



# Brooks River Visitor Access



## Draft Environmental Impact Statement





**BROOKS RIVER VISITOR ACCESS  
DRAFT ENVIRONMENTAL IMPACT STATEMENT  
KATMAI NATIONAL PARK AND PRESERVE  
ALASKA**

**Lead Agency:** U.S. Department of the Interior, National Park Service

**Proposed Action:** The National Park Service (NPS) is preparing an environmental impact statement (EIS) for visitor access for the Brooks River area of Katmai National Park and Preserve.

**Abstract:** The National Park Service is preparing a plan for visitor access at the Brooks River area of Katmai National Park and Preserve. The draft environmental impact statement evaluates five alternatives to improve visitor access in the Brooks River area and relocate the park's barge landing site and access road away from the mouth of Brooks River.

The **no-action alternative** would maintain seasonal use of the 8-foot-wide floating bridge. The barge landing would remain at its current location. Under **alternative 2**, pedestrians and vehicles would use a boardwalk and bridge system (about 1,600 feet (ft)) between Brooks Lodge and the bus parking area. The barge landing site would be relocated about 2,000 ft. south and require the construction of a new access road. Under **alternative 3**, pedestrians and vehicles would use a single boardwalk and bridge system (about 850 ft) with single access points on the north and the south sides of Brooks River. The barge landing site would be relocated about 200 ft south and generally use the existing barge access road. Under **alternative 4** (NPS preferred alternative), pedestrians and vehicles would use a single boardwalk and bridge system (about 1,500 ft) with single access points on the north and the south sides of Brooks River. The barge landing site would be relocated about 2,000 ft south and require the construction of a new access road. Under **alternative 5**, pedestrians and vehicles would use a single boardwalk and bridge system (about 1,100 ft) with single access points on the north and the south sides of Brooks River. The bridge would be as in alternative 4. The barge landing site would be relocated about 2,000 ft south and would require the construction of a new access road.

The key impacts of implementing the action alternatives (2, 3, 4, and 5) would be safer, less human-bear interactions; would have beneficial and adverse effects on salmon and other fish, bald eagles, wetlands and upland vegetation, hydrology and floodplains, soundscapes, archeological resources, ethnographic resources, and visitor experience; would have adverse effects on historic structures and cultural landscapes; would have adverse impacts on visual/scenic resources; and would have some beneficial effects on the socioeconomic environment.

**Public Comment:** Comments on this Brooks River visitor access draft environmental impact statement can be made via the Internet at <http://parkplanning.nps.gov/katm> or by mail or hand-delivery to the following address. All comments must be postmarked, transmitted, or logged no later than 60 days from the date the U.S. Environmental Protection Agency publishes this document's availability in the *Federal Register*. This deadline will be posted at <http://parkplanning.nps.gov/katm>. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be aware that your entire comment—including your personal identifying information—may be made public. Once public comments are received and considered, a final Brooks River visitor access environmental impact statement will be prepared that addresses substantive public comments and incorporates appropriate changes in the alternatives and their environmental consequences. A Record of Decision describing the actions to be taken (selected alternative) will then be issued. Both the final environmental impact statement and Record of Decision will be made available to the public.

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# SUMMARY

## INTRODUCTION

The National Park Service is preparing a plan for visitor access at the Brooks River area of Katmai National Park and Preserve. This document evaluates alternatives for constructing a bridge and boardwalks to replace the current floating bridge and associated trails to improve visitor access and provide for the same pedestrian and small vehicle traffic that currently use the floating bridge to cross Brooks River. Existing floatplane access in the Brooks River area, to the shores of Lake Brooks and Naknek Lake, would continue. This document also considers alternatives for relocating the park's barge landing site and access road away from the mouth of Brooks River.

## PURPOSE AND NEED FOR THE PLAN

The purpose and need is to improve visitor access and resource protection at the Brooks River area. This proposal would amend the 1996 *Brooks River Area—Final Development Concept Plan and Environmental Impact Statement* (1996 development concept plan) decision on access (including the construction of a floatplane dock and breakwater, a 1- to 2-mile access road, and the implementation of a shuttle system).

This plan is needed for several reasons:

- to improve visitor and employee safety, reducing the risk of human-bear conflicts
- to provide dependable access for the phased relocation of facilities and park concession operations
- to protect key park resources in the Brooks River area, including brown

bears, salmon and trout, and cultural resources

- to improve visitor experience in the area
- to connect infrastructure utilities between the Valley Road Administrative Area and the north side of Brooks River

## SCOPE OF THE PLAN

This plan addresses how visitors and park and concession staff access the Brooks Camp area. If implemented, it would amend the 1996 *Brooks River Area—Final Development Concept Plan and Environmental Impact Statement* decisions regarding access in and around Brooks Camp. The 1996 plan approved a floatplane and boat dock and breakwater on Naknek Lake south of the Brooks River mouth. To move visitors from the dock to Beaver Pond Terrace (on the south side where the lodge would move) would require a new road and shuttle bus system, which was approved in the 1996 plan. This bridge and elevated boardwalk implementation plan amends these decisions by maintaining the existing floatplane and boat access to Brooks Camp at Naknek Lake. No dock, breakwater, or road would be built.

In approving the move of Brooks Camp to the south side of Brooks River, the 1996 plan envisioned eliminating the bridge and making the north side a “people free zone.” Because there would be no new boat and floatplane docking area on the south side, this plan proposes to continue existing boat and floatplane access to the shores of Naknek Lake and Lake Brooks and to facilitate movement of visitors and staff

within the Brooks River area via an elevated bridge and boardwalk system.

The 1996 plan also envisioned relocation of the barge landing area from the river mouth to the boat docking area, which was located on Naknek Lake southeast of the present barge dock station. This plan supports the 1996 concept of moving the barge landing area from the river mouth where the operation is highly visible to visitors and in an area frequented by brown bears. However, because no new docking system would be developed, alternative barge/watercraft landing areas, farther from the river mouth, are proposed.

Other decisions made in the 1996 plan would continue to provide overall guidance for development and operations in the Brooks Camp area and would remain valid. These decisions include the following:

- moving Brooks Camp, including the lodge, to the south side of Brooks River
- visitor use limits as proposed in the 1996 plan

The National Park Service is proposing a phasing strategy to implement the rest of the 1996 plan by replacing the floating bridge at Brooks River and by relocating the barge/watercraft landing area. By doing this, the Brooks Camp area would be fully operational for the duration of the move.

## ALTERNATIVES

Five alternatives were developed for constructing a bridge and boardwalks to replace the current floating bridge and associated trails, and to relocate the park's barge landing site and access road.

The alternatives were developed through an interdisciplinary team process that included tiering from earlier plans,

including the 1996 *Brooks River Area—Final Development Concept Plan and Environmental Impact Statement* and 1986 *General Management Plan*. Based on public scoping comments, input from NPS staff, and NPS mandates and policies, various concepts and project elements were considered. The planning team also considered potential environmental, visitor experience, visitor safety, operational efficiency, design, cost, and other factors in crafting the action alternatives. Different combinations of project elements with regard to the bridge, boardwalk, and barge/landing area were then integrated into the four action alternatives.

### ALTERNATIVE 1 (NO ACTION ALTERNATIVE)

This alternative represents a continuation of the existing situation. Under the no-action alternative, visitors and park and concessions staff would continue to access Brooks River via a trail through the vegetated area known as *the Corner* (a primary route for people traveling from Brooks Camp to the bridge and the south side of Brooks River, and an important area for brown bears to rest, especially sows with cubs) as they head south from the Brooks Camp area. Seasonal use of the existing floating bridge across Brooks River would continue. Park staff would continue to install and remove the bridge each spring and fall and stabilize the riverbanks to ensure that the floating bridge remains in place while in use.

The barge landing and associated road would remain at its current location on the south side of the river. The NPS landing craft, barges, and other boats would continue to land at the site at the mouth of Brooks River.

Utility connections between the north side of the Brooks River and the Valley Road Administrative Area would be considered at a later date as part of a separate action.

The key impacts of implementing this alternative would be associated with brown bears and the visitor experience. Long-term, moderate, adverse, and primarily localized impacts would occur to brown bears. These adverse effects would primarily result from continuing ground level human-bear interactions between Brooks Camp and the bus parking area on the south side of Brooks River. Human habituation of bears also would continue. Localized, moderate, long-term, adverse impacts on the visitor experience would occur primarily because of the perpetuation of inconveniences associated with closing the floating bridge and access points to avoid unwanted human-bear interactions. The no-action alternative would also perpetuate visitor safety concerns because of frequent unwanted human-bear interactions having localized, moderate, long-term, adverse impacts.

## **ACTIONS COMMON TO ALL ACTION ALTERNATIVES**

The following actions would be implemented under all of the action alternatives considered in this environmental impact statement:

- All construction activities would be scheduled to ensure that the least possible disturbance to resources and visitor experience would occur.
- The construction contractor might occupy a temporary construction camp at or near the Valley Road Administrative Area, or the contractor may use the existing contractor camp about 0.5 miles southeast of the Valley Road Administrative Area (“Squirrel Camp”).
- Existing gravel sources about 5 miles southeast of Brooks River on Valley of Ten Thousand Smokes Road would be used.
- NPS staff would monitor the impacts on park resources from the construction and continuing use of the bridge and boardwalks and from construction of the new barge landing site.
- Up to seven viewing areas (depending on the alternative) would be established on the north and south sides of Brooks River.
- Gates would be installed at each end of the boardwalk where they meet existing grade to prevent bears from gaining access to the boardwalks and bridge.
- Emergency ladders would be included at the north end of the bridge for safety reasons.
- Under all of the alternatives, including the no-action alternative, the new barge landing ramp would be hardened with materials such as interlocking pavers or geoweb filled with gravel.
- Both electrical intertie and septic tank pump-out lines would use the bridge to cross Brooks River.

## **ALTERNATIVE 2**

Under alternative 2, pedestrians and vehicles would use an extensive boardwalk and bridge system (about 1,600 ft) between Brooks Lodge and the bus parking area. The 3-span bridge would require two sets of supports (piles) in the river. On the north side of Brooks River, a boardwalk would separate visitors from bears and would eliminate human use of the Corner. The south boardwalk would run from the river to the bus parking area. The boardwalks would have separate access points for pedestrians and vehicles on the north and south sides of Brooks River. Up to four viewing/pullout areas would be located along the north boardwalk, and up to three primary viewing/pullout areas would be on the south boardwalk.

The barge landing site would be relocated about 2,000 ft south and require the construction of a new access road. The existing access road would be removed and the landscape restored. A boat parking area would be used for parking up to eight skiffs on trailers in the summer and for overwintering the park's landing craft.

The key impacts of this alternative would be associated with brown bears, salmon and other fish, hydrology, cultural landscape, visitor experience, and visual/scenic resources. Compared to alternative 1, alternative 2 would have both beneficial and adverse, short- and long-term, minor to moderate impacts on brown bears, fish, and hydrology due to construction and operation of the bridge and boardwalks and removal of the floating bridge. Construction of the bridge and boardwalks would have a long-term, moderate, adverse impact on the Brooks Camp cultural landscape. Construction of the bridge, boardwalks, and viewing areas would greatly improve visitor safety and provide new bear viewing opportunities, resulting in a localized, major, long-term, beneficial impact on visitor experience (although there would be minor, localized, adverse impacts during the construction period). From a visual/scenic resource perspective, construction of the bridge would have a localized, major, long-term, adverse impact.

### **ALTERNATIVE 3**

Under alternative 3, pedestrians and vehicles would use a single boardwalk and bridge system (about 850 ft) with single access points on the north and south sides of Brooks River. The preengineered medium-span bridge would require six sets of support piles in the river. The north boardwalk would start near the fish freezing station and ramp up to 10 ft above grade and extend to the north end of the bridge through the Corner following the existing trail alignment. A relatively short

south boardwalk would ramp down from the bridge until it reaches grade and connects to the existing road. The north boardwalk would include up to two viewing/pullout areas, while the south boardwalk would have one viewing area on each side of the south side of the bridge.

The barge landing site would be relocated about 200 ft south and generally use the existing barge access road.

The key impacts of this alternative would be associated with brown bears, salmon and other fish, hydrology, cultural landscape, visitor experience, and visual/scenic resources. Compared to alternative 1, alternative 3 would have both beneficial and adverse, short- and long-term, minor to moderate impacts on brown bears, fish, and hydrology due to construction and operation of the bridge and boardwalks and removal of the floating bridge. Construction of the bridge and boardwalks would have a long-term, moderate, adverse impact on the Brooks Camp cultural landscape. Construction of the bridge, boardwalks and viewing areas would greatly improve visitor safety and provide new bear viewing opportunities, resulting in a localized, major, long-term, beneficial impact on the visitor experience (although there would be minor, localized, adverse impacts during the construction period). From a visual/scenic resources perspective, construction of the bridge in alternative 3 would have a localized, minor to moderate, long-term, adverse impact.

### **ALTERNATIVE 4 (NPS PREFERRED ALTERNATIVE)**

Under alternative 4, pedestrians and vehicles would use a single boardwalk and bridge system (about 1,550 ft) with single access points on the north and south sides of Brooks River. The wooden short-span bridge would require up to 14 sets of piles in the river. The north boardwalk would start adjacent to the lodge and then



continue south over wetlands to the bridge. The south boardwalk would run from the bridge, cut through a wooded area, and run along the edge of a wetland to about 100 ft from the bus parking area. The north boardwalk would have up to four viewing/pullout areas, while the south boardwalk would have up to three primary viewing/pullout areas.

The barge landing site and boat parking area would be the same as in alternative 2. The existing site would be relocated about 2,000 ft south and require the construction of a new access road.

The key impacts of alternative 4 would be associated with brown bears, salmon and other fish, hydrology, cultural landscape, visitor experience, and visual/scenic resources. Compared to alternative 1, alternative 4 would have both beneficial and adverse, short- and long-term, minor to moderate impacts on brown bears, fish, and hydrology due to construction and operation of the bridge and boardwalks and removal of the floating bridge. However, bridge designs with a large number of supports (piles), such as alternative 4, have a higher potential for adverse impacts on fish and hydrology. Construction of the bridge and boardwalks would have a long-term, moderate, adverse impact on the Brooks Camp cultural landscape. Construction of the bridge, boardwalks, and viewing areas would greatly improve visitor safety and provide new bear viewing opportunities, resulting in a localized, major, long-term, beneficial impact on visitor experience (although there would be minor, localized, adverse impacts during the construction period). From a visual/scenic resources perspective, construction of the bridge in alternative 4 would have a localized, moderate, long-term adverse impact.

## ALTERNATIVE 5

Under alternative 5 pedestrians and vehicles would use a single boardwalk and bridge system (about 1,100 ft) with single access points on the north and south sides of Brooks River. The bridge would be as described in alternative 4. The north boardwalk would be the same as described in alternative 4; however, the south boardwalk would connect to the south end of the bridge and ramp down to meet the access road about 215 ft south of Brooks River. The north boardwalk would have up to four viewing/pullout areas, while the south boardwalk would have at least one viewing/pullout area on each side of the south side of the bridge.

The barge landing site and boat parking area would be the same as in alternative 2. The existing site would be relocated about 2,000 ft south and would require the construction of a new access road.

The key impacts of alternative 5 would be associated with brown bears, salmon and other fish, hydrology, cultural landscape, visitor experience, and visual/scenic resources. Compared to alternative 1, alternative 5 would have both beneficial and adverse, short- and long-term, minor to moderate impacts on brown bears, fish, and hydrology due to construction and operation of the bridge and boardwalks and removal of the floating bridge. However, bridge designs with a large number of supports, such as those described in alternative 4, have a higher potential for adverse impacts on fish and hydrology. Construction of the bridge and boardwalks would have a long-term, moderate, adverse impact on the Brooks Camp cultural landscape. Construction of the bridge, boardwalks, and viewing areas would greatly improve visitor safety and provide new bear viewing opportunities, resulting in a localized, major, long-term, beneficial impact on visitor experience (although there would be minor, localized, adverse impacts during the construction period). From a visual/scenic resources

## SUMMARY

perspective, construction of the bridge in alternative 4 would have a localized, moderate, long-term, adverse impact.

### **ENVIRONMENTALLY PREFERABLE ALTERNATIVE**

The environmentally preferable alternative is “the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.” Alternative 4 is the environmentally preferable alternative.

### **NEXT STEPS**

After the distribution of this draft environmental impact statement, there will be a 60-day public review and comment period. After this comment period, the NPS planning team will evaluate comments from other federal agencies, tribes, organizations, businesses, and individuals

regarding the draft document and incorporate appropriate changes into a final environmental impact statement. The final document will include letters from governmental agencies, any substantive comments on the draft document, and NPS responses to those comments.

Following distribution of the final environmental impact statement and a 30-day no-action period, a record of decision approving a final plan will be signed by the NPS Alaska regional director. The record of decision documents the NPS selection of an alternative for implementation. With the signing of the record of decision, the plan can then be implemented.

It is important to note that not all of the actions in the selected alternative would necessarily be implemented immediately. The implementation of the approved plan, no matter which alternative, would depend on future NPS funding levels and servicewide priorities. The approval of this plan does not guarantee that funding and staffing needed to implement the plan would be forthcoming.

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## **ACRONYMS AND ABBREVIATIONS**

ACHP	Advisory Council on Historic Preservation
ANILCA	Alaska National Interest Lands Conservation Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DCP	Development Concept Plan
NPS	National Park Service
Park	Katmai National Park and Preserve
USC	United States Code
USFWS	U.S. Fish and Wildlife Service

## A GUIDE TO THIS DOCUMENT

**Chapter 1: Purpose and Need for the Action** sets the framework for the entire document. It describes why the environmental impact statement is being prepared and what needs it addresses. The chapter also provides background on previous related studies. This chapter also provides an overview of the scope of the environmental impact analysis—specifically what impact topics were or were not analyzed in detail.

**Chapter 2: Alternatives** begins by describing the components of the alternatives. It then describes a no-action alternative (alternative 1). Alternatives 2 through 5 are then presented, which propose varying modifications for access in and around Brooks Camp. Next, there is a discussion of which alternative was determined to be the environmentally preferable alternative and a description of alternatives considered but dismissed. A section is presented on mitigation of potential impacts of the alternatives. The chapter concludes with summary tables of the alternatives and the environmental consequences of implementing those alternative actions.

**Chapter 3: Affected Environment** describes those areas and resources that would be affected by implementing the various alternatives—natural and cultural resources, visitors and visitor experience, visual/scenic resources, and socioeconomics

**Chapter 4: Environmental Consequences** analyzes the impacts of implementing the alternatives on the topics described in “Chapter 3: Affected Environment.” Methods that were used for assessing the impacts in terms of the intensity, type, and duration of impacts are outlined. This chapter also includes an analysis of cumulative impacts for each alternative.

**Chapter 5: Consultation and Coordination** describes the history of public and agency coordination during the development of this document and lists agencies and organizations that will be receiving copies of this document.

The **Appendixes** present supporting information for the document, along with selected references and a list of the document preparers.





# Purpose and Need For The Action







## INTRODUCTION

Brooks Camp, on the shore of Naknek Lake in Katmai National Park, is one of the park's primary visitor destinations for brown bear viewing, fly-fishing, and access to Valley of Ten Thousand Smokes. During the summer season (June–September), a lodge and campground serve overnight guests and a shuttle is available to transport visitors to the valley created by the 1912 eruption of Novarupta. The 1-mile Brooks River corridor is the center of brown bear viewing activities. While brown bears can be sighted any month of the summer, when the red salmon are spawning (July and September) over 100 brown bears congregate at Brooks River to feed. During these periods, visitor numbers peak to over 300 per day to view the bears or to participate in catch and release fishing. Access to Brooks Camp is via a floatplane or sometimes boat, which can easily beach on the shore of Naknek Lake, north of Brooks River. Access to the Brooks Falls bear viewing platforms or to Valley Road requires crossing Brooks River to the south side via a floating bridge. Supplies for the concession operation and park administrative facilities arrive via barge or boat to a landing site at the mouth of Brooks River, on the south shore just 750 ft along a riverside access route from the bridge.

Human-bear interactions in the Brooks River area result in numerous visitor safety issues. The NPS Brooks Camp policy requires people maintain a distance of 50 yards from brown bears. At the river mouth, bears can be viewed feeding, resting, playing, or fighting in the immediate vicinity of the floating bridge and barge landing site and access road. Bears in the river or on the shore can result in delaying visitors from crossing the bridge; visitors can retreat to a bear viewing platform on the south shore to wait for bears to move from the immediate vicinity.

Bear activity can also delay barge landing, unloading activities, and transporting of food, supplies, and materials.

The National Park Service is preparing a plan for visitor access to and within the Brooks River area of Katmai National Park (maps 1 and 2). This environmental impact statement would amend a prior plan, which called for construction of new access facilities to move floatplane, boat, and barge landing areas to the south side of Brooks River. Specifically, this draft environmental impact statement evaluates alternatives for replacing the floating bridge with an elevated bridge and boardwalk system, along with a new barge landing site and access road.

## PURPOSE

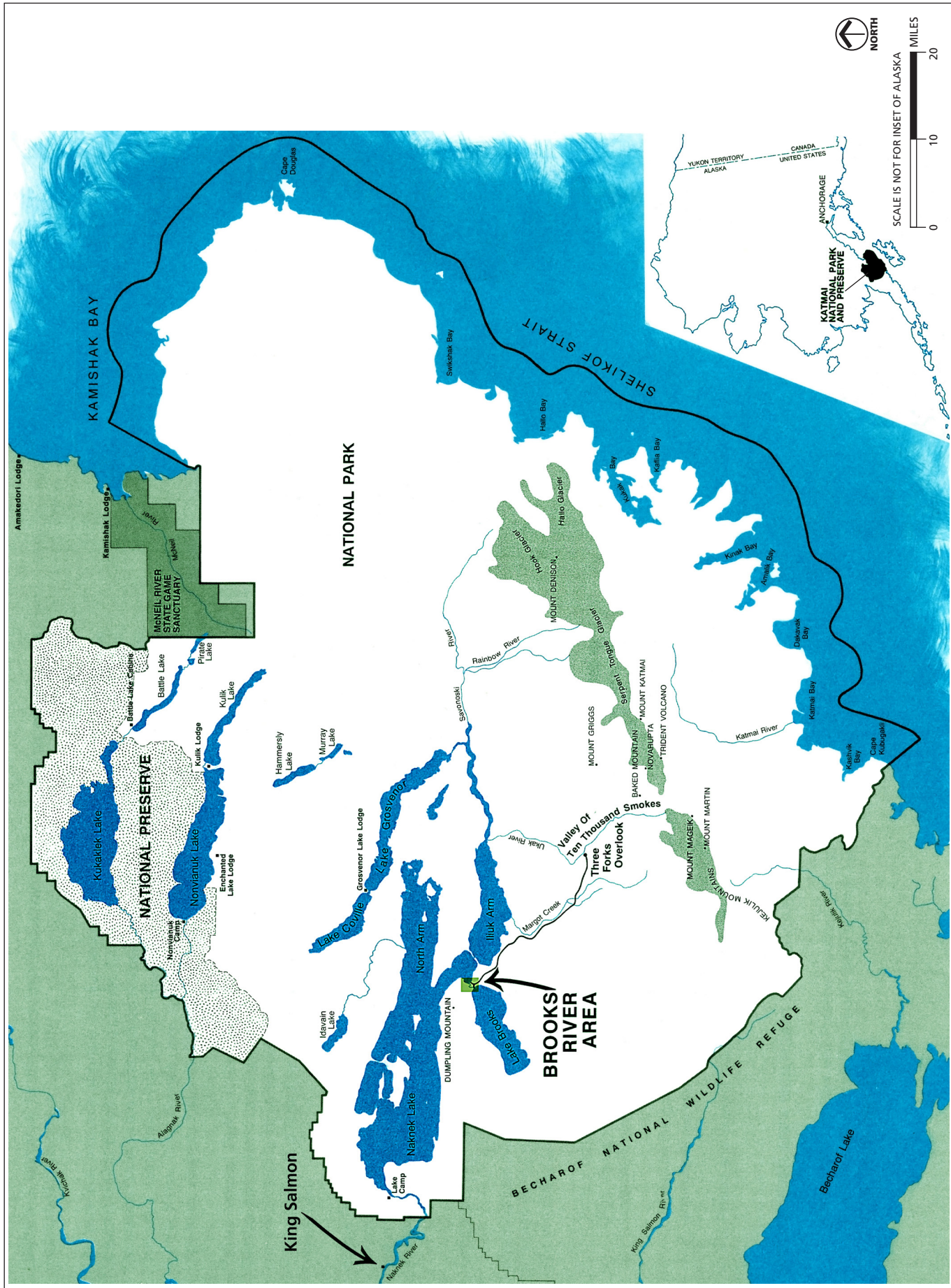
This project is intended to facilitate the phased relocation of the Brooks Camp facilities and operations to the south side of Brooks River as called for in the 1996 *Brooks River Area—Final Development Concept Plan and Environmental Impact Statement* (NPS 1996). This phased strategy would allow the Brooks Camp area to be fully operational for the duration of the relocation. The project would improve visitor access and provide for pedestrian and small vehicle traffic that currently use the floating bridge to cross Brooks River. It would provide safe and reliable access for visitors and park and concessioner employees in and around the Brooks Camp area of the park. Another objective is to enhance resource protection in the Brooks River area.

If implemented this plan would amend some of the planning direction for the Brooks Camp area provided by the 1996 *Brooks River Area—Final Development*

*Concept Plan and Environmental Impact Statement.* Specifically, it would change as follows:

- the existing floatplane and boat access to Brooks Camp at Naknek Lake would be maintained; the 1996 plan approved a floatplane/boat dock and breakwater for wave attenuation on Naknek Lake about 3,000 ft southeast of the mouth of Brooks River. The floatplane / boat dock and breakwater would not be constructed.
- the plan included a new access road and shuttle bus system to transport visitors from the landing site to the new Beaver Pond terrace lodge site; these access facilities would not be constructed.
- an elevated bridge and boardwalk system would be developed to facilitate movement of visitors and staff and transport supplies within the Brooks River area. After the phased relocation is complete only a ranger/visitor contact station, minimal day use facilities (vault toilet and picnic area), and limited emergency rescue equipment would be maintained on the north side of the river. The bridge and boardwalk system would allow access from floatplane/boat point of entry across Brooks River to the relocated Brooks Camp on the south side of the river; the 1996 plan envisioned eliminating the floating bridge and all facilities on the north side of the Brooks River.
- the existing barge landing site on the south side of Brooks River would be removed. The barge landing area would be relocated farther south of the river mouth on Naknek Lake. The draft environmental impact statement evaluates three barge landing sites and access road configurations. This plan supports the 1996 plan's concept of moving the barge landing area from the river mouth where the operation is highly visible to visitors and in an area frequented by brown bears.

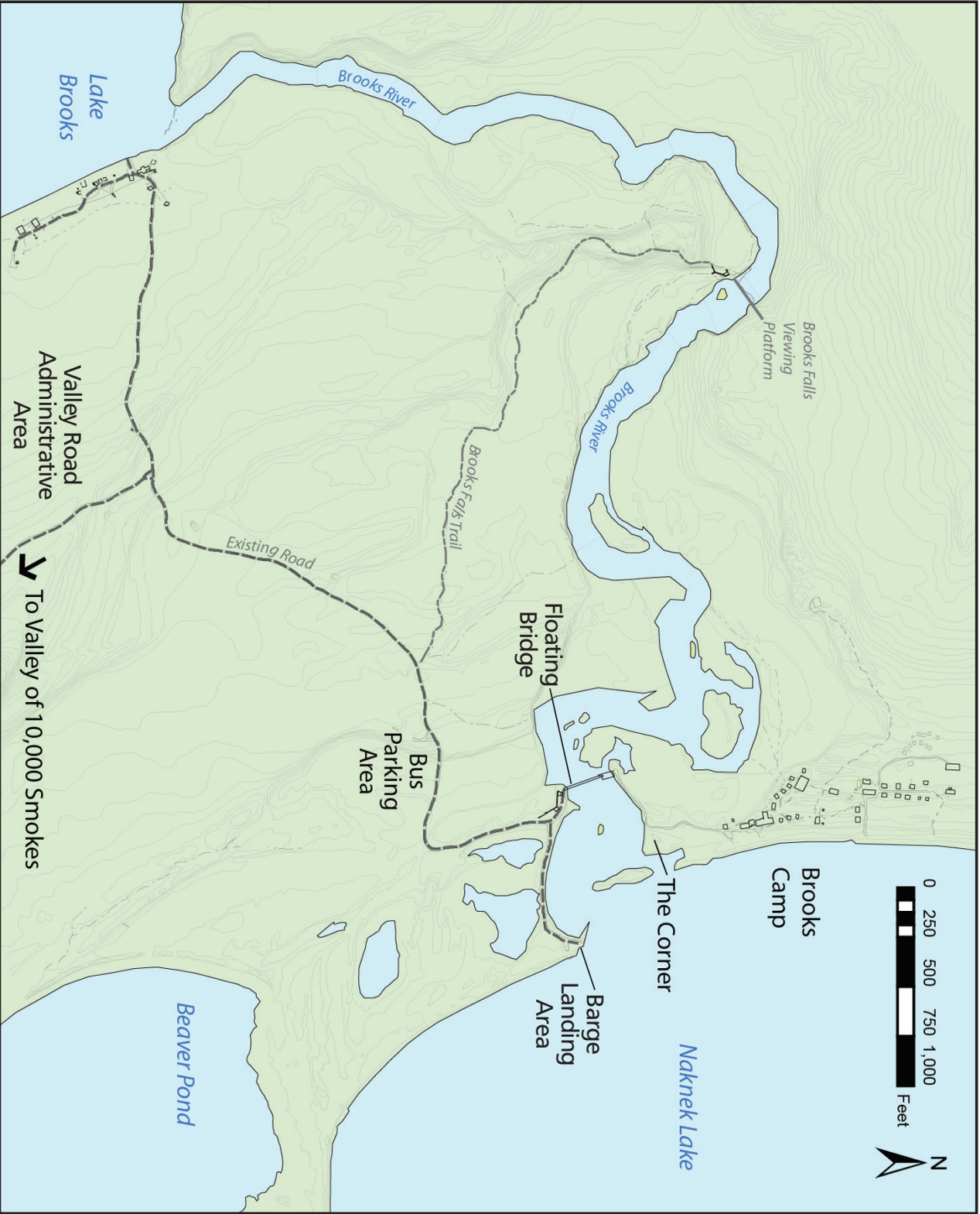
The decision to move Brooks Camp, including the lodge, to the south side of Brooks River was made in the 1996 plan. The 1996 plan as amended by and in conjunction with this plan would provide overall guidance for development and operations in the Brooks Camp area.



# MAP 1. REGION

Katmai National Park and Preserve  
United States Department of the Interior • National Park Service





# MAP 2. Brooks River Area

Katmai National Park and Preserve  
United States Department of the Interior • National Park Service

## NEED

The bridge/boardwalk and barge landing/access road project is needed for several reasons related to access, safety, resource protection, visitor experience, and operations.

- Provide dependable access for the phased relocation of facilities and park concession operations
  - Dependable pedestrian and small utility vehicle access across Brooks River is needed to provide for continued operations during the phased relocation of Brooks Camp to the south side of Brooks River.
- Improve safety
  - Visitor and employee safety needs to be improved to reduce the risk of human-bear conflicts where brown bears concentrate near the mouth of Brooks River—the center of bear viewing activity. Bears often swim along and climb onto the floating bridge, barge road, and docking area. The human-bear conflicts with visitors accessing the floating bridge, landing the barge, and trucking materials along the barge road are numerous, dangerous, and time consuming for NPS and lodge employees, contractors, and the public.
- Protect park resources
  - Key resources in the Brooks River area need protection. These resources include migratory salmon and trout that use the Brooks River area as spawning habitat, the Brooks River watershed and adjacent wetlands, concentrations of feeding brown bears that rely

on the resources and habitat provided along the Brooks River corridor, and the Brooks River Archeological District National Historic Landmark.

- Improve visitor experience
  - There are opportunities to improve visitor experience in the river outlet area where some operations, such as a barge landing site, can degrade that experience. The visitor experience can also be improved through changes in access within the Brooks River area by reducing access delays caused by bear concentrations at floating bridge access points on both sides of the river.
- Operations—connect infrastructure utilities
  - Work is underway to replace failing utilities at Brooks Camp through the construction of new utility systems on the south side of the river. However, some of the utility systems on the north side of the river need to be connected until the phased relocation is complete. The action alternatives address how these utility connections between the new utility infrastructure near the Valley Road Administrative Area and the north side of Brooks River would be made.

This draft environmental impact statement analyzes the potential environmental impacts that could result from the alternatives considered, including the no-action alternative. This draft environmental impact statement has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ) (40 CFR

1508.9), and the NPS compliance guidance handbook and Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001).

## PARK PURPOSE AND SIGNIFICANCE

### Park Purpose

The purpose of Katmai National Park and Preserve conveys the reason(s) for which it was set aside as a national park system unit. The *Katmai National Park and Preserve Foundation Statement* (NPS 2009) identified the following park purpose:

Protect, study, and interpret active volcanism surrounding the Valley of Ten Thousand Smokes, extensive coastal resources, habitats supporting a high concentration of salmon and brown bears, and an ongoing story of humans integrated with a dynamic subarctic ecosystem.

In 1980, Congress passed the Alaska National Interest Lands Conservation Act (ANILCA), which enlarged and designated Katmai as a national park and preserve. Section 202 of the act states that the area be managed for the following specific purposes:

- to protect habitats for, and populations of, fish and wildlife including, but not limited to, high concentrations of brown/grizzly bears and their denning areas
- to maintain unimpaired the water habitat for significant salmon populations
- to protect scenic, geological, cultural, and recreational features

### Park Significance

Statements of park significance were developed as part of the foundation statement (NPS 2009d). The foundation statement defines what is most important about the park's resources and values and is guided by the park's legislation and knowledge acquired through management, research, and civic engagement. The park significance statements are used to guide all planning and management decisions to ensure that the resources and values that contribute to the park's designation are preserved.

The following park significance statements are relevant to this project. Katmai National Park and Preserve

- is home to the world's largest protected population of brown bears, offering visitors an unprecedented opportunity to study and view bears in their native habitat.
- protects the Naknek Lake drainage, an important spawning and rearing ground for Bristol Bay sockeye salmon, sustaining one of the largest salmon runs in the world.
- contains vast multilake watersheds with hundreds of miles of rivers that link the freshwater and marine aquatic systems and provide critical habitat for fish and wildlife.
- contains a 9,000 year record of human adaptation to environmental and ecological change that continues today.

## BACKGROUND

### Brief Description of the Park and Brooks Camp

Katmai National Park and Preserve, encompassing approximately 4.1 million acres, is at the head of the Alaska Peninsula (see map 1), about 290 miles southwest of Anchorage. Established as a national monument in 1918 to preserve the Valley of Ten Thousand Smokes and the landscape associated with the cataclysmic volcanic eruption of 1912, it was expanded over the years by four presidential proclamations and then enlarged and redesignated a national park and preserve by the Alaska National Interest Lands Conservation Act in 1980.

King Salmon is the closest permanent town and the location of the field headquarters for Katmai National Park and Preserve. It is about 10 miles from the western boundary of the park and about 284 miles southwest of Anchorage. King Salmon is the main departure point and gateway for park visitors. There are no road connections with King Salmon or the park to the rest of the state.

Katmai National Park and Preserve is renowned for the opportunities it provides for wildlife viewing, sportfishing, and learning about the area's rich human history. Brooks Camp is one of the main attraction areas of the park. Brooks Camp is about 30 air miles from park headquarters. Set on the shores of Naknek Lake near the mouth of Brooks River, Brooks Camp is accessible by boat or floatplane only.

Brooks Camp was originally established in the 1950s to support recreational fishing activities. Today the area is known for opportunities for watching brown bears. Each year during the June to September salmon runs, visitors come to see the bears feeding. Viewing platforms and other infrastructure have been established to

support these activities, including a floating bridge that provides access over Brooks River from Brooks Camp to the viewing areas and Valley of Ten Thousand Smokes Road.

Other visitor facilities at Brooks Camp include Brooks Lodge (concessioner operated), a visitor center, an auditorium, a campground, and a picnic area. A significant cultural site is a short distance from the visitor center, providing visitors with an important opportunity to learn about the human history of the Brooks Camp area. Nearby attractions include the Valley of Ten Thousand Smokes. Groups leave Brooks Camp and cross the river to access the daily bus tours to Valley of Ten Thousand Smokes; these tours are popular with Brooks Camp visitors. Hiking to Dumpling Mountain (elevation 2,440 ft) is another popular attraction in the Brooks Camp area.

Primary access to the seasonal camp is by floatplane or boat from King Salmon. The camp lies near the outlet of Brooks River, a 1.5-mile long drainage extending from Lake Brooks into Naknek Lake. Brooks River divides the Brooks Camp area. The area north of the river includes Brooks Lodge and other concessioner and NPS buildings, including a ranger station, maintenance facilities, seasonal housing (cabins and tent platforms), visitor center, auditorium, and a campground. The area south of the river includes several bear viewing platforms, NPS employee housing (cabins), maintenance facilities, and a picnic shelter.

### RELATIONSHIP OF PROPOSAL TO OTHER PLANNING PROJECTS AND POLICIES

Several plans have influenced or would be influenced by the *Brooks River Visitor Access Draft Environmental Impact Statement*. These plans have been prepared by the National Park Service. Some of these

plans are described briefly here, along with their relationship to this document.

## 1986 General Management Plan

The park's 1986 general management plan guides management actions to protect natural and cultural resources; upgrade facilities, staffing, and services necessary to support recreational uses; and to improve visitor opportunities to experience park resources.

The general management plan specifically addressed several Brooks Camp issues, including the stabilization of facilities and activities, ongoing studies to document human-bear interactions, the need for a development concept plan, accommodation of expected increases in visitation, and the potential for a wider range of dispersed activities emanating from the Brooks Camp area.

This project is consistent with the management directions in the 1986 general management plan.

## 1996 Brooks River Area Development Concept Plan

In 1996, the National Park Service completed the *Final Brooks River Area Development Concept Plan and Environmental Impact Statement* (NPS 1996). The plan's selected alternative called for a reorientation of management and use to more adequately preserve and interpret the area's globally significant Alaskan brown bear viewing opportunities and prime brown bear habitat and to manage these elements as integral parts of an evolving environment that also contains nationally significant cultural resources, scenic values, and world-class sportfishing opportunities. The primary goals of the 1996 plan are to

- protect cultural and natural resources

- improve visitor experience
- provide alternative strategies for operation and maintenance of Brooks River facilities

Some of the specific actions from the 1996 plan include the following:

- the lodge and the bulk of the concession operation would be relocated to an area south of Brooks River at Beaver Pond Terrace (to be implemented).
- NPS facilities would be consolidated in an area along Valley of Ten Thousand Smokes Road. (Work is currently underway to construct the infrastructure to allow housing to be consolidated within the new Valley Road Administrative Area (NPS 2007b; NPS 2009b; URS 2009a).
- the immediate Brooks River area would become a day use area.
- the existing floating bridge would be removed. (The proposed 2012 plan would include an elevated bridge and boardwalk system.)
- visitor use levels would be managed.
- a floatplane/watercraft/docking area, breakwater, and access road with an attendant shuttle system on Naknek Lake would be developed. (These access facilities would not be developed if the proposed plan is approved.)
- the Brooks Falls viewing platform would be redesigned and expanded. (Falls Trail boardwalk and Riffles platform were completed in 1996 and 2000.)

The National Park Service would move different components of Brooks Camp to the south side until most facilities and activities have been moved. When the total move is finished, according to the changes

proposed in this document, the remaining facilities and activities on the north side would be a ranger/visitor contact station, minimal day use facilities (vault toilet and picnic area), and limited emergency equipment such as a rescue skiff and medical supplies.

Subject to available funding, the move would be in phases according the following sequence and approximate time frame (figure 1):

#### 5–10 years

- maintenance facilities consolidated and relocated to the Valley Road Administrative Area (largely completed)
- utility infrastructure (power, communication, water, and wastewater) constructed at the Valley Road Administrative Area (underway)
- new barge landing and access road constructed
- floating bridge replaced with elevated bridge and boardwalk system
- Brooks Camp powered by Valley Road Administrative Area electrical system

- first phase of relocation/replacement of employee housing to the Valley Road Administrative Area

#### 10–15 years

- second phase of relocation/replacement of employee housing to the Valley Road Administrative Area

#### 15+ years

- lodge and campground relocated to Beaver Pond Terrace
- remaining support structures relocated to the south side of the river
- third phase of relocation/replacement of employee housing to the Valley Road Administrative Area

The proposed 2012 plan is consistent with the overall intent of the 1996 plan and continues implementation by proposing visitor access improvements as the next step.

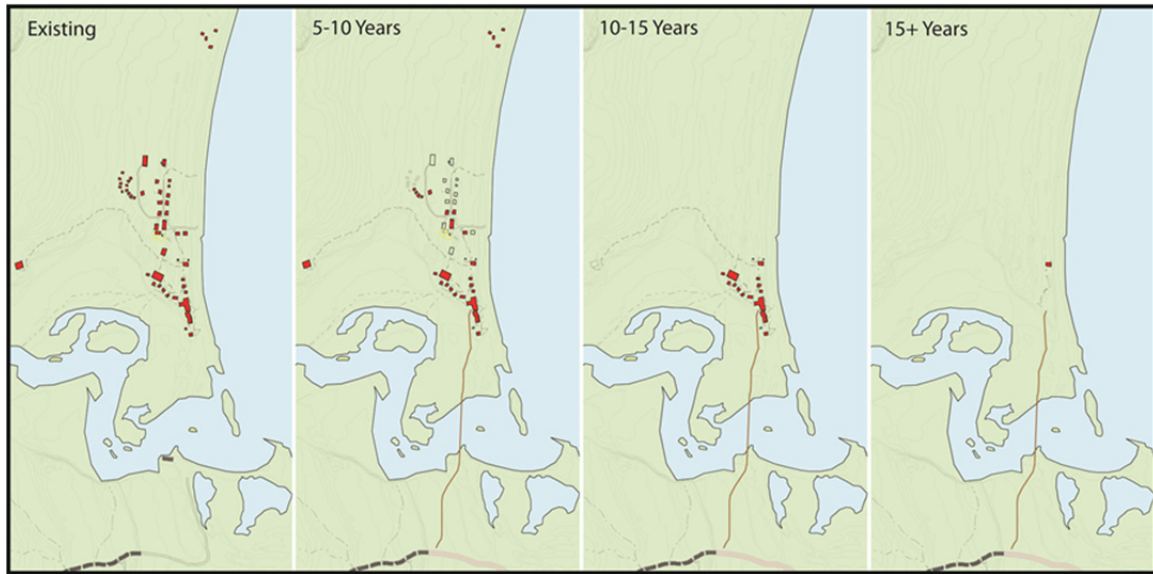


FIGURE 1. SCHEMATIC OF PHASED RELOCATION OF BROOKS CAMP

### 2007 Brooks Camp Maintenance Facility Environmental Assessment

As part of the 2007 *Brooks Lake Maintenance Facility Environmental Assessment*, the National Park Service continued to implement the 1996 development concept plan by relocating and replacing maintenance facilities currently in the vicinity of Lake Brooks and in Brooks Camp. The new maintenance and housing area approved in this plan is referred to as the Valley Road Administrative Area. The plan also called for the first phase of new housing with construction of two duplex housing units in the park near the new location for maintenance facilities. Existing housing units (tent structures) in the Brooks Camp area will be removed and the sites will be rehabilitated to a natural condition.

The proposed 2012 plan is consistent with and supportive of actions proposed in the 2007 environmental assessment.

### 2009 Brooks Camp Utilities and Housing Relocation Environmental Assessment

The National Park Service recently approved replacing utility systems for Brooks Camp at the Valley Road Administrative Area. The project facilitates the move of support facilities to the south side of the river through site planning and layout, utility installations, and housing relocation. The project site is immediately adjacent to the recently constructed gravel pad and new maintenance facility along Valley of Ten Thousand Smokes Road, near its intersection with the road from Lake Brooks to the lower viewing platform.

The proposed 2012 plan is consistent with and supportive of actions proposed in the 2009 environmental assessment.

### Policy on Impairment of Park Resources

In addition to determining the environmental consequences of implementing the preferred and other alternatives, NPS *Management Policies*

2006 (section 1.4) requires analysis of potential effects to determine whether the preferred alternative would impair a park's resources and values.

The fundamental purpose of the national park system, established by the NPS Organic Act (16 USC 1) and reaffirmed by the NPS General Authorities Act of 1970, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of the park. That discretion is limited by the statutory requirement that the National Park Service must leave resources and values unimpaired unless a particular law directly and specifically provides otherwise.

The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values (NPS *Management Policies* 2006, section 1.4.5). Whether an impact meets this definition depends on the particular resources that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

An impact on any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is

- 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 in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

Impairment may result from visitor activities, NPS administrative activities, or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park.

The determination of nonimpairment for the selected alternative will be attached to the record of decision.

## IMPACT TOPICS TO BE ADDRESSED

Impact topics are a more refined set of concerns about park resources or values analyzed for each of the alternatives. The impact topics were derived from the issues identified in scoping, and these topics were used in chapter 4 to examine the extent to which a resource would be affected by the actions of a particular alternative.

The following impact topics are those that have been considered in this document. Included is identification of the issues associated with each impact topic and the rationale for analyzing the impact topic.

- necessary to fulfill specific purposes identified in the



## Natural Resources

**Brown Bears.** Katmai National Park and Preserve is home to the world's largest protected population of brown bears. The Brooks River area provides excellent habitat for brown bears during the summer. The existing scenario along Brooks River, as well as the action alternatives, could impact brown bears. Brown bears could be affected by construction activities and use of the facilities, and changes to brown bears feeding, resting, mating, or caring for young could occur in the short term.

**Bald Eagles.** An active bald eagle nest is near the proposed barge landing and access road in three of the action alternatives. The proposed construction and use of the new barge road could impact the ability of the eagles to successfully use the nest site.

**Salmon, Rainbow Trout, and Arctic Grayling.** Katmai National Park and Preserve protects the Naknek Lake drainage, a significant spawning and rearing ground for Bristol Bay sockeye salmon, sustaining one of the largest salmon runs in the world. Brooks River is a migration route for five species of spawning salmon and hosts populations of trophy rainbow trout. The floating bridge is set directly on the surface of the river and may be an impediment to fish migration and affect spawning habitat.

Depending on the type of bridge built across Brooks River, support piles could obstruct fish passage and affect spawning habitat.

**Wetlands and Upland Vegetation.** Wetlands at the mouth of Brooks River could be affected by removal of the existing barge road and landing area.

Existing, undisturbed wetlands could be affected by the construction of a new bridge and boardwalk system, changed

circulation patterns in the Brooks Camp area, and new barge landing road.

Vegetation would also be affected by the new developments. There would be a risk of increasing existing infestations of invasive plants and introducing new invasive species in the Brooks River area.

**Hydrology and Floodplains.** The flow of Brooks River affects wildlife, visitors, and facilities at Brooks Camp. Annual use of the floating bridge could continue to obstruct upper water column flow and associated hydraulic effects could trigger changes in hydrology, channel or bank erosion, and river geomorphology.

Removal of the spit of land that was filled and stabilized to support the existing floating bridge could restore the natural hydrological regime in the lower reaches of the river.

Permanent bridge support piles could also affect river hydrology.

**Natural Soundscape.** Natural sounds in the area could be affected by construction activities, increased audio exposure from activities on the new bridge and boardwalks, and operational noise associated with the new barge landing and access road.

Removal of the existing barge landing and access road would benefit the soundscape along Brooks River.

## Cultural Resources

**Archeological Resources.** Brooks River Archeological District National Historic Landmark is one of the most significant archeological areas in Alaska. Construction of infrastructure and changes in park operations could have an adverse effect on these resources.

**Historic Structures.** Brooks Camp is historically known as one of the first post-

World War II tourism-based fishing lodges in Alaska. The camp also contains two historic structures listed in the National Register of Historic Places—the current ranger station and visitor center— and several other structures of historic significance, including the Brooks Lodge building, office/store, as well as a number of NPS cabins. The location of the elevated boardwalk on the north side of Brooks River may have an impact on these historic structures.

**Cultural Landscape.** The Brooks River area consists of three principal cultural landscapes. The first is associated with Alaska Native use of the Brooks River area for traditional habitation and fishing purposes. The second is associated with the tourism-based use of the river for sport fishing and bear viewing. The third is associated with the prehistoric archeological resources of the area, which is based on its status as a national historic landmark. The first two landscapes are currently being evaluated to determine their potential eligibility for listing in the national register. Each of the alternatives has the potential to impact cultural landscapes.

**Ethnographic Resources.** The Brooks River area is the site of an annual redbfish harvest and other traditional uses that may be affected by proposed development such as construction of the bridge and boardwalks and the proposed changes to the barge landing area.

## Visitor Experience

The Brooks River area is one of the best places in the world to view brown bears. Each summer thousands of people travel to Brooks Camp for the opportunity to view feeding aggregations of brown bears. The experience is marked by the need for visitors to get from the floatplane access area at Brooks Camp to the viewing platforms at Brooks Falls, located a mile away on the south bank of Brooks River.

There are often delays due to bears in the area, and the overall experience must be intensively managed to ensure that both visitors and bears remain safe.

Another major user group of this area is recreational anglers. Any changes to the access of the area, including the construction and maintenance of structures and changes to management strategies, would impact the experience of these users.

The proposed actions could make the Brooks River area experience too controlled and managed. Additional impacts could come from changes in the temporal use patterns that come about because of the increased accessibility and safety provided by the action alternatives.

Safety is a key consideration at Brooks Camp for all people in the area. The alternatives could change the level of safety for visitors and employees. The proposed elevated bridge and boardwalks could largely separate people and bears in the area adjacent to the river mouth, thereby reducing the number and intensity of human-bear encounters.

## Visual/Scenic Resources

The proposed bridge concepts could impact the visual resources of the area. Bridge designs using long spans would require substantial superstructure. Views from the structure, along the river, Naknek Lake, Dumpling Mountain, and views from aircraft could be affected by the project.

The construction of an elevated permanent bridge and boardwalk system could affect the visual resources of the otherwise rustic setting of the Brooks Camp area.

## Socioeconomics

Katmai National Park and Preserve is an important part of the regional economy. The park draws international tourism,

bringing in wildlife viewers, floaters, hunters, anglers, hikers, and others by the thousands. The park has been an important factor in the economic health of local communities since it was established as a national monument nearly a century ago. In contemporary times, hundreds of people rely on the resources of the park for their livelihoods, and the Brooks River area is one of the primary focal points for the hundreds of concessioner and commercial guides who choose to do business in the park. Changing access to the Brooks Camp area could impact these stakeholders.

## **IMPACT TOPICS DISMISSED FROM DETAILED ANALYSIS**

NEPA regulations emphasize the importance of adjusting the scope of each impact analysis to the details of the project and its setting and focusing on the specific potential impacts of the project. The following issues were considered but dismissed from detailed analysis, and are therefore not addressed further in this document.

### **Air Quality**

Katmai National Park and Preserve is designated as a Class II area under the Clean Air Act. Class II areas are afforded a high degree of protection under the act. The proposed actions would have a minimal effect on air quality due to the small amount of emissions associated with project construction and use.

### **Water Quality**

Negligible degradation of water quality in Brooks River or Naknek Lake may occur during bridge pile placement or barge landing construction. Turbidity and sedimentation effects would be localized and be limited to the construction period. Water quality protection measures and best management practices would be used

to protect water quality and prevent its degradation from construction. Such measures may include in-stream sedimentation check dams, surface silt fencing, prompt revegetation, and replacement of topsoil.

### **Threatened and Endangered Species**

The Endangered Species Act requires an analysis of impacts on all federally listed threatened and endangered (T&E) species, as well as species of special concern listed by the State of Alaska. There are no listed federal T&E species within the proposed project area. The olive-sided flycatcher (a candidate species) may inhabit the spruce forests around the project area during the summer. This species has been previously observed in the park along Valley Road. Effects, if any, would be minimal due to the vast quantity of habitat in the area. In addition, no tree cutting would occur from April 10 to July 15 to protect nesting migratory birds.

### **Climate Change**

Fossil fuel consumption associated with construction and use of the bridge/boardwalk and barge landing / access road would contribute a miniscule amount to the park's carbon footprint. The minimal variation expected in fossil fuel use across alternatives would have only negligible incremental effects on the park's overall carbon footprint, as it relates to climate change.

### **Natural Lightscape**

The National Park Service recognizes the role that darkness plays in natural resource processes and the evolution of species (NPS 2006). All actions and construction work would occur during daylight hours. To prevent the loss of dark conditions and of natural night skies, the National Park Service would minimize light that emanates

from park facilities by designing and installing the minimum level of light sources needed for staff safety, particularly during the darker period of operation from mid-August through September. None of the alternatives would be expected to have more than a negligible effect on the natural lightscape at Brooks Camp.

## Environmental Justice

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. No minority or low-income populations or communities are near Brooks Camp. This plan would not result in changes to human health or the environment with disproportionately high and adverse effects on minority or low-income populations or communities.

## Subsistence

The Alaska National Interest Lands Conservation Act, section 810(a) summary evaluation and finding (appendix A) concluded that the preferred alternative would not result in a restriction of subsistence uses in the project area.

## Wilderness

The project area is an area zoned for the development of visitor facilities and is not within a designated or eligible wilderness area.

## Conformity with Local Land Use Plans

The project area is within the boundaries of the park and should not result in any actions that would cause unconformity or inconsistency with local land use plans.

## Energy Requirements and Conservation Potential

In all action alternatives, new facilities would be designed with long-term sustainability in mind. The NPS has adopted the concept of sustainable design as a guiding principle of facility planning and development (NPS *Management Policies 2006* section 9.1.1.6). The objectives of sustainability are to design facilities to minimize adverse effects on natural and cultural values, to reflect their environmental setting, and to require the least amount of nonrenewable fuels/energy. The action alternatives are not expected to result in an increased energy need. The alternatives could improve the energy efficiency of the Brooks River area. The bridge and boardwalk system would serve to provide an electric connection between Brooks Camp and the Valley Road Administrative Area. Brooks Camp, until it is relocated, would be powered by more efficient generators at the Valley Road Administrative Area, thereby reducing fuel consumption.

## PERMITS AND APPROVALS

Table 1 presents approvals, reviews, and permitting requirements anticipated to be

needed for implementation of the alternatives.

**TABLE 1. PERMITS AND APPROVALS NEEDED TO IMPLEMENT ALTERNATIVES**

Permit or Approval	Information	Agency
Fish Habitat Permit (Alaska Statute 16.05.871 Anadromous Fish Conservation Act)	Required for barge landing development on Naknek Lake and placement of bridge support piles in Naknek River	Alaska Department of Fish and Game (ADF&G)
Alaska Statute 16.05.841 (Fishway Act)	Authorization required for activities within or across a stream used by fish that could represent an impediment to the efficient passage of fish.	Alaska Department of Fish and Game
Clean Water Act, section 10 permit	Required for placing structures and working in navigable waters	U.S. Army Corps of Engineers
Clean Water Act, section 404 permit	Required for disposal or placement of fill in navigable waters and wetlands; potential effects may occur to wetlands from barge landing and access road and existing access road removal.	U.S. Army Corps of Engineers
Clean Water Act, section 401 certificate of reasonable assurance	Necessary to ensure that project complies with state's water quality standards.	Alaska Department of Environmental Conservation
Wetlands Statement of Findings	Required to examine potential adverse effects to wetlands from bridge piles, barge landing, and access road; and existing access road removal.	National Park Service
Bald and Golden Eagle Protection Act	Incidental take permit required if disturbance to eagle nest near Beaver Pond could not be avoided.	U.S. Fish and Wildlife Service
National Historic Preservation Act, section 106 compliance	State historic preservation office concurrence with finding of no historic properties affected or a memorandum of understanding with state historic preservation office to resolve adverse effects.	State Historic Preservation Office
Conservation Easement	Consult with and obtain and consider views of the grantors.	Conservation Easement, section 17, "Notice"

## NEXT STEPS

After distribution of the *Brooks River Visitor Access Draft Environmental Impact Statement*, there will be a 60-day public review and comment period. After this comment period, the NPS planning team will evaluate all comments from other governmental agencies, organizations, businesses, and individuals regarding the draft document and incorporate appropriate changes into a final Brooks River visitor access environmental impact statement. The final plan would include letters from governmental agencies, any substantive

comments on the draft document, and NPS responses to those comments.

Following distribution of the final Brooks River visitor access environmental impact statement and a 30-day no-action period, a record of decision approving a final plan will be signed by the NPS regional director. The record of decision would document the NPS selection of an alternative for implementation. With the signing of the record of decision and publication of a notice in the *Federal Register*, the Brooks River plan could then be implemented.

