



# **Kennecott Mines Support Facility Plan**

## ***Environmental Assessment***

August 2006





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### **August 2006**

**National Park Service  
U.S. Department of the Interior**

**Wrangell-St. Elias National Park and Preserve  
Alaska**

#### **Note to Reviewers**

Comments on this document may be mailed to:

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## **ACRONYMS AND ABBREVIATIONS**

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADOT&PF	Alaska Department of Transportation and Public Facilities
ANILCA	Alaska National Interest Lands Conservation Act
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CLR	Cultural Landscape Report
CWA	Clean Water Act
DNR	Alaska Department of Natural Resources
DO	NPS Director's Order
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
FHWA	Federal Highway Administration
FMP	Fire Management Plan
GMP	General Management Plan
IOP	Interim Operations Plan
LDN	Land Design North
LWD	Large Woody Debris
MP	Mile Post
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHLP	National Historic Landmark Program
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
PMIS	Project Management Information System
RV	Recreational Vehicle
SCP	Scenic Corridor Plan
SWPPP	Storm Water Pollution Prevention Plan
PWS	Public Water System
USCB	United States Census Bureau
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WRST	Wrangell-St. Elias National Park and Preserve

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## 1.0 PURPOSE AND NEED FOR ACTION

### 1.1 PURPOSE OF ACTION

The National Park Service (NPS) is proposing to develop a Support Facility Plan (SFP) for the Kennecott Mines National Historic Landmark (NHL) within Wrangell-Saint Elias National Park (WRST). See Figures 1-1 and 1-2 for location and vicinity maps. The NHL preserves a diverse array of historic mining-era buildings and artifacts as well as the ongoing aspects of life in an Alaskan bush community. The purpose of the proposed plan is to support park operations and improve visitor services within the planning area by siting facilities both inside the NHL and along the last section of McCarthy Road corridor. This would include providing an efficient, cost-effective way to move supplies to the area for stabilization of historic structures, reliable transportation of visitors and park staff between the end of the McCarthy Road and the NHL, water and power utilities, facilities where visitors can obtain information and services, and NPS housing and administrative facilities.

This plan will amend the 1986 WRST General Management Plan (GMP) and will complement the 2000 Kennecott NHL Interim Operations Plan (IOP) and the 2001 Cultural Landscape Report (CLR) for Kennecott Mill Town. Complete descriptions of this proposed action, as well as a no-action alternative, are included in Chapter 2.

#### 1.1.1 Plan Objectives

Specific objectives for this plan are as follows:

##### Visitor Opportunities

- Visitors easily find their way to the NHL and adjacent points of interest. Efficient visitor transportation and parking are provided on lands adjacent to the NHL.
- Adequate public restrooms.
- An appropriate level of visitor contact and interpretive facilities are provided outside the NHL.
- Trails to access the NHL and to provide additional recreational opportunities are adequate.

##### Cultural Resources Management

- Cultural resources in the planning area are managed and protected in support of the area's historical heritage.

##### Natural Resources Management

- Stabilize Lower National Creek to protect historic structures and cultural landscape values.



Figure 1-1. Project Vicinity Map



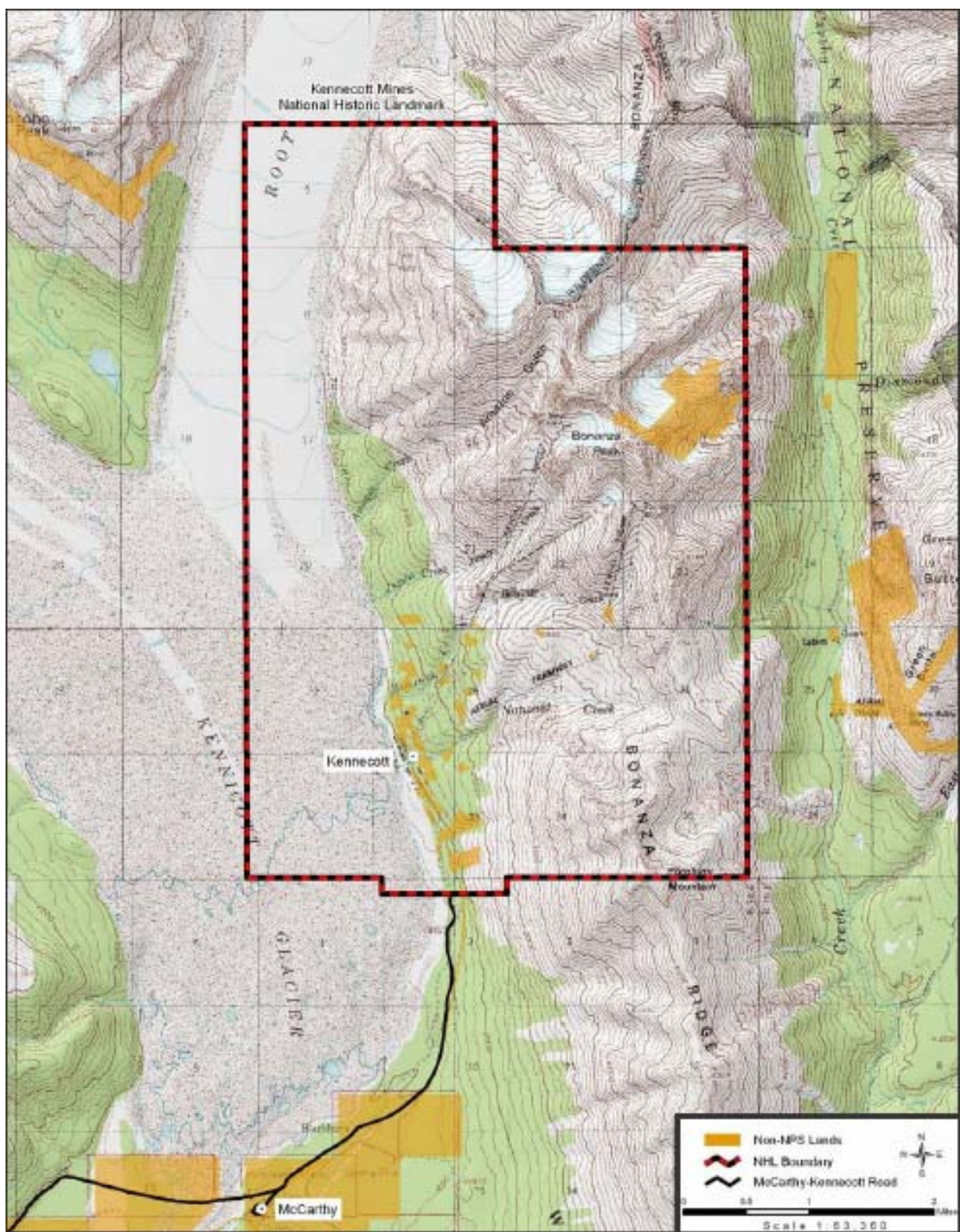


Figure 1-2. Project Location Map

### NPS Operations

- Housing accommodates NPS/contractor staff.
- Office space accommodates NPS staff.
- Efficient employee transportation is available between work sites and housing.
- Adequate area for staging, storage, and lay-down operations, and efficient freight and materials transportation to and from worksites.
- Sewer, electricity, and water services meet utility codes and NPS operation requirements.
- Solid waste disposal facilities meet NPS and possibly community needs.
- Adequate fire and EMS services.
- Efficient NPS communications system.
- Fuel is safely stored and transported.
- Adequate NPS aircraft support facilities.
- Adequate security protects NPS property.
- Roads are maintained in a cost-effective manner within the NHL, possibly in partnership with the community.
- Signage throughout the planning area has a cohesive and compatible design theme.

## **1.2 NEED FOR THE PLAN**

This plan will amend the existing WRST GMP and complement the 2000 Kennecott IOP and 2001 CLR for Kennecott Mill Town. The plan is needed to protect important historic, cultural, natural, and community resources in the planning area, and provide a rewarding park experience for visitors and residents alike. The Kennecott Mines NHL is a highly popular attraction for park visitors, and the NPS needs a support facility plan that guides development, responds to growing demands for visitor services, and is sensitive to historic preservation, community, and environmental concerns.

While cultural resources within the NHL have been extensively documented and management policies codified in the CLR, cultural resources in the adjacent area have not received the same attention. Many of these adjacent resources would be contributing elements to the NHL, and their preservation and interpretation should be addressed.

Recent NPS research in the area documented frequent encounters between bears, visitors, and areas residents. Certain recommendations from the study are in the process of being implemented. Other recommendations await implementation due to the collaborative nature of the activities and the needed participation of state and community organizations.

Another resource issue concerns two streams within the NHL: Bonanza and National Creeks. The former was identified for drinking water and fire suppression in the same utility needs assessment. These recommendations need to be analyzed before implementation decisions are made.

The spread of invasive plant species is also a natural resources concern both within and adjacent to the NHL. Initial inventories have documented an increasing infestation of dandelions and other invasive plant species along travel corridors.

Visitor amenities in the area adjacent to the NHL need to be unified in a comprehensive way. Currently, parking information services, interpretive programs, camping and lodging opportunities, and hiking opportunities are provided by NPS, state, non-profit and private entities. Bringing these organizations together to address these issues is desirable, especially in the light of the postponement of certain NPS and state projects.

In 1999, the Alaska Department of Transportation and Public Facilities (ADOT&PF) agreed to partner with NPS to prepare a Scenic Corridor Plan (SCP) for the access road between McCarthy and the NHL. An SCP had already been prepared for the rest of the McCarthy Road in cooperation with the NPS, State of Alaska, and local residents. This new SCP would complete the SCP for the entire road and would also be a cooperative venture. The SCP would serve to protect cultural resources within the NHL by seeking ways to minimize traffic congestion and to improve an existing shuttle system. This SCP would provide the basis for the NPS and State of Alaska to improve this section of road to provide for visitor safety and determine what and where visitor services should be located for the enjoyment of the park and NHL. It would also provide continued access for local residents.

With the start of this Support Facility Plan / Environmental Assessment for the NHL, it would seem that there would be a certain amount of redundancy in continuing with the above SCP. Accordingly, the Alternative Transportation Program (ATP) Manager for the NPS has suggested that the two efforts be combined and funds sought toward this new effort. Should additional funds be added, the project agreement will be amended to reflect such an addition.

This Environmental Assessment (EA) analyzes the potential environmental impacts which could result from the alternatives considered, including the No Action alternative. This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council of Environmental Quality (CEQ) (40 Code of Federal Regulations 1508.9), and the NPS NEPA compliance guidance handbook (Director's Order (DO)-12, *Conservation Planning, Environmental Impact Analysis, and Decision-making*).

### **1.3 PURPOSE AND SIGNIFICANCE OF THE PARK**

Wrangell-St. Elias National Park and Preserve was established by the Alaska National Interest Lands Conservation Act (ANILCA, PL 96-487) on December 2, 1980. WRST encompasses 13.2 million acres of superlative scenery, abundant wildlife, and fascinating human history and is the national park system's largest unit. The WRST Wilderness is also the largest unit of the national wilderness preservation system. In conjunction with Kluane National Park in Canada (Figure 1-2), the two areas encompass the largest parkland in North America (NPS, 1986).

The general purposes of the conservation system units established under ANILCA, defined in sections 101 (a), (b), and (c), are as follows:

- To preserve for the benefit, use, education, and inspiration of present and future generations, certain lands and waters in the state of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values.
- To preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered Arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large Arctic and sub-Arctic wildlands and on free flowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.



**Figure 1-3. Mt. Saint Elias**

- Consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded by or pursuant to this act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.

Mt. Saint Elias itself is the second-highest mountain in both the United States and Canada (the border runs over the summit), and the fourth-highest in North America. Its summit, climbing 18,008 ft. into the sky (three and half miles above sea level) within a dozen miles of the Gulf of Alaska's Icy Bay, displays some of the greatest topographic relief (the difference between the elevations of base and summit) of any mountain in the world (Figure 1-3).

The Kennecott Mines was designated a National Historic Landmark on June 23, 1986. Its Statement of Significance reads:

A vestige of an early 20th-century copper mining camp, Kennecott represents the mining techniques of the era. The mines here were among the nation's largest and contained the last of the great high-grade copper ore deposits of the American West. The world's first ammonia-leaching plant for extracting concentrations of ore from low-grade ores was designed and first successfully used on a commercial scale here. The camp is little changed since its 1938 closing.



## 1.4 LAWS, REGULATIONS, AND POLICIES

The following laws and associated regulations provided guidance for the development of this EA, design of the Preferred Alternative and alternatives, analysis of impacts, and creation of mitigation measures to be implemented as part of the Preferred Alternative.

The NPS Organic Act and the General Authorities Act prohibit impairment of park resources and values. The NPS 2001 Management Policies and Director's Order #55 use the terms "resources and values" to mean the full spectrum of tangible and intangible attributes for which the park was established and is 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 NPS is to ensure that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities to enjoy them.

The evaluation of whether impacts of a Preferred Alternative would lead to an impairment of park resources and values is included in this EA. 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 GMP or other relevant NPS planning documents.

Section 201(a) of ANILCA states that the park will be managed for the following purposes, among others:

to maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state; to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals; 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 park, where such uses are traditional in accordance with the provisions of title VIII.

Executive Order 11990, *Protection of Wetlands*, directs the NPS to avoid, to the extent possible, the short- and long-term adverse impacts associated with modifying or occupying wetlands, and requires Federal agencies to follow avoidance, mitigation, and preservation procedures regarding wetlands with public input before proposing new construction projects.

The purpose of the Clean Water Act of 1972 (CWA) (33 USC 1251 et seq.) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Section 404 of the CWA regulates the discharge of pollutants, including dredged or fill material, into navigable waters of the U.S., including wetlands, through a permit system jointly administered by the U.S.

Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE). The regulatory definition of Section 404 jurisdictional wetlands is: *“those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”*

The National Park Service Omnibus Management Act of 1998 (P.L. 105-391, 112 Statute 3497) addresses resources inventory and management in Title II. Section 201 defines the purposes of this title to enhance and encourage scientific study in National Park System (NPS) units. Section 202 authorizes and directs the Secretary of the Interior to assure management is enhanced of NPS units by a broad program of high-quality science and information. Section 205 states the Secretary may solicit, receive, and consider requests from Federal and non-Federal public or private entities for the use of NPS units for scientific study. Such proposals must be: 1) consistent with applicable laws and the NPS Management Policies; and 2) the study would be conducted in a manner as to pose no threat to park resources or public enjoyment of those resources.

## **1.5 PREVIOUS PLANNING FOR THE KENNECOTT-McCARTHY AREA**

The NPS acquired the Kennecott NHL in 1998. In 2000, an Interim Operations Plan and GMP amendment for the NHL was completed; in 2001, this IOP was folded into an extensive Cultural Landscape Report. Together, these documents describe the management philosophy, management zones, and a treatment plan and recommendations for the preservation and enhancement of the NHL. The report provided overall direction for infrastructure and support facilities and outlined a variety of alternatives. However, until more information was gathered, specific decisions were not made regarding these activities.

The 2000 IOP for the Kennecott NHL calls for stabilization, preservation and adaptive reuse of the 16 historic buildings within the NHL. This program has been initiated. Projects currently underway include the renovation of the Kennecott Company Store and School. Rehabilitation of the National Creek bridge is slated to begin in FY05/06. Future phases of the line-item construction program include historic building stabilization and preservation, utility infrastructure development (power, sewer, fire protection, stormwater), hazardous materials mitigation, construction of site maintenance facility, transportation and pathway rehabilitation and improvements, and interpretive exhibits. The support facilities considered in this EA are necessary to provide the NPS infrastructure to conduct this stabilization and preservation program, and eventually to manage the NHL in perpetuity.

GMP and other guidance for support facilities are limited. At the time the IOP was completed, there was a considerable lack of information concerning the feasibility of alternatives. Since then additional data for the Kennecott Mines NHL have been gathered such as an A&E contractor-prepared feasibility plan for possible utility systems. Park staff has completed an analysis of employee housing and staffing and has assessed the need for public camping in the area. Other issues, such as solid waste removal and fuel storage, have not yet been addressed.

As early as 1981, a historic preservation plan had been prepared for Kennecott (Sullivan, 1981). The Kennecott-McCarthy area is covered by a number of previous planning efforts and documents, which are summarized in this section.

### **1.5.1 General Management Plan for Wrangell-St. Elias National Park (1986)**

The 1986 General Management Plan (GMP) for WRST mentions the area in several places:

- Three sites in the area are identified as containing privately-owned cultural resources listed on the National Register of Historic Places, specifically the Kennecott historic district, McCarthy general store, and McCarthy powerhouse. The GMP states that, “The Park Service will encourage the owners of these sites and any other historic resources to protect and preserve them and will provide technical assistance when requested.” Since the 1986 publication of the GMP, the Kennecott Mine and Mill Town has also been accorded National Historic Landmark status, and NPS has acquired more than 2,800 acres within the mill town, including its primary structures.
- The Kennecott area will receive “full protection” under the parks’ Fire Management Plan (FMP), meaning that unwanted wildland fires will be controlled through immediate and aggressive action.
- A campground may be developed along the McCarthy Road west of the Kennecott River if a need is demonstrated.
- Wayside exhibits describing area history and resources will be placed at scenic viewpoints along the Chitina-McCarthy Road.
- The state of Alaska's draft Southern Interior Region Transportation Study recommended that the McCarthy Road be widened to provide a 28-foot wide gravel surface. NPS recommended that the state maintain the road in essentially its then-current condition with improvements for public safety as needed, a position is based on current needs, public comments received on the draft plan, and anticipated visitation levels over the next several years.

### **1.5.2 McCarthy Road Scenic Corridor Plan (1997)**

The Scenic Corridor Plan (SCP), released in November 1997, was jointly prepared by NPS, the Alaska Department of Natural Resources (DNR) and the Alaska Department of Transportation and Public Facilities (NPS et al., 1997; Gibert, 2001). It incorporated the State of Alaska's plans for a major upgrade to the McCarthy Road. The SCP proposed road design criteria consistent with NPS’s 1984 Park Road Standards and ADOT&PF Standards; it also called for opening of scenic overlooks, construction of pullouts and interpretive waysides, trail development (including a bike-path), and development of a campground at the end of the McCarthy Road (NPS, 1999). The SCP also called for a design speed of 37 miles per hour and provided guidance on the minimizing the aesthetic impact of cut and fill operations.

The SCP proposes the following waysides in the McCarthy area:

1. McCarthy Overlook, a Type I Wayside at MP 56.9 with interpretive panels and parking for 4-5 vehicles. Its purpose would be to provide views of the McCarthy area.
2. National Park Service Campground, a Type III Wayside at MP 57.9 with toilets, a picnic area, camping, and parking for 20-50 vehicles. Its purpose would be to provide camping near the end of the McCarthy Road and Kennicott River.
3. Kennicott River Wayside, a Type III Wayside at MP 58.6 with toilets and parking for approximately 400 vehicles. Its purpose would be to provide basic parking, access, interpretation, and public services at the end of the road.

The SCP also made recommendations for gateway communities such as McCarthy. In addition, it proposed trails, including one that would parallel the entire McCarthy Road and extend into McCarthy, connecting there with other potential trails.

The State's plan for a road upgrade is part of an Environmental Impact Statement (EIS) that was released for public review and comment in 1997. Alternatives in the EIS ranged from no-action to paving.

### **1.5.3 Kennecott Interim Management Plan Draft Environmental Assessment (2000)**

This EA analyzed four alternatives for the interim management of the Kennecott NHL:

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.
2. *No Action* would continue the present management philosophy of maintaining structures and landscape features in their current condition, with the exception of measures taken in the event that threats of structural failure, loss of significant resources or safety risks are presented.
3. *Site Stabilization and Interpretation* would set into motion a program of stabilization for structures and landscape features, allowing for some minor expansion interpretation and more limited visitor access.
4. *Site Restoration and Enhancement* would have the historic site managed cooperatively by NPS and private operators, with a number of buildings being adaptively reused and others stabilized.

The EA concluded that the preferred alternative generated no significant adverse impacts on natural and cultural resources. At the same time, this alternative would provide a number of benefits, such as enhanced protection of archeological resources and historic structures, a better understanding of the history and significance of the site as well as improved safety for an increasing number of visitors. Of the three other alternatives, only the No Action alternative was

predicted to result in a number of negative impacts. Among these were the deterioration of historic buildings, lack of appropriate visitor education and interpretation leading to diminished visitor knowledge, and greater threats to visitor safety (NPS, 2000a). The final plan incorporated parts of Alternative 4 into the Preferred Alternative (#2).

#### **1.5.4 Cultural Landscape Report – Kennecott Mill Town (2001)**

The Cultural Landscape Report (CLR) outlined the treatment, management philosophy, management zones, and treatment recommendations that would guide management of the Kennecott NHL (Gilbert et al., 2001). This document also includes a detailed chronological site history accompanied by maps showing the evolution of the mill town over the past century, from its mining and milling heyday, through its abandonment, to its current “rebirth” as a national historic landmark and tourist attraction.

The Interim Operations Plan, which is Appendix A of the CLR, provided 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. Under this plan, NPS would begin to rehabilitate the company store for a visitor contact station, offices, and storage. Interpretive programs would be offered by 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. NPS would work cooperatively with the community to address the rehabilitation of the community building and fire and EMS response.

The Interim Operations Plan identified the primary NPS management goal as enhancing visitor understanding of Kennecott by preserving, protecting and interpreting key remaining structures and landscape features, patterns and relationships that define the historic, cultural and natural character of the NHL. Within the NHL, it designated six land use zones:

1. *Administrative Core*, including the office, manager’s residence, depot, hospital, and staff housing. Appropriate uses for Zone 1 are NPS operations, offices, interpretation and a visitor center.
2. *Industrial Core*, including the concentration mill, tram deck, power plant, leaching and flotation plant, machine shop, tailings, flume structures, and warehouses. Appropriate uses of Zone 2 are interpretation, storage, equipment repair, workshop, and utility infrastructure.
3. *Residential “A”*, including Silk Stocking Row, old lodge, barracks, and local access roads. Appropriate uses are interpretation, residential, lodging, and tent cabins.
4. *Residential “B”*, including north end cottages. Appropriate uses are private residences and interpretation.
5. *Residential “C”*, including vegetated and cleared hillsides and historic dumps. Appropriate uses are residential, undeveloped, and natural resource protection.

6. *Commercial*, including the store, post office, storage, resident services, meat house, community facilities, housing and tent cabins. Appropriate uses are concession/commercial (outfitters, bike rentals, guided tours, guest services, gift shop, bookstore), offices and community center.

### 1.5.5 McCarthy Road/Chitina Valley Roundtable Project Phase III Report (2002)

The three-phase Roundtable Project was begun in 1999 by the Copper River/Wrangell's Tourism Work Group of the Alaska Land Managers Forum in response to the Alaska Department of Transportation and Public Facilities (ADOT&PF) proposal to upgrade the McCarthy Road between Chitina and McCarthy (LDN, 2002). The Roundtable Project forecasted potential for growth and traffic volumes along the road, documented land use and development issues, and crafted specific options and management tools for addressing change and growth in the community. The project included substantial public input and participation by residents from Chitina, McCarthy, and along the road. The McCarthy Road Coordinating Group, brought together through this project, included stakeholders such as Ahtna Inc., Chitina Native Corporation, Chitina Traditional Indian Village Council, ADOT&PF, NPS, University of Alaska and the Alaska Department of Natural Resources (DNR). For the Kennicott River Segment (MP 56-60), the Phase III Report identified the following issues:



1. Uncoordinated development makes arrival at the end of the road confusing and not entirely welcoming to visitors.
2. Appropriate recognition of this area as the “reception” area to the park and the community of McCarthy/Kennicott.
3. Opportunities for private development.
4. Need to coordinate pedestrian, bicycle, automobile, and off-road vehicle circulation for safety and to improve visitors’ experience along this busy stretch.
5. Vehicular access across the Kennicott River.
6. Provision of public infrastructure/utilities.

Six desired future conditions were listed:

1. “No Glitter Gulch”, e.g., a desire for aesthetic development along the end of the road that enhances visitors’ experience of the Wrangell-St. Elias National Park and Preserve and the presentation of McCarthy as a community.
2. Coordination of public projects within the corridor.
3. Ability to meet parking needs while not detracting from the spectacular setting.
4. Appropriate roles between private and public sectors.
5. Development of appropriate “tourism/visitor” facilities.

6. Resolution of “access” issues.

Implementation Actions included the following:

1. Development of “West-Side” Business Owners organization to coordinate development west of the Kennicott River.
2. Development of arrival sequence facilities as outlined in Roundtable meetings June, 2001.
3. Cooperative agreement for coordinated public/private provision of visitor facilities on west side.
4. Cooperation for development of “Gateway” prior to entering community. Provision of public facilities and orientation at NPS McCarthy Road Information Station.

The expectation of the Roundtable was that its recommendations could be jointly implemented by stakeholders “without imposition of additional governmental influence.”

### 1.5.6 McCarthy Walk-In Campground Environmental Assessment (2002)

NPS prepared this EA on the proposed McCarthy Walk-In Campground for primitive tent camping near the McCarthy Airport, approximately one mile from McCarthy itself (NPS, 2002). The site would occupy 42 acres in a glacial fluvial outwash and access would be limited to non-motorized methods along a designated trail traversing federal land.



**Figure 1-4. Bear-proof food storage lockers at McCarthy Walk-In Campground**

This EA examined two alternatives: Alternative 1 – No Action and Alternative 2 – Develop Walk-in Campground near McCarthy Airport. Under Alternative 1, NPS would not develop a walk-in campground east of the Kennicott River and private-owned campgrounds west of the river would continue to provide camping opportunities for the public.

Alternative 2 was the Agency Preferred Alternative and also determined to be the Environmentally Preferred Alternative. Alternative 2 would include vault toilets, bear-resistant trash receptacles, water, and a centralized food preparation area. A well would be developed for drinking water supply. Campground site development would require limited surface disturbance and leveling for tent pads. A campground host would collect camping fees estimated at \$5 to \$10 per night per campsite) and oversee day-to-day operations. Alternative 2 incorporated a number of mitigation measures aimed at minimizing human-bear conflicts and other adverse effects.



### 1.5.7 Environmental Assessment: Interim Park Operations Support Complex, Kennecott District (2003)

In this EA, WRST analyzed the potential environmental impacts of a proposed temporary park operations support complex located at approximately mile 60 along the McCarthy Road, west of the Kennecott River (NPS, 2003a). This field season support camp would be for NPS employees temporarily stationed for up to five months at the Kennecott Mines NHL and employees of NPS contractors. Proposed development within the 4-acre complex would include portable housing structures, material staging and storage yard, and utilities including drinking water, septic, and telecommunications. Specific components of the project included:

- 1000 linear feet new gravel road, 20 feet each side of the centerline (0.9 acre)
- Fenced material storage yard (one acre)
- Well site, water line, and water storage tank (0.2 acre)
- Sewage, leach field, and septic tank (0.9 acre)
- Recreational vehicle (RV) parking pad (3 spaces, total 0.6 acre)
- Cabins, twelve units, each 192 square -feet living space
- Shower, kitchen, laundry support building (two units, each 800 SF)
- Building pads for cabins and support buildings (0.14 acre)
- Generator, generator enclosure and 500-gallon capacity fuel tank (0.02 acre)
- Satellite communications station (0.002 acre or 100 square feet)

The purpose of the support complex is to facilitate the emerging demands of managing the Kennecott NHL, with associated program demands for park interpretation, cultural resources management, resource protection, visitor protection, and law enforcement. NHL Management was and is guided by the Kennecott Interim Operations Plan (IOP), issued by the NPS in 2000 and summarized in Section 1.5.5 above on the CLR, to which the IOP was an appendix.

In comparing the Proposed Action with the No Action alternative, WRST found that the proposed support complex would offer benefits in the areas of park administration and visitor use. The Proposed Action would cause no adverse impacts on cultural resources and negligible adverse impacts on wildlife and land cover; it would also generate no significant restriction of subsistence uses. Thus, the Proposed Action (Alternative 2 – development of the Interim Park Operations Support Complex) was determined to be the Environmentally Preferred Alternative. By 2004, construction of the Interim Operations Support Complex was well underway (Figure 1.5).



**Figure 1-5. Temporary employee housing under construction in support complex (Sept. 2004)**



### **1.5.8 Kennecott Utilities Study, An Assessment of National Park Service Utility Needs at the Kennecott National Historic Landmark (2003)**

This study assessed utility needs at the Kennecott NHL for the six months of the year it would be in operation (April 15<sup>th</sup> to October 15<sup>th</sup>) by investigating electrical power generation, utilidor configurations, heating, fire protection, potable water, and sewage disposal alternatives (ECI Hyer et al., 2003). Among the study's conclusions and recommendations were the following:

- Electrical Power – A combination of hydroelectric power generation and diesel generation would accommodate the NHL's needs; having both hydroelectric and diesel generation available would provide redundancy to the system during times of low stream flow, during start-up and shutdown, and during maintenance on the hydroelectric facility. The use of more efficient light fixtures should also be pursued to reduce load requirements.
- Utilidors (utility corridors or conduits) – Currently, wooden plank utilidors house the steam supply, condensate steam, and water for the structures; the utilidors are in poor condition, with many beyond repair. In some cases wooden utilidors were suggested to preserve the historic system, while in other instances buried utilities were suggested for protection of the utilities and reduction of installation and maintenance costs.
- Heating – Buildings would not be heated year-round. Propane-fired forced air furnaces and boiler systems would be added to cottages 39C, 32C, 32D, future cottages acquired, temporary cabana housing and support building, Store, West Bunkhouse, New School, Old School, Recreation Hall, Depot, General Manager's Office, and Dairy Barn to provide an adequate comfort level in spring, summer, and fall when Kennecott is staffed with NPS personnel and open for park visitors. The Old School would be upgraded for possible year-round heat.
- Fire Protection – The current water service is incapable of providing enough water for fire suppression, so that another source is necessary. Bonanza Creek is recommended for this purpose; water supplied from this source could be used to supply water for the hydroelectric facility, fire suppression system, and potable water. The distribution system would consist of underground piping with installed hydrants, a sprinkler system at 12 structures, and a mini-pumper truck.
- Sanitary Sewer System – The five buildings that need sewer service are the same selected for water service. While conventional septic systems are typically ideal for remote locations and minimal use facilities, at Kennecott the steep terrain and small lot sizes complicate this option. Therefore, other options like alternative toilets and package treatment plants may be preferable for certain buildings depending on use rates and site characteristics.
- Water – A water utility infrastructure at Kennecott does not exist at this time. Proposed management and development at Kennecott would establish the means to deliver potable water; water for hydroelectric power generation, and water for fire protection.

The Kennecott Utilities Study and 2005 Value Analysis examined several concepts for water infrastructure for the area upslope of the Mill Building and along the historic rail corridor. Historically, the Kennecott Mine constructed and maintained water gathering and distribution systems from both Bonanza Creek and National Creek. The mine provided a central fire line with hydrants running the length of the site. A new water utility infrastructure, if developed, would be within the area of historical use and historic utility distribution alignment.

### **1.5.9 Environmental Impact Statement: McCarthy Road, Alaska (initiated 2003; ongoing)**

On November 5, 2003, the Federal Highway Administration (FHWA) published a Notice of Intent (NOI) in the *Federal Register* that, in cooperation with ADOT&PF, it would be preparing an EIS and Section 4(f) evaluation for a proposed transportation improvement project on the McCarthy Road (FHWA, 2003). These improvements ran all the way from Chitina to the west bank of the Kennicott River, a distance of 60 miles.

Alternatives under consideration for this analysis include but are not limited to:

- No build; continued use of the current road, with limited on-going maintenance activities.
- Improving the most serious roadway deficiencies.
- Reconstructing the road to a design speed of 35 mph, considering all or some of the guidelines specified in the "McCarthy Scenic Corridor Plan."
- Reconstructing the road to a design speed of 50 mph, meeting modern highway standards.
- Hybrid of the previous two alternatives: reconstructing some segments of the road with design speeds of 50 mph and others with 35 mph.

Under each alternative, minor realignments, the location and number of waysides and other enhancement facilities, and the final surfacing of the road (gravel or hard) are being evaluated.

### **1.5.10 Housing Management Plan (2004)**

WRST's Housing Management Plan, updated every two years, noted that in 2002, six non-local permanent employees were stationed in McCarthy/Kennecott for the season. Housing was obtained through rental of private cottages and cabins, and the purchase of one cabin. However, the lack of sanitary facilities and electricity made this housing substandard. This planning effort aims to identify options to resolve existing and future projected housing shortages to a considerable extent for NPS employees and contractors in McCarthy-Kennecott.

### **1.5.11 NHL Interpretive Plan (2005)**

An interpretive plan related to transportation themes for the NHL is scheduled for completion in 2005. A visitor survey will be conducted initially to ascertain the current and desired visitor experience at Kennecott.

### 1.5.12 Conclusion

In summary, along the McCarthy Road and at the “gateway” to the NHL, numerous projects and plans have been completed or are being prepared to address various issues such as transportation and access, wayside exhibits, public camping, and temporary NPS operations and support facilities. These activities involve the NPS, ADOT&PF, and the local community. Some of these projects have proceeded while others have been postponed.

## 1.6 ISSUES AND IMPACT TOPICS

To focus the environmental assessment, the NPS selected specific issues for further analysis and eliminated others from evaluation. Subsequent discussions of the affected environment and environmental consequences related to each alternative focus on those issues retained for further analysis. A brief rationale for the selection of each issue is given below.

### 1.6.1 Issues Selected for Detailed Analysis

*Soils and Topography:* Several of the actions involve potential localized impacts on soils from erosion due to clearing and grading of land. Topography is an important consideration as well, especially within the NHL, which is located on a steep hillside and dictates configuration, size and location of facilities like parking lots, turnarounds, and lay down/staging areas and visitor facilities.

*Water Resources:* Both water quality and water quantity/flow patterns are key issues. Protecting local drinking water sources is a priority of McCarthy’s; at the same time, seasonal discharge patterns and flooding, and timing of ice-up and breakup are important issues at the Kennicott River crossing and at National Creek within the NHL. In addition, groundwater resources need to be protected from pollution by proposed septic systems.

*Floodplains:* Like most unregulated rivers, the Kennicott floods regularly and many of the options for crossing the river involve addressing the potential for flood impacts on any crossing facilities.

*Vegetation:* Localized impacts on vegetation could result from the proposed action, both from clearing and from cumulative effects of increased visitation to Kennecott-McCarthy. The spread of invasive plants may be affected by the alternatives.

*Wildlife:* Clearing vegetation could potentially reduce or affect wildlife habitat. Further, with regard to cumulative impacts, increased visitation could lead to increased interaction with wildlife in the area, leading either to population increases or declines, depending on how adaptable the species in question is to human presence. Management actions associated with human-bear conflicts could increase direct and indirect injury and mortality for both black and brown bears.

*Cultural Resources:* The project area includes a National Historic Landmark (Kennecott Mines) and a number of other cultural and historic resources outside of the NHL boundary. Each of the sub-actions that comprise the proposed action could potentially have direct and indirect impacts on cultural resources, as well as contribute to cumulative impacts on the same.

*Visual Resources:* Aesthetic resources are an important aspect of the character of Kennecott and McCarthy, as well as Wrangell-St. Elias National Park and Preserve in general. Several of the sub-actions could conceivably generate localized impacts on visual quality as well as contribute to cumulative impacts on the same.

*Visitor Use and Experience:* The historic town of McCarthy is both a point of departure for wilderness explorers and “flightseers” as well as a destination with certain cultural-historic values. While Kennecott also serves as a gateway to the glacial high country, it is primarily a destination with significant historic values, as reflected by its NHL designation. The alternatives would have a direct or indirect bearing on the quality of the experience visitors to the area will receive. Cumulatively, the proposed action may facilitate increased visitor use and experience in the coming decades, with both adverse and beneficial impacts on visitor experience.

*Transportation and Access:* Transportation is already a central issue for the entire McCarthy-Kennecott area, specifically how to address the bottleneck at the Kennicott River crossing and what access should be provided to the NHL itself. Transportation has an important bearing on the proposed action, which in turn will have an important impact on transportation.

*Utilities and Related Services:* Utilities such as water and electricity supply and distribution, and telecommunications are limited in the project area, as are related services like solid waste disposal, fire suppression, and emergency medical services. Several elements of the proposed action would directly affect these. Also, potential solutions to utility issues may have direct and indirect impacts on water and other resources.

*Socioeconomic Environment:* The SFP will affect visitation to the McCarthy-Kennecott area, which in turn will impact socioeconomics in the surrounding community.

### **1.6.2 Issues Dismissed from Detailed Analysis**

NEPA regulations emphasize the importance of adjusting the scope of each EA to the particular interaction of the project and its setting, and focusing on the specific potential impacts of that project. There is no need, according to the regulations, to include information on resources that would not be affected by the project. As a result, different EAs will discuss somewhat different lists of resources. Brief rationales dismissing certain issues from further analysis are provided below:

*Air Quality:* None of the proposed sub-actions is likely to generate more than short-term and negligible fugitive dust and/or tailpipe emissions.

*Wilderness:* The proposed action would not take place within the Wrangell-St. Elias Wilderness.

*Wetlands:* Executive Order #11990 and NPS Director’s Order #77-1 require the protection of wetlands, but none of the proposed sub-actions would be located on wetlands or affect them indirectly.

*Noise:* While some of the proposed sub-actions would generate noise during construction and operational phases, noise levels are not anticipated to represent a long-term nuisance to residents, visitors, and wildlife or to intrude substantially into the solitude and silence of the Wrangell-St. Elias Wilderness.

*Threatened and Endangered species of flora and fauna:* Grizzly (brown) bears, Peregrine Falcons, and grey wolves all frequent the area. While each of these has been listed by the U.S. Fish and Wildlife Service at one time and place or another, none is currently listed in Alaska. No other listed species are known to be present.

*Fisheries:* Although the turbid Kennicott River presumably contains some fish within the project area, none of the sub-actions have the potential for generating significant short-term or long-term impacts on fish habitat or populations.

*Environmental Justice:* Executive Order #12898 requires federal agencies to examine their policies and projects for disproportionate impacts on low-income and minority populations. The percentages of minority and low-income residents in the project area do not appear to vary notably from average levels in the state.

*Subsistence:* Section 810(a) of the Alaska National Interest Lands Conservation Act (ANILCA) requires the proposed action to be evaluated for potential impacts on subsistence resources and activities, that is, habitat losses and fish and wildlife populations, access by hunters and fishers, and competition among hunters and fishers for subsistence resources. This issue was dismissed from analysis because the proposed action, at most, would have negligible impacts on subsistence. The ANILCA section 810(a) summary evaluation and analysis is provided in Appendix A.

## **1.7 PERMITS AND APPROVALS NEEDED TO IMPLEMENT PROJECT**

### **1.7.1 Storm Water Permits**

The Alaska Department of Environmental Conservation (DEC) sets water quality standards for Alaska waters and regulates discharges into these waters (18 Alaska Administrative Code (AAC) 70). All discharges of storm water from construction projects disturbing five acres or more require a National Pollutant Discharge Elimination System (NPDES), Storm Water General Permit for Large and Small Construction Activities from the USEPA and must be reviewed by DEC to obtain Section 401 Certification under the CWA. A Notice of Intent (NOI) form must be submitted to USEPA prior to the start of construction activities. The NOI form requests general information about the operator in charge of day-to-day operations of the construction site, location of the site, name of receiving waters, estimated start date and completion date of the project, and other information.

A Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to submission of an NOI and must:

1. Identify all potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the construction site;

2. Describe practices to be used to reduce pollutants in storm water discharges from the construction site; and
3. Assure compliance with the terms and conditions of the permit.

### **1.7.2 Drinking Water Regulations**

The Alaska Department of Environmental Conservation (ADEC), Division of Environmental Health, Drinking Water Program requires Public Water Systems (PWS) be in compliance with State drinking water regulations (18 AAC 80), in accordance with the Federal Safe Drinking Water Act and Amendments. The project proposes installation of a water well in the campground to supply drinking water to visitors. The water well would qualify as a Class A PWS, which must be actively supervised by operators who are appropriately certified in accordance with 18 AAC 74. Well protection, source water protection, and well decommissioning are specified under 18 AAC 80.015. A minimum separation distance of 200 feet is required between a vault toilet and water well to protect the drinking water source from pathogen contamination (18 AAC 80.020).

### **1.7.3 Septic System Permit**

Expansions or modifications of existing septic systems or construction of new ones would require a permit from the ADEC.

### **1.7.4 Wetlands Permit**

While impacts to wetlands are not anticipated, Waters of the United States could be impacted by work in Bonanza or National Creeks. Any construction projects involving permanent alterations to these creeks would require a General Permit (GP) from the Anchorage District of the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clear Water Act (CWA). If the area of impact is less than half an acre, the project(s) might qualify for a Nationwide Permit; otherwise, Individual Permits would be necessary. In addition, Section 401 of the CWA requires State water quality certification or waiver of certification prior to issuance of a Section 404 permit.

### **1.7.5 Alaska Department of Transportation and Public Facilities (ADOT&PF) Permits**

The ADOT&PF may require permits for any use or modifications of the McCarthy Road and/or its right-of-way (ROW). The NPS would acquire the necessary authorization from ADOT&PF for the project.

## 2.0 ALTERNATIVES

CEQ regulations for implementing NEPA require that Federal agencies explore and objectively evaluate all reasonable alternatives to the Preferred Alternative, and to briefly discuss the rationale for eliminating any alternatives that were not considered in detail. This chapter describes a range of reasonable alternatives, including the No Action Alternative, and the Proposed Action or Preferred Alternative, as well as those that were considered and eliminated from further analysis. Tables 2-2 and 2-3 at the end of the chapter compare the alternatives and their potential environmental impacts.

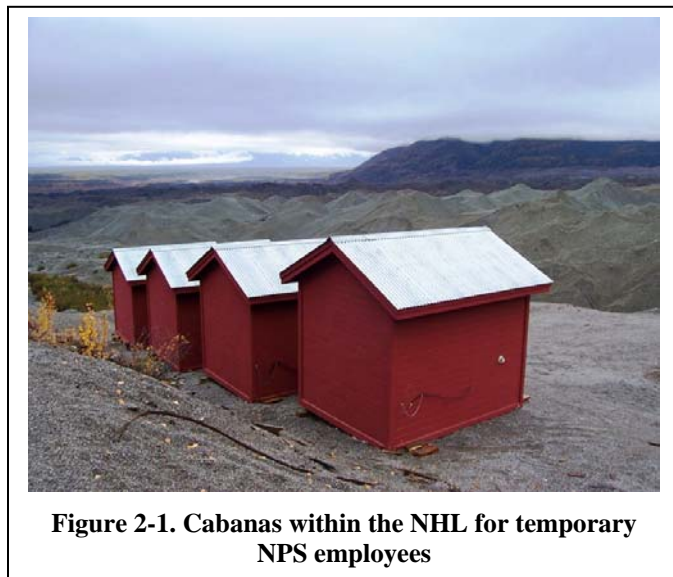
### 2.1 NO ACTION ALTERNATIVE

CEQ regulations (40 CFR 1502.14) require the assessment of the No Action alternative in NEPA documents. The No Action alternative provides a baseline against which to measure the impacts of the other proposed alternatives.

The No Action Alternative includes current facilities that would continue to exist as well as ongoing operations that would continue to be implemented. That is, it represents the current and ongoing situation and assumes that these existing conditions would continue indefinitely. The main features of the No Action Alternative are highlighted in Figures 2-2a and 2-2b.

#### 2.1.1 NPS Housing

Tables 2-1a, 2-1b, and 2-1c show current and potential housing in the NHL, McCarthy and on the west side of the Kennicott River. Existing NPS housing at Kennecott consists of four small (one bed) cabanas for short term project occupancy and two historic cottages on Silk Stocking Row. Children are not permitted to live in the historic cottages because of lead issues. In McCarthy, NPS owns the one-bed Herben cabin, which lacks running water and sewer. West side housing presently consists of six one-bed cabanas.



However, the EA (Interim Park Operations Support Complex – Kennecott District) for the west side addressed the construction of a total of 12 cabanas (small cabins) and two support buildings to meet the identified housing need. Due to funding constraints, only six cabanas and one support building are under construction at this time. However, under the No Action Alternative, a total of twelve cabanas and two support buildings would be provided to house up to 15 employees.



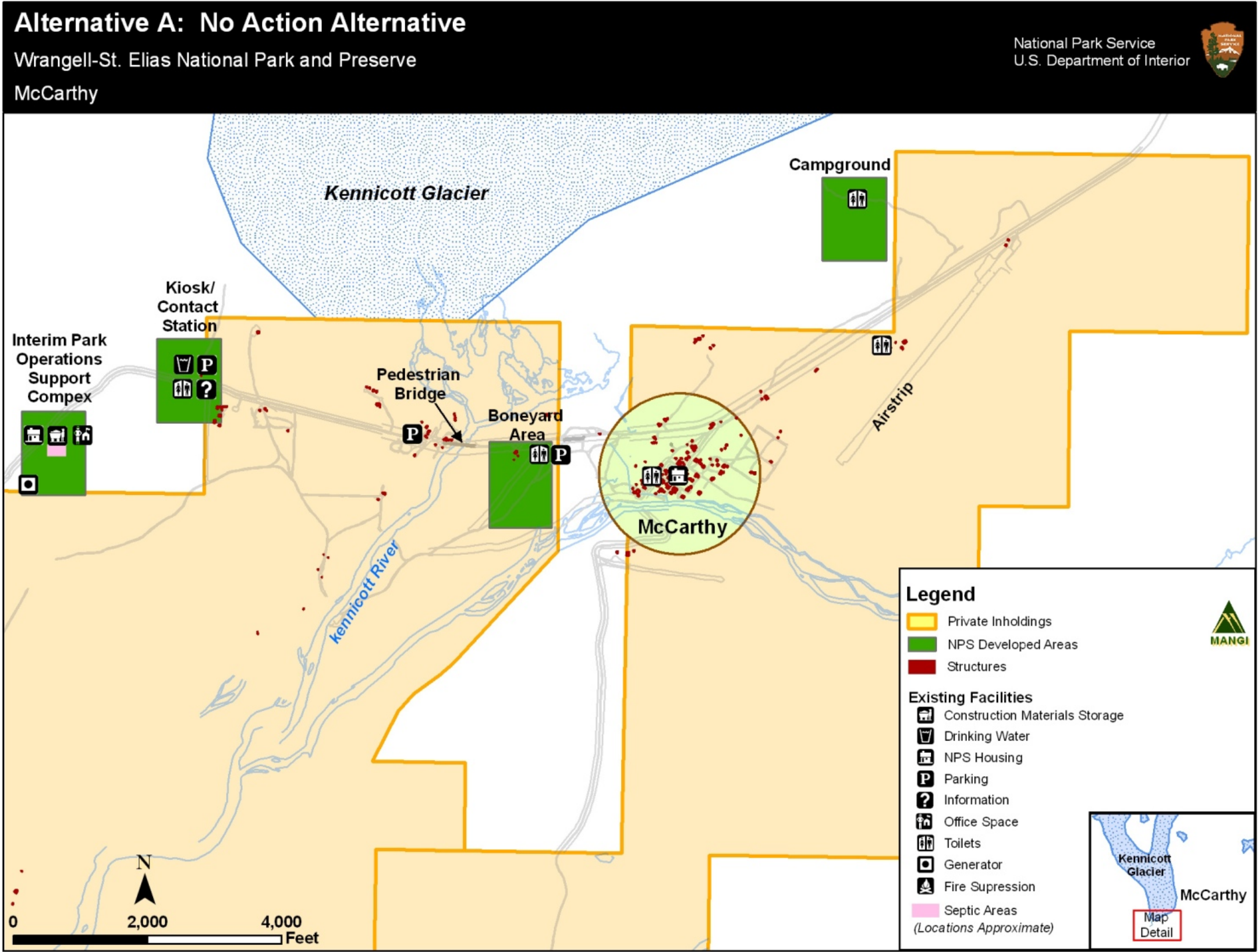


Figure 2-2a. No Action Alternative for Kennecott Mines Support Facility Plan



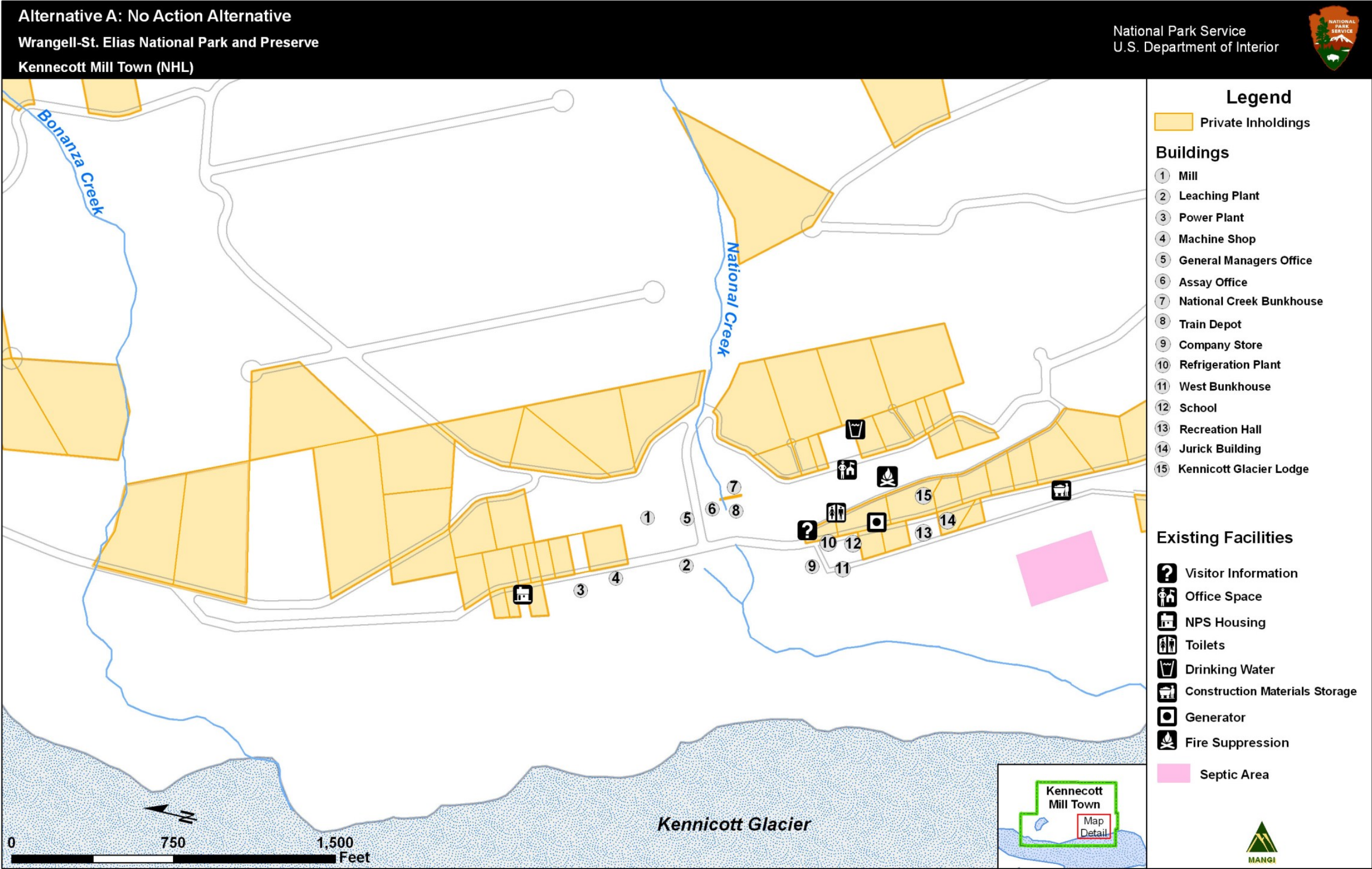


Figure 2-2b. No Action Alternative for Kennecott Mines Support Facility Plan

In addition, there are approximately six privately owned historic houses remaining in the NHL; if any of the owners offered to sell their house to the NPS, the NPS would consider purchasing and rehabilitating it to provide additional employee housing.

**Table 2-1a. Housing within the Kennecott NHL**

Housing Description	Use	NPS owned	Potential Purchase or Rental	Available Employee Beds	Potential Additional Beds
Cottage # 32-13 • 2 bedrooms • No children – lead • Historic	Seasonal Occupancy	X		2	
Cottage # 32-19 • 2 bedrooms • No children – lead • Historic	Seasonal Occupancy	X		2	
Cabana's – 4 each	Short Term Project Occupancy	X		4	
Cottage • 2 bedrooms • No children – lead • Historic	Seasonal Occupancy		X		2
Cottage • 2 bedrooms • No children – lead • Historic	Seasonal Occupancy		X		2
			<b>Existing Beds</b>		<b>8</b>
			<b>Potential Additional Beds</b>		<b>4</b>

**Table 2-1b. Housing within McCarthy**

Housing Description	Use	NPS owned	Potential Seasonal Rental	Available Employee Beds	Potential Additional Beds
Herben Cabin • 1 bedroom • No water/sewer	Seasonal Occupancy	X		1	
Rental	Seasonal Occupancy		X		1
			<b>Existing Beds</b>		<b>1</b>
			<b>Potential Additional Beds</b>		<b>1</b>

**Table 2-1c. Housing on the west side of the Kennicott River**

Housing Description	Use	NPS owned	Potential Purchase or Rental	Available Employee Beds	Potential Additional Beds
Cabanas – 6 each	Seasonal Occupancy	X		6	
Cabanas – 6 each	Seasonal Occupancy	X			6
Single Family Housing <ul style="list-style-type: none"> <li>• 2 bedrooms</li> <li>• children</li> </ul>	Potential Year Around Occupancy	X	X		2
Single Family Housing <ul style="list-style-type: none"> <li>• 2 bedrooms</li> <li>• children</li> </ul>	Potential Year Around Occupancy	X	X		2
Single Family Housing <ul style="list-style-type: none"> <li>• 3 bedrooms</li> <li>• children</li> </ul>	Potential Year Around Occupancy	X	X		3
Dormitory <ul style="list-style-type: none"> <li>•</li> </ul>	Seasonal Occupancy	X			6
RV employee Parking	Seasonal Occupancy	X			4
Other Housing Type <ul style="list-style-type: none"> <li>• Tent camp</li> </ul>	Seasonal Occupancy	X			4
			<b>Existing Beds</b>		<b>6</b>
			<b>Potential Additional Beds</b>		<b>27</b>
			<b>Maximum Beds</b>		<b>32</b>

### 2.1.2 Construction Materials Storage

Within the NHL, the interiors of several historic buildings like the power plant and machine shop are currently used to store lumber and other buildings supplies. The existing storage and lay down site at the Dairy Barn, with a contemporary, bright blue tarp covering some supplies, would continue to be used.

Under the No Action Alternative, bulk storage would also take place at the newly constructed Interim Park Operations Support Complex site in West McCarthy west of the Kennicott River. This would serve both as a contractor storage camp and mobilization site in addition to providing NPS storage. Some bulk fuel storage would also occur at the support complex, but some bulk fuel storage would still be permitted in the NHL. Propane tanks used to service NPS buildings within the NHL would remain above ground.

### 2.1.3 Power Generation and Distribution

Under the No Action Alternative, NPS would continue to use a 20 KVA diesel generator and underground lines to bring power to the following buildings within the NHL: the Store, the contemporary Laundry, the New School, the Old School, the Recreation Hall, and, soon, the

Dairy Barn. The generator is not sized for full build-out (i.e. it's too small) and does not fit within the historic context of the area. Propane would continue to be used for heat only, not for power; there would be no need for propane heat in winter, since there would be a full shut-down during cold weather, with limited exceptions.

On the west side of the Kennicott River, since propane would supply heat, a small (4 kw) generator would be sufficient to meet the electrical needs of the six cabin units, well, and support building. This generator can be increased in size if need is greater.

Under the No Action Alternative, emerging alternative energy sources like hydrogen fuel cells would be considered as they become feasible.

#### 2.1.4 Sanitary Sewer System

The NPS-maintained sewer system in the NHL consists of two vault toilets and three septic systems; two of the septic systems are hooked up and in use. There is a septic/leach field between the new schools and the west bunkhouse. It serves the shower building and the new school restrooms. The septic systems currently in use at Silk Stocking NPS housing and the Dairy Barn were installed by the previous landowners. The Dairy Barn site also has a fairly well-developed leach field that could serve buildings south of National Creek. It consists of a 10,000-gallon septic tank on the property line of lots 2 and 3 and an ADEC-approved 936-square foot leach field on lot 2. However, this system is not hooked up and in use at present. Under the No Action Alternative, existing vault toilets and the two septic systems would be maintained and ADEC-compliant.

The west side Operations Support Complex has a septic tank and leach field that support the size of the facility as it is now planned. The No Action Alternative would maintain these.

#### Vault Toilets and Septic Systems

Vault toilets and septic systems are two means of on-site wastewater collection and treatment.

A **vault toilet** is one in which fecal matter and urine are deposited without flushing into a permanently installed, watertight, below-ground container. The container is durable and corrosion-resistant and has a minimum capacity of 100 gallons; it also typically contains a caustic chemical and is vented to the outside. The tank should be emptied approximately every six months, at the beginning of each operational season, or when three-quarters full.

A **septic system** consists of two treatment elements: a septic tank (pretreatment) and the soil absorption system (drainfield or leach field). Gravity first carries the waste stream via a pipe into the two-compartment septic tank where separation occurs. Clarified effluent then passes from the tank to the leach field for final treatment and disposal.

#### 2.1.5 Fire Suppression

Very limited fire suppression capabilities now exist in the NHL, with foam being the only fire attack tool currently available. There is no water collection and storage system that is distributed to hydrants and sprinklers for fire protection. These conditions would continue under the No Action Alternative.





**Figure 2-3. Limited fire-fighting capability within the NHL exemplified by this foam fire extinguisher**

No initial attack capability exists for the McCarthy Road Information Station and other west side development (Support Complex). The NPS is currently constructing a sprinkler system for fire protection of the Support Complex and the No Action Alternative assumes this would be completed and functioning.

### **2.1.6 Water Gathering and Storage**

Historically, water intakes were constructed at an elevation of 2350 feet on Bonanza and National creeks. The water was used for milling operations, power generation, fire protection, and drinking water. However, this antiquated water gathering and storage

infrastructure has been defunct for many years. Under the No Action Alternative, this non-functional condition would continue indefinitely and power generation, fire protection, and drinking water would be furnished by other means, as described elsewhere in this section.

### **2.1.7 Potable Water Treatment and Distribution**

Currently, the NPS provides bottled water for visitors to purchase in the NHL. There is also a seasonal, low-volume, ADEC-approved existing water system in the NHL – water is collected from National Creek and treated with chlorine to make it safe for drinking. Bottled water for purchase would continue to be the main source of drinking water in the future.

A production well exists at Support Complex, but there is no general public drinking water source on NPS or private lands. This situation would continue under this Alternative.

### **2.1.8 Household Waste Management**

The NPS currently manages its waste by using unsigned, bear-resistant trash containers at the McCarthy Road Information Station and in the NHL (one at each location). Trash is periodically hauled along the McCarthy Road all the way to Glennallen for disposal there. These practices would all continue under the No Action Alternative.

### **2.1.9 Visitor Amenities**

The McCarthy-Kennecott road would continue to be primarily for vehicles and the Wagon Road for pedestrians. The existing mix of bicycles, pedestrians, vehicles and all-terrain vehicles using the roads would continue.

At the NHL, the cut bank washout at National Creek has been fixed to provide a loop trail enabling the traverse of Silk Stocking Road and the top of the mill complex. Several existing

foot trails – including Root, Bonanza, Jumbo and Erie – would continue in use, but the NPS would not clear brush or perform other maintenance on a regular basis. Under the No Action Alternative, these conditions would continue indefinitely.

Several public toilets are available in the McCarthy-Kennecott area: two at the McCarthy Road Information Station, two at the 2nd footbridge, one at the “Y” by the Museum, one at McCarthy Airport, one by the Company Store, two at the Recreation Hall, and one trail pit toilet at the Jumbo Creek camping area. The already planned restrooms in the Company Store would primarily serve NHL visitors during normal operating hours, and the three vault toilets in the Mill Town would then be for public use after normal operating hours. Facility development for the new campground includes vault toilets for campers.

There would continue to be no welcome sign for visitors entering the McCarthy-Kennecott area. An existing Visitor Information Station (VIS), the McCarthy Road Information Station (Figure 2-4), with interpretive and informational media would continue to be located just west of the Kennicott River footbridge. The VIS is set back from the road; under current plans (and thus included in the No Action alternative) there would be an entrance sign to the area and VIS at Mile 59.5. The VIS is staffed from Memorial Day to Labor Day, seven days a week, eight hours per day and would remain so under the No Action Alternative. Maps and other information are available at the VIS. There is another small visitor center now serving the NHL at the Depot, and the Kennecott Company Store is being developed with the goal of it being a primary visitor information station.



**Figure 2-4. McCarthy Road Information Station in West McCarthy**

### **2.1.10 National Creek Encroachment on Cultural Resources**

As directed in the Interim Operations Plan, National Creek trestle rehabilitation would include clearing of debris out of an adjacent stream to help channelize the creek and prevent bank erosion. Depending on the results and recommendations of an ongoing geomorphological study, NPS might also evaluate alternative methods to implement in National Creek to reduce erosion, flooding, and the damage they cause.

### **2.1.11 Transportation**

NPS would continue to coordinate or cooperate with ADOT&PF and the community of McCarthy on the McCarthy Road SCP and EIS. ADOT&PF and local businesses would continue to maintain the road within the state right-of-way from the NHL boundary to the west end of the study area, with no administrative structure or institutional arrangements to enable the NPS to participate in road maintenance.

West of the Kennicott River 8-10 parking spaces are available at the NPS McCarthy Road Information Station and three privately-owned parking lots. The parking spaces and private lots would continue under the No Action Alternative.

East of the Kennicott River, parking spaces were available until recently at the footbridge on the State right-of-way and private property. Earlier in 2005, this area was cleaned out and boulders placed by a private landowner so that parking is no longer available there. Vehicles and passengers may still load and unload. It is assumed that this situation would continue indefinitely.

Within the National Historic Landmark, motorists would continue to park vehicles along the rail corridor adjacent to the Kennicott Glacier Lodge and along the lower glacier road behind the Recreation Hall in an uncontrolled fashion. There would continue to be no designated turnaround area or visitor drop-off.

Other than walking and biking, privately operated van shuttles would continue to be the only method for visitors to get from the Kennicott River to McCarthy or the NHL. The available shuttles would not generally run early or late in the day, and may not be designed to accommodate wheelchairs or to transport bicycles. However, as at present, if specifically requested by customers, shuttles could make early or late runs.

The existing single-lane road between McCarthy and the NHL would continue to be used by automobiles, shuttle vans, all-terrain vehicles, motorcycles, bicycles, and pedestrians. The road would also continue to lack sufficient wide spots to allow other vehicles to pass.

#### **2.1.12 Utilidors**

No action would be taken to repair or replace Kennecott's decrepit utilidors, which historically housed its steam distribution system, condensate steam returns, and water distribution.

### **2.2 PROPOSED ACTION ALTERNATIVE**

This alternative consists of a number of features or sub-actions that comprise the Support Facility Plan and associated operations. In the following discussion, these features are organized by issues or themes. Figures 2-5a and 2-5b show the main features of the Proposed Action.

Figure 2-6 is a site plan depicting in more detail the relative locations of principal elements of the McCarthy West Side Development, both existing and proposed. The site plan includes five zones. Zone 1 is designated for family housing; Zone 2 for material storage and lay down; Zone 3 for utilities and services; Zone 4 for summer housing; and Zone 5 for overflow, contractor and guest housing, RV and tent space. The "Site Program" in Figure 2-6 also lists each of the proposed improvements and expansions in the west side development. These include expanding the storage yard and fuel storage area; adding an additional water tank for fire protection; constructing an additional support building; expanding the septic/leach field to support full buildout of the site; expanding RV parking by one site; expanding housing; constructing a solar array area; constructing additional gravel roadway; and constructing an overflow tenting area.