Finding Of No Significant Impact
Walker Lake Retaining Wall Removal Project
Gates of the Arctic National Park and Preserve

The National Park Service (NPS) has prepared an environmental assessment (EA) on the removal of approximately 25 meters of retaining wall located on the southeast side of Walker Lake within designated wilderness of Gates of the Arctic National Park and Preserve. The wall contains approximately 75 55-gallon drums filled with boulders and includes an outer wall of boulders and concrete around the drums. After consideration of the two environmentally preferred alternatives (Alternatives 2 & 4), the NPS has determined that Alternative 4 can be implemented with no significant adverse effect to the natural or cultural resources as documented by the EA.

Alternative 4 was selected in favor of Alternative 2 to eliminate the minor discharge of rock and cement material into Walker Lake. Alternative 4 includes breaking up the rock wall barrier and drums and placing the cement material and rock on land. All concrete and some of the rock material will be placed on the cut slope behind the retaining wall. Some of the rocks will be placed along the beach to approximate the natural shoreline to minimize further soil erosion. Metal drums will be transported to Bettles for disposal. This alternative requires two phases.

Phase I (Dismantle Retaining Wall): The concrete/rock wall and drum barrier will be broken up with a combination of hand (sledge hammers and pry bars) and motorized tools. An area of approximately 0.5 meters by 15 meters of vegetation (7.5 m^2) would be removed from the top of the rock wall. About 28,000 pounds of material would be placed on the cut slope above the high water mark. Cement material will be strategically placed on the bottom of the pile, with rocks and soil on top to minimize the visual impacts of the natural surrounding. The drums would be cut to smaller pieces, flattened with hammers and banded together for easier handling. A total of 75 drums would be transported to Bettles via aircraft (Beaver) for disposal. Four round trips would be required to transport all metal drum pieces.

A crew of six people would work 10-12 days during Phase 1. A field camp with two or three tents would be set up on the level pad once occupied by an outbuilding above the existing cabin. Two or three staff could stay in the existing cabin, which would also serve as the mess hall for the crew.

Phase II (Natural Reclamation of the Site). After removal of the retaining wall, rocks would be moved strategically to approximate the natural contour of the shoreline. Large rocks and boulders would be placed on site to help stabilize the shoreline from surf erosion. The site would be allowed to reclaim by natural processes.

The purpose of removing the retaining wall is to restore the wilderness character of the Walker Lake area and allow for primitive and unconfined recreation without the sight of man's presence in designated wilderness. In accordance with the Wilderness Act the removal of the retaining structure will restore the area's wilderness character. Removing the retaining wall will allow natural processes to restore the shoreline function of Walker Lake and over time return the shoreline to natural conditions.

The NPS acquired the 5-acre Walker Lake property in 1988 and removed the lodge as per the purchase agreement. The retaining wall is one of two structures remaining on site. The retaining wall, constructed in 1974, has adversely affected the wilderness values, natural lakeshore, and natural ecological processes along Walker Lake.

Public Involvement

The EA had a 30-day public comment period beginning April 16, 2002 and ending May 16, 2002. Public notice of the availability of the EA was published in the Fairbanks Daily News Miner. The EA was mailed to 18 agencies, organizations, and individuals. Two comments were received from the public. One comment opposed demolition of the wall. The other comment, from the State of Alaska, suggests the disposal of the concrete material on uplands. This is in alignment with the environmentally preferred alternative (Alternative 4).

Alternatives

The EA evaluated a no-action alternative and two action alternatives in addition to Alternative 4.

Alternative 1: No Action. The retaining wall would not be dismantled under the no-action alternative and would be allowed to degrade naturally. The wall structure would likely take a long period of time to be reclaimed by natural processes.

Alternative 2: Dismantle Retaining Wall & Dispose of Concrete/Rocks in Lake. This alternative would involve breaking up the rock wall barrier and drums with hand tools, and where necessary motorized tools. All concrete material and rocks would be placed on the cut slope behind the retaining wall for later disposal in the Lake. Metal drums would be transported to Bettles for disposal. In late spring, two snowmachines would transport concrete material and rocks onto the lake ice where spring thaw would drop materials into the bottom of the lake.

Alternative 3: Partially Dismantle Retaining Wall and Dispose of Concrete/Rocks in Lake. This alternative requires removing the rock wall barrier and first row of drums with hand tools, and where necessary motorized tools. Rocks would be replaced to cover the second row of drums. All concrete material would be stockpiled for later disposal in the lake.

Mitigating Measures

Mitigation to be taken in conjunction with implementing the Alternative 4 include:

- Enclosing the work area with a silt fence to minimize siltation during wall removal.

Environmentally Preferred Alternatives

Alternative 2 and Alternative 4 are both environmentally preferable alternatives. Each alternative would remove the concrete/rock wall and drum barrier to restore the wilderness character of the Walker Lake area and allow for primitive and unconfined recreation without the sight of man's presence in designated wilderness. Removing the retaining wall under both alternatives would allow natural processes to restore the shoreline function of Walker Lake and over time return the shoreline to natural conditions. Each alternative would store the concrete material in different locations in the area. The placement of the concrete material in the lake or on land above the high water line would have little impact on resources in the area.

Environmental Consequences of the Alternative 4

As documented in the EA, the NPS has determined that Alternative 4 can be implemented with no significant adverse effect to natural resources. As stated in the EA, a U.S. Corp of Engineers, Nationwide Permit #18 applies to the action of the removal of the retaining wall. The general conditions of the Nationwide Permit for the removal of the retaining wall, among other issues, addresses the proper maintenance of the site for

public safety, soil erosion and sediment controls. Appropriate measures will be taken to minimize the environmental effects of this alternative. The environmental effects of this alternative are summarized below.

Water Resources: While the retaining wall is being dismantled (10 to 12 days) a small amount of localized turbidity will be expected to occur in Walker Lake around the project site. Localized increases in turbidity and sedimentation caused by runoff of disturbed mineral soil during rainy periods will also be expected events. As the exposed beach environment stabilizes, sedimentation and turbidity will cease.

Lakeshore Processes: The removal of the retaining wall will allow natural lakeshore processes to be reestablished. Wave action would gradually displace and sort the sand and fine gravel to approximate the natural contour of the beach along the rest of the lakeshore. The replacement of rocks and boulders along the lake shoreline would assist in the formation of a cobble beach environment.

Natural Soundscape: The natural soundscape of the area would be affected by noise associated with dismantling the retaining wall and sounds generated from aircraft. Noise from dismantling the wall will be heard for up to 12 days.

Vegetation: Retaining wall demolition will remove about 7.5 square meters of vegetation (alders and willow) growing on the top of the wall. Removal of this small amount of vegetation will have a negligible effect on this plant community since alder and willow are common in the area.

Fishery Resources: Short-term localized increases in turbidity adjacent to the project site will have negligible effect on fish in the lake. Individual fish in the area will be able to temporarily relocate into other parts of the lake since the lake has fairly homogenous fish habitat. Turbidity plumes will be expected to quickly dissipate.

Wildlife: Retaining wall demolition and camp activities will temporarily displace resident wildlife. Resident wildlife could include caribou, moose, brown bear, ravens, falcons, eagles, songbirds, snowshoe hares, fox, voles, and shrews. The area of disturbance will be small and the expected number of animals potentially affected will be low. Wildlife will be disturbed and most likely move out of the area temporarily. Disturbance will be expected for about 12 days. It is expected that any displaced wildlife will be able to find similar habitat in the near vicinity until they return after the work is completed. Adequate habitat is available in the area for displaced wildlife.

Visual Quality: Initially, the presence of the work camp, actual removal of the retaining wall, and stockpile of concrete material in the cut area will degrade the visual quality of the area in the short term. Cement material will be strategically placed on the bottom of the pile, with rocks and soil on top to minimize the visual impacts of the natural surrounding on the cut slope. Removal of the rusting barrels and concrete/rock barrier will improve the shoreline landscape creating a more natural setting. The placement of rocks and boulders to recreate the natural contour of the shoreline and the natural reclamation of the site will greatly improve the visual quality of the area.

Recreation/Visitor Use: The activities associated with the removal of the retaining wall will not affect visitor use of the area. However, visitors would clearly be able to see and hear the sounds of wall demolition and aircraft activity. The sights and sounds of the project could diminish the quality of a visitor's experience. The number of visitors affected will be limited since wall removal would be scheduled for 12 days during the low visitor-use season.

Wilderness: Walker Lake is within nationally designated wilderness. The removal of the retaining wall will temporarily disturb the wilderness experience of visitors to the park, detracting from the overall wilderness

value. The sights and sounds of man will be readily apparent to visitors during demolition activities. Except for the stockpile of cement material and rocks on the cut slope, restoration of the site will allow natural features and processes to occur, therefore restoring wilderness character of the area.

Decision

The National Park Service has decided to select Alternative 4, which will dismantle the retaining wall and stockpile the cement material and rocks on land.

Rationale for the Decision

Removal of the retaining wall and replacement of rocks and boulders to recreate the natural contour of the shoreline will allow natural processes to restore the shoreline function of Walker Lake and over time return the shoreline to natural conditions. Retaining wall removal will restore the wilderness character of the Walker Lake area and allow for primitive and unconfined recreation without the sight of man's presence in designated wilderness. Land disposal of the cured cement was selected over Lake Disposal to eliminate the minor discharge of cement material into the water. The cement and rock pile will be covered with the soil from the existing retaining wall. Visual quality of the area may be effected on the cut slope above the site. Eventually, the area will be overgrown with willow and alder, minimizing the view of the cement and rock pile.

As indicated above, the adverse impacts of the retaining wall removal will primarily be of a short-term nature and occur at the time of demolition. Positive benefits will accrue as natural processes restore the site. The levels of impacts to park resources anticipated from the environmentally preferred 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 environmentally preferred alternative complies with the Endangered Species Act, the National Historic Preservation Act, and Executive Orders 11988 and 11990. There will be no significant restriction of subsistence activities as documented by the Alaska National Interest Lands Conservation Act, Title VIII, Section 810 (a) Summary Evaluation and Findings.

I find that the environmentally preferred 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 will not be prepared for the project.

Recommended: _____ July 2, 2002
Superintendent, Gates of the Arctic National Park and Preserve — Date

Approved: _____ July 10, 2002
NPS, Regional Director, Alaska — Date

Errata
Walker Lake Retaining Wall Removal Project
Environmental Assessment
Gates of the Arctic National Park and Preserve
July2, 2002

NPS RESPONSE TO SUBSTANTIVE PUBLIC COMMENTS

A 30-day public comment period was provided for Gates of the Arctic National Park and Preserve's *Walker Lake Retaining Wall Removal Project Environmental Assessment* (EA). The comment period began April 16, 2002, and ended May 16, 2002. Two comments were received from the public. One comment opposed demolition of the wall. The other comment, from the State of Alaska, suggests the disposal of the concrete material uplands. This is in alignment with the environmentally preferred alternative (Alternative 4).

Substantive comments (sometimes paraphrased) and NPS responses are provided below. Substantive comments are those which modify the existing alternatives, propose new alternatives not previously considered, supplement, improve, or modify the impact analysis, or make factual corrections. None of these comments changed the EA's conclusions about the effect of the original proposed action (alternative 2) or alternative 4.

State of Alaska

Comment 1: The Service should have, and must still apply for a, state permit to alter state land and dispose of waste materials in a state-owned navigable waterway.

Response 1: This project occurs on National Park Service lands. The selected alternative does not dispose of material in the lake.

Comment 2: While we do not necessarily take issue with the conclusion in the ANILCA Section 810 analysis, we find that the analysis lacks documentation.

Response 2: The Walker Lake area has had historic use by the Kobuk River Inupiat Eskimos, Koyukon Indians and Nunamiut Eskimos. Historically, the extreme upper course of the Kobuk River and Walker Lake itself lies within Koyukon Athapaskan territory, while Eskimos lived along the lower river. Throughout the past several thousands of years, and probably in historic times as well, Walker Lake was in a boundary zone, utilized by both Athapaskans and Eskimos[1]. Archaeological studies indicate use of the Lower Walker Lake as early as 2,000 years ago. Recent use of the upper stretch of the Kobuk River was documented by Lt. John C. Cantwell's expedition in 1884. Cantwell[2] found a fish camp actively used at the mouth of Selby River, roughly 60 river miles from the Walker Lake outlet. Cantwell noted that no villages were located further up the Kobuk than this location. Lt. George M. Stoney, made a winter reconnaissance through the Kobuk River in 1885. Cantwell and Stoney were probably the first and last white men to see this type of a traditional, seasonally oriented native village prior to the on-set of strong non-native cultural influences[3]. There may be some contemporary subsistence use of the area, but the Walker Lake region has seen very little use by the native peoples after their settlements on the Kobuk River, Anaktuvuk Pass and Koyukuk River[4].

Incidental use of the area may have occurred sporadically before the park was created[5], but for a variety of reasons the area does not support either a diversity or abundance of natural resources of importance to contemporary resident people. The fisheries resources of the lake are very rarely harvested for subsistence purposes because Walker Lake is not accessible by boat due to the two sets of rapids along the Upper Kobuk River. Winter subsistence activities are minimal to none. Since its establishment in 1980, Gates of the Arctic National Park & Preserve has collaborated with the Alaska Department of Fish and Game and Subsistence Division on a number of contemporary monitoring and research studies documenting subsistence use of the park. The upper Kobuk River and the park resident zone communities of Shungnak and Kobuk have been one of the areas of greatest interest in park Subsistence Resource Commission meetings, and discussions about contemporary patterns of resource use have greatly improved the NPS understanding of key subsistence use areas. With this qualitative information from the communities and year-round ground and aerial monitoring patrols, the NPS is confident that there is little or no contemporary subsistence use of Walker Lake by Kobuk River Inupiat Eskimos, Koyukon Indians and Nunamiut Eskimos[6].

In considering the environmentally preferred alternatives (Alternatives 2 & 4), the EA covers the impacts to the natural or cultural resources adequately. Therefore, the ANILCA Section 810 Evaluation (Appendix B) concludes that Alternative 4 will not result in a significant restriction of subsistence uses.

Comment 3: The State requests the Service to contact DGC or the appropriate state departments to notify them in advance of upcoming projects that may be on state lands and waters or otherwise affect state jurisdictions and authorities.

Response 3: In the original request for the U.S. Army Corp of Engineers (COE) Permit, the Alaska Department of Fish and Game and Department of Natural Resources did not respond to a COE advisory prior to the issuance of the Nationwide Permit Number 18. This permit authorizes the minor discharge (8.43 cubic yards) of dredge or fill material into all waters of the United States, provided the quantity of discharged material does not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line.

1. Hall, E.S. Phd. 1974. Archeological Investigations in Northwestern Alaska: Summer 1974. Unpublished Report, Department of Anthropology, State University of New York, Brockport.
2. Cantwell, J.C. 1889. A Narrative Account of the Explorations of the Kowak River, Alaska. In M.A. Healey, Report of the Cruise of the Revenue Steamer Corwin in the Arctic Ocean, 1885. Washington: U.S. Revenue Marine.
3. Kunz, M.L., et. al. 1991. Upper Kobuk River Drainage: Cultural Resources Survey and Inventory: Gates of the Arctic National Park & Preserve, Alaska.
4. Wheeler, Polly. Phd. Anthropologist, Fisheries Information Division, United States Fish and Wildlife Service. Fairbanks, Alaska. Personal Communication.
5. Kunz, Michael. Archaeologist, Bureau of Land Management, Fairbanks, Alaska. Personal Communication.
6. Ulvi, Steve. Management Assistant, Yukon-Charley Rivers National Preserve, Gates of the Arctic National Park & Preserve. Personal Communication.