

V. Final Section 4(f)/(U.S.C. 303) Evaluation

Section 4(f) of the U.S. Department of Transportation Act recodified as U.S.C. 303 requires that no Administration approval may be granted for a project using land from a publicly owned park, recreation area, wildlife and waterfowl refuge, or any significant historic site unless there are no prudent and feasible alternatives

This project would involve property from the Long Lake State Recreational Site (SRS) (Figures 9, 10-1, and 10-2). At the Long Lake SRS, Section 4(f) property involves a concurrent federal requirement, Section 6(f) of the Land and Water Conservation Fund Act (L&WCF). Section 6(f) involvement mandates land replacement of equal value, location and usefulness for highway projects when the property involved has been purchased or improved with L&WCF funds.

Site Description

The Long Lake SRS is located 38 miles north of Palmer, MP 85 of the Glenn Highway. Established in 1972, this 480-acre park is under the jurisdiction of the Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation (DPOR). The park was established on either side of the Glenn Highway right-of-way.

Wayside facilities are at the west end of the lake and adjacent to the highway, restricted to the immediate vicinity because road access to the park is limited. There are picnic tables, a gravel parking area, privy, and a potable water well. The well was constructed with 1971 L&WCF funding and drilled within the existing highway right-of-way.

Park boundaries encompass Long Lake, which is approximately one mile in length and one quarter mile wide. The DPOR considers the lake a valuable resource; it provides an array of recreational opportunities and habitat for a variety of birds and other wildlife. Popular recreation activities include picnicking, canoeing, grayling fishing, berry picking, hiking, and wildlife viewing. Estimates of park visitors and users are not available.

Abrupt mountainous terrain is the limiting constraint for area development (Figure 10). Steep sidehills with unstable talus slopes exist to the north of Long Lake.

These talus slopes comprise some of the most hazardous rock slide zones of the Glenn Highway.

The existing highway right-of-way traverses the park and is cut into the north sidehill, climbing for a considerable distance with grades exceeding 7 percent. Heavy trucks operate at crawl speeds to overcome the gradients and cause interference with other traffic. Adjacent slopes are 1:1 and 1.5:1 and drop several hundred feet to and from the roadway. The total roadway width is approximately 22 feet. There are no shoulders for emergency pulloffs along this segment of road.

The 10-year accident history for years 1979 through 1989 was checked for the Long Lake hill, MP 85 through 87. Altogether, there were 20 recorded accidents involving 25 vehicles, with 1 fatality and 5 injuries. Five accidents were collisions with another vehicle, 5 were overturns, and 10 were collisions with fixed objects, (i.e., embankments, ditches, rocks).

In some parts of the hill, Jersey barriers are used to help decrease rockfall from reaching the travel lanes. Continued maintenance to clear rocks and boulders from the roadway when combined with winter snow removal substantially hinders travel through the area. Safety is also a concern with maintenance operations as these activities are being conducted in the rockfall zone.

According to DPOR, even though the SRS was established after the highway, the existing highway alignment affects the quality of the recreational experience at the park. It separates the lake and the large steep cliff, creating a visual scenic detraction, and introduces traffic noise particularly on the west end of the lake where the wayside is located.

A traffic noise analysis was completed using the FHWA Highway Traffic Noise Prediction Nomograph (Hard Site) Model. The analysis was based on existing and design year (2015) peak hour highway traffic (Appendix B) and utilizes average speed, estimated number of vehicles according to vehicle type, and receiver distance from the highway centerline. The nomograph does not account for surface terrain variations. According to the study results, the existing noise level at the boat launch, 150 feet from the centerline, is 60 dBA.

Although highway traffic is not heavy and is not expected to increase substantially, commercial trucks comprise 19 percent of the total vehicle volume. Loudness of

traffic noise increases with the greater numbers of trucks. Conditions such as the steep grades along the 8,500-foot length of the Long Lake hill cause heavy laboring of motor vehicle engines, or the use of jake brakes to slow descending vehicles. At a distance of 50 feet, trucks typically emit noise levels ranging between 82 and 94 dBA. The park wayside is immediately adjacent to the highway. While these occasions of truck noise exist, they do not affect the weighted hourly results of the noise prediction model.

In 1989 and 1990, field crews from the Office of History and Archaeology (OHA) conducted cultural resources reconnaissance surveys. Altogether, seven archaeological sites in the Long Lake District (ANC-017, ANC-731, ANC-732, ANC-736, ANC-737, and ANC-739) and the Pinochle Hill area (ANC-735) were identified as being within or adjacent to the proposed right-of-way. Archaeological data is not included in this public document because of the resource sensitivity. These archaeological resources are important primarily for potential data recovery.

Four sites, ANC-017, ANC-732, ANC-736, and ANC-737, appear to be eligible for the NRHP under Criterion "D"; these sites "may be likely to yield information important to prehistory or history" (36 CFR 60.4)." The State Historic Preservation Officer (SHPO) has determined that previous area development activities had disturbed sites ANC-731, ANC-735, and ANC-739, destroying their integrity.

There are no comprehensive plans for the park, however, three **Conceptual Park Development and Management Scenarios** drafted by DPOR are shown in Appendix D. In the future, DPOR intends to expand park boundaries south to the Matanuska River. A brief description of the park development scenarios follows.

Concept A1: The park boundaries would be expanded with the Glenn Highway on the existing alignment.

Parking facilities would remain at the current wayside site to provide for a proposed trailhead to Bonnie Lake. The picnic facilities and boat launch would be relocated to the south side of Long Lake and additional parking provided. Private inholdings would be acquired and used as the site of a proposed rangers headquarters.

On the western park perimeter, a campground with tent sites and parking for recreation vehicles would be developed along a ridge overlooking the Matanuska

River. Road construction would be required to access these sites. Additional trails would be developed to the ridge and river areas.

This park concept is not preferred by DPOR. Future park management and development options would be restricted, mostly to the immediate lake vicinity, and would probably not occur because of limited DPOR funding. High costs to construct access roads into the park are prohibitive with DPOR's anticipated budget.

Concept A2: ~~The park boundaries would remain the same with the Glenn Highway on the existing alignment.~~

The boat launch and parking facilities would be relocated to the south side of Long Lake. A campground with tent sites would be constructed farther east. Road construction would be required to access these facilities. Additional trails would be developed along the lake and south to the ridge and river areas.

Road conditions and impacts, and limited DPOR funding constraints, previously discussed in Concept A1 would remain. There would be little potential for DPOR to develop this park into a recreational destination point. This park concept is not preferred by DPOR.

Concept B: The park boundaries would be expanded and the Glenn Highway realigned south of Long Lake.

A proposed trailhead to Bonnie Lake would be developed at the existing wayside. The boat launch would remain at the site. Portions of the old highway would be converted into a recreational trail and additional parking facilities. On the eastern perimeter of the park, the roadbed would be dead-ended near Wiener Lake with a trailhead, parking area, scenic overlook, and picnic facilities. Wiener Lake is stocked by the Alaska Department of Fish and Game (ADF&G) and fishing opportunities could be optimized.

The existing picnic facilities would be relocated to the south side of Long Lake and additional parking provided. Private inholdings would be acquired for the site of a proposed rangers headquarters. Additional trails would be developed to the ridge and river areas. Along the highway realignment, a Matanuska River trailhead parking facility is proposed. Two pedestrian underpasses are included where the

highway would traverse proposed recreation trails. On the western park perimeter, a remote campground with tent sites would be developed along a ridge overlooking the Matanuska River.

It is DPOR's intent to develop this preferred park concept into their long term comprehensive plans because of the potential future economic and social benefits. The new highway to the south side of Long Lake would provide improved public access and create a more pleasant recreational setting for persons using the SRS.

Section 4(f) Impacts

As discussed in the Alternatives Section of the Environmental Assessment (EA), four alternatives were evaluated in the Long Lake vicinity. Only Alternative 2, the proposed realignment, was determined to be feasible and prudent. The No-Build Alternative and Alternatives 1 and 3 would avoid use of Section 4(f) property but were deemed not practicable for the reasons evaluated in the Alternatives Section and in the subsequent Section 4(f) Avoidance Alternatives Section.

The preferred Alternative 2 would establish a new transportation corridor along an existing utility road on the south side of Long Lake, then continue along lower lying areas of undeveloped parkland. Access would be provided to the existing park wayside. Total surface width of the roadway would be 40 feet: two 12-foot lanes and two 8-foot shoulders. Where needed, a 12-foot climbing lane with a 4-foot outer shoulder would be provided (Figures 2, 3-49 and 3-10).

The highway would be moved from the exposed location on the cliff and be located approximately 550 feet south of the existing boat launch and park facilities. Vegetation and terrain would provide screening between the highway and the wayside and lake. Assuming the same speeds of the existing traffic, results of the prediction models indicate that for year 2015 there would be a 4 dBA reduction in noise levels at the boat launch which is discernible to the human ear. This is 6 dBA less than that predicted for the No-Build Alternative or Alternative 1.

Truck traffic noise at the wayside and on Long Lake would be reduced for three primary reasons: 1) the park facility and the lake would be separated from the highway by a buffer zone; 2) noise would be absorbed in the lower elevation valley corridors by vegetation and no longer be reflected off steep cliff walls onto the lake; and 3) the reduced grades, which would not exceed 3.5 percent through the

park, would lessen the need for the heavy laboring of motor vehicle engines or the use of jake brakes.

Section 106 Coordination with SHPO and the Advisory Council on Historic Preservation (ACHP) determined that the project as proposed would have no effect on ANC-017 and ANC-732; and would have no adverse effect through data recovery [36 CFR 800.9(c)(1)] on ANC-736 and ANC-737. Although site ANC-732 is within the proposed right-of-way, it is outside the cut/fill limits. The site would be staked and avoided by all mechanized equipment during construction. According to 23 CFR 771.135(g), Section 4(f) requirements do not apply to archaeological resources that are important for potential prehistoric/historic information when data recovery is proposed.

The proposed data recovery/mitigation will be fully developed and coordinated with SHPO and ACHP when the Design Phase is completed, and implemented prior to and in coordination with those project activities that could disturb archaeological resources. Refer to Appendix E for guidance which was developed for the excavation strategy of sites ANC-736 and ANC-737. Should any other archaeological, historic, architectural, and/or cultural resources be identified during the construction of the project, all work which would impact these resources would be halted and SHPO would be contacted immediately.

Impacts to wildlife resulting from construction of the proposed project would include a minor loss of habitat. A known concentration of moose is around the east side of Long Lake, within the Long Lake SRS. This area is within the 1962 fire burn of approximately 1000 acres (Jack Louis, Bureau of Land Management) and is in early stages of forest succession. The proposed realignment borders the identified 1962 fire burn but does encroach wetlands east of the Long Lake SRS that provide moose habitat. This habitat is not unique to the area. The Alaska Department of Fish and Game (ADF&G) Habitat Maps (1985) show winter range moose distribution throughout the project corridor. To identify any critical moose crossing zones within the proposed realignment, a Reimbursable Services Agreement (RSA) will be developed with ADF&G (refer to Section M, Wildlife Impacts).

A bird survey was conducted by the U.S. Fish and Wildlife Service (USF&WS) and Department staff in wetlands along the proposed Long Lake realignment in July of 1992. Birds were not present at the wetlands, but chickadees, juncos, and thrushes were seen in surrounding woodlands and an eagle was perched in a tree overlooking

Long Lake. The USF&WS concluded that snipes, a migratory bird that lives chiefly in marshes and having general distribution, probably inhabited the wetland areas. No unique bird or mammal species or unusual concentration of other animals were observed during the survey.

This action would require the placement of approximately 14,400 cy in 1.25 acres of palustrine wetlands within the park. Avoidance of these wetlands is not possible because of the severe terrain. The types of wetlands impacted by the proposal are widespread throughout the vicinity and region are not of particularly high functional value (refer to the Only Practicable Alternative Finding, Appendix G).

Approximately 43 acres would be required from the park for right-of-way. About 66 acres of abandoned highway roadbed and right-of-way would be relinquished to DPOR: 41 acres within park boundaries and 25 acres east of the park. Portions of the old roadway would be converted into a recreation trail. In abandoned roadbed areas away from the cliff, natural conditions would be restored.

Construction activities could result in temporary degradation of air and water quality, temporary increases in noise levels, and temporary visual impacts.

Secondary impacts could result from the construction of this project. It is DPOR's intent to develop the preferred Conceptual Park Development and Management Scenario B, which is based on the proposed realignment, into their long term comprehensive plans. As proposed, development of Concept B may affect identified archaeological sites, wetlands, and wildlife habitat.

Avoidance Alternatives

Three alternatives evaluated within the Alternatives Section of the EA avoided using Section 4(f) property but were deemed not practicable: The No-Build Alternative and Alternatives 1 and 3.

The No-Build Alternative would not meet the purpose and need of the project. It is DPOR's opinion that the existing alignment affects the quality of the recreational experience, especially on users of Long Lake.

The highway separates Long Lake and a large steep cliff to the north, the two primary natural features of the park. The road segment is highly visible along the

cliff, ascending to the highest elevations within the park, creating a visual scenic detractor for those using the park. The steep terrain and talus slopes restrict development of pulloffs along the cliff, and limits scenic viewing opportunities for travelers. The highway and through traffic would continue to be adjacent to the existing public use area and the lake, an area which lacks natural screening buffers. Noise analysis for year 2015 indicates that traffic noise levels at the boat launch would increase by 2 dBA. Loud truck noise would remain, especially at the west end of Long Lake.

The issue of safety is the major consideration for abandoning the No-Build Alternative on Long Lake hill. For the most part, this concern results from rock slides onto the roadway, compounded by excessive grades and effects on heavy trucks to climb the steep grades.

Alternative 1 would upgrade the existing alignment but not alleviate the severe erosion conditions nor the excessive grades of the Long Lake hill. As previously described, reconstruction of the existing highway alignment would affect the quality of the recreational experience at the Long Lake SRS.

A 48-foot wide roadway surface is required for the hill segment: two 12-foot travel lanes and a 12-foot climbing lane; an 8-foot inner shoulder and a 4-foot outer shoulder. Sheet pile retaining walls would be constructed along the 8,500-foot length beginning at the Long Lake SRS wayside (Appendix D).

Roadway improvements along the hillside would require additional road cuts into the unstable slopes, thus aggravating an already serious erosion condition. Construction activities would result in temporary disruption of traffic flow. The presence of the widened roadway and retaining walls would present an additional visual intrusion along the cliff for those using the park. The barriers needed to redirect errant vehicles would affect scenic viewing from the roadway. As with the No-Build Alternative, the issue of safety along the hill would remain. Based on the above, this alternative was eliminated from further consideration.

Alternative 3 would be a realignment through presently undisturbed areas south of the existing Long Lake SRS. There would not be any Section 4(f) property involvement, providing the corridor was established prior to park expansion. The terrain is mountainous and abrupt. Excessive earthwork would be required to negotiate the high ridges and deep ravines. A cost effective and feasible roadway

corridor to the south of the Long Lake SRS could not be defined. Based upon these factors, this alternative has been eliminated from further consideration.

Minimization

To reduce proposed Alternative 2 realignment impacts to the Long Lake SRS, the facility would be designed to minimize right-of-way requirements. The southern shift would reduce truck noise at the existing wayside facilities and provide opportunity to develop pullouts, trailheads, interpretive and camping sites, etc. Clearing would be kept to a minimum and all erodible slopes revegetated.

The following measures are proposed to minimize the impacts of the proposed action on the Park, corresponding with DPOR's Concept B:

1. Replace the 43 acres of parkland that would be converted to transportation use with approximately 66 acres of excess existing right-of-way. Upon final appraisal, if the fair market value of the converted land does not equal or exceed the value of the replacement parcels, then additional replacement land will be provided.
2. Rehabilitate the abandoned roadway segment: a) remove existing pavement; b) reduce the width of the travelled way to provide a 12-foot wide gravel trail and service vehicle access; c) remove existing roadway culverts and construct low swales through the embankment to allow water drainage; d) construct a wide ditch on the uphill side of the embankment to contain errant rocks; e) revegetate disturbed areas, with the exception of rock faces; and f) provide a park gate at each trailhead.
3. Construct two arch pedestrian tubes at highway crossings of proposed park trails (refer to Appendix D, Concept B).
4. Construct two gravel parking lot pads and approaches: one for a proposed picnic area and one for a proposed trailhead (refer to Appendix D, Concept B). Each parking facility would provide spaces for 15 vehicles.
5. Construct a turnaround and trailhead parking where the roadbed dead-ends near Weiner Lake, using a site that offers a good vantage point.

Section 6(f) Conversion

As required by Section 6(f) of L&WCF, substitution of other property of at least equal fair market value and of reasonably equivalent recreation usefulness and location will be provided to DPOR to replace the land converted from park use by the proposal. The Department proposes to replace the converted land with the existing highway right-of-way to be abandoned. The DPOR has also identified in-holdings within the present park boundaries which may be suitable replacement parcels.

A preliminary "opinion of value" of the existing highway right-of-way, which is proposed as the replacement parcel and the potential conversion parcel, is included within Appendix D. An appraisal, meeting the requirements of Section 6(f), will be conducted on replacement and conversion parcels during the Design Phase of the project after the Federal Highway Administration grants authority to appraise and acquire.

If the appraisal indicates that the replacement parcel(s) is not of at least fair market value and of reasonably equivalent recreation usefulness and location, then additional replacement property will have to be identified and provided.

Coordination

The proposed action and associated Section 4(f) and Section 6(f) properties involvement was coordinated with DPOR, the National Park Service (NPS), and the U.S. Department of the Interior (DOI). The DPOR supports the project and developed conceptual plans for the Long Lake SRS (Appendix D) to coordinate pullouts for trailheads and scenic views, and accesses to existing and proposed recreation facilities. A Memorandum of Agreement (MOA) was developed to formalize mitigation commitments and is included within Appendix D.

The Department also coordinated with ADF&G and USF&WS to develop measures to minimize potential impacts to wildlife habitat and wetlands. The DOI had no objection to Section 4(f) approval of the project providing the Section 6(f) and Section 106 Memorandums of Agreement were finalized and that the Department further coordinate with USF&WS for a bird survey to determine the need for any wildlife mitigation (see Appendix I). Coordination with the resource agencies will continue throughout the project.