

ENVIRONMENTAL ASSESSMENT
FOR THE
CONSTRUCTION OF TWO REPLACEMENT SUBSISTENCE USE TRAPLINE CABINS
ON THE HERRON RIVER AND ON LIVE TRAP LAKE
IN
DENALI NATIONAL PARK AND PRESERVE

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

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PURPOSE AND NEED

Denali National Park and Preserve (DNA) is considering a permit application for replacing two cabins used for subsistence activities within Denali National Preserve. The applicant is Dan Hytry, a local rural resident and qualified DNA subsistence user from Lake Minchumina, Alaska.

The requested cabins would replace two traditionally used trapline cabins along the Castle Rocks Trapline. Reconstruction would occur at the Herron River and Live Trap Lake cabin sites. These cabins collapsed in the 1970s, rendering them unusable. The applicant started using the traplines in the early 1990s and requested the cabins after a few years experience on those traplines. Both replacement cabins would be of the same size and type as the original cabins, and would be built near the locations of the collapsed cabins. Both cabins would be constructed of locally harvested spruce logs.

Construction of a replacement cabin is needed to reasonably accommodate the applicant's subsistence activities and reduce reliance on tent camps along this trapline (Dan Hytry, personal communication). On remote and long distance traplines, such as the applicant operates, the over-reliance on tents as primary shelter is potentially dangerous especially if the trapper is operating alone.

This Environmental Assessment (EA) analyzes a No Action Alternative, and the NPS preferred alternative for replacing two cabins in Denali National Park and Preserve and has been prepared in accordance with the National Environmental Policy Act of 1969 and regulations promulgated by the Council of Environmental Quality in Title 40 of the Code of Federal Regulations (CFR).

Background

Legal Context

The 1916 Organic Act directed the Secretary of the Interior and the NPS to manage units of the national park system 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 Stat. 938)

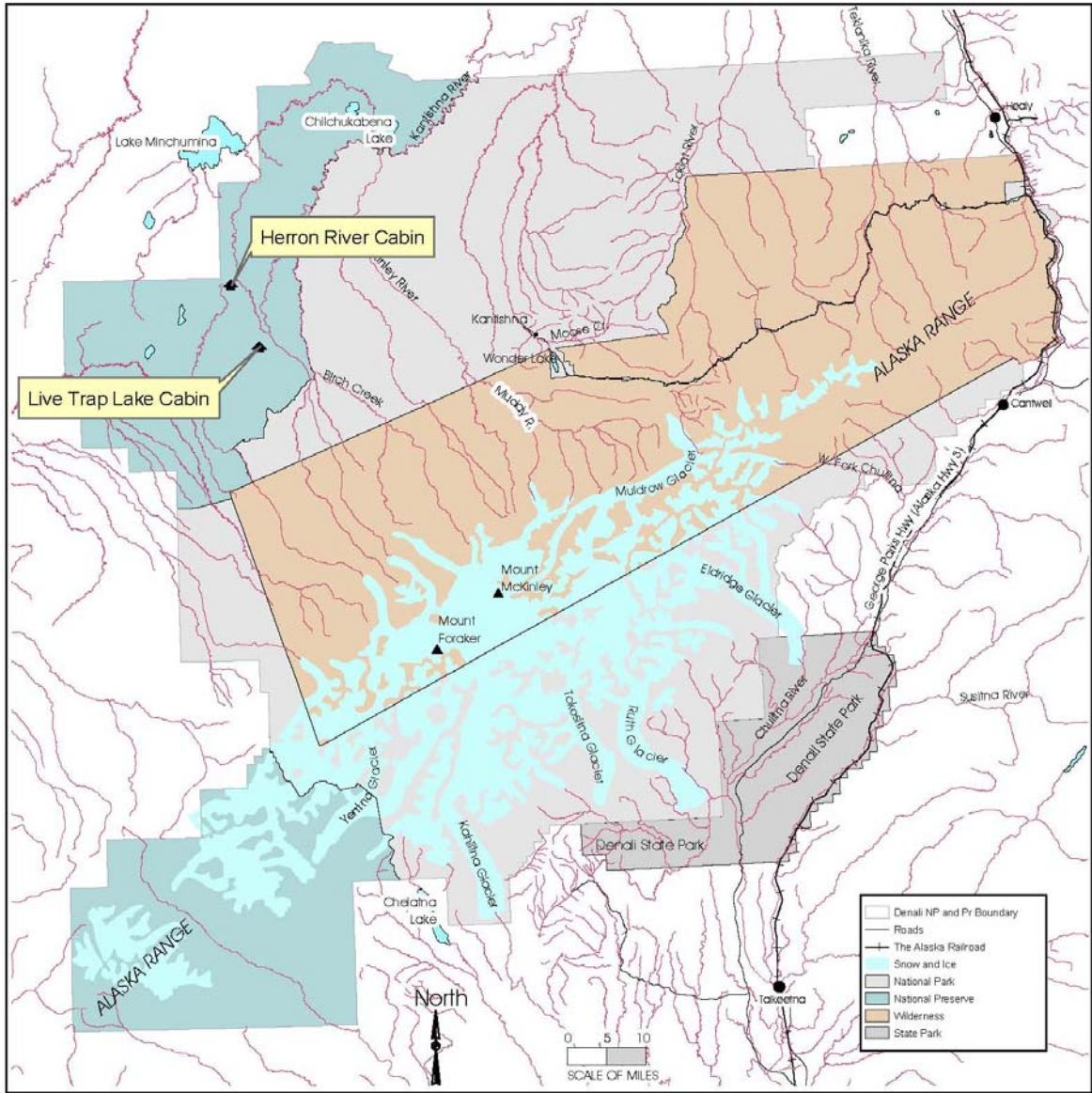


Figure 1
Project Locations
Denali National Park and Preserve
U.S. Department of the Interior • National Park Service

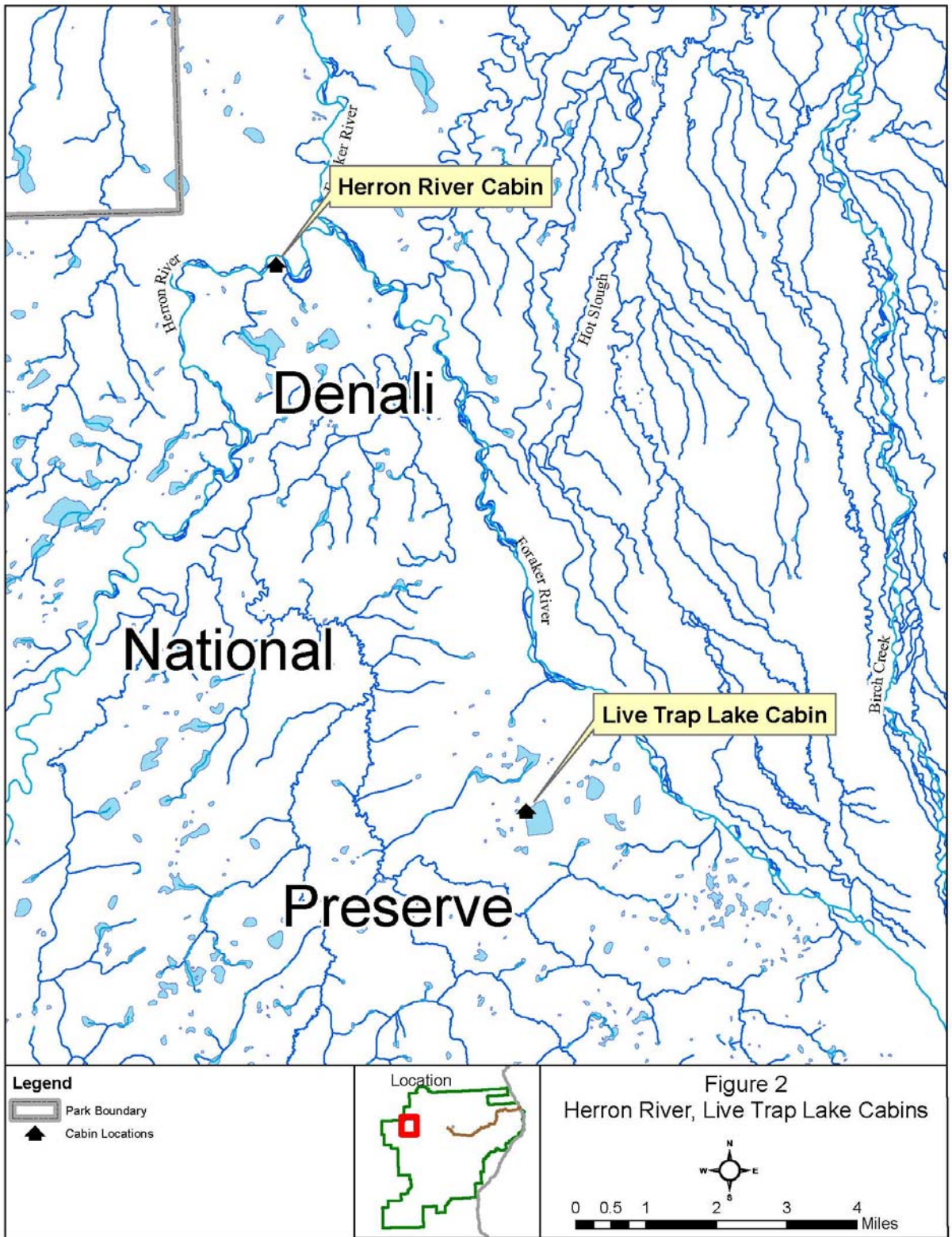
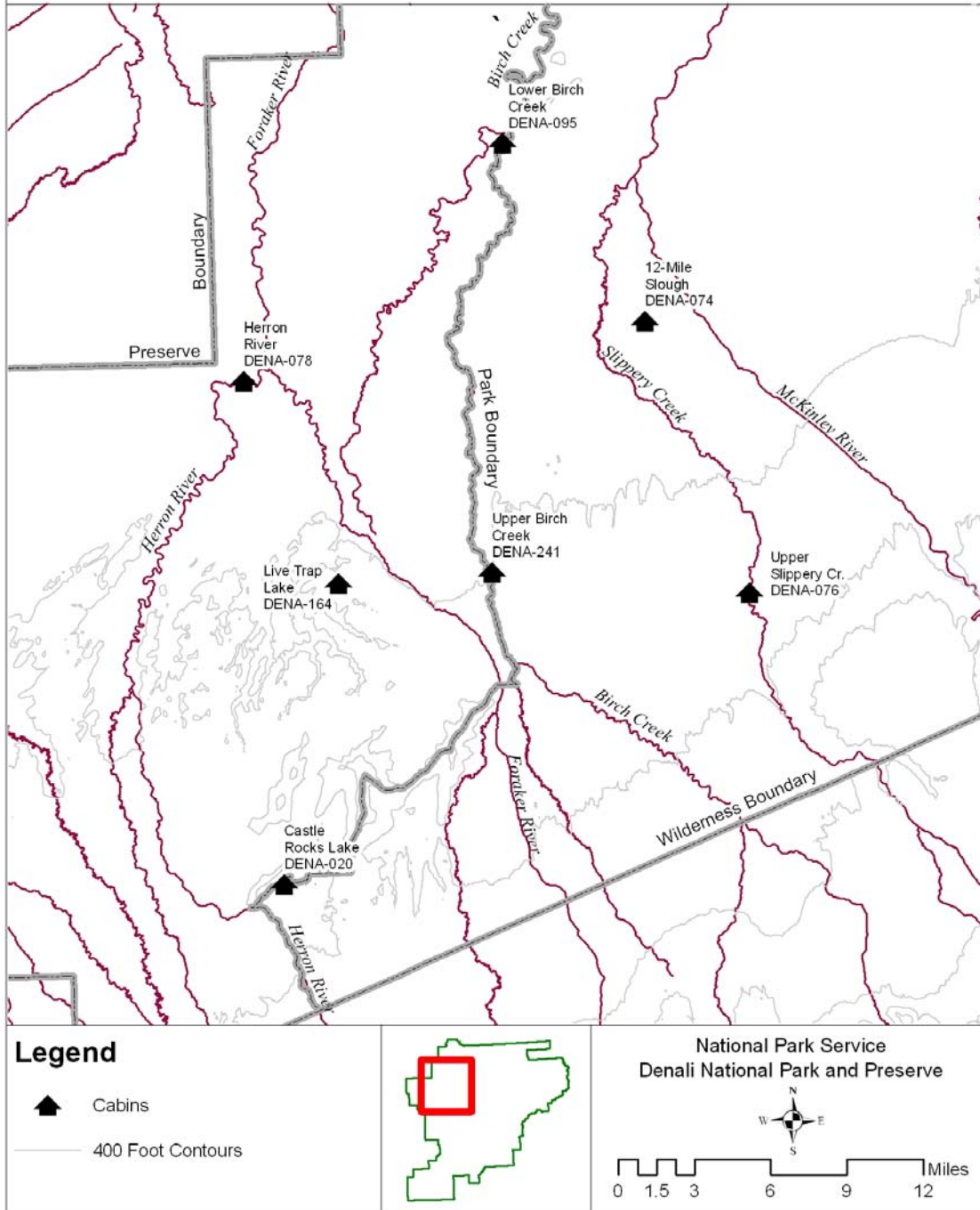


Figure 3

Shared Use Subsistence Cabins



The Alaska National Interest Lands and Conservation Act of 1980 (ANILCA) added approximately 2,426,000 acres of public land to Mt. McKinley National Park and approximately 1,330,000 acres of public land as Denali National Preserve and re-designated the entirety Denali National Park and Preserve. ANILCA also designated 99% of the former Mt. McKinley National Park as wilderness.

Title I of ANILCA directs the NPS to preserve the natural and cultural resources in the park and preserve for the benefit, use, education, and inspiration of present and future generations. In addition to other resources to be preserved, Title I also states as a purpose of the Act "...to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so."

Section 202(3)(a) of ANILCA stated that the Denali park and preserve additions are to be managed for the following additional specific purposes:

- To protect and interpret the entire mountain massif and the additional scenic mountain peaks and formations.
- 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.
- To provide continued opportunities, including reasonable access, for mountain climbing, mountaineering, and other wilderness recreational activities.

Section 202(3)(a) also says:

"Subsistence uses by local residents shall be permitted in the additions to the park where such uses are traditional in accordance with the provisions in title VIII."

Section 1303 of ANILCA addressed the purpose of national preserves created by the act.

"A National Preserve in Alaska shall be administered and managed as a unit of the National Park System except that the taking of fish and wildlife for sport purposes and subsistence uses, and trapping shall be allowed in a national preserve under applicable State and Federal law and regulation."

ANILCA Section 1303(a)(4) provides for cabin use for subsistence purposes by saying:

"The Secretary may issue a permit under such conditions as he may prescribe for the temporary use, occupancy, construction and maintenance of new cabins or other structures if he determines that the use is necessary to reasonably accommodate subsistence uses or is otherwise authorized by law."

The regulations implementing this section of ANILCA are found at 36 CFR 13.160 (Use of Cabins for Subsistence Purposes). They specify that:

(a) “A local rural resident who is an eligible subsistence user may...construct a new cabin or other structure, including temporary facilities, in a portion of a park area where subsistence use is allowed, pursuant to the applicable provisions of subparts B [general subsistence regulations] and C [park special regulations] and the terms of a permit issued by the Superintendent.”

In reviewing the permit application 36 CFR 13.162 (Permit Issuance):

(a) “...the Superintendent shall consider whether the use by local rural residents of a cabin or other structure for subsistence purposes is customary and traditional in that park area and shall determine whether the use and occupancy of a new or existing cabin or structure is “necessary to reasonable accommodate” the applicant’s subsistence uses. In making this determination, the Superintendent shall examine the applicant’s particular circumstances, including but not limited to his or her past patterns of subsistence uses and his or her future subsistence use plans, reasonable subsistence use alternatives, the specific nature of the subsistence uses to be accommodated by the cabin or structure, the impacts of the cabin or structure on other local rural residents who depend on subsistence uses and the impacts of the proposed structure and activities on the values and purposes for which the park area was established.

(b) The Superintendent may permit the construction of a new cabin or other new structure for subsistence purposes only if a tent or other temporary facility would not adequately and reasonably accommodate the applicant’s subsistence uses without significant hardship and the use of no other type of cabin or other structure provided for in this section can adequately and reasonably accommodate the applicant’s subsistence uses with a lesser impact on the values and purposes for which the park area was established.

The above criteria were evaluated by the NPS in 1993 and a recommendation made that a special use permit be issued to Dan Hytry for construction of replacement cabins on the existing cabin sites on the Herron River and Live Trap Lake, with certain conditions. (Appendix C outlines the conditions of the recommended cabin construction special use permit.) As required by NEPA, this EA evaluates the impacts of constructing the cabins on the human environment.

In addition to the above regulations, 36 CFR 13.168 (Shared Use) states that:

In any permit authorizing the construction of a cabin or other structure necessary to reasonably accommodate authorized subsistence uses, the Superintendent shall provide for shared use of the facility by the permittee and other local rural residents rather than for exclusive use by the permittee.

Impairment

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 NPS Organic Act and the General Authorities Act prohibit impairment of park resources and values. The 2006 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 park’s establishing legislation. 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 for enjoyment of 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 establishing legislation or proclamation of 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

Issues

Issues and impact topics are identified and form the basis for environmental analysis in this EA. A brief rationale is provided for each issue or topic that is analyzed in the environmental consequences section of this EA. Issues and topics considered but not addressed in this document also are identified.

Vegetation and Soils

Cabin construction would remove vegetation and affect soils in the project area. Specific concerns include:

- The construction of two cabins would remove up to 0.02 acres of white spruce mixed forest.
- Cabin construction would require that up to 90 spruce trees be cut down for use as cabin logs.
- Native soils would be disturbed at the both cabin sites.

Wildlife and Habitat

Cabin construction and use would remove wildlife habitat and affect habitat use. Specific concerns include:

- A small amount of wildlife habitat would be removed.
- Furbearer harvest could increase.

Cultural Resources

- Cabin construction and use could affect previously unknown cultural resources.

Subsistence Use

Living conditions for subsistence trappers using the Herron River and Live Trap Lake traplines would be improved. See also Appendix A.

Wilderness Resource Values

Cabin construction and use could affect wilderness resource values because wilderness areas are generally without structures or installations.

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) was consulted. No federally designated threatened or endangered species are known to occur within Denali National Park (pers. comm. Ted Swem, USFWS, Fairbanks, Alaska, June 9, 2000).

Air Quality: Exhaust from equipment such as chainsaws would contribute a negligible amount of air pollution due to the short duration of operation.

Floodplains and Wetlands: Neither cabin would be constructed in wetlands, based on a staff review of the vegetation and soils at the sites. The Live Trap Lake cabin site is not in a floodplain. The proposed cabin site at the Herron River is a gravel river terrace or bench covered by mature growth white spruce and birch that – given this vegetation - does not experience stream flooding in summer or ice buildup during the winter. Removal of spruce trees within the Herron River floodplain and Foraker River floodplain would have negligible impacts on floodplain values and functions.

Aquatic Resources: The cabin construction would occur about 150 feet away from Live Trap Lake and would also not affect the large Herron River and would therefore not affect aquatic resources.

Natural Soundscape: Cabin construction activities would temporarily degrade natural sounds, though by only a negligible amount because most of these activities – site preparation, setting the foundation and log peeling and placement – are fairly quiet by nature. Additionally,

construction noise would be dampened by the large trees near both sites and the bottomland location for the Herron River cabin site.

Visitor Use and Recreation: Cabin construction and use would have a negligible effect on visitor use because few visitors reach the lower Herron River or Live Trap Lake areas due to their remoteness and the difficult travel needed to get there.

Local Communities/Socioeconomic Resources: Although the cabins would provide enhanced subsistence opportunities in the preserve, it would be impossible to attribute any increased monetary value to the area economy to them, or anything other than a negligible impact on socioeconomic resources.

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 project 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 concurrence from the State Historic Preservation Officer has been received for this project.

DESCRIPTION OF ALTERNATIVES

Alternative 1 - Existing Conditions (No Action Alternative)

Under this option, no cabin construction permit would be issued. The applicant would continue to purchase, carry, set up and use wall tents while working the trapline because the small cabins along the traplines have become unusable.

Alternative 2 – Replace Herron River and Live Trap Lake Cabins (NPS Preferred)

Under this alternative, the applicant would be issued a permit to construct the replacement cabin on the traditionally used tent site location near the collapsed cabin at Live Trap Lake, and he would be issued a permit to construct a small cabin in the near vicinity of the collapsed cabin on the Herron River. The permit would authorize one-room cabins of the same size (10'x12') and type (white spruce log). Additionally, the permittee would construct an outhouse at each cabin at least 100 feet from the nearest water body.

These cabins are 17 and 27 miles from the applicant's home at Lake Minchumina. They would be considered main cabins because of the lack of other shelters nearby and because the applicant is usually the only user maintaining the trails.

Cabin logs would be harvested from the floodplain forest of the Herron River and from the area around Live Trap Lake during the winter-spring of 2008. This permit would authorize the

harvest of up to 45 standing spruce trees at the Live Trap Lake cabin site, and 45 standing spruce trees from the floodplain forest of the Herron River. Trees would be randomly cut in a dispersed manner to avoid clear cutting. Trees could be taken within a two mile radius from the proposed construction sites. Stumps should be flush cut and slash dispersed. Logs would be cut and transported to the construction site when snow cover exists to minimize impacts to vegetation. Cabin construction could begin during the spring of 2008. The Herron River cabin site is generally not accessible by airplane or boat during the summer. An airplane could land on Live Trap Lake during the summer to bring in supplies or to work on the cabin.

Trees and brush within a 30' radius around the cabin could be removed and within a 100' radius around the cabin could be thinned to "Fire Wise" standards, which would include keeping tree crowns from reaching within 30' of the cabin and within 20' of each other.

The cabins would be designated for shared use among subsistence users as required by 36 CFR 13.136 and the Denali Subsistence Management Plan (SMP). Residential use is prohibited under 36 CFR 13.164(b) and the DENA SMP).

Alternatives Considered and Rejected

1. Supply Frame Cabin Materials: It has been suggested that the NPS could supply materials for a cabin to be built on the requested sites. The materials could be hauled in by helicopter. This alternative was rejected for the following reasons: 1) the long-term tradition in the Denali area of using local materials for cabin construction as much as possible, 2) the requirement stated within 36 CFR 13.118 to use materials that blend with and are compatible with the immediate and surrounding landscape, 3) materials should be used which do not derogate the wilderness landscape, 4) the work and costs involved should be the responsibility of the subsistence user(s), but requiring the use of an aircraft to haul heavy or bulky materials would expand the cost well beyond that traditional for a bush cabin.

2. Construct Cabins at Different Sites: This alternative would include a search for alternative sites for replacing the cabins. This alternative was dismissed because the purpose of the project is to maintain access to the existing traplines, which were established in conjunction with the cabins during the 1950s.

Mitigation

Several mitigation measures would be implemented as conditions of the cabin construction special use permit (Appendix C). These include:

- If concealed archeological resources are encountered during the construction process, construction must stop and Denali National Park staff notified.
- Construction at either cabin will not disturb the old cabin ruins near those sites.
- At the end of the trapping season the windows shall be removed or secured by the construction of bear-resistant shutters.

- For fire safety, the heating stove should be located at least 24" from log walls or combustible materials. Closer installations require use of a reflective heat shield. Stove pipe exiting through the roof must pass through at least a standard quality stove roof jack.
- Human latrines would be located at least 100' horizontally from the mean high water level of the nearest body of water. The bottom of the latrine would be at least 4' above the water table.
- The grounds around the cabins shall be kept clean and free of garbage.

SUMMARY OF IMPACTS OF ALTERNATIVES

Impact Topic	Alternative 1 (No Action)	Alternative 2 Re-Construct Two Cabins (NPS Preferred Alternative)
Vegetation and Soils	Some vegetation would continue to be trampled in the vicinity of the 10' x 10' wall tent site due to access and use. 1-2 cords of local timber would be harvested for firewood for each tent site.	Up to 45 white spruce trees for cabin construction and 1-2 cords of local timber for firewood would be harvested within a two-mile radius of each cabin and transported via snowmachine or dog team during times of adequate snow cover. Vegetation in the vicinity of the cabins would also be temporarily disturbed from construction activities. This disturbance would be minimal since the replacement cabins would be of the same size and in the same location as the tents.
Wildlife	Subsistence harvest of furbearers would likely continue at current levels.	Subsistence harvest of furbearers would likely have a slight average annual increase due to better shelter for the trapper.
Cultural Resources	No cultural resources were found in a 1991 archeological survey.	No cultural resources would be disturbed by the actions.
Subsistence Opportunities	Denying the construction permit would discourage subsistence use in the area	Significant time commitment for initial construction, but significantly

	<p>due to the long distances between cabins along this trapline.</p> <p>On an annual basis, more time and effort would be spent transporting, establishing and maintaining tent camps. When left unattended, tent camps are more subject to natural damages and they are also more difficult to maintain during severe weather. Likely more time spent acquiring firewood. Less time available for subsistence activity.</p>	<p>less time and effort needed to maintain and operate cabin. Cabins are more resistant to animal damage or severe weather. Less time spent in organizing for use; more time available for subsistence activity.</p> <p>Granting the permit would not generate any negative impacts on other subsistence users or resources.</p>
Wilderness	Negligible impact from use of tents.	Negligible to minor impact to wilderness recreation or resource values from construction of two small log cabins.

AFFECTED ENVIRONMENT

Vegetation and Soils The Herron River and Live Trap Lake cabin sites both lie between the Herron River and Foraker River, which (historically) drain into Lake Minchumina and eventually into the Kantishna River. This region spreads out across vast lowlands in the northwest portion of Denali National Park and Preserve. Plant associations in these areas are varied depending on drainage and permafrost conditions, but upland forests tend to be more open with mixed or continuous stands of black spruce, black spruce and larch, white spruce, or aspen interspersed with riparian areas of white spruce, balsam poplar and paper birch. Riparian areas along creeks and rivers often have an understory of willow and alder. 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 sedge and willow communities grow along the numerous lakes and ponds.

The proposed cabin site at Live Trap Lake is approximately 150 feet from the west shore of Live Trap Lake. Vegetation around the cabin site is a mix of small to medium white and black spruce trees, small aspen, and moss covering sand and silt, but the general pattern away from the riparian areas is a sea of black spruce. The proposed cabin site at the Herron River is a gravel river terrace or bench covered by mature growth white spruce and birch.

Wildlife and Habitat The protected sub-arctic 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. No known threatened or endangered aquatic or wildlife species are known to exist in the park or preserve.

The wildlife in the northwest preserve includes the species common to the lowlands of interior Alaska, with the main subsistence species being moose, caribou, waterfowl and furbearers. Burbot, dolly varden, grayling, lake trout, northern pike, rainbow trout and whitefish are also used by local people. Marten, mink, red fox, wolf, lynx, weasel, river otter, beaver, and muskrat are important furbearer resources and are found in quantities typical of the forested lowlands of interior Alaska. Willow ptarmigan, grouse, ducks and geese complete the preserve subsistence species.

Marten are the mainstay of Interior Alaska trappers and account for approximately 50% of statewide trapping revenues. Marten have a reported home range of one to 15 square miles (ADF&G) or two to eight square miles in a Russian study of similar habitat (reported in Lensink, et al.). Lensink et al. report that "...the success of trapping widely dispersed animals such as the marten, especially in areas of low trapping intensity such as interior Alaska, is dependent to a large extent on the...availability of food, since marten movements are greatest when food is least available."

Cultural Resources Numerous cabins, cabin ruins, traplines, old cemeteries, and other remains of civilization attest to the recent human occupation of the area.

The Herron River cabin was originally built in 1955. By 1991 the roof had collapsed and the cabin was unusable. The original cabin was located on a point of land on a bend in the Herron River. The original cabin measured approximately 8ft x 11ft.

The Live Trap Lake cabin was originally built in 1954. By 1991 the roof had collapsed and the cabin was unusable. The original cabin was located about 100 ft off the north side of Live Trap Lake, about 2 miles west of Foraker River. The original cabin measured approximately 9ft x 9ft.

Subsistence Use

Subsistence trapping and bartering of furs has long been a customary and traditional activity for Native peoples in Alaska, including lands within Denali National Park and Preserve. After Russian and American contact, trapping, trading and selling of furs became a significant socio-economic activity to both Native and non-Native subsistence users.

ANILCA provides for the continuance of personal or family use, bartering, sharing and customary trade of subsistence wildlife resources. Trapping is the predominant subsistence activity occurring in the north additions of Denali National Park and Preserve. Trapping activities commence in November and continue through March. Winter travel in pursuit of furbearers can be extensive and is generally supported by a network of winter trails, shelters and cabins, which are accessed by the use of dog teams or snowmachines.

Both cabins and tents have been and continue to be traditionally used on winter-time traplines in the north additions of Denali National Park and Preserve. Both have an important place in trapline operations depending upon the personal and family needs of the trappers such as age and health of the trappers or involvement of family members such as children, stamina and willingness of trappers to accept risk, the type of transportation utilized on the traplines such as foot, dog teams or snowmachines, the distance, remoteness and length of traplines from communities, and the environmental conditions of the traplines such as type of vegetation, the nature of river crossings, elevation, slope and amount of snow (Johnson, et al.).

For winter living, almost all trappers in the north additions and the surrounding area use base cabins at main locations and line cabins at intermediate locations along their traplines. Trappers temporarily erect tents when breaking trails and first setting out traps since travel is slower then and they cannot connect with their main cabin sites. Others place tents midway between permanent shelters, or at the end of spur lines as places to warm up and to use in case of emergencies when the distances between cabins or permanent shelter is seen to create excessive risk. Tents as temporary shelters are much better than nothing in emergencies, but are intended for short temporary stays, or for use while mobile (Johnson, et al.)

Since the inception of a trapline between the Herron and Foraker Rivers in the 1900's, trappers have used cabins as their primary means of shelter. Cabins provide dependability for subsistence users in need of shelter that no other structure can currently provide. The ability of a cabin to retain heat significantly cuts down on the amount of wood needed to heat it as compared to other facilities. This reduces the amount of time needed for woodcutting, allowing more time for other subsistence activities. It also makes possible a stable temperature; a necessity to properly care for furs and adequately thaw and dry gear and clothing.

Wintertime trapping in the Interior of Alaska is hazardous primarily because of extreme cold, difficult winter traveling conditions, and the remote and isolated nature of the operations. Temperatures drop to 50 degrees below zero and colder during extreme cold periods, while temperatures of -30 to -40 degrees are common and can last for weeks in this area of the park and preserve. Heavy snow is also possible. With trapping seasons running from fall through early spring, trappers and those accompanying them must be prepared to endure harsh conditions that can easily be life-threatening.

The historical practice of spacing cabins from 10 to 15 miles apart on long distance winter trapping operations serves to mitigate this danger, and is well documented in studies for the north additions and the Lake Minchumina area (Johnson, et al.; Schneider, et al.; Bishop). This provides reasonable travel distances between shelters and in the event of an injury, sickness, loss of an existing cabin due to accidental fire, and in the case of a lost dog team or broken snowmachine, provides shelter within walking distance. Reconstruction of the Herron River and Live Trap Lake cabins would reduce reliance on tents along the applicant's approximately 110 miles of trapline, which is currently supported by just one cabin at the distal end of the trapline. Very often, he operates the trapline individually, which increases the level of risk in the event of an emergency.

The Herron River-Foraker River area is open to subsistence hunting, trapping, fishing and gathering, pursuant to provisions of Titles VIII and XIII of ANILCA, 36 CFR Part 13, and 50 CFR Part 100. The Preserve is also open to sport hunting and trapping, although neither of the uses is known in this area. There is a long history of trapping in the Herron River-Castle Rocks area, though there is conflicting evidence as to the exact use patterns. This trapline has been customarily and traditionally used since the early 1900's. Existing information indicates that Clarence Boatman and Frank Giles trapped the line starting around 1906. Boatman sold the line and the cabins to Carl Hult in 1940. Hult utilized the trapline until 1950 when he sold it to Ray Tremblay. Tremblay sold the line and cabins to Val Blackburn in 1953. Blackburn, in turn, sold the line and cabins to Leonard Menke around 1954 (Schneider et al 1984). Menke used the line for over two decades and had at least five cabins associated with it. Menke sold the line to Jack Hayden in 1981. Hayden partnered with Dan Hytry and Jeff Lesniak beginning in 1987, and sold the trapline to Hytry in the early 1990's. Dan Hytry and his family are now the only subsistence trappers known to be utilizing the 200,000 acre area between the Herron River and Foraker River. The National Park Service recognizes the history of trapping use of this area; however, the agency does not acknowledge any legal claim of ownership to traplines and trapping areas.

According to accounts in Schneider et al., the Live-Trap Lake cabin was built in 1954 and a new line was cut to connect that cabin to the cabin at Castle Rocks Lake. The Herron River cabin was built in 1955 and a line was cut from there to Live Trap Lake. The Live-Trap Lake cabin ceased to be used in the 1960s to 1970s, and the Herron River cabin also ceased to be used by 1970s. Due to lack of use and upkeep, both have fallen in to ruins.

The boggy nature of the topography south of Lake Minchumina and difficult river travel conditions in the Herron River and Live Trap Lake areas during spring and summer makes travel to this area in any season but winter extremely difficult. Access is primarily by snowmachine during the winter months when adequate snow and ice conditions allow travel along brushed trapline trails or frozen rivers. No matter what means of access is used, the initial opening and subsequent maintaining of the trails can take many days of work, depending on snowfalls, brush to be cleared, overflow, open water, extreme temperatures, and getting lost.

Wilderness Resource Values The Herron River and Live Trap Lake cabin sites are located within the Denali National Preserve, created by ANILCA in 1980. This area was found eligible for wilderness designation by the park's 1986 General Management Plan, although the Denali Preserve was not proposed for wilderness designation in the preferred alternative of the 1988 Denali Wilderness Recommendation and EIS. Because no Record of Decision was signed on that plan, the area remains eligible for eventual designation, and by NPS policy (2006 NPS Management Policies 6.3.1) it is to be managed to protect wilderness character and to preserve the opportunity for Congress to so designate. Section 1303(a)(4) of ANILCA permits, subject to reasonable conditions, the temporary use, occupancy, construction and maintenance of new and existing structures for subsistence purposes within wilderness and non-wilderness areas if they are necessary to reasonably accommodate subsistence use.

Little recreational use is made of the area surrounding the two proposed cabins, as the area is distant from normal access points, much of the ground is boggy in the summer and the winters are very cold. A lodge at Lake Minchumina does take visitors on winter snowmachine and dog sled trips into the Preserve under an NPS concessions permit. The four year period from 2002-2006 totaled 34 user days under the permit, including for guides.

IMPACTS OF THE ALTERNATIVES

Alternative 1 (No Action)

Vegetation and Soils

The applicant would continue to use tents at the two locations adjacent to the cabin ruins over the five month winter trapping season. Shrubs have already been removed from 80 square foot areas to maintain the wall tent camps and the understory of forbs growing during the summer at the tent sites would be trampled in the vicinity of the wall tents. About 1-2 cords of timber would continue to be harvested each year from the general area of the tent sites for firewood to heat the wall tents during winter operations. Latrine areas would continue to be used rather than outhouses.

Over time, the cabin ruins would deteriorate further and succession would continue, eventually resulting in an old growth boreal forest at the cabin sites. No other vegetation removal occurs in the area aside from natural fires, which occur on average every 40-100 years in the black spruce forests. The limited vegetation removal from this alternative would not have a significant impact on the tens of thousands of acres of taiga forest and other vegetation resources surrounding the cabin sites. The impacts to vegetation from cutting firewood and maintaining the tent sites would be visible on the ground in the vicinity of the cabins, but would be minor under this alternative.

Any soil erosion under this alternative would be very small since the vast majority of activity would occur during the winter over snow and frozen ground.

Wildlife and Habitat

Previous subsistence harvest levels of 125-150 marten per year (Dan Hytry, personal communication), plus one to five larger furbearers (beaver, lynx, fox, wolf, wolverine) per year would continue and would have a minor impact on the furbearer populations. The furbearers involved are common species in the Preserve and the trapping of marten would leave healthy populations which would allow marten numbers to rebound to normal levels along the traplines through new births and in-migration. The trapline corridors are surrounded by broad untrapped hinterlands of similar habitat. The marten prey base of mice, voles, squirrels, etc. would remain intact and would attract surplus marten from adjoining territories. For analysis purposes, it is assumed that the applicant would continue to concentrate his trapping activities in different sectors of the trapping area in alternate years, The number of subsistence users in this part of the preserve would continue to be very low and the harvest pressure would remain below that which would threaten the healthy populations of the harvested species.

Cultural Resources

The old cabins would continue to molder into the ground, unaffected by this alternative.

Subsistence Opportunities

The primary subsistence use is by Dan Hytry and his family, who would continue use of the area, with shelter being provided by tents erected each year along the trapline. Exclusive or heavy reliance on tent frames along traplines, however, is considered marginal and inadequate due to reasons of human safety during extreme winter weather conditions and problems with caring for furs. The reliability and safety of depending primarily on tent camps becomes a serious concern if the trapper should arrive at a camp sick, injured, or with hypothermia, and find the camp destroyed by animals or collapsed by heavy snow (Johnson, et al.).

The extended use of a tent over the winter trapping season to support such a long-distance trapline is inefficient and inconvenient, requiring significantly more wood to heat than a cabin. Wall tents used consistently on a trapline usually last from two to five years, depending upon weather conditions.

The recurring and extended use of a tent in this location adds significant hardship since it is difficult to transport and safely store on site, time consuming to erect and take down, prone to damage from fire cinders, difficult to maintain in severe weather with high snow loads, prone to access by rodents, ermine, foxes, ravens, grey jays, etc, and provides less security for younger family members while on the trapline. The impact to subsistence opportunities from this alternative would be moderate as denying the permit would continue to curtail subsistence use in the area.

Wilderness Resource Values

There would negligible impacts to wilderness resource values from having wall tents set up for temporary, even if extended, periods in winter at a number of locations. The tents would be nine miles or more apart along traditionally used traplines, and would be an expected backcountry use in these units. Opportunities in the Preserve for solitude or an unconfined recreation, and visual impacts to the wilderness character of the area would be affected in a negligible way.

Alternative 1 Cumulative Impacts:

The only other actions that have occurred in the project area have been subsistence use activities, including the construction of 3 small cabins and the maintenance of 150-200 miles of cut traplines in the 1.5 million square mile area between the Kantishna Hills, Kantishna River, and the western boundary of the Preserve. Little if any sport hunting occurs in the Preserve south of the Kantishna River.

Continued harvest of furbearers would depress the populations of marten and perhaps wolves along some traplines during those years when those traplines are used. It remains little visited by man. These actions and uses have had very little impact on the vegetation and soils, long-term fish and wildlife habitat and populations, cultural resources, subsistence opportunities, and wilderness resource values of the area. The cumulative effects include minor long-term

effects on marten populations and moderate long-term effects on subsistence trapping opportunities. Overall, Alternative 1 would result in moderate adverse impacts. The cumulative impact of Alternative 1 on park resources coupled with any past, present, and future actions would likely be moderate.

Alternative 1 Conclusion: The impacts to vegetation and soils would be minor. There would be a minor impact to local wildlife populations from the continued harvest of furbearers, especially marten, and there would be no impact on historic resources and a negligible impact on wilderness resource values. There would be a moderate impact to subsistence opportunities from this alternative due to the difficulty involved in purchasing, transporting and safely maintaining shelter tents that provide less security especially for younger family members while on the trapline. None of these impacts would 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.

Alternative 2 (Preferred Alternative)

Vegetation and Soils

Up to 45 spruce trees for construction of each of the small cabins would be harvested within a two-mile radius from each cabin site, and they would be transported by snowmachine or dog sled during times of adequate snow cover to minimize impacts to vegetation and soil. Including overhang, logs for a 10-foot by 12-foot cabin would need to be 14-16 feet long, with some longer logs for the ridge and porch roof supports. At the Herron River site white spruce trees from the surrounding floodplain forest would likely be harvested for construction, and most of the trees for the Live Trap Lake cabin would be found near the cabin site and the rest along the floodplain of the Foraker River.

Vegetation within a 30-foot radius of each new cabin could be removed to “Fire-Wise” standards and it could be thinned to within 100 feet of the cabin. This removal would be encouraged to comply with NPS fire policies on creating a defensible space around structures to help save structures from being burned and to lessen the chance that firefighters would be put in harm’s way. This disturbance would be minimal since the replacement cabins would be of the same size and on the same locations as the presently used tents. Log transport and construction would occur in winter during periods of adequate snow cover to minimize impact. The construction of two cabins would remove up to 0.02 acres of white spruce mixed forest at the cabin sites, due to the clearing and disturbance necessary during construction and for site maintenance. Soils would be leveled at the two relatively flat cabin sites.

There would be a minor impact to vegetation resources from this alternative because of the vast acreage of similar vegetation communities surrounding the cabin sites, and there would be a negligible impact to soil resources.

Wildlife and Habitat

The construction of the cabins would create a short-term zone of disturbance for larger wildlife such as moose and bear that would avoid the area while construction activities were occurring. Having the two additional cabins for subsistence trapping purposes would likely result in a

more sustained harvest rather than some years of little activity because the cabins would provide more security during extreme weather. This would likely result in an increased average harvest of marten and for some of the larger furbearers. Previous subsistence harvest levels of 125-150 marten per year, plus one to five larger furbearers (beaver, lynx, fox, wolf, wolverine) per year would continue and would have a minor impact on the furbearer populations. The furbearers involved are common species in the Preserve and the trapping of marten would leave healthy populations which would allow marten numbers to rebound to normal levels along the traplines through new births and in-migration. The trapline corridors are surrounded by broad untrapped hinterlands of similar habitat. The marten prey base of mice, voles, squirrels, etc. would remain intact and would attract surplus marten from adjoining territories. For analysis purposes, it is assumed that the applicant would continue to concentrate his trapping activities in different sectors of the trapping area in alternate years. The number of subsistence users in this part of the preserve would continue to be very low and the harvest pressure would remain below that which would threaten the healthy populations of the harvested species.

Cultural Resources

Both sets of cabin ruins would be left undisturbed. The State Historic Preservation Officer has concurred with the park finding that there would be no historic properties affected by this action.

Subsistence Opportunities

The primary subsistence use is by Dan Hytry and his family who would continue and possibly increase their use of the area with the two cabins. Granting the permit would not generate any negative impacts on other subsistence users or resources. Granting the permit would enhance the opportunity for the trapper to continue his subsistence lifestyle without undue hardship to himself or his family, or making it difficult to care for and preserve the trapped harvest. The crossing of the Herron River, which frequently overflows, creates a hazard during crossing. The presence of a cabin would significantly decrease the threat to health and safety posed from getting wet or getting a snowmachine stuck at this location. The cabins would be established as shared use cabins, and other subsistence users could theoretically benefit from use of the cabin in other ways, but no other subsistence trappers or subsistence activities are known to presently occur in the area between the Herron River and Foraker Rivers. (See Appendix A, ANILCA § 810 analysis) There would be a long-term minor beneficial impact to subsistence opportunities from this alternative.

Wilderness Resource Values

The replacement cabins and the cleared areas around them would be small, located nine miles apart along traditionally used traplines in a forested area, be of neutral color, and would be visually unobtrusive and therefore should not adversely affect the few visitors who might come to the area over the next decades. A local lodge may bring guests into the area by snowmachine or dog sled, but the known uses, legal background, and history of the area would be part of the lore imparted to the visitors and they would not be surprised by these backcountry facilities. Opportunities in the Preserve for solitude or an unconfined recreation and visual impacts to the wilderness character of the area would be affected in a negligible way because of the vast acreage available and low recreational use. (See Appendix B, Wilderness MRDG Analysis).

Alternative 2 Cumulative Impacts: Other actions that have occurred in the project area in question have been subsistence use activities, including the construction of 3 small cabins and the maintenance of 150-200 miles of cut traplines in the 1.5 million square mile park and preserve area between the Kantishna Hills, Kantishna River, and the western boundary of the Preserve. Little if any sport hunting occurs in the part of the Preserve away from the Kantishna River. There is occasional recreational use from guided winter dogsled or snowmachine trips coming from a small lodge on Lake Minchumina.

Continued harvest of furbearers would depress the populations of marten and perhaps wolves along some traplines during those years when those traplines are used. These actions and uses have had very little impact on the vegetation and soils, long-term fish and wildlife habitat and populations, cultural resources, subsistence opportunities, and wilderness resource values of the area. It remains little visited by man. Overall, Alternative 2 would result in minor additional adverse impacts. The cumulative impact of Alternative 2 on park resources coupled with any past, present, and future actions would likely be minor.

Alternative 2 Conclusion: The random harvest of up to 45 white spruce trees within two miles of each cabin site would result in a minor impact to vegetation. There would be a minor impact to local wildlife populations from the continued harvest of furbearers, especially marten. This alternative would have a beneficial impact on subsistence opportunities by making safer the customary and traditional subsistence activities in the area. There would be no impact on historic resources and a negligible impact on wilderness resource values. This alternative 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.

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COORDINATION AND CONSULTATION

Ann Kain, former Cultural Resources Manager, Denali National Park and Preserve

Amy Craver, Subsistence Resource Manager, Denali National Park and Preserve

John Christopher, former Archeologist, Alaska Regional Office, NPS

Philip Hooge, Deputy Superintendent, Denali National Park and Preserve

EA prepared by:

Scott Hayden, former Subsistence Technician, Denali National Park and Preserve

Steve Carwile, Compliance Program Manager, Denali National Park and Preserve

APPENDIX A

ANILCA Section 810(a) Summary of Evaluations and Findings

I. INTRODUCTION

This section was prepared to comply with Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It summarizes the evaluations of potential restrictions to subsistence activities which could result from Denali National Park authorizing the construction of replacement subsistence trapping cabins on the Herron River and at Live Trap Lake. The old trapping cabins in these locations have collapsed due to old age, and the subsistence users utilizing the trapline have applied for a permit pursuant to CFR 36 Part 13.160 to reconstruct a small log subsistence cabins to replace them. The cabins would be used in support of subsistence trapping activities and would be designated as shared use cabins.

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 effected 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 will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and reasonable steps will 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. 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...Subsistence uses by local residents shall be permitted in the additions to the park where such uses are traditional in accordance with the provisions in title VIII."

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 proposed action would authorize Dan Hytry, a subsistence user from Lake Minchumina, to build small log cabins for subsistence purposes near Live Trap Lake and on a bank of the Herron River to replace traditionally used cabins that have collapsed. The applicant would be authorized to construct two one room log cabins (approximately 10' X 12') near the locations of the original cabin sites. Cultural compliance clearances have been completed for the proposed cabin construction sites.

Cabin logs would be randomly harvested from adjacent areas and hauled to the construction sites by snowmachine or dog team during times of adequate snow cover. The replacement cabins would be of approximately the same dimensions, style and type as the original cabins which have been customarily and traditionally used in these locations.

This trapline has been customarily and traditionally used since the early 1900's. Existing information indicates that Clarence Boatman and Frank Giles trapped the line starting around 1906. Boatman sold the line and the cabins to Carl Hult in 1940. Hult utilized the trapline until 1950 when he sold it to Ray Tremblay. Tremblay sold the line and cabins to Val Blackburn in 1953. Blackburn, in turn, sold the line and cabins to Leonard Menke around 1954 (Schneider et al., 1984). Menke sold the line to Jack Hayden in 1981. Hayden partnered with Dan Hytry and Jeff Lesniak beginning in 1987, and sold the trapline to Hytry in the early 1990's. Use of trapline cabins in support of subsistence trapping is a well documented customary and traditional subsistence use within the north additions to Denali National Park and Preserve.

IV. AFFECTED ENVIRONMENT

This section briefly reviews the subsistence background and resources of the area in general, and the area between the Foraker and Herron Rivers in particular. The area between the

Foraker and Herron Rivers lies within the boundaries of State of Alaska game management unit 20C and is within the 1980 ANILCA preserve additions of Denali National Park and Preserve.

Subsistence uses are allowed within the 1980 additions to Denali National Park and Preserve in accordance with Titles II, VIII, and XIII of ANILCA. Section 202(3)(a) of ANILCA authorizes subsistence uses within the new additions to Denali National Park and Preserve, where such uses are traditional. Lands within the former Mount McKinley National Park are closed to subsistence uses.

Subsistence resident zone communities for Denali National Park are Cantwell, Lake Minchumina, Nikolai and Telida. By virtue of their residence, local rural residents of these communities are eligible to pursue subsistence activities in the new park and preserve additions. Local rural residents who do not live in the designated resident zone communities, but who have customarily and traditionally engaged in subsistence activities within the park additions, may continue to do so pursuant to a subsistence permit issued by the park superintendent in accordance with federal law and regulations.

The National Park Service estimates the number of persons actively engaged in subsistence activities in the northwest park/preserve additions to be approximately 26. Denali National Park and Preserve has a total of about 300 eligible local rural residents who qualify for subsistence use of park and preserve resources.

The region's main subsistence species are moose, caribou, salmon, waterfowl and furbearers. Burbot, dolly varden, grayling, lake trout, northern pike, rainbow trout and whitefish are also used by local people. Marten, mink, red fox, wolf, lynx, weasel, wolverine, land otter, beaver, muskrat, and coyote are important furbearer resources. Rock and willow ptarmigan, grouse, ducks and geese complete the park/preserve subsistence species.

The Herron River and Live Trap Lake cabin sites both lie between the Herron River and Foraker River, which (historically) drain into Lake Minchumina and thence into the Kantishna River. This region spreads out across vast lowlands in the northwest portion of Denali National Park and Preserve. Plant associations in these areas are varied depending on drainage and permafrost conditions but are generally dominated by black spruce forests interspersed with riparian areas of white spruce, balsam poplar and paper birch. Riparian areas along creeks and rivers often have an understory of willow and alder. The Herron River Cabin is located on a bank approximately 45' from the Herron River, in an area with readily available fire-killed white spruce trees for cabin construction and firewood. The Live Trap Lake cabin is located approximately one hundred feet west of Live Trap Lake, approximately thirty miles by trail from Lake Minchumina.

The Herron River-Foraker River area is open to subsistence hunting, fishing and gathering, pursuant to provisions of Title VIII of ANILCA, 36 CFR Part 13, and 50 CFR Part 100. Dan Hytry and his family are the only subsistence trappers known to be utilizing the area between Herron River and Foraker Rivers. Their use of this area is predominately in the winter for subsistence trapping.

The boggy nature of the topography near Lake Minchumina and difficult river travel conditions in the Foraker and Herron River areas during spring and summer makes travel in any season but winter extremely difficult, and travel in winter is often difficult due to extreme temperatures and varying snow and overflow conditions. Access is primarily by snowmachine during winter months when adequate snow and ice conditions allow travel along brushed trapline trails or frozen rivers. No other subsistence trappers or subsistence activities are known to occur in the area between the Herron River and Foraker Rivers.

The NPS recognizes that patterns of subsistence use vary from time to time and from place to place depending on the availability of wildlife and other renewable natural resources. 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, and wildlife conservation practices of leaving a trapline fallow periodically.

V. SUBSISTENCE USES AND NEEDS EVALUATION

To determine the potential impact on existing subsistence activities, three evaluation criteria were analyzed relative to existing subsistence resources which could be impacted.

The evaluation criteria are:

- 1) 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:

Due to the fact that cabin construction would occur in the location of tents being used after the cabins fell into ruins, and due to the small number of cabin logs that would be needed for each construction, the potential to impact wildlife habitat is very small. Cabin log harvest would be spread out over several miles with random cutting of timber. The proposed action would not adversely affect the distribution or migration patterns of subsistence resources.

The applicant has practiced sound wildlife management of his trapline by closely monitoring animal sign; species, number, and sex of animals trapped; and location trapped. During any period when animal sign is considered low, or when the catch includes a large percentage of females, the applicant reduces trapping activity to ensure the health of the breeding stock. His trapline covers a large geographic area, and he disperses his trapping activities along its full length. Trapping seasons and harvest levels for this area are regulated directly by Federal subsistence regulations, and indirectly by environmental conditions such as fall freeze up,

overflow conditions and snow depth which limit winter access. The potential to reduce important subsistence fish and wildlife populations more than locally over the long-term is small.

The Castle Rocks trapline has been actively trapped for approximately 100 years. Throughout this period, trapline cabins and winter base cabins have been built and rebuilt along these and other traplines in the northwest additions of Denali National Park and Preserve. The construction of this trapline cabin would not cause the redistribution of subsistence resources or other subsistence users. The Dan Hytry and his family are the only subsistence trappers utilizing the area at present.

2) Restriction of Access:

Access for subsistence harvests on NPS lands is granted pursuant to section 811 of ANILCA. The park and preserve are managed according to legislative mandates, NPS management policies and guidelines within the approved Denali General Management Plan. No actions under the proposals (alternatives 1 and 2), which are described in detail in the environmental assessment, should affect in any way the access of subsistence users to natural resources within the park and preserve.

3) Increase in Competition:

The proposed actions should not produce any increase in competition for resources to subsistence users. The continued implementation of provisions of ANILCA should mitigate any increased competition from resource users other than subsistence users. Dan Hytry and his trapping family are the only subsistence users currently known to be utilizing the area between the Foraker and Herron Rivers.

VI. AVAILABILITY OF OTHER LANDS

No other non-NPS land or private inholdings are available for this use near the Live Trap Lake site. The Herron River cabin site is near lands administered by the State of Alaska, but the banks of the Herron River (located inside the Denali Preserve) provide the only suitable location for cabin construction. Adjacent State lands are typically low and swampy with no adequate sources of timber for construction or firewood. Additionally, the applicant has expressed a need for a cabin near the crossing of the Herron River, which frequently overflows, creating a hazard during crossing. The presence of a cabin would significantly decrease the threat to health and safety posed from getting wet or getting a snowmachine stuck at this location. No major impact on subsistence uses is expected under any of the alternatives.

VII. ALTERNATIVES CONSIDERED

The evaluation has described and analyzed two alternatives. Other construction sites, designs and materials were considered and found to be inappropriate to the area.

VIII. FINDINGS

This analysis concludes that the proposed action will not result in a significant restriction of subsistence uses.

APPENDIX B

DENALI NATIONAL PARK AND PRESERVE

MINIMUM REQUIREMENTS DECISION GUIDE

WORKSHEETS

“. . . except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act...”

– the Wilderness Act, 1964

Step 1: Determine if any administrative action is necessary.

Description: Briefly describe the situation that may prompt action.

Denali National Park and Preserve (DENA) is considering a permit application for replacing two cabins used for subsistence activities within Denali National Preserve. The applicant is Dan Hytry, a local rural resident and qualified DENA subsistence user from Lake Minchumina, Alaska.

The requested cabins would replace two traditionally used trapline cabins along the Castle Rocks Trapline. Reconstruction would occur at the Herron River and Live Trap Lake cabin sites. These cabins collapsed in the 1970s, rendering them unusable. Both replacement cabins would be of the same size and type as the original cabins, and would be built in the locations of the collapsed cabins. Both cabins would be constructed of locally harvested spruce logs.

Subsistence trapping and bartering of furs has long been a customary and traditional activity for Native peoples in Alaska, including lands within Denali National Park and Preserve. After Russian and American contact, trapping, trading and selling of furs became a significant socio-economic activity to both Native and non-Native subsistence users.

ANILCA provides for the continuance of personal or family use, bartering, sharing and customary trade of subsistence wildlife resources. Trapping is the predominant subsistence activity occurring in the north additions of Denali National Park and Preserve. Trapping activities commence in November and continue through March. Winter travel in pursuit of fur bearers can be extensive and is generally supported by a network of winter trails, shelters and cabins, which are accessed by the use of dog teams or snowmachines.

Both cabins and tents have been and continue to be traditionally used on winter-time traplines in the north additions of Denali National Park and Preserve. Both have an important place in trapline operations depending upon the personal and family needs of the trappers such as age and health of the trappers or involvement of family members such as children, stamina and willingness of trappers to accept risk, the type of transportation utilized on the traplines such as foot, dog teams or snowmachines, the distance, remoteness and length of traplines from communities, and the environmental conditions of the traplines such as type of vegetation, the nature of river crossings, elevation, slope and amount of snow (Johnson, et al.)

To help determine if administrative action is necessary, answer the questions listed on the following pages.

A. Is the Situation an Emergency that Demands Immediate Action?

Explain: No

B. Describe any Provisions for Valid Existing Rights in Wilderness Legislation

Are there valid existing rights in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that allows consideration of action involving Section 4(c) uses? Cite law and section.

Explain: ANILCA Section 1303(a)(4) provides for cabin use and construction for subsistence purposes by saying:

“The Secretary may issue a permit under such conditions as he may prescribe for the temporary use, occupancy, construction and maintenance of new cabins or other structures if he determines that the use is necessary to reasonably accommodate subsistence uses or is otherwise authorized by law.”

The regulations implementing this section of ANILCA are found at 36 CFR 13.160 (Use of Cabins for Subsistence Purposes). They specify that:

(a) “A local rural resident who is an eligible subsistence user may...construct a new cabin or other structure, including temporary facilities, in a portion of a park area where subsistence use is allowed, pursuant to the applicable provisions of subparts B [general subsistence regulations] and C [park special regulations] and the terms of a permit issued by the Superintendent.”

In reviewing the permit application 36 CFR 13.162 (Permit Issuance):

(a) “...the Superintendent shall consider whether the use by local rural residents of a cabin or other structure for subsistence purposes is customary and traditional in that park area and shall determine whether the use and occupancy of a new or existing cabin or structure is “necessary to reasonable accommodate” the applicant’s subsistence uses. In making this determination, the Superintendent shall examine the applicant’s particular circumstances, including but not limited to his or her past patterns of subsistence uses and his or her future subsistence use plans, reasonable subsistence use alternatives, the specific nature of the subsistence uses to be accommodated by the cabin or structure, the impacts of the cabin or structure on other local rural residents who depend on subsistence uses and the impacts of the proposed structure and activities on the values and purposes for which the park area was established.

(b) The Superintendent may permit the construction of a new cabin or other new structure for subsistence purposes only if a tent or other temporary facility would not adequately and reasonably accommodate the applicant’s subsistence uses without significant hardship and the use of no other type of cabin or other structure provided for in this section can adequately and reasonably accommodate the applicant’s subsistence uses with a lesser impact on the values and purposes for which the park area was established.

C. Describe Requirements or Special Provisions of Other Legislation

How are other applicable laws for the unit relevant to the need for resolution of the situation?

Explain: Section 202 3 (a) states that “Subsistence uses by local residents shall be permitted in the additions to the park where such uses are traditional...”. The proposed cabins are along lines that were in existence prior to 1980.

D. Describe Other Guidance

How does taking action conform to and implement relevant standards and guidelines and direction contained in agency policy, unit and wilderness management plans,

Explain: The Herron River and Live Trap Lake cabin sites are located within the Denali National Preserve, created by ANILCA in 1980. This area was found eligible for wilderness designation by the park’s 1986 General Management Plan, although the Denali Preserve was not proposed for wilderness designation in the preferred alternative of the 1988 Denali Wilderness Recommendation and EIS. Because no Record of Decision was signed on that plan, the area remains eligible for eventual designation, and by NPS policy (2006 NPS Management Policies 6.3.1) it is to be managed to protect wilderness character and to preserve the opportunity for Congress to so designate.

E. Describe Options Outside of Wilderness

Can the necessary information be obtained or the situation resolved by an administrative activity outside of wilderness?

Explain: The area of the traplines is completely within eligible wilderness. Conducting the activity outside of this area would not meet the needs of the applicant or be consistent with legislative intent to provide for the continuation of subsistence activities within the park.

F. Describe How Resolving the Situation is Related to the Purpose of the Act

Is action to resolve the situation necessary to accomplish the purpose of the Act which is: “...to secure for the American people of present and future generations the benefits of an enduring resource of wilderness.”?

As applicable, explain how resolving the situation will conflict or be consistent with the direction in the Act to administer the area in a way that provides for:

- 1) The use and enjoyment of the public in such a manner as will leave it unimpaired for future use and enjoyment as wilderness (see #2 for factors that define wilderness)**
- 2) The protection of the wilderness area and its wilderness character, considering such factors that define the wilderness and contrast it from other public lands such as**
 - “untrammeled”,
 - “undeveloped”,
 - “...outstanding opportunities for solitude or a primitive and unconfined type of recreation...”,
 - “natural conditions”,
 - “...ecological, geological, or other features of scientific, educational, scenic, or historical value....” that are specific to the area
- 3) The gathering and dissemination of information regarding the area’s use and enjoyment as wilderness(see #2 for factors that define wilderness)**

Congress, through ANILCA, intended the land management agency to “provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.” The NPS has declared that the Northwest Preserve is eligible for wilderness designation. The replacement of two 10’ x 12’ log cabins will not create development that will affect the opportunities for solitude or unconfined recreation in the Preserve. The cabins will be of a type that is historically tied to the area, both in utility and need and are consistent with the level of human development and activity in the area prior to designation and the character of wilderness in Alaska where activity of this type is acknowledged. As a result, this action reduces the impact to the minimum level possible and leaves a minimum development that would have a negligible effect on the untrammelled wilderness character of the Preserve. There would be only a minor impact on the “natural conditions” of the area from the tree harvesting necessary for the cabin construction.

Since the inception of a trapline between the Herron and Foraker Rivers in the 1900’s, trappers have used cabins as their primary means of shelter. Cabins provide dependability for subsistence users in need of shelter that no other structure can currently provide. Wintertime trapping in the Interior of Alaska is hazardous primarily because of extreme cold, difficult winter traveling conditions, and the remote and isolated nature of the operations. Temperatures drop to 50 degrees below zero and colder during extreme cold periods, while temperatures of -30 to -40 degrees are common and can last for weeks in this area of the park and preserve. Heavy snow is also possible. The historical practice of spacing cabins from 10 to 15 miles apart on long distance winter trapping operations serves to mitigate this danger, and is well documented in studies for the north additions and the Lake Minchumina area (Johnson, et al.; Schneider, et al.; Bishop). This provides reasonable travel distances between shelters and in the event of an injury, sickness, loss of an existing cabin due to accidental fire, and in the case of a lost dog team or broken snowmachine, provides shelter within walking distance. Tents as temporary shelters are much better than nothing in emergencies, but are intended for short temporary stays, or for use while mobile (Johnson, et al.).

Step 1 Decision: Is any administrative action necessary?

An affirmative answer to one or more of the previous questions is required

Yes: No:
Yes, provided Step 2 shows no compromise of wilderness character
More information needed:

Provide a summary explanation: The present action is necessary to allow certain activities which have been approved by Congress to continue on these lands without significant hardship. Construction of a replacement cabin is needed to reasonably accommodate the

applicant's subsistence activities and reduce reliance on tent camps along this trapline (Dan Hytry, personal communication). On remote and long distance traplines, such as the applicant operates, the over-reliance on tents as primary shelter is potentially dangerous especially if the trapper is operating alone.

Step 2: Determine the minimum activity.

Description of Alternatives

For each alternative, describe what methods and techniques will be used, when the activity will take place, where the activity will take place, what mitigation measures are necessary, and the general effects to the wilderness resource and character.

Actions Common to All Alternatives

- Trapping in the Northwest Preserve will continue.
 - Snowmachines will be used to run the traplines and haul trapping supplies and firewood and water
 - Chainsaws will be used as per regulations to maintain trapping trails and to gather firewood

Alternative # A No Action

Description:

No cabin construction actions would be taken.

Effects:

Wilderness Character

The use of tents as opposed to the construction would provide for only minor benefits to wilderness character in the specific context of this proposal. Subsistence use at the level and locations proposed is consistent with the character and level human activity in of the area at the time of establishment.

Subsistence

Use of tents only has the potential to limit the continuation of subsistence trapping activities of the applicant. On remote and long distance traplines, such as the applicant operates, the over-reliance on tents as primary shelter is potentially dangerous especially if the trapper is operating alone

Vegetation and Soils

There would be negligible benefits to vegetation and soils because the use of tents will still require some clearing and trampling of vegetation at the campsites. Long-term impacts from firewood gathering could be higher if the sites are consistently used because of the greater inefficiency in heating a tent.

Recreational Use of the area as Wilderness

There would be negligible positive benefit from the use of tents. Some indication of human use will be present at the campsites even if tents are used. There would be few users to benefit from any reduction in the level of human presence because little recreational use occurs anywhere near the proposed cabins, aside from occasional snowmachine or dogsled trips by the winter concessioner based at Lake Minchumina.

Alternative # B Construct Two Replacement Cabins

Description:

The requested cabins would replace two traditionally used trapline cabins along the Castle Rocks Trapline in eligible wilderness. Reconstruction would occur at the Herron River and Live Trap Lake cabin sites. These cabins collapsed in the 1970s, rendering them unusable. Both replacement cabins would be of the same size and type as the original cabins, and would be built in the locations of the collapsed cabins. Both cabins would be constructed of locally harvested spruce logs. Under this alternative, the applicant would be issued a permit to construct the replacement cabin on the traditionally used tent site location near the collapsed cabin at Live Trap Lake, and he would be issued a permit to construct a small cabin in the near vicinity of the collapsed cabin on the Herron River. The permit would authorize one-room cabins of the same size (10'x12') and type (white spruce log). Additionally, the permittee would construct an outhouse at each cabin at least 100 feet from the nearest water body.

Cabin logs would be harvested from the floodplain forest of the Herron River and from the area around Live Trap Lake during the winter-spring of 2008. This permit would authorize the harvest of up to 45 standing spruce trees at the Live Trap Lake cabin site, and 45 standing spruce trees from the floodplain forest of the Herron River. Trees would be randomly cut in a dispersed manner to avoid clear cutting. Trees could be taken within a two mile radius from the proposed construction sites. Stumps should be flush cut and slash dispersed. Logs would be cut and transported to the construction site when snow cover exists to minimize impacts to vegetation. Cabin construction could begin during the spring of 2008.

Trees and brush within a 30' radius around the cabin could be removed and within a 100' radius around the cabin could be thinned to "Fire Wise" standards, which would include keeping tree crowns from reaching within 30' of the cabin and within 20' of each other.

The cabins would be designated for shared use among subsistence users as required by 36 CFR 13.136 and the Denali Subsistence Management Plan (SMP). Residential use is prohibited under 36 CFR 13.164(b) and the DENA SMP).

Effects:

Wilderness Character

The replacement cabins would be small, located in a forested area, be of neutral color, and would be visually unobtrusive and therefore should not adversely affect the few visitors who might come to the area over the next decades. A local lodge may bring guests into the area by snowmachine or dog sled, but the known uses, legal background, and history of the area would be part of the lore imparted to the visitors and they would not be surprised by these backcountry facilities. There would be a negligible impact to primitive recreation or opportunities for solitude because of the vast acreage available and low recreational use. The short-term impacts of motorized equipment use are also substantially mitigated by the sound buffer of trees around each site.

Subsistence

The replacement cabins will facilitate the continuation of a pattern of subsistence activity that is consistent with previous use in the area.

Vegetation and Soils

Overall benefits to soils and vegetation would be negligible. There would continue to be negative effects to vegetation due to the logs needed for cabin construction and the annual need for firewood to heat the cabins. A similar amount of firewood or more would be needed to heat a tent for similar residence times. Thousands of acres of forests surround the sites. Soils impacts would be concentrated at the cabin sites and would not extend beyond the ground already used for tenting.

Recreational Use of the area as Wilderness

Little recreational use occurs anywhere near these cabins, aside from occasional snowmachine or dogsled trips by the winter concessioner based at Lake Minchumina. There would be a negligible effect on wilderness recreation from the construction of these two cabins because they would not be available for recreation use, are not recreational destinations or on recreational routes, and are primitive facilities of a type expected in backcountry areas.

Step 2 Decision: What is the Minimum Activity?

The selected alternative is:

Alternative B is selected

Describe the rationale for selecting this alternative:

Alternative B represents the most complete long-term solution to the problems that were identified. Even though two cabins are constructed and some motorized tools are used, the overall negative long-term impact to wilderness character, resource values, and visitor experience still leaves the area unimpaired for future use and enjoyment as wilderness. The cabins also improve the opportunity to engage in a subsistence lifestyle, which has been legislated as a compatible part of the Alaska wilderness.

Describe any monitoring and reporting requirements:

Please check any Wilderness Act Section 4(c) uses approved in this alternative:

- mechanical transport
- motorized equipment
- motor vehicles
- motorboats
- landing of aircraft
- temporary road
- structure or installation

Be sure to record and report any authorizations of Wilderness Act Section 4(c) uses according to agency procedures.

Approvals	Signature	Name	Position	Date
Prepared by:	/s/ Steve Carwile	Steve Carwile	Compliance Program Manager	1/22/08
Approved:		Elwood Lynn	Superintendent	

APPENDIX C

CONDITIONS OF THE CABIN CONSTRUCTION SPECIAL USE PERMIT

1-8 are standard conditions for all special use permits.

9. This permit is for the construction of a subsistence cabin located on _____ (description of cabin site, township & range). The proposed cabins would be built on the old cabin sites, which have been archeologically cleared for cabin construction.
10. If concealed archeological resources are inadvertently encountered during the construction process, construction must stop and Denali National Park staff notified.
11. The cabins would be one room log cabins (approximately 10' by 12') typical of trapline cabins built in the area to support subsistence trapping activities. The cabins would have pole roofs covered by suitable moisture barriers (i.e. plastic or roof felt) and sod, and may have one or two windows. At the end of the trapping season the windows shall be removed or secured by the construction of bear-resistant shutters.
12. For fire safety, the heating stove should be located at least 24" from log walls or combustible materials. Closer installations require use of a reflective heat shield. Stove pipe exiting through the roof must pass through at least a standard stove roof jack. A better quality insulated stove roof jack is recommended.
13. Human latrines would be located at least 100' horizontally from the mean high water level of the nearest body of water. The bottom of the latrine would be at least 4' above the water table. A small structure suitable to enclose the latrine may be constructed.
14. The permittee agrees to maintain the construction sites and adjoining lands in a clean and orderly state. The grounds around the cabins shall be kept clean and free of garbage. Solid wastes that cannot be burned must be hauled out.
15. The National Park Service assumes no responsibility for the loss of any private property, damage or injury associated with the exercise of privileges authorized by this permit.
16. Upon completion, this cabin is designated a shared use subsistence cabin, which provides for use by the permittee or other qualified local rural subsistence user rather than for exclusive use by the permittee. Residential use of the cabin is prohibited.
17. This permit authorizes the harvest of up to 45 live spruce trees for construction of the cabin at Live Trap Lake and the Foraker River floodplain, and 45 standing fire-killed spruce trees from the floodplain forest of the Herron River. Trees are to be randomly cut in a dispersed manner to avoid clear cutting. Trees may be taken within a two mile radius from the proposed construction sites. Stumps should be flush cut and slash dispersed. Logs must be cut

and transported to the construction site when snow cover exists to minimize impacts to vegetation.

18. Trees and brush within a 30' radius around the cabin may be removed and within a 100' radius around the cabin may be thinned to "Fire Wise" standards, which would include keeping tree crowns from reaching within 30' of the cabin and within 20' of each other.

I have read and agree to comply with the terms and conditions of this permit.

Permittee

Date