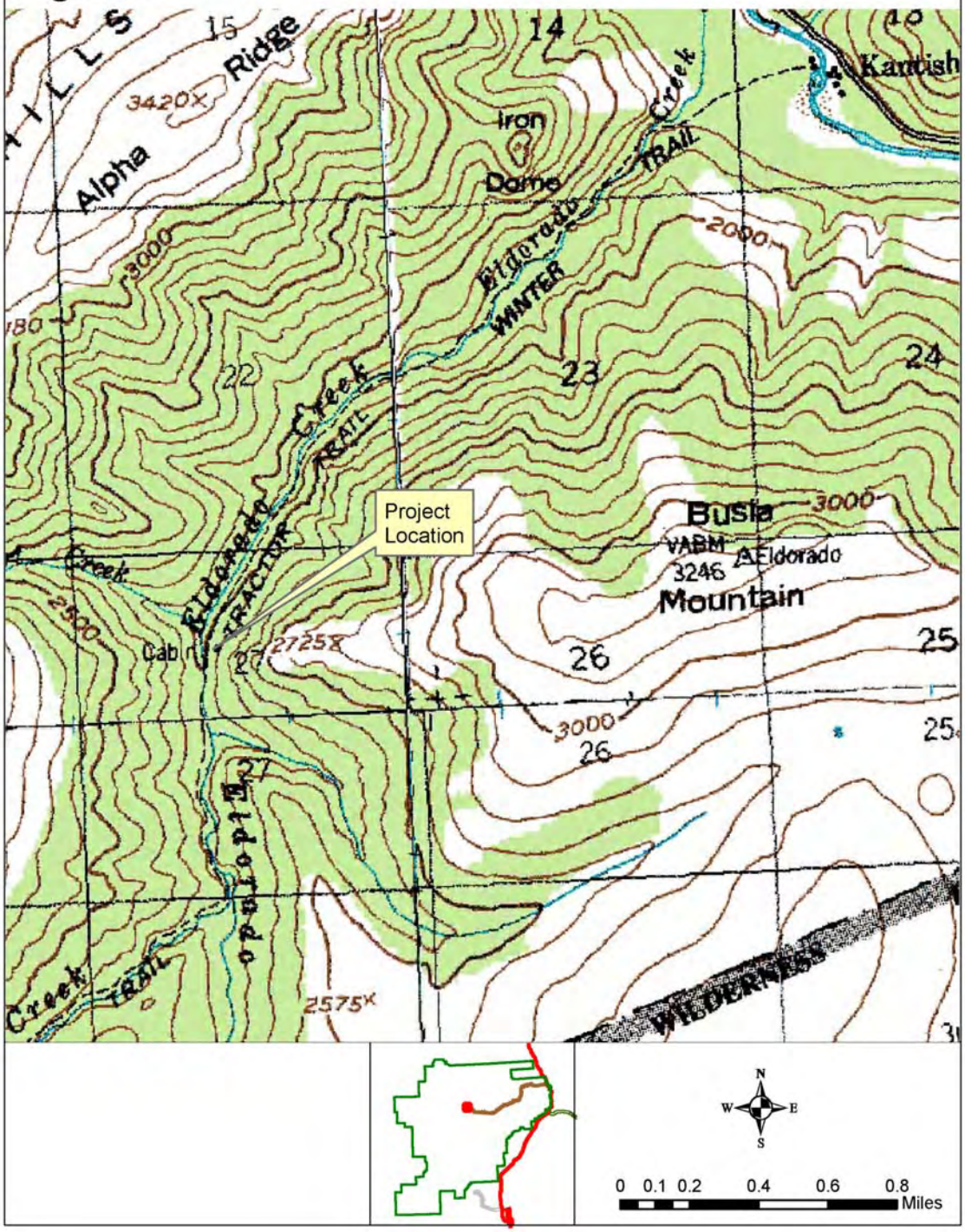


Figure 1
Project Location
Denali National Park and Preserve
U.S. Department of the Interior • National Park Service

Figure 2


Alpha
Ridge
3420X
Iron
Dome
Kantish
Creek
TRAIL
Eldorado
WINTER
2000
3000
22
23
24
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Busia
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VABM
3246
Eldorado
Mountain
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WILDERNESS
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Miles

Figure 3. Rock fall on lower Eldorado Creek.

Figure 4. Typical armored crossing of Eldorado Creek.

Figure 5. Typical former vehicle route captured by stream with fines removed.

Figure 6. Comstock #2 claim with adit #3 in top right of area covered by waste rock.

Figure 7. Map of Comstock # 2

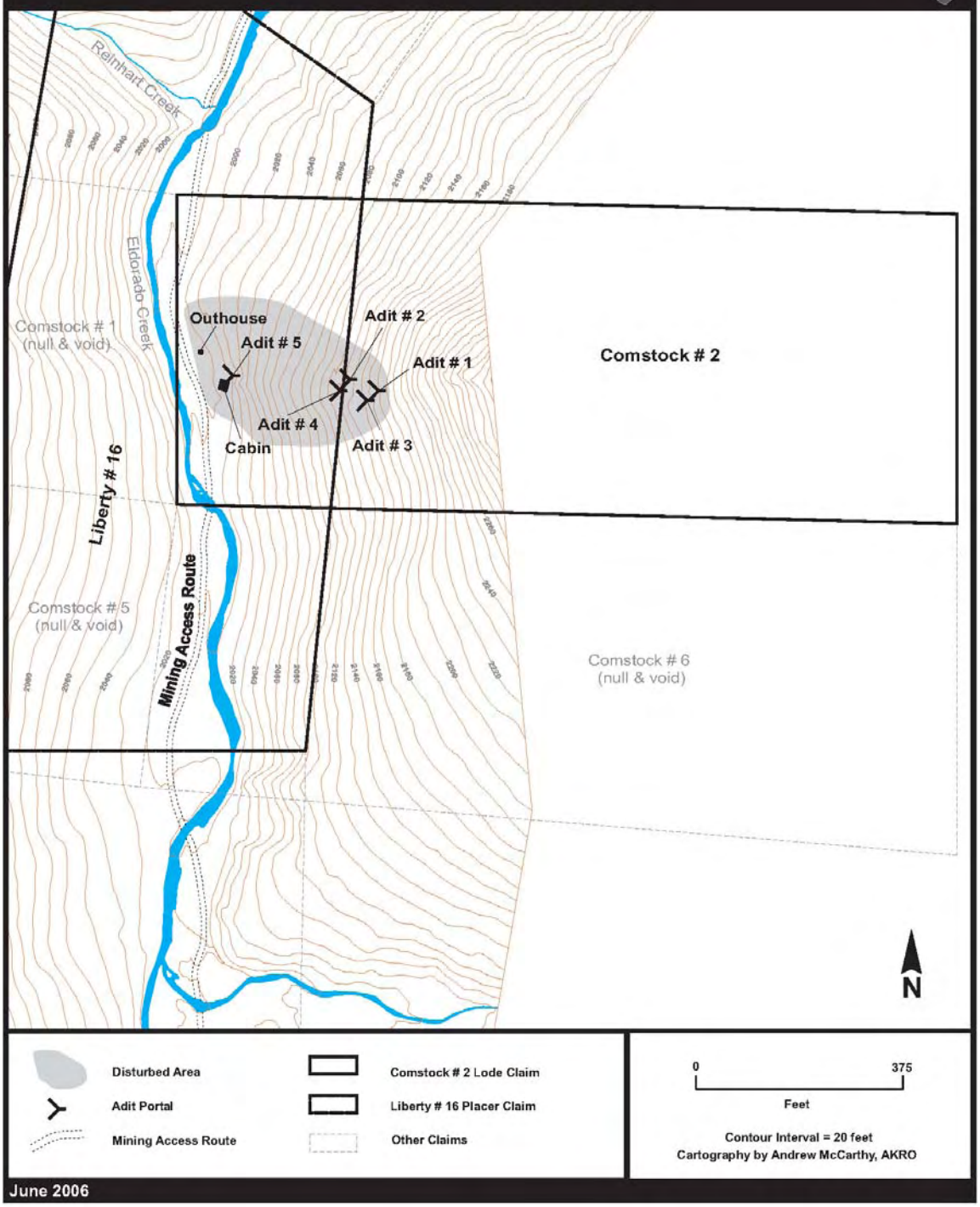

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Figure 8. Slough covered opening to adit #3. Note hand stacked rock wall.

Issues

A brief statement of the environmental concerns in connection with the proposed alternatives is provided here for each issue or topic that is evaluated in the EA in Part IV, the Environmental Consequences of the Alternatives.

Vegetation and Soils
Some mature white spruce could be removed to serve as mine timbers. Tall shrub and low shrub vegetation would be removed or disturbed during the sampling efforts. Existing soil strata would be removed and altered by the proposed activities.

Wildlife and Habitat
The activities would temporarily produce noise and activity levels that would disturb wildlife and cause the wildlife to disperse from the area during the sampling period.

Aquatic Resources
Water quality and downstream fish habitat could be reduced by siltation and pollutants from the re-opening of the adit and from access activities.

Natural Soundscape
Access to the claim by motor vehicle and helicopter and the potential use of explosives and a compressor for drilling would produce loud mechanical noises that would disrupt natural sounds in the park.

Visitor Use
Recreational opportunities for visitors and the visual quality and the natural soundscape of the area would temporarily be affected by the activities.

Issues Eliminated from Further Consideration

Threatened and Endangered Species
The Endangered Species Act requires an analysis of impacts on all federally listed threatened and endangered species, as well as species of special concern. In compliance with Section 7 of the Act, the U.S. Fish and Wildlife Service (USFWS) has been consulted. No Federally designated threatened or endangered species are known to occur within Denali National Park (personal communication. Ted Swem, USFWS, Fairbanks, Alaska, June 9, 2000), and none are anticipated to be affected by this plan.

Air Quality
Local air quality could be reduced by the limited use of explosives and by 4-wheelers and other access vehicles but these uses would be limited and temporary.

Wetlands
There are no wetlands within the claim area. Vehicles would cross Eldorado Creek to reach the mine site on a formerly bladed primitive access route. Other resource topics associated with wetlands, such as aquatic resources, will be evaluated in those sections.

Floodplains
The proposed work would qualify as an excepted action to NPS Floodplain Management guidelines because it is the type of activity that has no non-floodplain alternative (Gary Smillie, Hydrologist, NPS Water Resources Division, pers. comm.). The activity does not put personnel or real property at risk to flood events due to the low discharge of Eldorado Creek and the mobility of the equipment. Other resource topics associated with floodplains, such as aquatic resources, will be evaluated in those sections.

Cultural Resources
Cultural resources are not known from the claim or from along the route of travel to the claim. If previously unknown cultural resources were located during the program, the work would be halted in the area until cultural resource staff could determine the significance of the finding.

Subsistence
Subsistence uses do not presently occur in the Eldorado Creek drainage during the summer. The travel to the claim and the activities on the claim would have only a minor impact on the limited moose hunting that occurs in the drainage. As required by ANILCA § 810 an evaluation is attached in Appendix A.

Wilderness
The claim is not located inside designated wilderness boundaries. The claim is in an area found to be not suitable for wilderness designation (GMP, NPS, 1986) and none of the alternatives in the EIS on *Wilderness Recommendations for Denali National Park and Preserve* (NPS 1988) proposed wilderness designation for the area. Additionally, noise generated by the re-opening of the adit would not be expected to affect solitude in any adjacent wilderness areas.

Local Communities/Socioeconomic Resources
The proposed activities on the claim would have only a negligible effect on local communities or socioeconomic resources. Money to rent equipment or hire personnel would be spent throughout the state and it is unknown if any local residents would be hired for the program.

Environmental Justice
Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations,* requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. This plan would not result in significant changes in the socioeconomic environment of the area, and therefore is expected to have no direct or indirect impacts to minority or low-income populations or communities.

Permits and Approvals Needed To Complete the Project

A Special Use Permit with stipulations would be issued by the NPS to the claimant for the vehicular access and re-opening of the adit. No additional permits would be needed for this project.

II. DESCRIPTION OF THE ALTERNATIVES

Alternative 1- No Action (Environmentally Preferred Alternative)

Under this alternative, the adit would not be re-opened and no evidence would be assembled by the claimant or by the NPS on the Comstock #2 claim. This alternative would not be consistent with Administrative Law Judge Sweitzer's order.

Alternative 2- The Claimant's Sampling Plan

Milan Martinek proposes to access the Comstock #2 lode claim on Eldorado Creek in the Kantishna Hills and sample inside adit #3. The plan and subsequent supplement submitted by the claimant are attached as Appendix B and Appendix C. The crew would access the claim from the park road in a 4x4 pickup truck and 4-wheelers by fording Moose Creek at Kantishna, and then equipment, personnel and supplies would go up the Eldorado Creek valley primitive mining route for about 3 miles. Using an excavator, the NPS would remove enough of the rockfall on lower Eldorado Creek to allow passage of the claimant's 4x4 pickup truck and 4-wheelers. The rockfall would be replaced by the NPS after the project is completed. It is estimated that there

could be four to six vehicles traveling to the claim each day of the project and the activities in this proposal could require from 5-40 days of field time.

The adit #3 would be opened back up by using explosives to loosen the collapsed material at the adit portal, and then the material would be shoveled out of the portal by the crew. The slope below the adit portal is steep but widely covered with previous mining waste rock, and it is expected that the collapsed material would end up on top of this waste rock. The NPS would install a silt fence above the cabin and around the bottom of the waste rock slope to keep rocks from rolling onto the floodplain and into the creek. The pad in front of the adit portal would need to be widened by a few feet and flattened out to create a work area to store tools and timbers, as well as to work on. Any useful trees (white spruce six inches dbh) on the Comstock #2 claim would be cut down and cut to size to use as mine timbers to shore up the walls of the adit, and additional timbers would be brought in from outside the park by the claimant as necessary for adit stabilization. The use of trees **off** of the 18.2-acre claim for this purpose is not allowed by law. The timbers would be walked up the steep trail to the adit, or they could be dragged up the slope by using a chainsaw-type winch or by a simple pulley system.

When the adit is stabilized the claimant would notify the NPS that NPS could sample from the adit if it wants. The NPS Certified Mineral Examiner and the claimant could sample any re-exposed mineralization from adit #3 by taking samples of rock from the adit walls, roof, or floor using hand tools such as hammers and chisels. The samples would be marked and inventoried and would be sent to an assay office for evaluation.

The claimant would use shovels, pry bars, picks, wheelbarrows, chain saws, and other hand tools or light motorized tools.

The plan suggests that 3-10 people could be brought on site by the claimant and that they would camp at an agreed upon site in downtown Kantishna, or that some or all of the crew would camp on the claim. A helicopter supplied by the claimant may be used to transport crew or materials such as mine timbers. A park helicopter may also be used for access by NPS employees involved with the sampling. Up to 10 helicopter trips would be expected. A small cabin on the claim may be used for storage or for the crew's quarters. Opportunities for tenting on the claim would be limited due to the steepness of most of the land The nearby Kantishna airstrip would be usable for small aircraft to bring in supplies or personnel. Other airstrips located on the west side of Moose Creek are no longer usable due to erosion and vegetation growth.

Reclamation

A bond would be required of the claimant to cover re-closing the adit, for removing any supplies or equipment brought in for this sampling, and for restoring any flattened out land surfaces to their present irregular contours.

Logistics and Camp Setup

A camp would be set up by the claimant in an area of Kantishna to be determined by the NPS. Sites available could include the Friday Creek camp, where a vault toilet is available, or on the west side of Moose Creek where there are plenty of open gravel areas to park camp vehicles.

Kitchen and other wastes would be hauled to the Wonder Lake Ranger Station for disposal within the park's waste management system.

Alternative 3 – Claimant's Sampling Plan Amended by NPS (Preferred Alternative)

Alternative 3 would be similar to Alternative 2 in terms of the types of activities in the Eldorado Creek drainage as a whole, including the siting and logistics of the access and camp setup, as well as the reclamation requirements. Differences include:

1) Permissible activities would only be those necessary to re-expose the alleged discovery point in adit #3. No excavation of bedrock in or around Comstock #2 Consequently, the use of explosives would not be needed or authorized, either to loosen material at the adit portal or to expose minerals behind the surface of the adit walls, roof, or floor. The sloughed material filling the adit portal is already loose and shoveling and wheelbarrowing the material downslope would be all that is necessary to re-open the adit #3. The sampling authorized in Judge Sweitzer's order would only come from the surface of pre-existing exposures. Hand tools are the sufficient and traditional tools used for such sampling, even if explosives may have been used to excavate the adit originally.
2) "Following exposed rock" by drilling is not authorized by Judge Sweitzer and would not be permitted. The discovery would be on the face of the veins as they are intersected by the adit, and collecting samples by using a hammer and chisel is the sufficient and appropriate procedure.
3) Cutting white spruce trees on the claim to use as mine timbers would not be allowed because of the limited gain for the claimant versus the loss of vegetation community structure. Only a couple of the spruce trees on the claim would be of the size to have any value inside the adit (6 inches or greater diameter)
4) The claimant would install a silt fence above the cabin and around the bottom of the waste rock slope to keep rocks from rolling onto the floodplain and into the creek.

Reclamation

A bond would be required of the claimant to cover re-closing the adit, for removing any supplies or equipment brought in for this sampling, and for restoring any flattened out land surfaces to their present irregular contours.

Logistics and Camp Setup

A camp would be set up by the claimant in an area of Kantishna to be determined by the NPS. Sites available include the Friday Creek camp, where a vault toilet is available, or on the west side of Moose Creek where there are plenty of open gravel areas to park some camp vehicles. Kitchen and other wastes would be hauled to the Wonder Lake Ranger Station for disposal within the park's waste management system.

Alternatives Considered and Dismissed from Further Evaluation

No other alternatives were proposed by the claimant.

Environmentally Preferred Alternative

Alternative 1 (No Action) is identified as the Environmentally Preferred Alternative because it affects the least wildlife habitat and vegetation acreage. Both action alternatives involve over one acre of new disturbance to vegetation and wildlife habitat, as well as temporary adverse impacts to some visitor experiences.

Mitigation and Monitoring

Mitigation measures are specific actions that when implemented reduce impacts, protect park resources, and protect visitors. The following mitigation measures would be implemented under each action alternative and are assumed in the analysis of effects.

Vegetation and Soils. All material excavated from the adit would be spread on top of the existing slope of waste rock below the adit. A silt fence would be installed at the bottom of the slope to keep rocks and slough from rolling down onto the floodplain.

Wildlife and Habitat. The claimant and crew would follow established guidelines in the park's bear-human conflict management plan. The plan requires operators to use bear-proof containers for food and refuse.

Aquatic Resources. The rockfall on lower Eldorado Creek that is removed to allow vehicular access up the former mining route will be replaced by the NPS to insure that subsequent vehicular traffic is blocked from impeding natural recovery of the floodplain.

Natural Soundscape. Helicopters in use to support this sampling work would not fly over the lodges in Kantishna and generally would be limited to traveling north out of the Kantishna airstrip and around Alpha Ridge or Brooker Mountain to get to the claim area.

Cultural Resources. If previously unknown cultural resources were located during the program, the work would be halted in the area until cultural resource staff could determine the significance of the finding.

Visitor Use and Recreation. Inholders, lodge guests in Kantishna, and holders of backcountry permits for the area would be notified that equipment would be operating in the Eldorado Creek drainage that would be seen and heard by anyone walking near the Comstock #2 claim. They would also be notified that a camp would be set up in downtown Kantishna and that there would be vehicle traffic up the Eldorado Creek valley.

Safety. All NPS staff going inside the mine adit would wear hard hats and be under the supervision of the project mineral examiner.

Table 1. Summary Table of the Alternatives

Activity	**Alternative. 1 No Action**	**Alternative. 2 Claimant Plan**	**Alternative. 3 Claimant's Plan Amended by NPS *Preferred Alternative***
Size of Crew and Camping Situation	No impact.	3-10 in crew. Camping self-contained on disturbed ground in Kantishna or on claim.	3-10 in crew. Camping self-contained on disturbed ground in Kantishna or on claim.
Access	No impact.	Travel by large-tired pickup and 4-wheelers for 3 miles from Kantishna to claim site over old mining access route. About 4-6 vehicle trips from Kantishna to the claim per day of the project. Helicopter may be used for access; potentially 10 trips.	Travel by large-tired pickup and 4-wheelers for 3 miles from Kantishna to claim site over old mining access route. About 4-6 vehicle trips from Kantishna to the claim per day of the project. Helicopter may be used for access; potentially 10 trips.
Sampling tools	No impact	Air drills, explosives, chain saws and hand tools.	Chain saw winch and hand tools.
Duration of Effort	No impact	5-40 days	5-40 days

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Table 2. Summary Table of Impacts from the Alternatives

Impact Topic	**Alternative. 1 No Action**	**Alternative. 2 Claimant Plan**	**Alternative. 3 Claimant Plan Amended by NPS *Preferred Alternative***
Vegetation/Soils	No impact.	4-8 white spruce cut. ½ mile of overhanging willow and alder branches to be removed from alongside old access route. Some new waste rock to be deposited on old waste rock slope. Minor impact.	No white spruce cut. ½ mile of overhanging willow and alder branches to be removed from alongside old access route. Some new waste rock to be deposited on old waste rock slope. Minor impact.
Wildlife/Habitat	No impact.	Temporary impacts by disturbing or dispersing wildlife near sampling site would have no lasting effect.	Temporary impacts by disturbing or dispersing wildlife near sampling site would have no lasting effect.
Aquatic Resources	No impact	Turbidity release from vehicle use would result in moderate impacts to aquatic resources.	Turbidity release from vehicle use would result in moderate impacts to aquatic resources.
Natural Soundscapes	No Impact	Minor impact to natural soundscapes from vehicle use, explosives, and drilling.	Minor impact to natural soundscapes from vehicle use.
Visitor Use	No impact.	Up to 30 visitors per month directly affected. A few hundred temporarily affected by noise and visual disturbance. The re-disturbance to the recovering mining route would be invisible after 2-5 years. Minor impact.	Up to 30 visitors per month directly affected. A few hundred temporarily affected by noise and visual disturbance. The re-disturbance to the recovering mining route would be invisible after 2-5 years. Minor impact.

III. AFFECTED ENVIRONMENT

Detailed descriptions of the environment in the Kantishna Hills and Eldorado Creek area may be found in the *Environmental Impact Statement on the Cumulative Impacts of Mining in Denali National Park and Preserve (NPS 1990),* the *Draft Environmental Impact Statement for Spruce Creek Access* (NPS 1999), and the *Mineral Report on the Validity Examination of the Comstock #1 Lode, Comstock #2 Lode, Comstock #5 Lode, and Comstock #6 Lode Mining Claims (NPS 1997).* That information is incorporated by reference and is summarized below.

The project is located in T 16S, R 17W and T 16S, R 18W Fairbanks Meridian. The Comstock #2 claim is located on Eldorado Creek about 3 miles southwest of Kantishna. Kantishna is about 90 miles from the Parks Highway via a well-maintained gravel road through Denali National Park.

The main access to the claim is via an old mining route that starts at the park road at Kantishna, crosses Moose Creek on either of two fords, and then up Eldorado Creek (southwesterly) to the claim. The route crosses Eldorado Creek around 20-25 times and the crossings were used enough in the past that much of the silt at those crossings has washed away leaving the crossings "armored" with embedded cobbles. The last vehicular use of the mining route may have been in the early 1990s, as a rock slide about 1/4 mile upstream from Kantishna made it difficult for vehicular travel, and no mining plans of operation have been submitted or approved for any claims upstream on Eldorado Creek. Over the past 15-20 years the creek has often changed channels, or run in both the old channel and down the mining route during spring breakup, resulting in stream capture of about 10% of the former mining route. The stretches of mining route captured are usually rough for travel, with cobbles and boulders and very few fines, and short stretches continue to have water in both channels. The route was the starting point for use during the 1990s and early 2000s by a Kantishna lodge owner for day-long visitor trips by horseback, although route changes were made to avoid rough or underwater stretches of the mining route.

The elevation of the Eldorado Creek floodplain on the claim is at 1980 feet, with adit #3 at about 2150 feet. Kantishna is at about 1650 feet.

Vegetation and Soils

Vegetation on the Comstock #2 claim is mostly either tall shrub or low shrub communities, with very little vegetation growing within a wide triangle reaching from the uppermost adits to the floodplain bench on which the cabin sits. A few white spruce remain on the floodplain and are scattered within the tall shrub communities. The tall shrubs are either alder (Alnus crispa) or willow (Salix alaxensis, S. Barclayii, and other Salix spp.). The low shrubs are a mixture of

willow, dwarf birch (Betula nana), blueberry (Vaccinium uliginosum), Labrador tea (Ledum decumbens), Spirea (Spirea Beauverdiana), and other species. Other vegetation on the floodplain includes dwarf fireweed (Epilobium latifolium), numerous small mustards (Draba spp. and Arabis spp.) numerous composites (Aster sibiricus, Erigeron spp., Senecio spp.) and other forbs and grasses such as Saxifraga spp., Stellaria spp., Dryas spp., and Calamagrostis canadensis.

The most common soil type in the area of the project is the mine waste rock excavated from the upper adits and thrown or eroded downhill, extending to about 250 feet wide at the bottom of the hill. The access route goes through a floodplain dominated by tall shrubs with occasional stands of white spruce. The hillsides are densely covered in spruce forests or shrub thickets, with the spruce thinning by the time the claim is reached.

Wildlife and Habitat

The most common wildlife species in the project area are red fox, snowshoe hares, arctic ground squirrels and various birds such as ptarmigan, chickadees, ravens, magpies, and numerous migratory species. The area also provides moose habitat, travel corridors and berries for grizzly bears, and range for caribou, wolves and wolverines.

Air Quality

Denali National Park and Preserve is a Federal Class 1 Air Quality Area under the Clean Air Act of 1977. Air quality is monitored near park headquarters through national networks: National Atmospheric Deposition Program (NADP for acid rain), Interagency Monitoring of protected Visual Environments (IMPROVE for haze and particulate monitoring), and the NPS ozone monitoring network. Denali documents some of the nation's best air quality.

Aquatic Resources

Eldorado Creek is a tributary of Moose Creek, drains an area of 9,025 acres, and its flow averages 7-12 cubic feet per second during the summer. A primitive route leaves Kantishna and travels up the stream valley to the Comstock #2 claim while crossing the stream 20-25 times, and the route then travels up to former mining claims on upper Slate Creek, the major tributary of Eldorado Creek. Undisturbed sections on Eldorado Creek above the Slate Creek confluence provide good arctic grayling habitat. Mined streams contain dramatically less available food for fish in direct proportion to the degree of mining disturbance. Downstream of the Slate Creek confluence approximately 97 acres of aquatic and riparian habitat in the Eldorado Creek valley, comprising 2.1 miles of the stream, have been disturbed by mining activities. In some of these disturbed sections near Kantishna the stream flows in man-made channels. In areas not disturbed by the access route and past mining there is riparian vegetation and there are a moderate number of good fish pools. Although no fish were observed below the Comstock #2 claim during a visit in the fall of 2005, NPS fisheries researchers in 1981 found a low to moderate density of arctic grayling. Eldorado Creek, like Slate Creek, has natural iron-rich springs. Mining-related disturbance on Eldorado and Slate Creeks has caused extensive exposure of pyrite-rich areas, which oxidize and contribute iron and acid to the Eldorado Creek stream system in concentrations above its natural levels.

Moose Creek drains about 150 square miles and its flow averages 200-500 cfs during the summer. Below Eldorado Creek Moose Creek provides quality grayling habitat in reaches where

natural pools create resting and feeding areas. The vehicle ford on Moose Creek has been used extensively over the past 30 years since intensive placer mining at the site during the early 1970s.

Natural Soundscape
Away from the park road, natural sounds prevail in the upper Eldorado Creek valley. However, due to the proximity to the Kantishna airstrip, flightseeing, administrative and general aircraft use can intrude 4-20 times per day, depending on weather and other factors. The Denali Final Backcountry Management Plan provides soundscape standards for the Eldorado Creek area. Motorized noise may be audible up to 15% of any hour, and there may be as many as 10 motorized noise intrusions per day that exceed natural ambient sound.

Cultural Resources
Cultural resources in the Eldorado Creek area include cabins and cabin ruins, historic mining sites and possible historic tool use areas. Cabin and cabin ruins are located in Kantishna. The other known cultural resources are also located off the Comstock #2 claim.

Visitor Use
Visitor use in the Eldorado Creek valley is limited, due to the unbridged crossing of Moose Creek necessary to start a trip there, and, perhaps, to the vertical distance to alpine areas. Kantishna Lodge employees likely make up a large part of the users. The low slopes of the Eldorado Creek drainage provide fairly low quality recreational lands and vistas, due to the fairly dense high shrub thickets above the floodplain, but there are openings and animal trails for human travel and the further up the creek one goes the easier is the access to small ridges for walking between the floodplain and the alpine areas above.

The floodplain has decades of scars from mining and mining-related activities, but it is narrow enough that it would be mainly used as a travelway rather than as a destination. Probably no more than thirty people per summer month would travel across or into the Eldorado Creek valley. The lack of mining since 1985 has allowed areas on the lower floodplain to re-grow a vegetative cover that was not there during the mining years. A ridgeline airstrip above Slate Creek is unmaintained and uncommonly used. A route commonly used by the Kantishna lodges leaves the lower Eldorado Creek valley and climbs a ridge to the top of Busia Mtn, without viewing the Comstock area.

The upper Moose Creek valley is within Backcountry Unit # 43, which has a limit of 8 backcountry campers per night. Approximately 115 park users camped in the unit in 2005, for a registered total of 176 user nights. Most users probably get as far upstream as the Comstock #2 claim, unless they are camped on Alpha Ridge, Busia Mtn, or on Brooker Mtn. The Kantishna Roadhouse had a horseback operation for guests from 1995-2002 that traveled up the Eldorado Creek valley between Kantishna and the ridge south of Slate Creek.

Away from the park road, natural sounds prevail in the upper Eldorado Creek valley. However, flightseeing, administrative and general aircraft use can intrude 4-20 times per day, depending on weather and other factors.

IV. ENVIRONMENTAL CONSEQUENCESS OF THE ALTERNATIVES

Assumptions for Impact Analyses

This section contains an evaluation of the direct and indirect environmental impacts of the proposal, preferred alternative, and the no action alternative. The analysis assumes that the mitigation identified in the *Mitigation and Monitoring* section (page 15) of this environmental assessment would be implemented under any of the action alternatives.

The level of disturbance and impact from these alternatives is not intense enough to require a detailed evaluation of the target resources relative to the Resource Protection Goals (percentage of a specific habitat that was available to each target resource in the study area prior to mining disturbance) established in the 1990 Mining EIS. None of the short-term or long-term values for the target resources would be affected enough by the alternatives to materially change the values or to change them relative to the goals for the target resources.

Cumulative impacts were analyzed to add up the incremental impacts to the environment resulting from adding the alternatives to other past, present, and reasonably foreseeable future actions. The cumulative impacts relate primarily to previous mining and mining-related disturbance to aquatic resources, and other natural processes. A detailed cumulative impact analysis for related mining plans of operations is found within the Mining EIS.

Alternative 1: No Action (Environmentally Preferred Alternative)

Vegetation and Soils
No vegetation would be removed or disturbed. Existing soil strata would not be removed or altered and land contours would also not be altered.

Wildlife and Habitat
There would be no disturbance to wildlife habitat.

Aquatic Resources
Water quality would be unaffected by this alternative.

Natural Soundscape
The natural soundscape would be unaffected by this alternative.

Visitor Use
Recreational opportunities for visitors and the visual quality of the area would not be affected by this alternative.

Cumulative Effects: The impacts of this alternative to natural and cultural resources such as vegetation and wildlife habitat would be minimal to non-existent and there would not be a contribution to any impacts from other local or regional projects.

Conclusion: In summary, this alternative would result in continuation of the status quo in the Eldorado Creek area. This alternative would not impair park resources, but it also would not comply with Judge Sweitzer's order that the claimant be provided an opportunity to re-expose the discovery point to assist in determining the validity of the claim.

Alternative 2: Claimant's Sampling Plan

Vegetation and Soils

It is unlikely that any acreage of vegetation would be removed under this alternative. The work at the adit would either be underground or on a slope mainly made up of unvegetated mining waste rock. Should drilling or the use of explosives inside the adit produce more waste rock than just the slough removed from the adit portal, that additional waste rock would be caught either by the silt fence or come to rest on the existing waste rock-covered slope. The campsite in Kantishna would be on previously disturbed ground – either at the park's Friday Creek camp or on former placer-mined ground west of Moose Creek. Any tenting done on the claim would have a temporary and negligible impact on the floodplain vegetation. Due to the lack of recent vehicular use and the stream capture of some of the access route up Eldorado Creek, use of that mining route would require brushing of up to ½ mile of the route which would remove willow and alder branches, but not the whole plants. Forbs growing in the tracks of the route would be removed by the action of the light vehicle tires. Approximately 4-8 white spruce would be cut down on the claim to be used for mine timbers.

The restoration of the rockfall on the lower creek after the sampling project would block subsequent vehicle traffic and insure rapid re-growth of the floodplain vegetation. Floodplains have well-watered soils, are relatively warm in summer, and removal of the light vehicle traffic after the sampling would allow natural restoration to return the access route to an appearance of natural conditions in 2-5 years,

Cumulative Effects: The total acreage of existing disturbance to tall and short shrub vegetation in the Kantishna Hills is 1,022 acres, including short shrub vegetation that likely covered the slope below the adits before mining, and adding this alternative would not measurably increase that number. It is possible that there would be mining on placer claims on Eldorado Creek, but the claim holders have not submitted a mining plan of operations, consequently placer mining is not foreseeable. The vegetation removal from this alternative is not expected to have a significant cumulative impact on the thousands of acres of tall and short shrub or other vegetation resources in the Kantishna Hills area.

Conclusion: The brushing of shrubs, the removal of 4-8 white spruce, and the crushing of forbs in the tracks of the mining access route in Eldorado Creek would result in a minor adverse impact to vegetation and soil in the Kantishna Hills area of the park. This impact would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Wildlife and Habitat

Brushing the access route would remove willow branches overhanging or leaning across the mining access route up Eldorado Creek that could provide food for moose or other herbivores such as

snowshoe hares. Plan implementation would produce noise and activity levels for up to 40 days that would disturb wildlife and cause them to disperse from adjacent areas during this time period.

Cumulative Effects: The total acreage of existing disturbance to wildlife habitat in the Kantishna Hills is 1,577 acres and including this alternative would not measurably increase that number. It is possible that there would be mining on placer claims on Eldorado Creek, but the claim holders have not submitted a mining plan of operations, consequently placer mining is not foreseeable. The temporary and short-term impacts to wildlife habitat are not expected to have a significant cumulative impact on the wildlife and their habitat in the Kantishna Hills area.

Conclusion: The brushing of shrubs, the removal of 4-8 white spruce, and the crushing of forbs in the tracks of the mining access route in Eldorado Creek would result in negligible adverse impacts on wildlife and their habitat. The restoration of the rockfall on the lower creek after the sampling project would block subsequent vehicle traffic and insure rapid re-growth of the floodplain vegetation. The impact to wildlife and their habitat would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Aquatic Resources

The main impact to aquatic resources would likely be from daily use of a pick-up truck and 4-wheelers to travel between Kantishna and the Comstock #2 claim. The use of vehicles on the route could add up to 240 trips over 40 days. The turbidity stirred up by taking motor vehicles across the 20-25 creek crossings daily would be minor at almost all of the crossings due to the armoring at the crossings from past decades of use. The former route has washed away in some areas, but most of the fines have been removed by stream flooding at those sites. The trampling of vegetation presently growing in the tracks of the mining route would lead to loosened soil that could erode into the creek, especially during rainy periods. Some release of soils into the active channel causing increased turbidity is inevitable from crossing the creeks in access vehicles, and to a lesser extent from the sampling effort. However, no heavy equipment would be used to improve the route or crossings above the lower rockfall. Some of the soils loosened by the vehicle traffic would result in an immediate increase in stream turbidity and this effect would continue in future years, at a diminishing rate, until the vegetation regrows in the mining route to stabilize the soils. The increases in stream turbidity would have a moderate impact on the aquatic resources of Eldorado Creek. The use of a ford on Moose Creek to access the Eldorado Creek valley would be at an armored site without pools. A small amount of turbidity would be released with each crossing. It is not expected that stream turbidity or settleable solids measurements would exceed State of Alaska standards. There would be no vehicular travel through fish pools.

The removal on lower Eldorado Creek of enough of the rockfall to allow passage by a large-tired pickup truck and 4-wheelers would widen the creek channel at that pinch point – and lower the creek depth from three feet to less than two feet – and would have a negligible effect on aquatic resources because that deeper section does not act like a slow pool, but more like a flume.

Cumulative Effects: A total of 33.3 stream miles were disturbed by mining in the Kantishna Hills and this alternative would not measurably increase that number. It is possible that there would be future mining on placer claims on Eldorado Creek.

Conclusion: The proposal to use motor vehicles to access the Comstock #2 claim in the Eldorado Creek floodplain would result in moderate adverse impacts to aquatic resources. The moderate impact to aquatic resources would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Natural Soundscape

Noise and visual impacts in the Eldorado Creek valley would directly, if temporarily, inconvenience up to 30 visitors per month during the life of the sampling program. Up to 4-6 vehicles would travel daily from Kantishna on the valley mining route to the claim and back. Helicopter noise from about 10 trips over the life of the project would be concentrated in the Slate Creek and upper Eldorado Creek valley. Explosives might be used once and would create a loud surprising noise. The use of a compressor and drill to open up rock within the adit would create some level of continuous noise in the valley during the use of that equipment. Noise and other impacts from the sampling program in the Eldorado Creek valley would not affect visitors in adjacent areas, except possibly in Kantishna where vehicle use of the park road, lodge generators, and aircraft use of the airstrip creates a continuous low level of noise. Some backpackers may choose to camp in other area drainages.

Cumulative Effects: Natural sounds prevail in the upper Eldorado Creek valley, although the flightseeing, general aviation and administrative aircraft use out of the Kantishna airstrip can be faintly heard 4-20 times per day, depending on weather and other factors. Use of the park road by buses and other vehicles would not be heard at the claim. No other actions are known that would cause mechanical noise to affect the upper Eldorado Creek valley. The use of vehicles for access would not exceed the soundscape standards in the Denali Final Backcountry Management Plan.

Conclusion: The proposal to use motor vehicles to access the Comstock #2 claim in the Eldorado Creek floodplain would result in minor adverse impacts to natural soundscape resources. The minor impact to natural soundscape resources would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Visitor Use

Visitors would be told at the visitor access center or at their lodge that the work would intrude into the Eldorado Creek backcountry of the Kantishna Hills. Visitor opportunities for solitude or to experience the quiet natural world would temporarily be affected by the sampling activities.

The visual quality of the area would be compromised by the use of motor vehicles on the mining route that has been reclaiming naturally for 10-12 years. This impact would be mitigated by natural reclamation but would remain visible for 2-5 years. The removal on lower Eldorado Creek of enough of the rockfall to allow passage by a large-tired pickup truck and 4-wheelers would also detract from the continuing natural reclamation of the man-made disturbances in the creek valley although the rockfall would be replaced after the sampling is finished.

Cumulative Effects: Additional projects that would affect recreational opportunities in the Kantishna Hills area of the park include continuing reclamation on former mining claims on Caribou Creek and Moose Creek. These projects could eventually benefit park visitor experiences and recreational opportunities by bringing those areas closer to a natural appearance.

Conclusion: The recreational opportunities of a small number visitors to the Eldorado Creek valley would be temporarily adversely affected because of increased noise and vehicular traffic during operations. It would also temporarily adversely affect visual quality in much of the Eldorado Creek valley and it would affect the visual quality along the mining route in the valley for 2-5 years. A larger number of visitors staying at the lodges or traveling the park road would be affected by the project-related camp activities, but these impacts are expected to be minor.

Alternative 3: Claimant's Sampling Plan as Amended by NPS (Preferred Alternative)

Vegetation and Soils

It is unlikely that any acreage of vegetation would be removed under this alternative. The work at the adit would either be underground or on a slope mainly made up of unvegetated mining waste rock. The campsite in Kantishna would be on previously disturbed ground – either at the park's Friday Creek camp or on former placer-mined ground west of Moose Creek. Any tenting done on the claim would have a temporary and negligible impact on the floodplain vegetation. Due to the lack of recent vehicular use and the stream capture of some of the access route up Eldorado Creek, use of that mining route would require brushing of up to ½ mile of the route which would remove willow and alder branches. Forbs growing in the tracks of the route would be removed by the action of the light vehicle tires. No white spruce would be cut down on the claim to be used for mine timbers.

Floodplains have well-watered soils, are relatively warm in summer, and removal of the light vehicle traffic after the sampling would allow natural restoration to return the access route to an appearance of natural conditions in 2-5 years,

Cumulative Effects: The total acreage of existing disturbance to tall and short shrub vegetation in the Kantishna Hills is 1,022 acres, including short shrub vegetation that likely covered the slope below the adits before mining, and adding this alternative would not measurably increase that number. It is possible that there would be future mining on placer claims on Eldorado Creek, but the claim holders have not submitted a mining plan of operations, consequently, placer mining is not foreseeable. The vegetation removal from this alternative is not expected to have a significant cumulative impact on the thousands of acres of tall and short shrub or other vegetation resources in the Kantishna Hills area.

Conclusion: The brushing of shrubs and the crushing of forbs in the tracks of the mining access route in Eldorado Creek would result in a minor adverse impact to vegetation and soil in the Kantishna Hills area of the park. This impact would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Wildlife and Habitat

Plan implementation would remove willow branches - that could provide food for moose or other herbivores such as snowshoe hares - overhanging or leaning across the mining access route up Eldorado Creek. The sampling efforts would produce noise and activity levels for up to forty days that would disturb wildlife and cause them to disperse from adjacent areas during this time period. No explosives would be used.

Cumulative Effects: The total acreage of existing disturbance to wildlife habitat in the Kantishna Hills is 1,577 acres and including this preferred alternative would not measurably increase that number. It is possible that there would be future mining on placer claims on Eldorado Creek, but the claim holders have not submitted a mining plan of operations, consequently placer mining is not foreseeable. The temporary and short-term impacts to wildlife habitat are not expected to have a significant cumulative impact on the wildlife and their habitat in the Kantishna Hills area.

Conclusion: The brushing of shrubs and the crushing of forbs in the tracks of the mining access route in Eldorado Creek would result in negligible adverse impacts on wildlife and their habitat. The restoration of the rockfall on the lower creek after the sampling project would block subsequent vehicle traffic and insure rapid re-growth of the floodplain vegetation. The impact to wildlife and their habitat would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Aquatic Resources

The main impact to aquatic resources would likely be from daily use of a pick-up truck and 4-wheelers to travel between Kantishna and the Comstock #2 claim. The use of vehicles on the route could add up to 240 trips over 40 days. The turbidity stirred up by taking motor vehicles across the 20-25 creek crossings daily would be minor at almost all of the crossings due to the armoring at the crossings from past decades of use. The former route has washed away in some areas, but most of the fines have been removed by stream flooding at those sites. The trampling of vegetation presently growing in the tracks of the mining route would lead to loosened soil that could erode into the creek, especially during rainy periods. Some release of soils into the active channel causing increased turbidity is inevitable from crossing the creeks in access vehicles, and to a lesser extent from the sampling effort. However, no heavy equipment would be used to improve the route or crossings above the lower rockfall. Some of the soils loosened by the vehicle traffic would result in an immediate increase in stream turbidity and this effect would continue in future years, at a diminishing rate, until the vegetation regrows in the mining route to stabilize the soils. The increases in stream turbidity would have a moderate impact on the aquatic resources of Eldorado Creek. The use of a ford on Moose Creek to access the Eldorado Creek valley would be at an armored site without pools. A small amount of turbidity would be released with each crossing. It is not expected that stream turbidity or settleable solids measurements would exceed State of Alaska standards. There would be no vehicular travel through fish pools.

The removal on lower Eldorado Creek of enough of the rockfall to allow passage by a large-tired pickup truck and 4-wheelers would widen the creek channel at that pinch point – and lower the creek depth from three feet to less than two feet – and would have a negligible effect on aquatic resources because that deeper section does not act like a slow pool, but more like a flume.

Cumulative Effects: A total of 33.3 stream miles were disturbed by mining in the Kantishna Hills and this alternative would not measurably increase that number. It is possible that there would be future mining on placer claims on Eldorado Creek.

Conclusion: The proposal to use motor vehicles to access the Comstock #2 claim in the Eldorado Creek floodplain would result in moderate adverse impacts to aquatic resources. The moderate impact to aquatic resources would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Natural Soundscape

Noise and visual impacts in the Eldorado Creek valley would directly, if temporarily, inconvenience up to 30 visitors per month during the life of the sampling program. Up to 4-6 vehicles would travel daily from Kantishna on the valley mining route to the claim and back. Helicopter noise from about 10 trips over the life of the project would be concentrated in the Slate Creek and upper Eldorado Creek valley. Noise and other impacts from the sampling program in the Eldorado Creek valley would not affect visitors in adjacent areas, except possibly in Kantishna where vehicle use of the park road, lodge generators, and aircraft use of the airstrip creates a continuous low level of noise. Some backpackers may choose to camp in other area drainages.

Cumulative Effects: Natural sounds prevail in the upper Eldorado Creek valley, although the flightseeing, general aviation and administrative aircraft use out of the Kantishna airstrip can be faintly heard 4-20 times per day, depending on weather and other factors. Use of the park road by buses and other vehicles would not be heard at the claim. No other actions are known that would cause mechanical noise to affect the upper Eldorado Creek valley. The use of vehicles for access would not exceed the soundscape standards in the Denali Final Backcountry Management Plan.

Conclusion: The proposal to use motor vehicles to access the Comstock #2 claim in the Eldorado Creek floodplain would result in minor adverse impacts to natural soundscape resources. The minor impact to natural soundscape resources would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Visitor Use

Visitors would be told at the visitor access center or at their lodge that the work would intrude into the Eldorado Creek backcountry of the Kantishna Hills. Visitor opportunities for solitude or to experience the quiet natural world would temporarily be affected by the sampling activities.

The visual quality of the area would be compromised by the use of motor vehicles on the mining route that has been reclaiming naturally for 10-12 years. This impact would be mitigated by natural reclamation but would remain visible for 2-5 years. The removal on lower Eldorado Creek of enough of the rockfall to allow passage by a large-tired pickup truck and 4-wheelers would also detract from the continuing natural reclamation of the man-made disturbances in the creek valley although the rockfall would be replaced after the sampling is finished. Since the area

historically had a variety of mining-related disturbance, the presence of the sampling work would not be out of character.

Cumulative Effects: Additional projects that would affect recreational opportunities in the Kantishna Hills area of the park include continuing reclamation on former mining claims on Caribou Creek and Moose Creek. These projects could eventually benefit park visitor experiences and recreational opportunities by bringing those areas closer to a natural appearance.

Conclusion: The recreational opportunities of a small number visitors to the Eldorado Creek valley would be temporarily adversely affected because of increased noise and vehicular traffic during operations. It would also temporarily adversely affect visual quality in much of the Eldorado Creek valley and it would affect the visual quality along the mining route in the valley for 2-5 years. A larger number of visitors staying at the lodges or traveling the park road would be affected by the project-related camp activities, but these impacts are expected to be minor.

IV. CONSULTATION AND COORDINATION

The following individuals were consulted during the preparation of this Environmental Assessment:

Ted Swem, Wildlife Biologist, U.S. Fish and Wildlife Service, Fairbanks, Alaska
Russ Kucinski, Team Leader, Natural Resources Branch, Alaska Regional Office, NPS
Bruce Giffen, Mining Geologist, Alaska Regional Office, NPS
Chuck Gilbert, Lands Team Manager, Alaska Regional Office, NPS
Paul Anderson, Superintendent, DENA, NPS
Phil Brease, Geologist, DENA, NPS
John Burghardt, Geologist, Certified Mineral Examiner, Geologic Resources Division, NPS (Denver, CO)
Andrew McCarthy, Environmental Protection Specialist, Alaska Regional Office, NPS
Richard L. Anderson, Environmental Protection Specialist, Alaska Regional Office, NPS

This Environmental Assessment was prepared by:

Steve Carwile, Compliance Program Manager, Denali National Park and Preserve
Jon Paynter, Information Resources Branch Chief, DENA, NPS

VI. SELECTED REFERENCES

1986, NPS, *General Management Plan*, Denali National Park and Preserve, Denali Park, Alaska
1988, NPS, *Wilderness Recommendations for Denali National Park EIS*, Alaska Regional Office, Anchorage, Alaska
1991, *Record of Decision, Cumulative Impacts of Mining Environmental Impact Statement, Denali National Park and Preserve*, Alaska Regional Office, Anchorage, Alaska
1997, NPS, *Mineral Report on the Validity Examination of the Comstock #1 Lode, Comstock #2 Lode, Comstock #5 Lode, and Comstock #6 Lode Mining Claims*
1999, NPS, *Spruce Creek Access EIS*, Denali National Park and Preserve, Denali Park, Alaska
2005, 166 IBLA 347, Interior Board of Land Appeals, Washington DC

APPENDIX A

ANILCA Section 810(a) Summary of Evaluations and Findings

I. Introduction

This evaluation and finding was prepared to comply with Title VIII, section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It evaluates the potential restrictions to subsistence activities, which could result from re-opening adit #3 on the Comstock #2 unpatented lode mining claim on Eldorado Creek in the Kantishna Hills of Denali National Park and Preserve. Administrative Law Judge Sweitzer ordered NPS to allow the claimant to take the opportunity within the next available field season to attempt to re-expose the alleged discovery point in adit #3 on the claim.

II. The Evaluation Process

Section 810(a) of ANILCA states:

"In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . the head of the Federal agency . . . over such lands . . . shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be affected until the head of such Federal agency:

1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;

2) gives notice of, and holds, a hearing in the vicinity of the area involved and;

3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity would involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, (C) and reasonable steps would be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions."

ANILCA created new units and additions to existing units of the national park system in Alaska. The Denali National Park and Preserve additions were created by ANILCA section 202(3)(a) for the purposes of:

> "The park additions and preserve shall be managed for the following purposes, among others: To protect and interpret the entire mountain

massif, and additional scenic mountain peaks and formations; and to protect habitat for, and populations of fish and wildlife, including but not limited to, brown/grizzly bears, moose, caribou, Dall sheep, wolves, swans and other waterfowl; and to provide continued opportunities including reasonable access, for mountain climbing, mountaineering, and other wilderness recreational activities."

The potential for significant restriction must be evaluated for the proposed action's effect upon
". . . subsistence uses and needs, the availability of other lands for the purposes sought to be achieved and other alternatives which would reduce or eliminate the use."

III. Proposed Action on Federal Lands

The National Park Service (NPS) is considering a plan by the claimant on Comstock #2, as modified by the NPS (Alternative #3), to re-open the discovery point of adit #3. The work could require 5-30 days of field time for 3-10 people. They would camp at an agreed upon site in downtown Kantishna or some or all of the crew would camp on the claim. The crew would access the claim from the park road in a 4x4 truck and 4-wheelers by fording Moose Creek at Kantishna and then equipment, personnel and supplies would go up the Eldorado Creek valley primitive mining route. A helicopter supplied by the claimant may be used to transport crew or materials such as mine timbers. A park helicopter may also be used for incidental support of the claimant or for access by NPS employees involved with the sampling. A small cabin on the claim may be used for storage or for the crew's quarters.

Collapsed material at the adit portal would be shoveled out by the crew. The slope below the adit portal is steep but widely covered with previous rock waste and it is expected that the collapsed material would end up on top of the rock waste. When the adit is stabilized the claimant and the NPS Certified Mineral Examiner would attempt to re-expose the discovery by taking samples of rock from the adit walls by using hand tools such as hammers and chisels.

The two alternatives are described below:

Alternative #1 - No-Action. Under this alternative, the adit would not be re-opened and no evidence would be assembled by the claimant on the Comstock #2 claim.

Alternative #2 – Claimant's Sampling Plan. This alternative would be similar to Alternative 3 in terms of the types of activities at each site and in the Eldorado Creek drainage as a whole, including the siting and logistics of the access and camp setup. However, explosives could be used to loosen or remove slough from the adit opening; drilling within the adit could be allowed for the purpose of defining the ore body, and spruce trees on the claim could be cut to produce mine timbers to shore up the inside of the adit.

IV. Affected Environment

Introduction

The Eldorado Creek area is located within the Moose Creek drainage of the Kantishna Hills. The Kantishna Hills range from 800 to 4,987 feet in elevation and are located 2 to 10 miles north of the Alaska Range. Because of the wide variety of topographic relief in the area, most plant communities typical of the Alaska taiga are represented. Alpine tundra along the ridges and peaks gives way to low shrubs on slopes and tall shrubs in ravines. Tall shrubs predominate along drainages and steep slopes on hills. At lower elevations, upland forests occur on shallow slopes, and flood plain forests are found along lower portions of Moose Creek.

Eldorado Creek is a small stream (7-12 cubic feet per second average during summer) flowing north and northeast out of the Kantishna Hills before joining Moose Creek at Kantishna. Slate Creek is a major tributary of Eldorado Creek that flows from mineralized ground to the west. Moose Creek is the main stream draining the south and southwestern region of the Kantishna Hills.

Park Environment

The original Mount McKinley National Park, which was established in 1917, is located in the interior of Alaska and is dominated by an east to west line of towering glaciated mountains known as the Alaska Range. The range rises abruptly from lowlands 500 to 2,000 feet in elevation to the pinnacle of Mount McKinley, North America's highest mountain, at 20,320 feet. In 1980, ANILCA enlarged the original park to more than 6 million acres and redesignated the area as Denali National Park and Preserve.

The protected subarctic ecosystem of Denali provides habitat for 30 species of mammals, at least 102 species of breeding birds, 16 species of fish (twelve resident species and four anadromous pacific salmon species), and 1 amphibian. The American peregrine falcon is a former endangered species known to occur in the park and preserve. No known threatened aquatic or plant species are known to exist in the park and preserve.

Vegetative cover in Denali is typical of interior Alaska taiga. Lowland floodplains are dominated by dense, deciduous or coniferous forest, or a mixed forest of balsam popular and white spruce. Upland forests tend to be more open with mixed or continuous stand of black spruce, white spruce, or aspen. Upland forests give way to shrub communities at elevations above approximately 2,400 feet. Glacial rivers flowing from the Alaska Range create broad, braided floodplains that are sparsely vegetated. Tall shrub communities of willow and alder grow on moist slopes and along drainages, and low shrub communities of dwarf birch and willow grow at higher elevations or on dry slopes. Alpine tundra, composed of dryas and dwarf willow shrub, mat and cushion species, or grass and sedge mixes grows on slopes and ridges.

About 100 archeological sites have been recorded within Denali National Park and Preserve with seven sites identified along the north bench of the Moose Creek drainage within the project area.

Archeological investigations conducted within and immediately adjacent to the park strongly suggests that sites dating from the Paleoarctic tradition (10,000 years before present) through the Protohistoric period (200 years before present) exist within the park.

Several Athabaskan Indian groups used the Denali area historically. The Ahtna people of Cantwell arrived from the east; the Tanana people came into the area from the north traveling up the Nenana and Toklat Rivers; the Koyukon people who lived at Lake Minchumina ascended the McKinley-Foraker-Heron Rivers; the Upper Kuskokwim people who still live in Nikolai and Telida approached the park from the west; and the Dena'ina people approached the park from the south.

Subsistence activities included large mammal hunting, fishing, trapping, and gathering of plants and berries. The Kantishna Hills, including Moose Creek, has a long history of subsistence use.

More comprehensive descriptions of the Affected Environment within Denali National Park and Preserve can be found in the following recent park documents.

EIS on the Cumulative Impacts of Mining in Denali National Park and Preserve, 1990.

An Overview and Assessment of Archeological Resources, Denali National Park and Preserve, Alaska, Research/Resources Management Report AR-16, Kristen Griffen, 1990.

Denali National Park and Preserve, Final General Management Plan, Land Protection Plan, 1985.

Land Use in the North Additions of Denali National Park and Preserve: An Historical Perspective, Research/Resources Management Report AR-9, William Schneider, Dianne Gudgel-Holmes and John Dalle-Molle, 1984.

Subsistence Resource Use in the Proposed North Additions to Mt. McKinley National Park, Paper No. 17, Richard H. Bishop, 1978.

V. Subsistence Uses and Needs Evaluation

Background Information

The area within the former boundaries of Mount McKinley National Park is not open to subsistence uses. It is however surrounded by additions to the new park and preserve created under ANILCA, which are open to subsistence uses. The Kantishna Hills area was added as new park lands and is open to subsistence use.

Denali National Park and Preserve has a total of about 320 eligible local rural residents who qualify for subsistence use of park and preserve resources. Subsistence users for the ANILCA park additions primarily reside in the communities of Cantwell, Lake Minchumina, Nikolai, and Telida. Other local rural residents who do not live in these designated resident zone

communities, but who have customarily and traditionally engaged in subsistence activities within the park, may continue to do so pursuant to a subsistence permit issued by the park superintendent. Individuals from McKinley Village, Nenana, Healy, and Tanana have received subsistence use permits.

In the past, subsistence users of the Kantishna Hills region included two families permanently residing in the Kantishna area, approximately twelve households from the McKinley Village area, and several households from Cantwell. Approximately 147 people live in Cantwell. Residents from the communities of Lake Minchumina, Telida and Nikolai are eligible to utilize subsistence resources from the Kantishna Hills area but most do not do so because their distance from and difficulty in accessing the Kantishna area. Currently, no subsistence users permanently reside in the Kantishna community and only one family resides and traps in the lower Moose Creek/Bearpaw drainage to the north of Kantishna. His trapline does not extend into the upper Moose Creek project area.

Subsistence use of the Kantishna Hills has decreased in recent years for various reasons including: the departure of all people claiming Kantishna as a permanent residence, park road restrictions and access permit requirements due to increasing vehicle traffic, ATV use restrictions off existing roads, the closure of caribou hunting season since 1977, a negative customary and traditional use determination for McKinley Village area residents for use of moose in 1987, significantly increasing recreational use activity, initiation of a public safety firearms discharge restriction along the Kantishna Road during the first two weeks of September, and increasing cost for making the 180 mile round trip into the Kantishna area. The cumulative effect has been diminishing subsistence use in the Kantishna Hills area.

Prior to ANILCA local rural subsistence users would drive the Park Road to access Kantishna, then either use motor vehicles, ATV's, horses, hiking, or a combination of the above to access the area for hunting and fishing. Ten of the twelve subsistence use permittees have documented that they utilized the upper Moose Creek drainage prior to ANILCA. Four of the households indicated they accessed the upper Clearwater River drainage by traveling up the North Fork of Moose Creek to Spruce Creek, then into the headwaters of the Clearwater River for hunting moose and caribou. Two of the four households accessed the Clearwater River by this route using ATV's, and the other two used horses.

The primary subsistence use of the Kantishna Hills has been for hunting moose and caribou during the fall hunting seasons. Subsistence use of caribou in wildlife management unit 20(C), which includes the Kantishna Hills region, has been closed since 1977 due to the depressed population of the Denali Caribou Herd. Moose are now the main subsistence use species for the Kantishna Hills area. Incidental to moose and caribou hunting, subsistence users have harvested black bear, brown bear, ptarmigan, spruce grouse, and snowshoe hare, fished for grayling and salmon, and picked berries. The Moose Creek drainage up stream from the Park Road has been, and continues to be, the most significant subsistence use area within the Kantishna Hills due to it's diversity of resources and reasonable access via the former mining routes. The Eldorado Creek area has also been used in recent years for moose hunting, generally by horseback.

Subsistence moose hunting seasons are September 1st through September 30th, and November

15th through December 15th for antlered bull moose. Most moose hunting occurs during the early to mid part of September due to more reliable weather, generally lower water in the creeks, better quality of meat before the rut, cooler temperatures, and falling of leaves which makes locating moose and processing of meat easier. During the later part of September, weather can be a significant factor resulting in closure of the Denali Park Road to Kantishna. Also, during the later part of September (typically by the middle of the month) mature bull moose are well into the rutting period which affects the quality of the moose meat.

Recreational use has increased significantly in the Kantishna Hills areas since the park was expanded by ANILCA. Five private recreational facilities now operate in Kantishna area from early June until the middle of September. During the summer months the developed areas of Kantishna, (along Kantishna Road and Moose Creek near the recreational facilities to the Kantishna airstrip) have a high level of human use activity. These activities include: hiking, horseback riding, bicycling, gold panning, fishing, kayaking, vehicular traffic, aircraft arrival and departures, lodge operations and related human activity, which cause a temporary redistribution of wildlife away from this area.

Due to concerns for public health and safety near visitor service and transportation facilities, a temporary prohibition on the discharge of firearms is imposed along the Kantishna Road from the former Mt. McKinley National Park boundary to the Kantishna airport. The closure extends one mile on each side of the Kantishna Road and along the airstrip for a distance of approximately five miles, for a total closure area of about 10 square miles. The temporary firearms discharge closure is in effect from September 1st to September 15th each year while the commercial lodge facilities are operating and the fall moose hunting season is open. Other adjacent, less heavily used federal public lands in the Kantishna Hills are not affected by this firearms discharge closure.

Access for subsistence uses on the ANILCA park and preserve additions is granted pursuant to sections 811(a) and (b). The park and preserve are managed according to legislative mandates, NPS management policies, and guidelines in the approved Denali General Management Plan. Eligible subsistence users access the Kantishna Hills area by driving the Park Road to Kantishna under an access permit. Formerly bladed mining routes provide further vehicular access routes for subsistence users beyond the Park Road and beyond the temporary Kantishna Firearms Discharge closure area. The Kantishna Firearms Discharge Closure is not in effect during the last half of the September season. Other routes and trails provide additional pedestrian access.

The NPS recognizes that patterns of subsistence use vary from time to time and from place to place depending on the availability of wildlife, other renewable natural resources, and regulatory openings and closings of areas. A subsistence harvest in a given year may vary considerably from previous years because of such factors as weather, surface snow conditions for traveling, wildlife migration patterns, natural population cycles, wildlife conservation practices such as leaving a trapline fallow periodically, and regulatory changes.

Evaluation Criteria

To determine the potential impacts on existing subsistence activities, three evaluation criteria

were analyzed relative to existing subsistence resources.

l. The potential to reduce important subsistence fish and wildlife populations by (a) reductions in numbers, (b) redistribution of subsistence resources, or (c) habitat losses;

2. What affect the action might have on subsistence fisherman or hunter access;

3. The potential for the action to increase fisherman or hunter competition for subsistence resources.

1. The potential to reduce populations:

(a) Reduction in Numbers:

Alternative 2 – Claimant's Sampling Plan

-Wildlife: Due to the broad use of habitats and large size of range covered by most subsistence use species, and minimal loss or modification of wildlife habitat by this plan, this alternative is not expected to result in significant impact to wildlife populations or result in population declines. Project activity in the Eldorado Creek valley may cause the temporary disturbance and displacement of some wildlife resources. But the seasonal redistribution and abundance of species in the Moose Creek drainage would not result in wildlife population declines.

-Fishery: Eldorado Creek is characterized as a low quality grayling fishery. Moose Creek has a moderate quality grayling fishery, but the claimant's crew will be spending most of their time at the claim up Eldorado Creek. Due to the limited amount of disturbance anticipated from access or sampling activities, and the limited impact from incidental sport fishing by the crew, this alternative is not expected to cause a significant impact to fishery populations or result in population declines.

Alternative 3 – Claimant's Sampling Plan as Amended by NPS (Preferred Alternative)

This alternative would create similar impacts as Alternative 2, with approximately equal disturbance to wildlife use and habitat. With the slough removal done by hand the sampling effort could take slightly longer, although it may not extend significantly into the subsistence moose season. This alternative is not also expected to cause a significant impact to fishery populations or result in population declines.

(b) Redistribution of Subsistence Resources.

Both action alternatives would temporarily disturb and displace wildlife individuals. It is likely that the program would not overlap by more than a few days with the September moose hunting season. Displacement of moose during the September hunting season could cause subsistence users to travel further to locate and harvest moose resources.

Incidental vehicle travel along the Moose Creek corridor may cause the temporary displacement of some wildlife resources along the Moose Creek corridor. This temporary disturbance and displacement, however, is not expected to cause a lasting redistribution of wildlife populations.

(c) Habitat losses:

Both action alternatives would affect a negligible amount of tall shrub and low shrub wildlife habitat in the Eldorado Creek valley. Tall and short shrubs should regrow their overhanging branches in a few years. Considering the large extent of similar vegetation in the Eldorado Creek and adjacent drainages, and the limited amount of new ground disturbance associated with this alternative, there would be only minimal impacts to habitat from this alternative.

Stream crossings in Eldorado Creek would result in temporary increases in turbidity and sedimentation in aquatic habitats below the crossings (50 m each). There could be four to six trips per day up Eldorado Creek during the sampling season. This alternative would not result in a significant loss of habitat that would lead to the reduction of important fish populations.

2. Restriction of Access:

Site activity would be limited to travel to the adit, work at the adit and below the adit, and to the camp in downtown Kantishna. There would be no restrictions of access under the proposal or alternatives.

3. Increase in Competition:

Hunting: No increase in competition for subsistence hunting is expected on park lands from any of the alternatives since only NPS eligible subsistence users are authorized to participate in subsistence hunts in Denali's ANILCA park additions.

Fishing: The park ANILCA additions are open to both subsistence and sport fishing. Currently subsistence use of fisheries in this area is known to be minimal and infrequent. It is likely that some personnel staying at the Kantishna camp would sport fish in Moose Creek during their off hours.

National Park Service regulations and ANILCA provisions mandate that if and when it is necessary to restrict taking of fish, subsistence users are the priority consumptive users on federal public lands and would be given preference over other consumptive uses (ANILCA, section 802(2)). Continued implementation of the ANILCA provisions would mitigate any increased competition from other non-subsistence users. Therefore, the proposed action is not expected to adversely affect resource competition.

VI. Availability of Other Lands

No other lands would satisfy the requirement to re-open the adit and take mineral samples from the re-exposed alleged discovery on the Comstock #2 claim.

VII. Findings

The claimant's proposed program and the NPS alternative program would not result in a significant restriction of subsistence resources or subsistence uses. Any potential competition for fishery resources could be mitigated by NPS and ANILCA management tools and authorities

Appendix B

3-23-06

Plan to Re-open Comstock #3 adit.

Project to be done between First part of June to last of July.

Personel to number between 3 and 10, more or less. Personel will camp in Kantishna area or at mine site whichever is best to accomplish work.

Access will be by 4x4 truck or ATV 4x4 across Moose Cr. and up Eldorado Cr.

Material at adit entrance will be moved by shooting with ponder and mucked by hand as needed. When adit entrance has been cleaned as needed and entrance stabilized to enter safely, we will notify NPS that sampling is ready.

About the same time our own Mineral Examiner will commence a seperate mineral Exam.

Any and all comments by NPS will be considered. Also any help from NPS would be greatly appreciated.

Sincerely

Milan Martinek

CC; John Grow Att.

Appendix C

05/18/2006 11:00 FAX 907 271 4143 SOL AK REGION 004/004

FROM : FAX NO. : Sep. 05 2005 04:25PM P4

- W/ DENA / Comstock

Faxed to Phil Brease 11:40 AM 4-26-06

April 11, 2006
Mick Martinek

Plan to Re-Open Comstock #3 Adit

I have tried to get in touch with Mr. Brease to discuss an appropriate plan several times, and to get feedback on my earlier plan, but have been unsuccessful so far. I am submitting this supplement to my earlier plan to clarify what we propose to do.

Time period: Project to be done between first part of June and last of July.

Personnel: I will need between 3 and 10 people.

Access: I will access the claim using a 4x4 truck or ATV 4x4 across Moose Creek and up El Dorado Creek. If NPS would offer other access I will take advantage of that. Is there any other means of access you would offer?

Re-Open Adit: The material at the collapsed adit entrance will be moved by shoving with powder and muscled by hand as needed. If NPS will offer other equipment I will take advantage of that as well. We will use nearby timber to shore up the walls if necessary. When adit entrance has been cleared as need and entrance stabilized to enter safely, we will notify NPS so they can observe and do any sampling they want to. Is there any other equipment that NPS would offer to help re-open the adit?

Exposed Mineralization of Rock in Place. If there is any exposed mineralization of rock in place, I would propose to follow the exposure (in contrast to just drilling or exploring in places where there is no exposed mineralization) using powder or drilling, or any other method the NPS will permit, to establish the extent of mineralization. Are there other methods of following exposed rock in place that would be acceptable to NPS given its interpretation of environmental restrictions?

Mineral Examinations. After we have re-opened the adit, NPS can sample wherever and whenever they want. We will also have our own mineral examiner commence a mineral exam and submit samples to a reputable facility for testing.

Any and all comments by NPS will be considered. Also any help from NPS would be greatly appreciated. Please let me know if any part of this plan is unacceptable.

Mick Martinek

Mick Martinek

FROM : THE MARTINEKS FAX NO. : 907 745 4681 May. 01 2006 09:57AM P1

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