[redacted]

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

**Denali National Park and Preserve**
**Alaska**

# Finding of No Significant Impact

## C-Camp Improvements

## September 2006

Recommended: _____ 9/25/06
Acting Superintendent, Denali National Park and Preserve Date

Approved: _____ 9/26/06
Acting Regional Director, Alaska Date

**FINDING OF NO SIGNIFICANT IMPACT**

**C-Camp Improvements**
**Denali National Park and Preserve, Alaska**
**September 2006**

The National Park Service (NPS) prepared an environmental assessment (EA) to evaluate a proposal to:

- Construct a new Emergency Services Building (ESB),
- Upgrade employee housing, parking, and common facilities for residents,
- Separate the maintenance functions and traffic from housing areas,
- Expand the maintenance area and improve maintenance, storage, and parking facilities,
- Replace the vehicle fueling system, provide the capability for propane vehicle fueling, and remediate source-contaminated soils,
- Upgrade utilities, and
- Realign a section of the Rock Creek Trail,

at the C-Camp administrative and housing area of Denali National Park (DENA), Alaska.

The NPS has selected Alternative 2, the preferred alternative, the Parallel Access Road Alternative, to construct the above mentioned facilities, with the mitigation measures.

Attachment A of this FONSI gives the NPS responses to substantive public comments.

## ALTERNATIVES

Four alternatives were evaluated in the EA. They are briefly described here.

**Alternative 1, No Action, the Environmentally Preferred Alternative**
Ongoing activity, operations and housing would continue at the C-Camp area but with no new substantial rehabilitation or construction.

**Actions Common to All Action Alternatives (Alternatives 2-4)**
Most of the proposed actions are common to all of the 4 action alternatives. They are grouped as 1) new facilities, 2) replacements, 3) consolidating or updating.

1) Actions common to all action alternatives include building the following <u>new facilities</u>:

- A bus stop located on the north side of the Park Road, east of the existing C-Camp entrance. The bus stop would incorporate a large pullout to accommodate over sized vehicles requiring road permits.

- A bus stop on the south side of the Park Road at the C-Camp road intersection.
- Shower house to be built in the residential area for use by seasonal employees, the facility may include a fitness area.
- Trails shop and office building, covered heated storage building and yard area to be located west of the Auto Shop pad.
- New parking area for up to 60 vehicles located to the west of the B&U building for maintenance employee parking.
- B&U cold storage building and lockable storage.
- Vehicle plugs for the B&U parking and Auto Shop parking areas.
- Fuel truck containment pad located on B&U pad.
- An 80-foot expansion to the west of the C-Camp residential parking area. This expansion would accommodate C-Camp residential parking needs to enable C-Camp to become a walk-in campus facility.

The following existing facilities would be replaced with new buildings or facilities:

- Sand, gravel, garbage and hazardous materials storage areas located between the B&U and Auto Shop pads.
- Pipe and lumber storage on the B&U pad relocated from the headquarters historical area.
- The Rock Creek Trail would be rerouted to the north and west of the C-Camp developed area. A switch back in the trail would be removed, and the trail would only pass once under the existing overhead power lines. A new trail spur would be constructed to the B&U shop pad.
- The primary power feed from the overhead power lines to the C-Camp distribution system would be up-graded and relocated to the perimeter of the proposed development northwest of the B&U pad.
- Upgrade and rehabilitate the utility infrastructures for water, wastewater, electrical, propane, fire alarm and telephone and data.
- Cabins in the C-Camp area would be upgraded for seasonal winter use. The total number to be improved and their locations differ by alternative. Cabins would be replaced on a bed-for-bed basis with no net loss of beds.
- The septic tank and leach field for the C-Camp residential area would be enlarged to accommodate additional use projected with the addition of the ESB. Because a new treatment facility is planned for the headquarters area and would include treatment of the wastewater from C-Camp, the connections to the enlarged septic tank and leach field would be designed in such a way to accommodate the eventual connection to headquarters.
- The vehicle fueling system, including the fuel storage tanks, would be replaced and the capability for propane vehicle fueling would be provided.

- Widen the curve at intersection of the C-Camp road and the Park Road to provide for a safer turning radius.

The common actions also include consolidating or updating the following functions that presently occur on an existing C-Camp pad and do not have associated fixed facilities:

- Auto Shop Pad
  - Loading dock
  - Tire storage
  - Heavy equipment parking
  - Heavy equipment implement storage
  - Tool storage
  - Government vehicle parking for Auto Shop, shop vehicles, vehicles awaiting work, and vehicle parking for road crews.
  - Employee parking
  - Improve circulation and access to garage bays, storage bays, and Alaska Natural History Association (ANHA) warehouse.
- B&U Pad
  - Heavy equipment parking
  - Government vehicle parking
  - Improve circulation and access to garage bays, storage bays, park-wide shipping and receiving, recycling shed and storage areas.
  - Construction staging area and material storage area.
  - Employee parking
  - Tool storage

**Alternative 2, Parallel Access Road Alternative, the NPS Preferred Alternative, the Selected Alternative**

A new road parallel to the east side of the residential area would be constructed. All traffic would access the C-Camp area at the existing intersection, but the new parallel road, approximately 720 linear feet long, would be built east of the new ESB facility.

An ESB and separate Annex would be constructed near the existing C-Camp entrance, along with a parking lot for 29 vehicles. A new vehicle fueling system would be located directly south of the Auto Shop pad along the new parallel road. The Auto Shop pad would be expanded to the east.

One new cabin would be built to replace the cabin displaced by the new shower house. A new dorm or plexed units would replace the four cabins displaced by the ESB and new parallel road alignment, and the three cabins displaced by other improvements. The older tent frame style cabins on the west side would be replaced with new cabins.

Approximately 2.7 acres of the Backcountry Day Use Zone would be converted to a Level 1 Development Zone. Two bus stops would be constructed adjacent to the Park Road.

**Alternative 3, Existing Road Alternative**

This alternative most closely reflects the intent of the DCP while attempting to satisfy the purpose and need of the EA. Access to all facilities would remain via the existing access road.

A one-story ESB would be constructed in the C-Camp area. In addition, a one-story Annex building housing a reduced program scope (as compared to Alternatives 2 and 4) for the garage bays and storage space would also be constructed. Parking spaces for 29 vehicles would be developed near the ESB. The new vehicle fueling system would be located on the south edge of the existing Auto Shop pad. In order to accommodate the vehicle fueling system and maintenance circulation to the fueling area and other road crew functions, a 50-foot extension to the Auto Shop pad would be required. The USTs would be replaced, and the contaminated soils would be remediated such that all ADEC and NPS requirements are met; however, the amount of soil removed and remediation techniques would likely differ from the other action alternatives. The existing road through C-Camp would be used to access the ESB. The curve at the intersection of the C-Camp road to the Park Road would be widened to provide a safer turning radius.

The objective to separate maintenance and emergency services traffic from housing operations would be accomplished by relocating all housing to the east of the access road. The six VIP trailer pads would be the only housing facilities adjacent to the entrance road and would act as a buffer between traffic and housing on the west side of the road. Within the residential area, two dormitories would be built to replace 12 of the two-bed cabins: three cabins displaced by west side improvements (these improvements consist of replacing old tent frame cabins with new cabins; these improvements take up more room, thereby displacing some cabins), one cabin displaced by the shower house, six cabins displaced by VIP trailer pads, and two cabins displaced by ESB.

Approximately 2.2 acres of the Backcountry Day Use Zone would be converted to a Level 1 Development Zone; this area is contiguous with the existing development in the C-Camp area. Two bus stops, encompassing approximately 0.2 acres, would be constructed in the Motorized Sightseeing Zone 2; the area is adjacent to the Park Road.

**Alternative 4, New Access Road Alternative**

Alternative 4 incorporates the requirements of the DCP, while adding additional elements that were not anticipated when the DCP/EIS was completed and approved. Access to the maintenance area and residential area would be via new access and spur roads, thereby separating the administrative traffic from the residential area. Access to the ESB would be via the existing C-Camp/Park Road intersection.

Alternative 4 would involve construction of a one-story ESB. An ESB Annex would provide additional cold storage and vehicle shelter space. A 29-space vehicle parking lot would be developed adjacent to the ESB. All ESB-related facilities would be located near the existing C-Camp entrance, with access directly off of the Park Road. A new, 1,300 linear ft access road, beginning approximately 0.2 miles east of the existing C-Camp entrance, would provide a

separate entrance to the maintenance and residential areas. This access road would direct maintenance traffic to the shop areas, and would terminate at the east end of the Auto Shop area. A 300 linear ft C-Camp residential spur road would curve around to the southeast to the existing Auto Shop pad and connect the access road to the existing C-Camp road to the north of the existing VIP trailer pad area. The spur road would be for residential traffic and access to the vehicle fueling system. The new vehicle fueling area would be located on the north side of the spur road near the intersection with the existing entrance road. Relocation of the vehicle fueling system off of the Auto Shop pad would require placement of fill in an undisturbed area, but it also would enable the park to replace the USTs, remediate the contaminated soils and groundwater under the Auto Shop pad, and allow for more efficient use of the pad for maintenance operations.

Within the residential area, a dorm or plexed units would be built to replace cabins displaced by the shower house (1 cabin), improvements to west side cabins (these include replacing old tent frame cabins with new cabins, thereby displacing 3 tent cabins), and construction of the VIP trailer pads (2 cabins). Four VIP trailer pads would be constructed south of the fueling area and north of the ESB facility.

Approximately 3.8 acres of the Backcountry Day Use Zone would be converted to a Level 1 Development Zone. The majority of this area (approximately 3 acres) is contiguous with the existing development in the C-Camp area. The new access road (approximately 1 acre) is not immediately adjacent to the existing developments in C-Camp. An island would be created between the existing C-Camp developments and the new access road that would retain the Backcountry Day Use Zone designation. Two bus stops, encompassing approximately 0.2 acres, would be constructed in the Motorized Sightseeing Zone 2; the area is adjacent to the Park Road.

## PUBLIC INVOLVEMENT

The EA was issued for public review and comment from August 24, 2006 to September 22, 2006. Notices of the EA or full copies were sent to approximately 253 government agencies, tribal entities, interest groups and individuals – 164 by email, 47 by fax and 42 by mail. The EA was posted on the NPS Planning, Environment and Public Comment (PEPC) website and on the park's website. The park issued a press release announcing the availability of the EA and public comment period. Two written comments were received.

The public comments received did not change the conclusions in the EA about the environmental effects of the action. The NPS responses to substantive public comments are found in Attachment 1.

## DECISION

The NPS decision is to select Alternative 2, the Parallel Road Alternative, along with the mitigating measures.

## Mitigating Measures

The mitigation measures were incorporated into the alternative description in the EA.

Vegetation, Soils and Groundwater

Backslopes and fill slopes would be covered with coarse materials to discourage colonization by invasive plants. Disturbed sites within the project area would be replanted with native vegetation, following the Interior Alaska Revegetation Plan (U.S. Geological Survey [USGS] 1994). Measures to prevent invasive plant colonization would include: pressure washing construction equipment and vehicles prior to entering the park, any gravel or fill required would either come from a weed-free materials site (as verified by a park vegetation technician) or would be heated to kill any plant material or seeds, and continuation of the park's existing exotic plant eradication program. Soil and groundwater remediation of fuel oil contamination would be done to the extent feasible and to the satisfaction of ADEC.

Wetlands

Silt fences and other Best Management Practices (BMP) technologies would be used to protect any adjacent wetlands. As described in the Wetlands SOF (Appendix B), mitigation by rehabilitating wetlands in another area of the park would be accomplished.

Wildlife and Habitat

Vegetation (bird habitat) would not be removed during the nesting season, April 1 through July 15. After completing all the nesting vegetation removal required for the project, there would be no seasonal restriction for construction activities, even during the following nesting seasons. If any active nest (intact eggs, live chicks, or presence of an adult on the nest) were encountered at any time, it would be protected from destruction.

Visual Resources

The ESB would be designed to fit with the natural surroundings and sited to reduce its visibility from the Park Road. The design would take advantage of topography and existing vegetation to provide natural screening. Construction materials would be selected to complement the natural environment in color and texture.

Cultural Resources

Project excavations would be monitored by cultural resource staff. If previously unknown cultural resources are located during construction, the project would be stopped in the discovery area until cultural resource staff could determine the significance of the finding and recommend appropriate courses of action.

## Rationale for the Decision

The selected actions (Alternative 2) will satisfy the purpose and need of the project better than other alternatives because it contains the full scope of C-Camp improvements, provides good separation of the residence area from traffic and noise, improves the safety and efficiency of administrative and support facilities, improves operational efficiency of management and support functions, provides resource protection and complies with federal and state regulations. It allows

for more effective use of personnel and equipment, and improves safety in the C-Camp area and on the Rock Creek Trail. It provides greater protection for water and soil resources, and reduces demands on historic structures. It improves operational efficiency of management and support functions, and provides administrative facilities that are necessary and appropriate for user enjoyment and effective park management. It updates the site plan to incorporate operational changes since the DCP was approved. It brings the vehicle fueling system into compliance with Alaska Department of Environmental Conservation (ADEC) and Environmental Protection Agency (EPA) regulations.

Alternative 3, the Existing Access Road Alternative, was rejected because it would not provide for good separation of the residence area from noisy traffic from heavy equipment, emergency vehicles, maintenance vehicles and private employee vehicles.

Alternative 4, the New Access Road Alternative, was rejected because the estimated cost of the new road exceeded the project budget, the level of impact, especially to wetlands, was greater than other alternatives (loss of 1.2 acres of wetlands as compared to 0.7 acres and 0.3 acres in Alternatives 2 and 3 respectively), it would require the greatest amendment to the park zoning boundaries from Backcountry to Development zones, and it would have the potential of encouraging future development along the new access road where such development was deemed inappropriate.

Alternative 1, the Environmentally Preferred Alternative, was rejected because it would not accomplish the purpose and need of the project, and because contaminated soils would not be remediated.

**Significance Criteria**

The preferred alternative will not have a significant effect on the human environment. This conclusion is based on the following examination the significance criteria defined in 40 CFR Section 1508.27.

*(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.*
The C-Camp improvements will provide administrative benefits to the park which outweigh construction impacts to park resources (vegetation, soils, groundwater, wetlands, wildlife, habitat, visitor use, recreation, visual resources, local communities and socioeconomics). The impact analysis in the EA demonstrates that the effects are not significant.

*(2) The degree to which the proposed action affects public health or safety.*
Public health and safety will improve due to separation of administrative traffic from the residence area, improvements to the capacity of the expanded sewage leach field, and the removal of contaminated soil near the Underground Storage Tanks.

*(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetland, wild and scenic rives, or ecologically critical areas.*
Wetlands will be impacted however off-site compensation at a 2-to-1 rate will be accomplished.

*(4) The degree to which effects on the quality of the human environment are likely to be highly controversial.*
The proposal's environmental effects presented in the EA are not highly controversial.

*(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*
The contaminated soil and groundwater near the Underground Storage Tanks will be cleaned up as much as is practicable, and as necessary to satisfy Alaska Department of Conservation requirements. The details of the clean up are not known because they have not been fully developed. They will include, at a minimum, digging and removing a significant amount of soil near the USTs, replacing the fuel storage tanks, constructing a new fueling system, and monitoring existing monitoring wells in the C-Camp area. It is not known how much contaminated soil will be removed. It is not known whether additional monitoring wells will be installed. It is not known if some kind of soil aeration or bacterial treatment will be used on the contaminated soils. The risks are to the groundwater and environment if the contamination plume ever migrates far enough to reach the surface. What we do know about the contamination is that there is vertical migration of soil contamination and lateral migration of groundwater contamination.

*(6) The degree to which the action may establish a precedent of future actions with significant effects or represents a decision in principle about a future consideration.*
No precedent is set by this project.

*(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.*
The proposed action would impact approximately 4.6 acres of the 83 acres of cumulative disturbance existing in the park entrance and headquarters area as disclosed in the EA. The C-Camp area has been designated in the 1996 DCP/EIS as part of the development zone. The proposed action, to construct a new ESB at C-Camp, is an implementation of the DCP direction.

*(8) Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*
While one of the buildings in the C-Camp area is considered historic, the site is not considered an Historic District. Modifications to noted historic structures are not planned under this action. Cultural resource impacts were dismissed form detailed analysis in the EA.

*(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*
No endangered or threatened species occur in the project area.

*(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

The proposed actions will not violate Federal, State or local law or requirements imposed for the protection of the environment.

## FINDINGS

The levels of adverse impacts to park resources anticipated from the selected alternative will not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or that are key to the natural or cultural integrity of the park.

The selected alternative complies with Executive Orders 11990 (*Wetlands Protection*), the National Historic Protection Act, the Endangered Species Act, and the NPS Organic Act. There will be no restriction of subsistence activities as documented by the Alaska National Interest Lands Conservation Act, Title VIII, Section 810(a) Summary Evaluation and Findings.

The National Park Service has determined that the selected alternative does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9), an environmental impact statement is not needed and will not be prepared for this project.

## ATTACHMENT A

## NPS RESPONSES TO PUBLIC COMMENTS
## for the
## Denali National Park and Preserve EA for
## C-Camp Improvements

This attachment provides NPS responses to public comments.

### PUBLIC COMMENTS

The NPS received 2 public comments: 1 from a private individual (PI) and 1 from an organization, the Denali Citizens Council (DCC).

The NPS has read and considered all comments received. Responses to substantive comments are provided below. A substantive comment is defined as one which leads the NPS to: (1) modify an alternative, including the proposed action; (2) develop and evaluate an alternative not previously given serious consideration; (3) supplement, improve, or modify the environmental analysis; or (4) make factual corrections (CEQ NEPA Regulations 1503.4).

**Comment 1, DCC:** The new trail shop, storage area and yard have not been adequately justified.
**Response 1, NPS:** The current available space in the B&U and Auto Shop buildings and yards does not meet the needs of the park maintenance program. The construction of a trails office and shop building will reduce pressure on other maintenance space and functions.

**Comment 2, DCC:** What is the data that the parking area is necessary, for up to 60 vehicles, west of the Auto Shop?
**Response 2, NPS:** The increase in labor force over the past 10 years has added a significant employee parking need. The necessary parking spaces for maintenance operations are outlined below. The maintenance division has had a stable 120 employees for the last three years and we assume that this level of staffing will continue. Of those 120 employees 105 of them commute.

Maintenance Consolidated Space Needs:
- Summer Employee Parking: 105 spaces for employees who commute.
  - B&U/Special Projects: 55
  - Roads/Trails/Fleet: 50
- Winter Employee Parking: 40
  - B&U/Special Projects: 26
  - Roads/Trails/Fleet: 14
- Gov Vehicle Parking: 50 regular sized vehicles
  - B&U/Special Projects: 22
  - Roads/Trails/Fleet: 28

Parking Analysis for maintenance:

Regular size vehicles:

Employee spaces: 105 (30,240 sq ft at 288 sq ft each)

Government vehicles: 50 (14,400 sq ft)

Heavy Equipment: 8,600 sq ft

Total Need for parking: 53,240 sq ft

Available parking space on both B&U and Auto Shop pads: 30,000 sq ft (This was determined using current use patterns and circulation for oversized vehicles.)

Need: 23,240 sq ft (288 sq ft per space) = 80.6 spaces.

Assume on any given day 25% to 35% of employees either work different shifts, are sick, are on leave or car pool.

80.6 x 75% = 60.4 spaces. 80.6 x 65% = 52.4 spaces. Thus the range used in the EA was 50-60 parking spaces needed; or 60 spaces for maximum effect analysis.

Without these additional parking spaces, vehicles would continue to be parked in places that hamper maintenance operations, such as in front of materials storage areas, and in parking spaces intended for C-Camp residents. This expansion also will make it possible to turn oversize vehicles around safely in the maintenance operations area.

The planned parking areas will be phased in, starting with 30 spaces initially. Another 20-30 spaces could be added in the future after an additional needs analysis.

**Comment 3, DCC:** Cite the analysis to show the need for the westward 80-foot expansion to the residents' parking area.

**Response 3, NPS:** The DCP directed that the C-Camp housing for seasonal and temporary employees would be improved and upgraded for year-round use with no net loss in total beds. The EA provides for these improvements with a walk-in campus environment for the C-Camp residential area with designated parking area adjacent to the campus. The existing condition is a parking area adjacent to the residential area that has maintenance equipment and vehicles parked with in it as well as maintenance employee parking. The C-camp residential area currently provides 66 beds with typically ½ of the residents bringing personal vehicles. Due to lack of a designated parking area the vehicles are parked in non-designated areas adjacent to cabins and along the campus roads creating a hazardous condition for emergency vehicle response along the narrow roadways.

**Comment 4, DCC:** What is the justification and need for the 29 new parking spaces at the ESB?

**Response 4, NPS:** The design of the ESB includes Ranger, Fire Management and regional dispatch functions. Building space needs have been estimated for these functions, and parking needs have also been estimated as follows:

7 Ranger government vehicles,

4 Fire Management government vehicles,

2 public parking,

10 Ranger employee parking,

5 Fire Management employee parking,
1 impound lot for RV or SUV
Total 29 parking spaces.

**Comment 5, DCC:** The EA should provide for no net loss to Backcountry Day Use Zone with a 1-to-1 replacement in another area of the park.
**Response 5, NPS:** The NPS agrees with this principal and has accommodated more than 1-to-1 replacement of the conversion of Backcountry Day Use Zone to Development Zone. This was done, intentionally, in the recent FONSI for the Savage Rest Stop EA.

**Comment 6, DCC:** The EA is short on analysis of the differences among the alternatives in terms of visual impacts. How visible would the ESB be from the Park Road?
**Response 6, NPS:** Visual Resources was selected in the EA as an impact topic and was analyzed in all of the alternatives. The visibility of the new ESB from the Park Road will depend on its final location and configuration, the amount of widening of the entrance road to C-Camp, the amount of tree and brush clearing along the Park Road and near the entrance to C-Camp, and the amount of tree and brush clearing for fire protection around the new ESB and other C-Camp structures near the entrance road. These variables are dependent upon future design and implementation and are not fully known at this time. The EA analysis is a planning tool to identify the probable impacts of the construction alternatives, and in the case of visual resource impacts cannot yield final and complete view impressions. The NPS is committed to minimizing the visual impacts of the new structures.

**Comment 7, DCC:** Cite the analysis to justify why the ESB needs to be larger than the DCP size. What new size is anticipated?
**Response 7, NPS:** The 1996 DCP envisioned an Emergency Management Services building and fire station (3,230 sq ft) with the dispatch function. Since that time, needs of the park have expanded and the ESB building design details have included the needs of both fire management and ranger services. This includes such enhancements as 3 bays for emergency vehicles, storage for fire and ranger equipment including unheated storage, shelter space for 3 trailers, offices for ranger and fire program employees, an Incident Command System coordination room capable of serving as an incident command center, and a larger dispatch center capable of regional function. The total square footage has not been determined because the final building design has not been completed, however it is expected to be approximately 10,900 sq ft. (approximately 6,750 sq ft for the ESB and 4,120 sq ft for the ESB annex building).

**Comment 8, DCC:** What is a "lay down" area and why is it necessary?
**Response 8, NPS:** Lay down area is open, unassigned flat space near the B&U building or the Auto Shop. It is part of the B&U pad or the Auto Shop pad. It is necessary for temporary storage of supplies or equipment that are delivered to the park or produced by the park for park maintenance projects. Often, construction supplies must be stored for weeks or months after their delivery and before their use by the NPS or a contractor.

**Comment 9, PI:** The ground disturbance in the development zone bubble west of the Auto shop should be no more than what was identified in the preferred alternative, which was specified in

the EA as approximately 0.6 acres (plus unspecified vehicle circulation needs depending on the final design) within the 2+ acre bubble.

**Response 9, NPS:** This is correct. Any additional development in the development zone bubble that was not specified in the EA would need additional NEPA analysis.

# ATTACHMENT B

# WETLANDS STATEMENT OF FINDINGS
# for the
# Denali National Park and Preserve EA for
# C-Camp Improvements

**STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11990**
***PROTECTION OF WETLANDS***

**C-Camp Improvements**
**Denali National Park and Preserve, Alaska**

September 2006

**Recommended:**

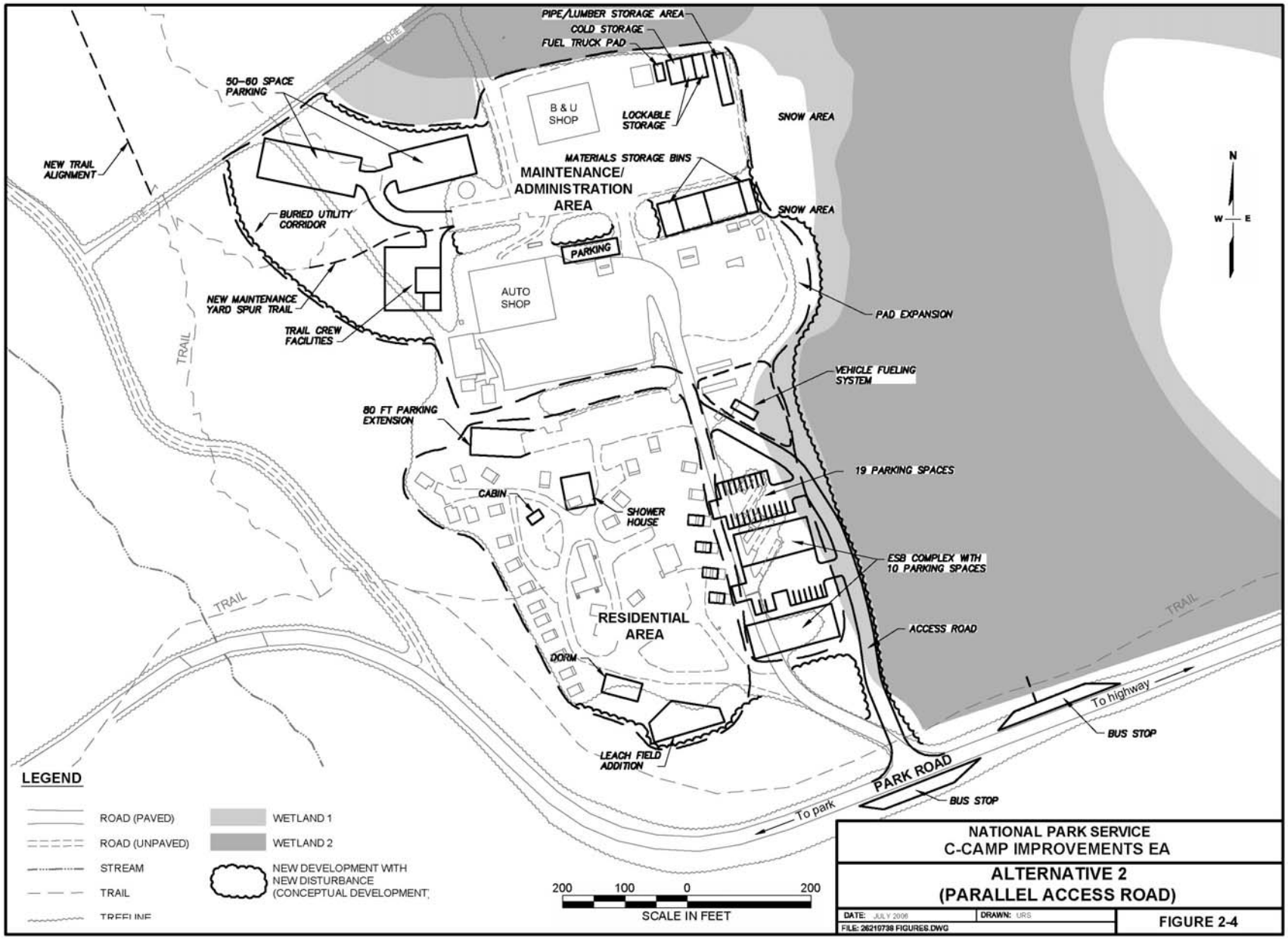
Acting Superintendent, Denali National Park and Preserve — Date 9/25/06

**Certified for Technical Accuracy and Servicewide Consistency:**

Acting Chief, Water Resources Division, Washington Office (BY DIRECTION) — Date 9/26/06

**Approved:**

Acting Regional Director, Alaska Region — Date 9/26/06


PIPE/LUMBER STORAGE AREA
COLD STORAGE
FUEL TRUCK PAD
50–60 SPACE PARKING
B & U SHOP
LOCKABLE STORAGE
SNOW AREA
NEW TRAIL ALIGNMENT
MATERIALS STORAGE BINS
MAINTENANCE/ ADMINISTRATION AREA
SNOW AREA
BURIED UTILITY CORRIDOR
PARKING
AUTO SHOP
NEW MAINTENANCE YARD SPUR TRAIL
TRAIL CREW FACILITIES
PAD EXPANSION
VEHICLE FUELING SYSTEM
80 FT PARKING EXTENSION
19 PARKING SPACES
CABIN
SHOWER HOUSE
ESB COMPLEX WITH 10 PARKING SPACES
RESIDENTIAL AREA
ACCESS ROAD
DORM
LEACH FIELD ADDITION
PARK ROAD
To park
To highway
BUS STOP
BUS STOP
TRAIL
TRAIL
TRAIL
N
W
E
LEGEND
ROAD (PAVED)
ROAD (UNPAVED)
STREAM
TRAIL
TREELINE
WETLAND 1
WETLAND 2
NEW DEVELOPMENT WITH NEW DISTURBANCE (CONCEPTUAL DEVELOPMENT)
200 100 0 200
SCALE IN FEET
NATIONAL PARK SERVICE
C-CAMP IMPROVEMENTS EA
ALTERNATIVE 2
(PARALLEL ACCESS ROAD)
DATE: JULY 2006
DRAWN: URS
FILE: 26219739 FIGURES.DWG
FIGURE 2-4

## PURPOSE AND NEED FOR ACTION

The National Park Service (NPS) has prepared and made available for public review an environmental assessment (EA) to evaluate the impacts of construction of new administrative facilities and improvements at C-Camp near park headquarters in Denali National Park and Preserve.

The approved 1996 Entrance Area and Road Corridor Development Concept Plan for Denali National Park and Preserve (DCP/EIS) identified the need to construct an Emergency Services Building/Fire Station (ESB) in the C-Camp area, to remove most of the maintenance facilities and activities from the Headquarters Historic District, to separate maintenance and administrative activities from the C-Camp housing area, to improve operational efficiency of management and support functions, as well as the need to provide administrative facilities that are necessary and appropriate for user enjoyment and effective park management. The current facilities do not provide enough space for vehicle circulation and parking, offices, indoor and outdoor storage, and heated ambulance space for park management, and the fueling facilities need to be upgraded to meet applicable codes.

The NPS is proposing to construct a new Emergency Services Building, access road, Auto Shop pad expansion, and fueling facility in the C-Camp area (Figure 2-4). Other improvements to the C-Camp area that would not affect wetlands would include housing upgrades, utility upgrades, additional parking areas, a new shop and yard for the Trail Crew, a leach field addition, and additional storage bins for sand, gravel, lumber and garbage.

Executive Order 11990, *Protection of Wetlands*, requires the NPS, and other federal agencies, to evaluate the likely impacts of actions in wetlands. The executive order requires that short and long-term adverse impacts associated with occupancy, modification or destruction of wetlands be avoided whenever possible. Indirect support of development and new construction in such areas should also be avoided wherever there is a practicable alternative.

To comply with these orders, the NPS has developed a set of agency policies and procedures which can be found in Director's Order 77-1, *Wetland Protection*, and Procedural Manual 77-1, *Wetland Protection*. The policies and procedures related to wetlands emphasize: exploring all practical alternatives to building on, or otherwise affecting, wetlands; reducing impacts to wetlands whenever possible; and providing direct compensation for any unavoidable wetland impact by restoring degraded or destroyed wetlands on other NPS properties.

The purpose of this Statement of Findings (SOF) is to present the NPS rationale for its proposed plan to construct portions of the C-Camp facilities project in the wetland area. This SOF also documents the anticipated effects on these resources.

## WETLANDS WITHIN THE PROJECT AREA

Wetland boundaries were identified in the field by NPS personnel (Carwile and Rice) in September 2005, transcribed onto air photos and converted to a GIS layer to determine wetland acreage. Of the 4.6 acres that would be newly disturbed by the proposed action, 0.7 acres

(Figure 2-4) were classified as wetlands under the "Classification of Wetlands and Deepwater Habitats of the United States," the Cowardin Classification System (Cowardin et al. 1979), and are therefore subject to NPS wetlands compliance procedures. Of the 4.6 acres that would be newly disturbed, 3.9 acres are upland, as evidenced by the white spruce associations, the lack of hydrologic indicators, and the presence of well-draining soils.

The 0.7 acres of wetlands located within the proposed project area are classified as palustrine forested, needle-leaved evergreen, saturated wetlands – PF04B. The PF04B wetlands have been further divided into W-1 and W-2 regimes (Figure 2-4). The wetter W-2 regime shows vegetation adapted to soils significantly colder during the growing season. W-2 regime soils also showed significantly more gleying, and investigation holes dug in September filled with water. Holes dug in the W-1 wetlands were wet at the bottom but did not fill with water.

These wetlands provide habitat for small mammals, such as red squirrels, snowshoe hares, and porcupine; bird species, including gray jays, robins, thrushes, sparrows, and warblers. Moose frequent the area for forage, and it is considered potential moose calving area.

The major plant species on the wetland sites include willow spp., including *Salix planifolia*, blueberry, and black spruce-white spruce hybrids. Common ground cover includes feather and sphagnum mosses, leaf lichens, crowberry and a variety of forbs. No threatened or endangered animal or plant species are found in the area and no research or reference sites have been developed in the project area.

There is a water well located above the project area. No water supply points or wells are located downhill between the project site and the park entrance area water supply wells and stream galleries, approximately 7,000 feet away. No floods are known from the site, as forests and open wetlands cover most of the adjacent land and gravelly layers which absorb the rainfall are below the surface soils. The wetlands function to attenuate snow melt surface flow during break-up and discharge during heavy rain events.

The wetland type described above is common throughout the eastern areas of Denali National Park and Preserve. The park has determined that the potential wetlands located at the project site are a relatively minor part of the fringe of large acreages of wetlands, are locally common, and that removing the wetlands would have a minor impact on surface water quality, including sediment control and water purification, animal habitat, and cultural resources.

## THE PROPOSAL IN RELATION TO WETLANDS

The proposal and alternatives are described in detail in the project EA.

The construction of a new ESB and related facilities would impact a maximum of 0.7 acres of wetlands. The extent of disturbance is shown on Figure 2-4. Most of the wetland disturbance would be to allow a new parallel access road. This new access road would re-define the east edge of the C-Camp development area.

In addition to constructing up-to-date facilities for emergency operations, ranger operations and fire management operations, a major purpose of the project is to separate, as much as possible, the heavy maintenance functions located in the C-Camp area since 1975, and expanding ever since, from the housing function located on the site since 1938. The new access road would help to isolate the employee housing area from heavy vehicular traffic.

Part of the expansion into wetlands would be to provide a convenient but segregated place for vehicle fueling that also does not interfere with vehicular circulation. The new access road would be placed within the (W-1) wetlands, but inside a line parallel to the local drainage where the vegetation, soils and hydrology indicate a significantly wetter regime (W-2).

The wetland soils include up to three feet of colluvium over gravelly glacial till. The construction of the new access road, ESB and related parking would be accomplished by removing the colluvium and replacing it with clean fill on top of the glacial till to the depth necessary to support a paved road for vehicular traffic. Extensions of the Auto Shop pad east into wetlands would only include placing fill on top of the ground.

Discharge of dredged or fill material into jurisdictional wetlands is regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. According to a recent determination by Corps personnel, the project would not affect wetlands under the jurisdiction of the Corps (Don Rice, pers. comm.).

## MITIGATION PROPOSED

Federal and NPS policy is to avoid siting projects in wetlands whenever possible. If circumstances make it impracticable to avoid wetlands, then mitigation of unavoidable impacts must be planned. An NPS wetlands no-net-loss policy requires that wetland losses be compensated for by restoration of wetlands, preferably of comparable wetland type and function and in the same watershed if possible.

Of the 4.6 acres potentially affected by the proposed action, 0.7 acres are classified as wetlands. This SOF commits to full 2:1 compensation for the 0.7 acres of disturbed wetlands.

### On-Site Rehabilitation

As much as possible, disturbance of wetlands in and around the project area would be avoided. Silt fences would be set up to define construction impact limits. Any areas disturbed by construction activities would be restored to as near natural conditions as possible. Prior to the start of construction activities, the NPS would salvage as much topsoil, organic matter and vegetation as necessary for later use in site revegetation or for use in revegetating other local sites. Salvaged material would be stockpiled separately and would be placed in the disturbed areas following construction.

Off-Site Compensation (Wetland Restoration)

Compensation, by restoration of previously disturbed degraded wetlands, is required under the NPS no-net-loss policy for projects involving disturbance or loss of wetlands. Compensation will occur for the loss of 0.7 acres of palustrine forested wetland. Two-for-one compensation will be completed within the park, rather than 1:1, because some of the wetland types being lost are different from the types being restored. In addition to removing trail use from 6,300 feet of PFO4B wetlands along the Triple Lakes Trail in the entrance area, a riverine and palustrine wetland in the Kantishna Hills region will be restored at a 2:1 compensation rate. It is anticipated that the wetland functions and values lost at the project site will be balanced by those functions and values regained at a restored former placer mine site and former trail. The project site and the Kantishna compensation site are separated by about 65 miles but are both within Denali National Park. They have different wetland values and functions. The wetlands impacted by the project are described above as a PF04B type. The wetlands to be restored at the Kantishna compensation site are described below as a R3USJ/PUS1D type.

A Federal Highways Administration-funded project to remove gravel from former placer mined areas in Kantishna (Figure A-1) is scheduled for 2007-2008. Seven-tenths of an acre within the park's Eldorado Creek floodplain has been selected for restoration (Figure A-2) within the scope of this mitigation, for compensation for this C-Camp improvements project. These wetlands are classified as riverine upper perennial unconsolidated shore with intermittent flooding – R3USJ, and palustrine unconsolidated shore cobble gravel seasonally flooded/well-drained – PUS1D. Restoration plans at the Eldorado Creek site include removing and disposing of debris; stabilizing the channel and floodplain; stabilizing the access road; and revegetating the stripped areas. Preliminary work will include water and soil sampling and an engineering survey of the existing stream channel, floodplain and upland topography. Discharge measurements will be collected to aid in stream channel design. Soil sampling will assess the geo-chemistry of the upper watershed, and determine the soil's potential for revegetation efforts. Surveys, both cross-sectional and topographical, will be conducted to supplement site data on the NPS topographic maps. This information will be used to locate and estimate material amounts for use in re-contouring the site and reconstructing the stream channel and floodplain.

Cost estimate for this compensation project is approximately $17,000 per acre, based on an unpublished report, "Cost Estimation for Reclamation, National Park Service, Alaska Regional Office, January 1994." This report reviewed three separate mining reclamation projects that were conducted on abandoned claims in Denali National Park and Preserve.

Stream channel and floodplain restoration will be based on the techniques of the Glen Creek restoration project at Denali. Project design requirements will include a channel capacity for a 1.5-year (bank full) discharge and a floodplain capacity for up to a 100-year discharge. The project design will include the use of bio-revetment, located on meanders, to encourage channel stabilization using natural methods. Brush bars, located in areas of little or no fines, will be employed to dissipate floodwater energy and encourage sediment deposition. Riparian areas will be revegetated with willow cuttings and other appropriate vegetation. Depending on the results from the soils nutrient analysis, fertilizer will be used to ensure a quick start for new vegetation.

Monitoring of the stream channel and riparian areas will occur to determine the success of the reclamation efforts. Vegetation plots and permanently mounted cross-sections will be surveyed and measured again after the first year. Additional seeding and revegetation will occur on areas not vegetated during the first year. It is anticipated that the site will be a functional wetland within 3-5 years after treatment, and will be fully-functioning within 15 years.

The 6,300 feet of Triple Lakes Trail in the PFO4B wetlands will be abandoned and replaced by new trail sections on nearby uplands (Figure A-3). We expect that full recovery of wetland functions will take 10-15 years, by which time local erosion will be negligible, soil moisture retention and vegetation community structure will have been restored.

**ALTERNATIVES CONSIDERED**

Alternative 1 describes the existing conditions, No Action, in the C-Camp area. No additional facilities would be constructed in the C-Camp area but normal activities and operations would continue.

Alternative 2 describes the NPS Preferred Alternative to construct a new C-Camp access road parallel to the existing road and an ESB and related facilities, adversely impacting 0.7 acres of wetlands.

Alternative 3 describes a similar construction project, but no new access road would be built. Heavy vehicular use on the existing access road would continue. Construction of the ESB and related facilities would adversely impact 0.3 acres of wetland.

Alternative 4 describes a similar construction project, but the new access road from the Park Road would enter the C-Camp Auto Shop pad from the east. Construction of the ESB and related facilities would adversely impact 1.2 acres of wetland.

The NPS Preferred Alternative is Alternative 2, the Parallel Access Road Alternative. This has a greater impact to wetlands than the Alternative 1 – the No Action Alternative, or Alternative 3 – the Existing Road Alternative. The reason for selecting Alternative 2, with a greater wetland impact, is that it better serves the purpose and need of the project. These are described in detail in the project environmental assessment, which is incorporated into this Statement of Findings by reference.

Several other alternatives were discussed during the project scoping process but were eliminated from further evaluations. These are briefly explained in the EA.

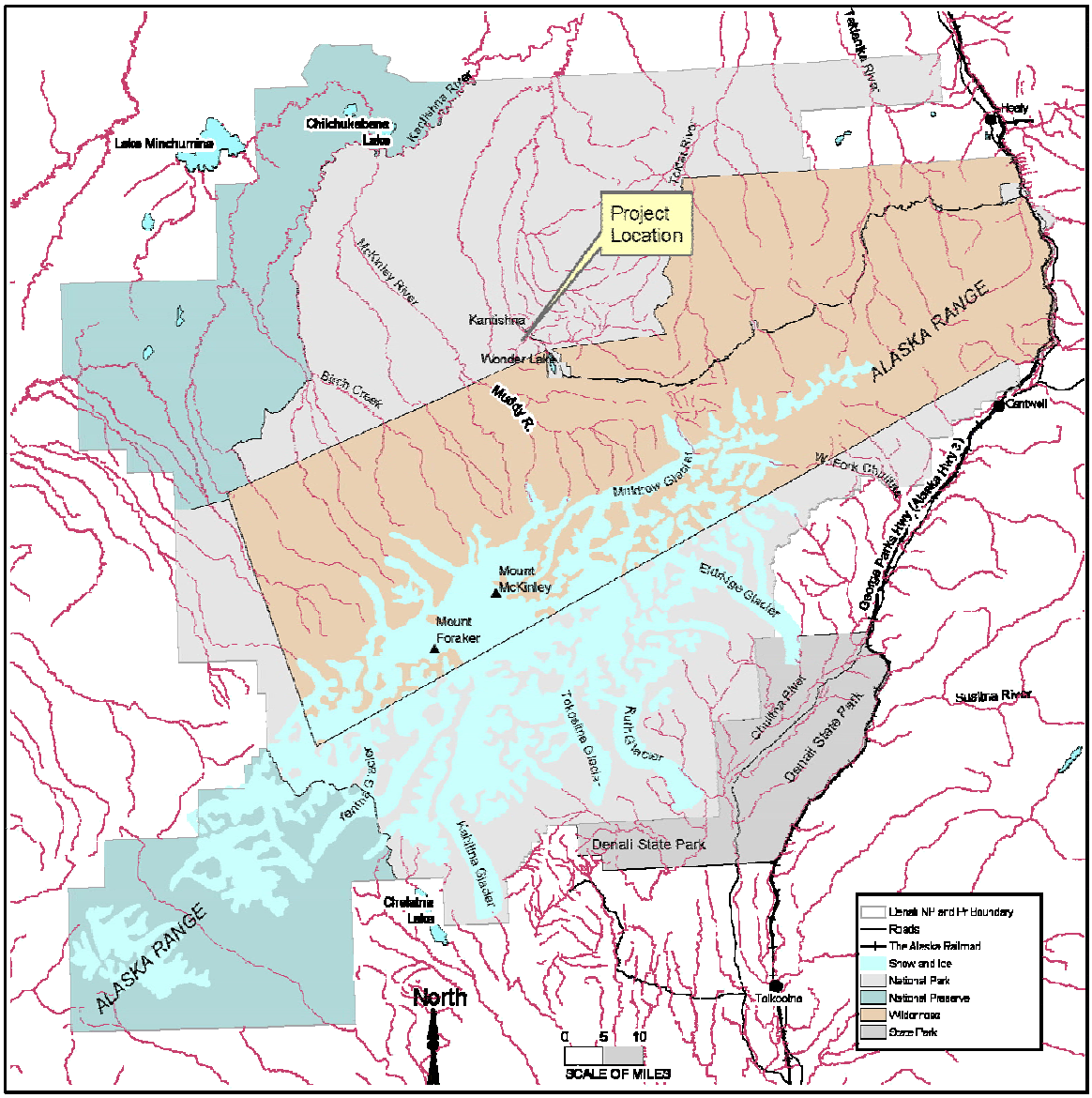


Figure 1
Project Location
**Denali National Park and Preserve**
*U.S. Department of the Interior • National Park Service*

**Figure A-1 – Kantishna Wetlands Compensation Site, General Location**

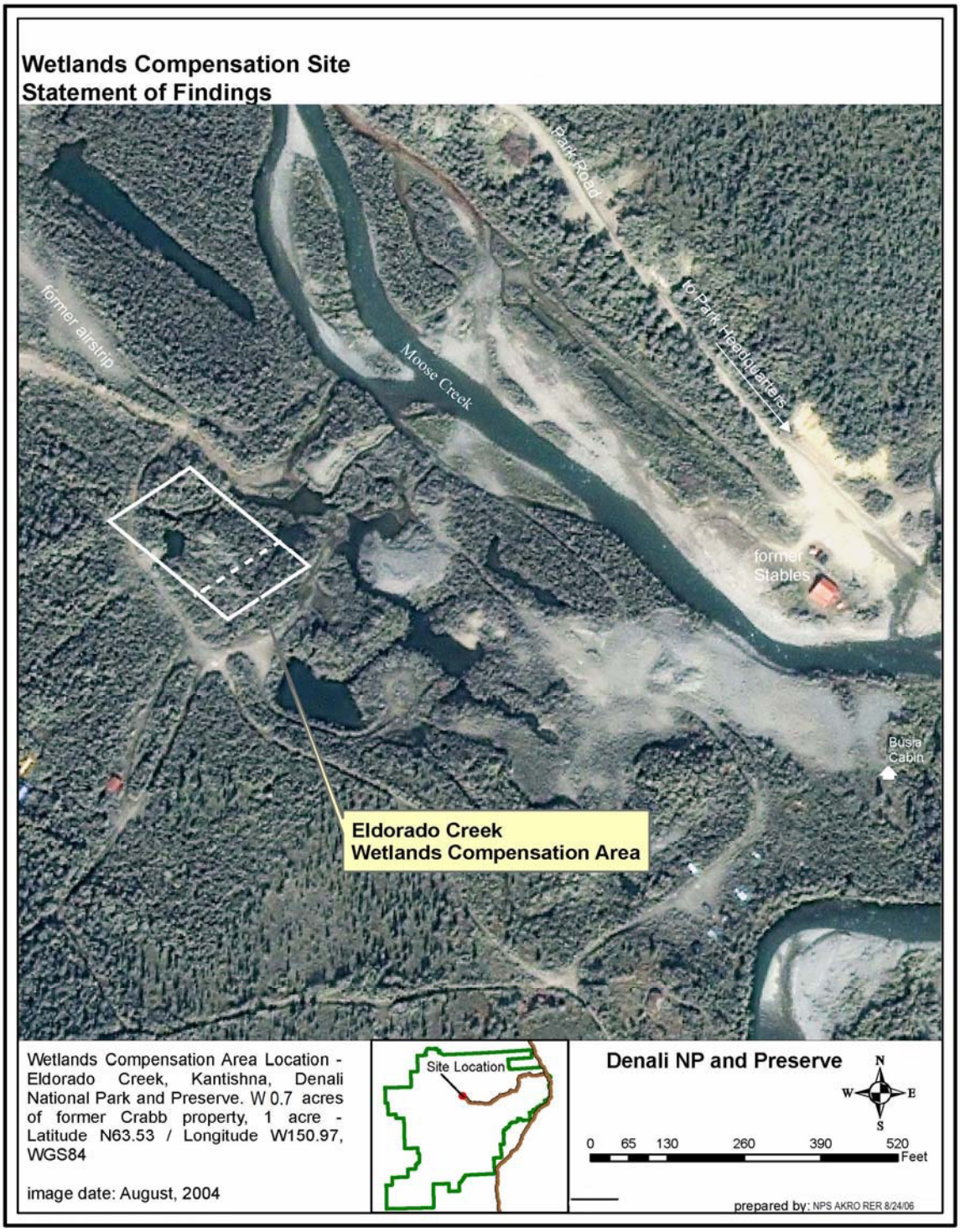



**Figure A-2 – Kantishna Wetlands Compensation Site**
The northwest portion of the block shown is the 0.7 acre compensation site.

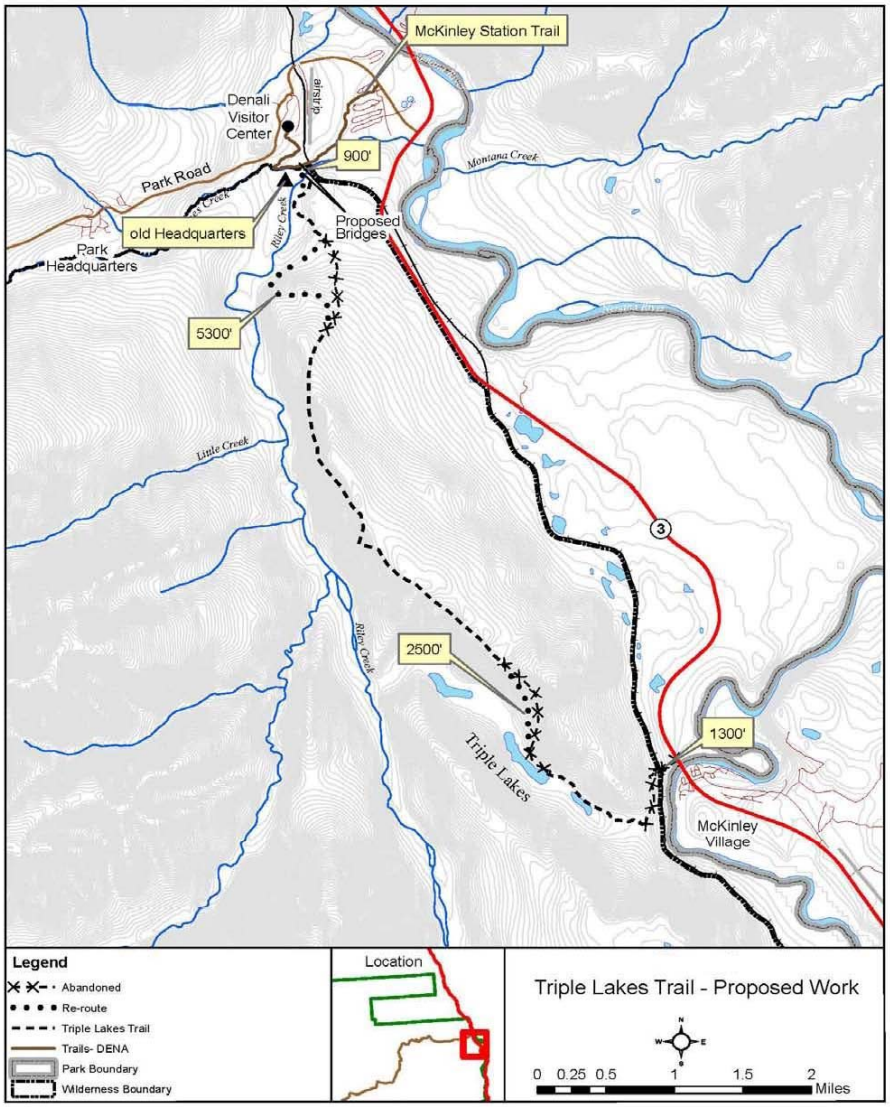



**Figure A-3 – Triple Lakes Trail Wetlands Compensation Site**
The sections of abandoned trail shown make up the 0.7 acre compensation site.

## SUMMARY OF ENVIRONMENTAL CONSEQUENCES ASSOCIATED WITH THE PROPOSED ACTION

The potential environmental consequences of the proposed action and alternatives are fully described in the EA.

## CONCLUSION

The NPS concludes that there are no practicable alternatives to disturbing 0.7 acres of wetlands and building facilities within wetlands for the construction of an ESB and related facilities, and for other facilities that contribute to an enhanced separation of the maintenance and administrative function from the employee housing function within C-Camp, including a new access road, Auto Shop pad expansion, a new fueling facility and related utility upgrades. Wetlands would be avoided to the maximum extent practicable. The wetland impacts that could not be avoided would be minimized. The NPS acknowledges that some natural localized wetlands processes would be lost by the C-Camp Improvements project. Impacts on the 0.7 acres of wetlands would be compensated for, on a minimum 2-for-1 acreage basis, by restoring riverine and palustrine wetland habitat and associated riparian habitat, in the Kantishna Hills region of the park (formerly a placer-mined stream and riparian habitat) and the Triple Lakes Trail compensation site. The NPS finds that this project is consistent with the Procedural Manual #77-1, *Wetland Protection*, 2003 and with NPS Director's Order #77-1, *Wetland Protection*. The NPS finds that this project is in compliance with Executive Order 11990, *Wetland Management*.