

**Comments [via additions & deletions] on the  
Kennecott Interim Management Plan  
Draft Environmental Assessment  
By the Kennicott-McCarthy Study Group**

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## Plan Purpose and Need

The purpose of this Interim Operations Plan for the Kennecott National Historic Landmark (NHL) is to analyze National Park Service (NPS) management strategies for the Kennecott site in the Wrangell-St. Elias National Park and Preserve. Such a plan became necessary when the National Park Service acquired the privately owned site in June 1998 (see Region and Vicinity map and NHL Boundary map). The Kennecott site, mined for copper in the early 1900s, is in the center of the park, approximately 5 miles from where the McCarthy Road ends at the Kennecott River. ~~Through its acquisition, The National Park Service acquired 2,839 acres, including much of the historic mill town, and the subsurface rights to the mine, and the surrounding natural area.~~

~~When the historic landmark was in private hands, there was limited opportunity for important elements of the landscape, other than some of the structures, to be preserved. The preservation of some of the key structures was accomplished by Friends of Kennicott, a local nonprofit group that undertook some emergency stabilization work. For the most part, private ownership meant that the bulk of the site had been left to deteriorate since the mining operation ceased. Accordingly, when the landmark transferred into the public realm, the preservation of this historic landscape with all its elements became the responsibility of the NPS. Preserving such a site and providing visitor access to and interpretation of Kennecott requires analysis of the condition of the historic landscape and stabilizing those important elements that are deteriorating, determining where visitor services should be located, and providing visitors with ways to explore the history of the site. Many health and safety problems are on the site, many artifacts have been removed, and remaining ones are at risk. There are few visitor facilities and only a few interpretive services available.~~

With this acquisition, the Park Service assumed new responsibility for protecting the important elements of the historical, cultural and natural landscape. In addition to being a historic site of national significance, the NHL also includes natural areas easily accessible to visitors and is a gateway to the park's backcountry. Its cultural landscape reflects a mixture of historic mining era artifacts together with the ongoing life of an Alaska bush community, members of which own lands and businesses intermingled with Park Service holdings at Kennicott and in the nearby area of the town of McCarthy.

Preserving such a site and providing visitor access to and interpretation of Kennecott requires analysis of the condition of the historic landscape and stabilizing selected important elements that are deteriorating, determining where visitor services should be located, and providing visitors with ways to explore the history of the site. It requires an understanding of the natural features and processes of the site, in order to both preserve historic values and provide appropriate protection of, access to and interpretation of its natural values for visitors. And it requires cooperation with residents and non-federal landowners, whose partnership is necessary for protection and public appreciation of the area. Existing Mill Site Unit covenants will be modified to more closely reflect the current and anticipated future land usage. There is provision within the covenants for modification of the restrictions by majority lot owner vote by September 2001.

When the historic landmark was in private hands preservation of some of the key structures was accomplished by Friends of Kennicott, a local nonprofit group

that undertook some emergency stabilization work. Many health and safety problems remain on the site, many artifacts have been removed, and remaining artifacts are at risk. This plan, along with the forthcoming associated cultural landscape report, will be an amendment to the park's General Management Plan. This operations plan will be for approximately a five-year period, which represents how long it will take for the NPS to get basic operations underway. At the conclusion of this interim, start-up period, there will be an opportunity to re-evaluate the plan and make any needed adjustments.

Kennecott's designation as a national historic landmark reflects its exceptional importance to the history of the United States - only 3% of properties listed on the national register have the status of an NHL. Its significance as an early 20th century mining landscape is multi-dimensional, a fact represented in the many themes of American history that can be discerned through the layers of its material culture. Among others, these themes include the evolution of mining technology at one of the richest copper ore sites in the United States, the physical development and evolution of a company mill town over four important decades of industrial growth, and the history of labor, family life, and environment on one of the last American frontiers.

~~The site's interpretive potential as a cultural landscape is compelling. As defined by the National Park Service, cultural landscapes are geographic areas, including cultural and natural resources, associated with a historic event, activity, or person. However, a landscape's age and associations do not automatically warrant preservation.~~ As a cultural landscape, Kennecott's preservation is critical because the its physical structures, characteristics, and features of an old mining town defining its historical significance remain in effective combination with an active living human community and the natural environment of a vast wilderness park. Individual buildings and archeological features are important, but when considered within the holistic context of the cultural landscape, they are of an even greater value in communicating that significance. Because this landscape is largely intact, understanding Kennecott as a cultural landscape is a useful approach to preserving and interpreting its historical legacy.

[Region and Vicinity map]  
[NHL Boundary map]  
[Property Ownership Map]

Stewardship of the cultural landscape at Kennecott is addressed through the many aspects of this Interim Management Plan, which covers a wide range of topics including: cultural resources (including landscape features, land use, and design standards, archeological resources, museum collections and archives, buildings, and structures), natural resources (air quality, surface water, wetlands, vegetation, and wildlife), and interpretation. Integral to the Kennecott plan are management issues related to its administration and operations such as building leases, tours and seasonal use, land acquisition and easements, concerns related to utilities and infrastructure, and the paramount needs for safety and security.

This document presents and analyzes ~~four~~ the preferred alternative.

Alternative 1: *Preservation and Enhancement (Preferred Alternative)* provides for both short-term and long-term NPS actions focused on compatible design, incremental change, and the reestablishment of the historic character of the site. Over the next five years the NPS would initiate rehabilitation of the company store for a visitor contact station, offices, and storage. Interpretive

programs would be offered by the NPS, concessioners, and other cooperators. Exhibits would be developed in coordination with the McCarthy Museum. Structures would be stabilized on a priority basis. A number of buildings would be opened for visitors to tour independently. Historical pathways would be reestablished and some vegetation clearing would take place. The NPS would work cooperatively with the community to address the rehabilitation of the community building and fire and EMS response.

(Descriptions for other alternatives deleted.)

## Background

The National Park Service purchased the Kennecott properties for \$3.4 million on June 16, 1998. The 2,839-acre purchase included some of the historic structures on the site. The Kennecott Corporation donated the subsurface rights. This acquisition was the culmination of years of efforts by many people from McCarthy, Alaska, to Washington, DC.

Kennecott is a complex site with multiple ownerships, ~~historic resources,~~ ~~hazardous materials,~~ ~~oversight from multiple agencies,~~ and established patterns of private and public use including rights-of-way and waterlines. The National Park Service recognizes that a viable and diverse community of families and individuals existed prior to the area being designated a national park, and will work with this local community to manage the landmark in such a way as to maintain the character of Kennicott and McCarthy.

When the NPS purchased the 2,839 acres within the landmark boundaries, it became the largest landowner and thereby became responsible for staffing and operating the architectural control committee (ACC). The ACC was established when the mill site unit of the subdivision was created. There are 16 covenants that dictate which activities may take place within the mill site unit. The ACC applies those covenants. of the area, but not the majority landowner within the Mill Site Unit, which contains most of the original buildings and in-holder lots. Lots within this unit were originally conveyed with residential-type covenants and these covenants now require modification to more closely reflect current land uses and to meet the needs of the NPS as outlined within this document. Modifications of existing covenants will be initiated through an open and inclusive process of all Mill Site lot owners, determined by majority vote and implemented and enforced by the Unit's Architectural Control Committee (ACC). It is the NPS' intention to recruit other landowners to serve on the ACC, as part of this process.

Kennecott is near McCarthy, Alaska, in the central portion of Wrangell-St. Elias National Park and Preserve. The Kennecott Mines in Alaska were developed and operated between 1901-1938. The unusually rich copper deposits, rich by even the standards of Bonanza West, justified monumental efforts to organize and construct the mines and necessary infrastructure to bring copper ore to market from the remote Wrangell Mountains. To exploit this ore deposit, a consortium funded the development of the mines, a railway to transport the ore to market, and a supporting network of processing and residential buildings. Ore was removed and transported to market between 1911, when the first trainload of ore was shipped from Kennecott, and 1938, when the company vacated the camp, leaving it virtually intact. The mill demonstrates the evolution of mineral separation technology in the early years of the 20th century. The gravity separation processes were refined to suit the local ores, ammonia leaching was developed to

resolve technical problems unique to the site, and wider advances in mineral processing technology were adopted in ensure maximum efficiency in the recovery of the ore. Because of its significance, Kennecott was designated a national historic landmark in 1986.

An extensive development, Kennecott incorporates approximately 7,700 acres. It contains 45 major residential, commercial, and industrial structures and 25 outbuildings at the mill site, as well as four mine sites with their associated structures. In addition, there are tram lines connecting each of the mine sites with the mill, over 80 miles of underground workings at the mines, and roads within the mill site and leading up to two of the mines. There also are tailings piles and scores of artifacts, such as pieces of equipment scattered across the landscape.

The historic district is situated directly east and adjacent to the Kennicott Glacier, which drains into the Chitina River Valley. The valley where the district is located expands from a relatively narrow corridor to a wide lowland of spruce and birch, cut by the river and its tributaries. The district's location ranges from an elevation of 2,200 feet at the edge of this lowland to 6,500 feet and is framed by a broad valley to the south and mountains to the north and east.

"Kennicott and Kennecott are the correct names for two different but closely associated places. Kennicott with an "i" refers to the Kennicott Glacier and River named in 1899 by the U. S. Geological Survey in honor of Robert Kennicott, a pioneer Alaska explorer. Kennecott with an "e" refers to the mining company that took its name from the Kennicott Glacier but for some unknown reason misspelled the name. The error occurred early in the history of the mines, perhaps as early as 1901. In any event, the Kennecott Mines Company was in operation in 1906. In 1908, a U. S. Post Office was established at Kennecott. In recent years following upon the transfer of the surface estate to the Great Kennicott Land Company the two spellings have been used casually and interchangeably. This has caused some understandable confusion. Broadly speaking, references to Kennicott with an "i" stress the natural history of the area while Kennecott with an "e" addresses the human history of the area. The NPS adheres to this convention as is reflected in the official designation of the area as the Kennecott Mines National Historic Landmark (Orth 1967).

## **Public Involvement**

Since the spring of 1998, the National Park Service has been meeting with interested community members. Comments were solicited in meetings in June, August, and September 1998. Those comments have been incorporated into this document. The Park Service intends to continue involving the public in the operation of the site and hopes to develop partnerships with organizations for assistance in operating the site. The NPS also instituted a newsletter entitled the "Kennecott Cable" which provided information to those who were not able to attend meetings and solicited their comments. A complete discussion of the public involvement process is documented in the Consultation and Coordination section of this document.

## Issues

Potential issues were identified through the site assessment, previous information gathered to support the acquisition, NPS in-house scoping meetings, and through input from local, state and federal agencies. The potential issues helped formulate the alternatives and mitigating measures. The issues discussed below were selected for detailed analysis based on their significance; environmental statutes (particularly the National Environmental Policy Act), regulations, and executive orders; and NPS management policies. A brief rationale for the selection or dismissal of each potential issue is given below.

### Issues Considered

**Community Lifestyles.** Proposed activities described in the operations plan have the potential to impact the existing lifestyles and values of individuals and groups in the Kennicott/McCarthy area. Elements of a collective community vision are specified in the "Management Concept" section.

**Subsistence.** Section 810(a) of the Alaska National Interest Lands Conservation Act requires that federal agencies evaluate their proposed land use and the effects on "subsistence uses and needs, the availability of other lands for the purposes sought, to be achieved, and other alternatives that would reduce or eliminate the use." Federal agencies are also required to determine the potential for significant restriction of subsistence use. Appendix A contains an ANILCA section 810 evaluation.

**Visitation and Recreation.** One aspect of operating the site would be to determine how visitors access and use trails to visit different areas of the site, which include both historic and natural areas. Another aspect would be to determine the extent of interpretation and access that would be offered to visitors and how to tell the Kennecott story. Activities that would complement, but not compete with existing interpretive businesses would be offered to meet the widest range of visitors' abilities. Visitors who come to Kennecott also may decide to visit adjacent areas of the park. Given Kennecott's location near extensive park backcountry and wilderness, the likelihood that NPS actions which increase visitation to Kennecott will also increase impacts on surrounding areas needs to be carefully considered, and ways to mitigate those impacts identified in advance. Accordingly, impacts on visitation and recreation are discussed in this document.

**Air Quality.** The air quality in the Kennecott area is pristine with no large pollution sources within hundreds of miles. Activities such as lead paint abatement and operating generators could result in small, localized emissions into the air. Accordingly, potential impacts to air quality from these potential sources are discussed in the Environmental Consequences section.

**Geology, Topography, and Soils.** Stream channels and slopes within the site were modified during the mining period. Stream damming and channelization occurred. The Environmental Consequences will address the impacts to stream channels and slopes as they are affected by the preservation of cultural resources.

**Water Resources.** The water quality in the streams within the site is very good. The water in the streams is surface drinking water sources for residents of the area. Certain activities proposed in the operating plan, such as withdrawing water for firefighting, could affect water quality. Therefore, impacts to water resources are analyzed in the Environmental Consequences section.

**Wetlands and Floodplains.** Wetlands and floodplains are associated with the streams within the landmark boundary. These resources were altered by both the mining activity and the construction of the mill town. Proposed activities, such as establishing a low-water crossing at National Creek, may impact these resources. Accordingly, the impacts to these resources are analyzed in the Environmental Consequences section.

**Vegetation and Wildlife.** Currently, the vegetation within the mill site and around the mines reflects the re-growth that commenced at the conclusion of mining operations; the vegetation grew back into once-cleared areas. Elsewhere within the landmark boundary vegetation reflects conditions that existed before mining occurred. This operations plan proposes to clear some of the vegetation for a variety of reasons, while retaining the abandoned feel of an industrial landscape partially reclaimed by nature. Such clearing could result in the loss of vegetation and will affect wildlife resources by altering the existing habitat. These changes to these resources are analyzed in the Environmental Consequences section.

**Threatened and Endangered Species.** The Endangered Species Act requires that the potential impacts of federal actions on all federally listed threatened and endangered species be examined. NPS policy also requires examining the impacts on state-listed threatened, endangered, rare, and sensitive species. For these reasons, threatened and endangered plant and animal species are discussed.

**Cultural Resources.** The topic of cultural resources includes prehistoric, historic, and ethnographic resources. The management of historic structures is an important concern: which ones would be left to deteriorate, which ones would be stabilized, which ones would be rehabilitated and adaptively reused. Artifact and museum storage is discussed, as is the national historic landmark as a cultural landscape.

In addition to the National Environmental Policy act, the impacts on cultural resources are evaluated under the National Historic Preservation Act. Regulations covering this process are found in 36 CFR 800. Guidance is also found in the "Director's Orders #28: Cultural Resource Management" and in the NPS Management Policies (1988).

The undertakings described in this document are subject to the terms of the 1995 programmatic agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.

**Socioeconomic Environment.** Proposed activities described in the operations plan have the potential to impact the community and economy of the Kennecott/McCarthy area. These potential impacts are analyzed in the "Environmental Consequences" section.

Park Management. The acquisition of this property added additional administration responsibilities to the park staff. This document addresses how these duties are apportioned among competing park needs.

**Safety and Security.** The National Park Service is concerned about the health and safety of visitors when they are touring inside or adjacent to historic structures. Because hazardous conditions may exist within and adjacent to the structures, security and safety are discussed.

**Cumulative Effects.** The regulations of the Council on Environmental Quality (CEQ), which implement NEPA, require the assessment of cumulative impacts in the

decision-making process for federal projects. A cumulative impact is defined as an impact on the environment that results from the incremental impact of the action when added to the past, present, and reasonably near future. Reasonably foreseeable actions include increased park visitation and additional development of private in holdings within the national historic landmark. The potential impact of these future actions is considered in the cumulative analysis.

### **Issues Considered and Dismissed from Further Analysis**

**Transportation.** The boundary of the plan for Kennecott is the boundary for the national historic landmark. Access and transportation are discussed in the alternatives; however, neither the rehabilitation of the McCarthy Road nor the reconstruction of the railroad is considered a topic of analysis. The road reconstruction project is being addressed in a separate planning process that is ongoing between the NPS, the State Department of Transportation and Public Facilities, and other agencies.

**Utilities and Infrastructure.** The topics of utilities and infrastructure are discussed for National Park Service operations. It is beyond the scope of these first number of years for a community system to be implemented. It is beyond National Park Service responsibilities and funding to establish a public utility. The Park Service will continue to work with the communities of Kennecott and McCarthy to address the issues of water supply, solid waste, sewage, electric power, fire suppression, emergency medical services, and telephone service. By process of covenant modification, more reasonable routing of utilities will be considered. The legal use of road right-of-ways would in some cases be difficult to implement, and at the very least disruptive of normal traffic and visitor experience.

Executive Order 12892, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Executive Order 12892 requires all federal agencies to incorporate environmental justice into their projects by identifying and addressing disproportionately high and adverse human health or environmental effects on minorities and low-income populations and communities. None of the alternatives presented would be expected to result in significant direct or indirect negative or adverse human health or environmental effects in the area. Therefore, environmental justice was dismissed as an issue considered.

## **Actions Common to All Alternatives**

### **Hazards**

As part of the acquisition of the Kennecott properties by the National Park Service, a number of stipulations pertaining to hazardous wastes and lead paint were established. The National Park Service has entered agreements with the Alaska Department of Environmental Compliance, the U.S. Environmental Protection Agency, and the Justice Department. Under those agreements, the National Park Service affirmed its obligation pertaining to the abatement of lead paint hazards in accordance with state and OSHA regulations pertaining to worker safety and training. Asbestos will be removed from Jumbo Mine; Erie Mine would be closed to access due to asbestos; and monitoring will be conducted in the dumpsites at the mill town. The historic dumps do not pose an unacceptable risk, but the groundwater will be monitored for hazardous substances. More information is provided in the "Affected Environment" section.

## Accessibility

The Department of the Interior has administratively determined that it will follow the Americans with Disabilities Act Accessibility Guidelines, provided by the U.S. Architectural and Transportation Barriers Compliance Board, when such design guidelines are equal to or greater than those of the Uniform Federal Accessibility Standards. Since the Americans with Disabilities Act (ADA) was based on the requirements of section 504, ADA regulations and technical assistance materials, especially title I, provide additional in-depth resources for implementation of a reasonable accommodation process. The National Park Service would invite a panel of people with expertise in issues pertaining to handicap accessibility. The group will work with the NPS in developing a plan that provides long-term guidance on issues of programmatic and physical accessibility for the site.

## Partnerships

The National Park Service considers itself a partner with the community. In consultation with local residents, landowners and organizations, the Park Service will establish procedures for early and regular discussion with the community of proposed Park activities at Kennecott, prior to the Park committing to a specific course of action. In establishing these discussions, the Park Service acknowledges that:

- the success of the Kennecott Historic Landmark depends on the quality of relationships between NPS and its neighbors.
- there are a variety of vested interests in the area that are not necessarily organized into one official "representative" body, but all of whom will have the opportunities to participate in setting the course of action.
- conflicts should be resolved locally if possible.

The Park Service will be receptive to participation in ongoing conversations with the community on issues of mutual concern. Specifically, the National Park Service considers itself a partner with the community in seeking funding to rehabilitate the community building for community functions and for visitor interpretive programs. The NPS would rent a private building as a temporary community center and park office space.

The 1996 Interior Appropriations bill to support the preservation, stabilization and interpretation of Kennecott noted that "It is the intent of Congress that, with the assistance of the Conservation Fund, NPS acquire the Kennecott surface and subsurface within the Wrangell-St. Elias National Park and Preserve, and that the property be managed in a stabilized site with a capped federal capital investment. Upon federal acceptance of the donation, the National Park Service is directed to operate and maintain Kennecott through a nonprofit entity in cooperation with the State of Alaska."

Additionally, the National Park Service, in consultation with the local community, will explore partnership proposals from nonprofit organizations that wish to share in the operation and management of Kennecott. Friends of Kennicott have expressed an interest in developing such a relationship. Accordingly, such a strategy will be evaluated ~~under all alternatives~~. Additionally, the National

Park Service will be developing a concessions plan for the NHL. It is hoped that this strategy will be integrated in the overall partnership strategy.

All alternatives are based on the evaluation of cultural landscape resources, NPS management guidelines and legal mandates, discussions with private landowners, and public meetings. The NPS would continue to work in partnership with the local residents to manage the area in a manner that protects natural and cultural resources and serves the long-term interests of the community by ensuring the protection of private property and access for all landowners.

## **Interpretation**

The development of interpretive exhibits, brochures, walking tours, and site-related information for Kennecott would be coordinated with the McCarthy museum and private interpretive businesses so that they would be complementary and not competing. NPS would work with interested groups in the development of walking tour materials, brochures, and other interpretive media that would be available for their own use and for NPS use.

## **Community Resources**

The living aspects of day-to-day life in Kennicott, both summer and winter, are of significant interest to visitors. The NPS recognizes this and will seek means of satisfying this visitor interest in a way that does not adversely impact the private lives of the area residents.

## **Natural Resources**

The resource management division at the park would develop and implement monitoring programs for a variety of resources including vegetation, wildlife, and water quality. These programs will assist the park in identifying any threats to the resource that could occur from implementing the plan.

## **Cultural Resources**

The park's cultural resource specialist would supervise the preparation of a Scope of Collections document, which will guide the park's efforts in deciding how to preserve artifacts remaining on the site.

## **Safety**

The NPS would pursue the security of all structures that pose a health and safety concern. (Please see Appendix C)

## **Subsistence**

When the NPS acquired the landmark property, the land became part of the preserve and, therefore, public land. Consequently, under ANILCA, these lands are available for subsistence activities, unless otherwise regulated.

## **Budget**

Only the no-action alternative can be implemented within the current park budget. It would take an increase to the park budget to implement any of the other alternatives. The earliest the park could see such an increase would be in fiscal year 2000, which begins October 1, 1999.

## Preferred Alternative

### Management Concept

The primary management goals of the Preservation and Enhancement (preferred Alternative) would be to enhance visitor understanding of Kennecott by protecting ~~preserving~~ and interpreting key remaining structures and landscape features, patterns and relationships that define the historic, cultural and natural character of the national historic landmark. The approach taken would reflect the 1997 Park Service report supporting federal ownership of the NHL, "Kennecott Acquisition Past, Present and Future," which endorsed the goal of a "managed ghost town." That report stated (page 25):

"What is (to be) maintained is the sense of time frozen, a site abandoned but still haunted by past residents, a place that has not been vandalized or sanitized. It is a place of discovery for the visitor, but one where investigation and inquiry can be done safely and with respect for the remaining historic objects and structures."

The preferred alternative incorporates key aspects of more than a decade of public discussion of acquisition and management of the National Historic Landmark. One key result of the discussion was the desire for cooperative management of the landmark by the Park Service and local residents and nonprofit organizations.

More recently, the community and one such local nonprofit organization, the Friends of Kennicott, have endorsed a shared vision for the National Historic Landmark. This shared vision will provide a strong foundation for the work that follows and a way to evaluate Park Service plans and actions. Most interested parties envision a future in which Kennicott:

- is stabilized to prevent deterioration of historic structures or artifacts and to make them available to the public.
- is managed with a "light touch" in which projects are undertaken in small steps, at modest costs, with minimal intervention process.
- is not just an abandoned mining town, but also is a place that reflects the vitality, creativity, and community spirit of today's residents.
- retains the slow pace, quiet, and spaciousness that foster contemplation and individual reflection.
- is part of a larger community in which residents act both individually and collectively to guide the future of the area.
- contributes to a strong, reasonably diverse economy that includes locally owned and operated businesses, community-based nonprofits, and traditions of barter and subsistence.
- protects and honors small-town values: safety, cooperation, self-sufficiency, and personal freedom.
- is a place where tourism is allowed to evolve within the capacity of the community, rather than a place where external intervention and control accelerate growth.

- is seen by local residents and visitors alike in its true context: a remote outpost of civilization in the midst of an enormous mountain wilderness.
- is managed to protect the cultural and natural resources of this historic mining district and the surrounding glacial landscape; and provides a safe, educational, and rewarding experience for the area's visitors and residents.

Major actions in this alternative would include implementing a program of stabilization for historic structures; establishing a procedure for joint NPS/community review of proposed adaptive reuse of structures within a prescribed area; limited adaptive reuse of those structures; reestablishment of historic circulation routes; partial restoration of historic views and vistas through selective thinning of nonhistoric vegetation; preservation treatment of significant archeological features; and the addition of interpretive facilities, including trails, waysides, and a visitor contact station. This alternative would also allow development within the historic landmark to the degree that proposed changes would be compatible with the historic character of the site. In this regard, individual actions, such as a change in land use or the addition of new structures within the historic district, would be considered and evaluated within the context of the cultural landscape as a whole.

**Transportation and Promotional Efforts**

Completion of major upgrades to the existing Chitina to McCarthy gravel road is not expected within the next five years. While levels of visitation may increase with improved maintenance of the road, high annual increases are not expected. However, when the McCarthy Road is upgraded a re-evaluation of visitor impacts will be needed.

The recently upgraded McCarthy airstrip has the potential for handling a greater number of visitors to the area. The new Princess Hotel slated for opening in Copper Center in 2002 may yield increased visitation by this means. However, it is not known at this time how many visitors this may entail.

Promotion of the area needs to be moderated by the desire of the Park Service and the community to offer visitors a quality experience, and to minimize impacts on the surrounding community and natural areas.

**Anticipated Visitation**

Year	Anticipated Number of Visitors by Road	Anticipated Number of Visitors by Air	Mitigation Measures
2001			
2002			
2003			
2004			
2005			

## Cultural Resources

### Cultural Landscape

The National Park Service has a responsibility to abide by regulations governing the management of historic resources. It must comply with the legal and regulatory requirements as outlined in Director's Order-28: *Cultural Resource Management, the National Historic Preservation Act, and The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, among others. Those regulatory requirements address NPS policy, federal legal mandates, and acceptable standards for the treatment of the Kennecott historic properties. The National Park Service will also abide by the covenants attached to the mill site town subdivision.

*Land Use.* The preferred alternative would respond to historic land use patterns and uses while providing for contemporary uses within the historic context. ~~Six~~ By covenant modification, land use "zones" would be delineated, providing ~~for~~ appropriate contemporary uses within the primary historic use areas that include the industrial core, administrative complex, housing areas, and service-related areas. The following chart outlines ~~the~~ six land use "zones," according to contemporary and their historical usage. ~~and These zones appropriate uses that may will promote foster sensitive and appropriate contemporary development and will protect the historical nature of the majority within the historic fabric and context~~ of the Mill Site area.

**Table 1: Land Use Designation**

Zone	Name	Historic Land Use	Appropriate <u>Uses Adaptive Reuse</u>
1	Administrative Core	Office, manager's residence, depot, hospital, staff housing	NPS Operations, offices, interpretation, visitor center
2	Industrial Core	Concentration Mill, tram deck, power plant, machine shop, tailings, flume structures, warehouses	Interpretation, storage, equipment repair, workshop, utility infrastructure
3	Residential "A"	Silk stocking row: old lodge, barracks, local access roads	Interpretation, residential, lodging, tent cabins
4	Residential "B"	North end cottages	Private residences, interpretation
5	Residential "C"	Vegetated hillsides, cleared hillsides, historic dumps	Residential, undeveloped, natural resource protection
6	Commercial	Store, post office, storage, resident services, meat house, community facilities, housing, tent cabins	Concession/commercial (outfitter, bike rentals, guided tours, guest services, gift shop, bookstore, offices, community center

*Design Standards.* To guide development in the Kennecott National Historic Landmark - especially in the mill town subdivision - the park would work with the community to establish design standards and guidelines for structures and landscape features consistent with the modified covenants. These guidelines would address the use of appropriate materials as well as the size, scale, massing, and character of individual structures and landscape features. The Architectural Control Committee has the responsibility for implementing these guidelines within the Mill Site Unit as established in the mill town's subdivision covenants. The board ACC will ~~would~~ be composed of representatives from the National Park Service park, and other non-NPS Mill Site Kennecott property owners, ~~and one regional NPS representative~~.

*Circulation and Access.* Vehicular access would continue on all current routes. All abandoned vehicles would be removed from NPS properties. The park would work with the community to remove all other abandoned vehicles from properties within the national historic landmark, particularly along the historic railroad bed. ~~Ridge tours on a designated route to points along the Bonanza Mine trail would be allowed through an agreement with the NPS.~~ Primary and secondary pedestrian paths would be identified and reestablished within the national historic landmark, particularly in the mill town subdivision. The primary pedestrian corridor would continue along the historic railroad bed and the existing road through the mill town. Existing service access roads will continue to be used. Foot trails and pedestrian paths would serve a variety of functions, including interpretive, hiking, and local access for residents. All pedestrian routes that are adjacent to or pass through private property will be developed with consultation of the landowners.

An interpretive trail would be established on the west side of the mill town with views to the powerhouse, the machine shop, and the leaching plant. A footbridge across National Creek would be added to the trail to provide access to the company store. ~~Another interpretive trail would be reestablished along National Creek from the company store to the site of the historic crib dam, crossing the creek to the site of the Birch house, manager's house, staff quarters, and manager's office.~~ A pedestrian walking loop would be established which begins at the company store and follows an existing historical road up National Creek to the foot bridge and continues back down the creek ending at the Assay Office. A portion of this route could also be used to provide vehicular access to the top of the Mill Building and the Bonanza Mine Road. Other pedestrian routes trails - including those to both Silk Stocking Row and Bonanza Mine, the historic carriage road to McCarthy, and paths behind the mill building - would be maintained. The primary pedestrian trail to Root Glacier would continue to be maintained north of the mill town.

*Views and Vistas.* In this proposal, historic views and vistas at Kennecott would be addressed. Selective thinning of vegetation on NPS properties would enhance historic viewsheds yet be consistent with maintaining the character of an early mining town partially being reclaimed by nature throughout the cultural landscape, which would help to shape the visitor's understanding. The type and degree of clearing would be based on historical documentation. Vegetative thinning would occur at ~~the manager's residence, Birch residence, staff house annex, assay office north of National Creek,~~ areas adjacent to the mill and around the machine shop, power house and leaching plant. If asked the NPS would assist landowners in planning selective clearing on their properties.

## Archeological Resources

Features determined noncontributing to the historic district would be removed if they presented a safety hazard to visitors or residents. All other archeological resources, including historic dumps, would remain.

## Museum Collections and Archives

The National Park Service would amend an existing scope of collections statement regarding the collection of artifacts and would follow regulations and NPS *Director's Order #28: Cultural Resource Management* to ensure the preservation and protection of artifacts.

Historically significant, site-related artifacts would be retained in their present locations unless they were at risk or contributed to interpretation. Artifacts determined to be noncontributing and incompatible to the historic district would be removed.

Historic documents, manuscripts, archival material, and associated papers within the scope of collections would be collected from NPS properties and placed in appropriate curatorial storage. Objects not requiring special environmental considerations will be curated in a NPS repository on site. NPS will provide technical assistance to the McCarthy Museum to assist the museum with caring and preserving its collection.

[Preferred Alternative Map]  
[Preferred Alternative Land protection plan]

## Structures

The National Park Service has a responsibility to abide by regulations governing the management of historic resources. It must comply with the legal and regulatory requirements as outlined in *Director's Order-28: Cultural Resource Management, the National Historic Preservation Act, and The Secretary of the Interior's Standards for the Treatment of Historic Properties*, among others. Those regulatory requirements address NPS policy, federal legal mandates, and acceptable standards for the treatment of the Kennecott historic properties.

*Buildings.* A structural stabilization program would be developed for NPS-Kennecott properties according to a three-tiered plan: items to be addressed within the next two years (high priority); items to be addressed in the third and fourth years; and long-term needs beyond four years.

Assessments would be made as needed to identify high priority needs such as those created by environmental conditions or because of unforeseen circumstances. The park would continue to work with local residents in ongoing stabilization or contracting efforts. The park would stabilize as appropriate, the upper and lower portions of the mill structure, the powerhouse, and the machine shop to make them safe for unescorted visitor access. The park would work with local interests to rehabilitate the historic community building for community activities and NPS programs. Structures that would be available for adaptive reuse would be limited to the company store, the school, the west bunkhouse, and the meat locker, but actual reuse of the latter three structures would proceed only after proposed uses are fully discussed and considered by NPS and the local community. Within the time frame of this plan, the company store would be rehabilitated to provide a safe structure for NPS operations,

curatorial storage, and limited visitor activities. NPS would seek the involvement and participation of cooperators in the rehabilitation and reuse of the company store. Individuals and groups interested in adaptive reuse would be subject to an agreement with the NPS. Proposed uses would be limited to those of an educational nature. Adaptive reuse of buildings in addition to the store and community building are not likely in the next five years.

PRESERVATION GOAL: The goal of the National Park Service's Kennecott preservation program is to stop the deterioration of key buildings within the Kennecott National Historic Landmark ~~stop the deterioration of the historic buildings of the~~ by repairing and replacing deteriorated roofs, walls and foundations while preserving the present abandoned character ~~qualities~~ of the site so future management options pertaining to the site will be preserved.

Specific tasks include:

- Mitigate all life safety issues in and around the structures
- Stop the imminent collapse and damage to the structures, which has resulted from years of abandonment
- Preserve and protect the historic landscape of the site and retain the industrial artifacts in place as part of the landscape character
- Reestablish a weathering skin by repairing roofs, walls and foundations using materials compatible with the historic period and consistent with the Secretary of Interior's Standards for Rehabilitation
- Repair deteriorated structural connections at floors, walls, and foundations and resolve vertical and lateral loads on the buildings resulting from winds and snow
- Mitigate water problems due to rain, site percolation and periodic flooding of National Creek.
- Establish a day labor crew
- Undertake a site cleanup to remove noncompatible building materials resulting from recent demolition and mining activities.
- Preserve and protect documents and artifacts remaining within the structures.
- Acquire additional parcels deemed critical to protecting the historic integrity of the site and management of the site. A prioritization process for determining the critical parcels will be developed. Parcels would be acquired on a willing seller basis only.

The tailings dumped against the building in the 1950s as part of a demolition effort would be removed.

*Tram Towers.* Mine cables would be lowered from the tram towers as funds become available or as hazardous conditions require. The structural condition of tram towers and cables would be evaluated on an annual basis. Selected tram towers above the timberline would be stabilized to reinforce a sense of scale and extent of the historic district.

*Bridges.* A low-water crossing at National Creek in front of the assay office would be established to allow vehicular access for residents and for NPS administrative needs. The historic railroad trestle across National Creek would be stabilized and rehabilitated to offer safe access for pedestrians, people in wheelchairs, and on ATVs and bicycles. The park would work to reestablish the historic tracks across the National Creek railroad trestle from the company store north to the mill structure as an interpretive component. Pedestrian

bridges across National Creek ( one east of the historic railroad trestle) would be reestablished in its historic location as part of the trail system. A new footbridge would be constructed west of the trestle.

*Historic Boardwalks.* To provide access to historic buildings, boardwalks would be rehabilitated or reconstructed based on historical documentation. Priority will be given to re-establishing ~~This would include~~ walkways in areas around the company store, school, meat locker, bunkhouse(s), leaching plant, machine shop, and powerhouse. Extension of the boardwalk through the ~~and~~ parts of the manager's house and historic administrative area will be discussed with the community prior to implementation.

Character-defining architectural features, such as the powerhouse smokestacks, the concentration mill ore chute, and the leaching plant/mill conveyor, would be stabilized and reconstructed as necessary.

## Natural Resources

As part of a comprehensive resource management program, the National Park Service would initiate programs for ongoing monitoring of natural resources at periodic intervals. This would include a program to monitor water quality and quantity in ~~on~~ National Creek, an assessment and monitoring of animal populations and sensitive plant species documented on Bonanza Ridge in 1967, and development of a bear management plan. In addition, the mill site would be monitored for the establishment of invasive non-native plant species.

~~Minimal~~ Selective thinning of vegetation would occur on NPS properties, in order to mitigate potential damage to the buildings, additional blocking of views and allow for usage of present road easements by the Park Service and the community. The present sense of an abandoned town partially reoccupied by natural vegetation will be retained. reestablish historic views and viewsheds, the focus of the thinning would be in The Park Service will take under advisement community concerns regarding the areas and extent of thinning. the historic administrative area, including the manager's residence, Birch residence, the staff house annex, the assay office area north of National Creek, and areas adjacent to the mill structure. Encroaching vegetation around the historic community building, the company store, the machine shop, the powerhouse, and the leaching plant would also be thinned.

~~Vegetation around historic structures would be selectively thinned to mitigate potential damage to the buildings and to enhance the historic character of the mill town.~~ Vegetation removal would be necessary for lead paint abatement, building stabilization, site regrading, and fire management. In all other instances, natural processes would be allowed to continue. The park would work with private property owners who wanted to conduct selective clearing on their properties in a manner consistent with historic district goals and objectives. The park supports the continued functioning of the community garden.

~~To protect cultural and natural resources from seasonal flooding, The Park Service would explore channilization of National Creek~~ be channeled as one alternative to protect cultural and natural resources from seasonal flooding through the historic administrative area and west of the historic railroad trestle. This would be consistent with historic channelization structures and methods, while acknowledging the post-mine re-establishment of natural stream processes.

Parts of the national historic landmark were not public land before the National Park Service acquired the property, and it was not open to subsistence uses. Hunting, berry picking, and gathering firewood would have only been permitted with permission of the previous landowners. As it is now public lands, subsistence activities would be permitted consistent with ANILCA. However, if it appeared that such activities would interfere with NPS management of the NHL property, the agency could seek to limit some subsistence uses.

## Interpretation

Under the preferred alternative, the National Park Service would enter agreements with experienced local providers ~~others~~ to conduct guided tours. For consistency and accuracy of interpretive content, yearly training would be provided by NPS. Interpretive programs at Kennecott would be expanded from existing levels, enabling visitors to learn about the contemporary community through information developed by the local residents, the mines and the mill town, the historic relationship of Kennicott to McCarthy, and natural resources through a variety of media, interpretive techniques, and programs. The guided tours would be expanded to include a wider variety of tour subject matter and tour lengths.

Evening and special programs conducted by NPS personnel would continue. They would be conducted in various locations, including the historic company store and community building. The park also will offer seasonal interpretive tours through public areas. Consistent with the "light touch" a limited number of unobstructive, interpretive displays would be designed and installed in areas open to the public in the powerhouse, the machine shop, and the concentration mill. In all cases, the park would work with commercial and nonprofit organizations using universal information and program content. Priority would be given to contracting with local entities to develop interpretive materials and exhibits ~~design principles to establish accurate and consistent interpretive information and program content~~. A bookstore offering educational and informational material, interpretive books, posters, and similar products would be encouraged in the historic company store. In consultation with the community, interpretive wayside displays would be established in the historic administrative area north of National Creek in association with the former Birch house and the buildings that were the manager's house, the staff house, and the manager's office.

The safety of potential tours to the mine sites and through the underground tunnels would be assessed, and the National Park Service would evaluate the possibility of offering one or more such tours in the future.

A short, captioned video production of the Kennecott story would be produced and displayed in the company store during visitor hours for a historical overview. Interpretive wayside exhibits would be established in conjunction with selected ~~all~~ circulation routes.

The park would work with the McCarthy museum to prepare a self-guiding tour brochure that would accompany the interpretive wayside and pedestrian circulation system.

## Administration and Operations

### Park Management

The park would pursue a short-term lease in a private building for onsite administrative office space and storage for interpretation and maintenance. These operations eventually would be relocated into the company store as funding became available for the necessary rehabilitation to bring the structure into regulatory compliance as an operations facility.

The National Park Service would enter into multi-year agreements for others to conduct building tours, and to adaptively reuse some structures. All park-related management operations eventually would be located in the company store. Preference would be given to hiring local residents for concession agreements and for all rehabilitation and stabilization efforts undertaken and administered by the National Park Service.

The National Park Service would continue to evaluate opportunities to acquire additional properties and/or easements within the National Historic Landmark as those opportunities arose. Acquisition would be limited to willing sellers on a priority basis. Priorities would be determined according to the land use designations outlined in this plan. (See Land Protection Plan map.)

~~Short term temporary living space in the historic west bunkhouse would be made available for two or three NPS employees as the rehabilitation of that structure was completed.~~ Offsite NPS housing would be sought for the long term. All other housing for NPS employees and contractors' employees probably could be found locally at market rates and would be the responsibility of the employee and/or the contractor.

Work on historic buildings would be done between May and October of each year. Restroom facilities would be required for work crews.

### NPS Utilities and Infrastructure

It is not the intent of the NPS to supply utilities nor even to take the lead on infrastructure issues within the Mill Site. However the NPS recognizes the need for long-term coordination on certain infrastructure issues, and would participate with other landowners as appropriate. The re-routing of utility easements from existing roadways to more reasonable corridors will be investigated with landowner participation if existing right-of-ways are unsuitable.

Administrative and maintenance storage would be accommodated in the lower level of the company store. This would include the storage of minor equipment and materials. Hazardous materials, vehicles, fuel, garbage, and large materials would be stored at remote locations, including the McCarthy airstrip.

Vault toilets would be provided for visitor use along the main road through the site. The toilets would be installed in compliance with applicable Alaska Department of Environmental Compliance (ADEC) regulations. Toilets would be pumped every fall by contract and the sewage hauled to Glennallen. The park would seek long-term strategies for developing a septic system on NPS property or, if feasible, tying into a community sewer system to provide service to NPS facilities south of National Creek.

Bearproof trash containers would be placed at strategic locations along the main road. Trash would be hauled across the pedestrian bridge at McCarthy as needed and taken to a park-owned solid waste transfer facility at the end of McCarthy Road. A planned transfer facility would feature an incinerator, recycling bins, and dumpsters. Wastes associated with stabilization (lumber, packaging, and construction materials) would be hauled by a contractor from the transfer site to an approved landfill. Lumber coated with lead paint would be stockpiled and annually hauled across the river for incineration at the transfer site.

Generators and solar photovoltaic equipment would supply power for NPS structures when appropriate and feasible. In conjunction with community entities, the park would pursue long-term power supply strategies. Photovoltaic power, hydroelectric generation from National Creek, or a centralized community generator would be considered among other possibilities. Priority will be given to innovative technologies that minimize noise, pollution and disruption of the cultural and natural environment of the abandoned town and its surroundings. Any potential threats to water resources from the construction and use of this type of facility would be addressed in a separate document.

No water would be supplied for visitors until the company store building was rehabilitated. Efforts would be made to arrange for a long-term water supply for visitors and for NPS operational use. This might be achieved by drilling a well or developing a surface water collection and treatment system on National Creek. The system installed would be to ADEC standards and preclude any conflict with other landowners.

Fuel for portable generators and all-terrain vehicles (ATVs) would be hauled in small quantities across the footbridge corresponding to immediate needs. As fuel requirements increase, aboveground bulk storage tanks would be located on NPS-leased property at the McCarthy airstrip. A contractor would deliver diesel fuel by air or ground transportation to a bulk tank. Fuel would be transferred from the bulk tank to Kennecott in a pickup-mounted tank.

### **Safety and Security**

Hazardous materials and debris that could present safety concerns would be removed from NPS properties. This would include items like boards with exposed nails, shards of metal, cable fragments, miscellaneous tools or machinery, and other potentially dangerous articles.

NPS would initiate a program to limit and control access to buildings. Signs restricting or prohibiting access into NPS properties would be placed in appropriate locations. Broken doors and locks would be repaired and replaced as appropriate. Windows would be replaced, and mechanisms to prevent unauthorized and unsafe access would be used such as shutters, wire mesh, or other appropriate devices. Identified visitor access routes into and around buildings would be improved to remove all immediate dangers, and signs would be located appropriately to indicate safe routes.

According to the National Fire Protection Association, the single largest cause of fire in historic buildings is arson. The NPS would undertake a fire assessment and implement a fire prevention program. Fire extinguishers would be placed in all NPS-owned properties. Fire escape routes would be identified for all NPS-owned buildings, and battery lights would be available for emergencies. A local year-round caretaker would be hired to provide site security.

The park would work with the community to improve community firefighting capabilities, including participating in a volunteer fire department for the mill town and the ability to temporarily dam National Creek and pump water for fire suppression. A portable pump and hose would be on hand to draw water from National Creek for firefighting. ~~There are existing water rights, and future requests to withdraw surface water would be analyzed individually.~~ The Park Service will honor existing water rights and water line routes within the NHL or will work with local landowners as needed to identify and provide alternate easements.

In the long term, a system may ~~would~~ be established to detect fire and security risks on all NPS-owned structures. As a water supply was developed, sprinkler systems would be installed in the visitor center and other occupied NPS buildings south of National Creek. The park would initiate hazardous-fuel reduction measures around NPS-owned properties to reduce the fire hazard from adjacent landscape elements and would work with the community to reduce fire hazards on private properties.

The park would continue to work with the community to develop a strategy for community-wide emergency medical services. Law enforcement would continue to be addressed individually through various jurisdictional entities including the NPS, where appropriate.

### Examples of Development Plans and Estimated Budget

To be inserted by NPS.

## Effects of The Preferred Alternative

### Subsistence

This alternative is not expected to significantly impact subsistence users. The proposed development would occur primarily in areas previously disturbed and already experiencing human intrusions. Proposed activities and increasing recreational use may cause the temporary displacement of subsistence wildlife. However, it is unlikely that there would be any significant impact on wildlife populations.

### Visitation and Recreation

Because of the NPS acquisition of the Kennecott site, as well as other factors, visitation to the area would be expected to increase.

Increased interpretation and the addition of exhibits would help visitors to better understand the history and significance of Kennecott. In consultation with the community, exhibits, exhibiting the model of Kennecott, adding interpretive wayside displays at the sites of some ruined structures (~~such as the Birch house~~), and the reinstallation of a portion replacing some of the original railroad track will be undertaken. These aids would help visitors to understand the historic mining operation and increase the range of interpretive activities. More facilities for visitor comfort would be available than at present. Improved access around the site and buildings would broaden the range of activities for visitors. Some areas of the mill town the ambiance of the mill

~~town would feel be less abandoned, with the area will take taking on a more rehabilitated, organized appearance, while other areas will retain an abandoned character.~~

The presence of NPS personnel would make it possible to monitor natural and cultural resources and minimize or mitigate damage that visitors might cause. Interpretation and visitor education might minimize bear-human encounters. Generators, vehicles, and construction-related activities would increase noise levels in the mill town. Such intrusions would be mitigated to the maximum extent possible, but when rehabilitation was being carried out, some noise would be expected. Increased noise impacts would potentially result from increased flightseeing over the area. If necessary, the National Park Service would work with the air taxi operators to encourage mitigating noise impacts from overflights.

## Cultural Resources

### Cultural Landscape

~~Stringent~~ Redevelopment standards and the establishment of scenic easements and/or development rights according to the modified covenants would perpetuate the historical scale, character, and integrity of the Mill Site Unit ~~mill town~~. Partial clearing of vegetation around NPS structures would make the cultural landscape appear similar to that of the historic period and would help visitors understand the mill town. Replacing the railroad track between the store and the concentration mill would recreate a historic circulation feature and enhance interpretation. ~~Restricting~~ Emphasizing nonresidential uses north of National Creek would approximate historic land uses.

If the equipment for solar photovoltaic power generation were visible, it would not fit into the mill town's historic character. Building a vehicular bypass across National Creek would not be in keeping with the historic landscape.

### Museum Collections and Archives

Removing noncontributing artifacts and extraneous material would give visitors a better understanding of the material culture associated with this era, but it would be expensive unless conducted as part of other mitigation activities. Allowing access to the mine sites would increase the potential for artifact losses.

### Structures

Rehabilitation efforts under this alternative would halt the deterioration of the buildings.

Removing tram cables for safety reasons would reduce the load on some tram towers and remove the stabilizing element in others. Removing tram cables and allowing towers to deteriorate and collapse would sever the visual and physical link between the mill and mine sites.

## Natural Resources

### Air Quality

Any incineration of wood painted with lead-based paint would take place in an incinerator approved by the U.S. EPA and the ADEC; therefore, no significant effects on air quality would result from lead paint abatement. Exhaust from generators and vehicles would enter the air, but these emissions would not significantly affect air quality.

### Surface Water

There would be a short-term insignificant effect on water resources from vegetation removal and increased visitation. Exposed soil caused by vegetation removal and trail construction would be unlikely to increase turbidity and suspended sediment. Trails would be located and constructed in ways that would minimize and mitigate most effects. The slight disturbance that would occur each time a vehicle crossed the stream above the trestle would be a temporary adverse effect and would be mitigated if necessary; however, the potential of sediment runoff from the crossing is small.

Installing toilets according to ADEC regulations would prevent any degradation of the drinking water quality. Existing water intakes are upstream of the preferred alternative area and therefore would not be threatened. NPS baseline water quality data could be used to monitor conditions if water quality threats arose.

The amount of water needed for facilities and firefighting would be small, and the firefighting needs would be temporary. Any unanticipated threats to water resources would be managed to ensure that there would be no significant adverse impacts to water quality or quantity.

In order to minimize the impacts of stream flooding to the adjacent historic resources, the existing dam and other flood prevention devices may be rehabilitated and maintained. As this part of the stream has already been extensively re-aligned, perpetuating the current course of channelization would not result in any significant impacts to water quality. Compliance with Executive Order on Floodplains is anticipated.

### Wetlands

Continued activity in the Kennecott area would prevent streams from returning to naturally functioning wetlands; however, NPS actions under this alternative would contribute to preserving the area's historical context. The plan for constructing the low-water vehicle crossing on National Creek would ensure that there would be no new significant impact and no loss of wetlands. Impacts on wetlands would be reduced by the designation of trails in the mill site, interpretive materials, and the presence of NPS staff.

### Vegetation

The expected increase in visitation under all alternatives would likely result in an increase in the establishment of non-native plants, particularly at the mill site. Increased visitation may also increase the potential of disturbance to rare plant habitat in Bonanza Ridge. Proposed monitoring for rare plant

populations and for the presence of invasive nonnative species would identify any problems in this regard. Once identified, appropriate action would be devised to minimize and mitigate the problem. In addition, providing interpretive materials might reduce impacts on rare plant habitat on Bonanza Ridge and on mill site vegetation.

## **Wildlife**

Partial vegetation clearing would eliminate some nesting habitat for some avian species such as yellow-rumped warbler, orange-crowned warbler, alder flycatcher, and Swainson's thrush, but would create additional foraging habitat for others like robins, tree swallows, and yellow-shafted flickers. Work on vegetation clearing and building stabilization would temporarily displace some species, such as black bears, some birds, and possibly little brown bats. Increased human presence and changing vegetation patterns might change the frequency or seriousness of bear-human encounters.

If black or brown bears were attracted to the smell of human activities and their potential food sources, such as gardens, their spatial distribution could potentially be altered. This would not negatively affect bears, but it could increase bear-human encounters, which might lead to bear deaths. A few snowshoe hares might be positively affected by the gardens if allowed to forage on vegetables grown there. These impacts would not be significant.

## **Socioeconomic Environment**

With more visitation, there would be opportunities for commercial activities such as providing visitor services on private lands near and within the national historic landmark. For example, visitors would need to be transported from the end of the McCarthy Road and the McCarthy townsite to the national historic landmark. More seasonal workers would be needed for lead paint abatement and structural stabilization; this would bring more revenue to businesses offering housing, food, and entertainment.

More visitation could adversely affect residents if visitors trespassed on private property or invaded their privacy. However, NPS management of the visitor experience, including ongoing consultation with local residents, businesses and organizations, could mitigate these effects, meeting the expectations of both visitors and the community. Visitors would be dispersed through the addition of NPS public facilities, alleviating current infringement on private property.

Visitors and seasonal NPS employees would increase commercial activity through their purchases. Employees would be needed to stabilize NPS structures; this would bring added opportunities for employment to the community. NPS-community relations would be improved by rehabilitating the community building and providing for the continuation of the community garden. Fire and emergency services would be improved through cooperation between the state, the National Park Service, and the community.

## **Administration and Operations**

### **Park Management**

With structural rehabilitation and the use of the company store as a visitor center, seasonal maintenance and interpretation personnel would increase. Day-to-day maintenance work would increase with the installation of utilities, infrastructure, and use of some of the buildings.

### **Safety and Security**

Visitor safety issues pertaining to walkways and site and building hazards would be identified and addressed.

Building safety and visitor safety would be improved through closing and repairing building windows and doors to limit unauthorized access to the interiors of the buildings and by eliminating camping in the buildings. Fire protection would be improved by installing fire extinguishers in frequented areas and by supporting local residents in their efforts to start a volunteer firefighting company. Visitor safety would be improved by eliminating camping in the buildings.

Additionally, visitor safety would be improved by the removal and proper disposal of hazardous materials.

## **Cumulative Impacts**

The expected increase in visitation to the Kennecott site, paired with the general trend toward increased visitation to Wrangell-St. Elias National Park and Preserve as a whole, would seem to indicate that visitation also would increase to wilderness and backcountry near the Kennecott site. Hiking within a half day from Kennecott and McCarthy would be more characteristic of a frontcountry experience than a backcountry experience, as would hiking along the McCarthy Road. The park is developing a plan for wilderness/backcountry management in which these issues will be further articulated and monitoring protocols identified.

An increase in visitation in the McCarthy/Kennecott area and the whole McCarthy Road corridor would offer more opportunities for commercial development. Although most business owners would welcome this development, the lack of infrastructure to meet increased visitation is a major concern. The town of McCarthy is starting a gateway community planning effort to address these needs, and the town of Chitina is receiving planning assistance from the state of Alaska to address the same concerns. The state is working with the National Park Service to try to reconstruct the McCarthy road so that its character will be preserved. Overall, the character of these communities will change.

There would be potential impacts on the natural resources of Wrangell-St. Elias with increases in visitation. Management of visitor use would be necessary, and monitoring programs for both visitor use patterns and their impacts to the resources would need to be established.