

**Appendix F –
Draft Section 4(f) Evaluation**

STB Finance Docket No. 34658
Decision ID No. 40111

Alaska Railroad Corporation Construction and Operation of a Rail Line between North Pole and
Delta Junction, Alaska

Draft Section 4(f) Evaluation

Submitted Pursuant to 49 U.S.C. 303 by the

U.S. Department of Transportation

Federal Transit Administration *and* Federal Railroad Administration
(Lead Agencies for the Preparation of the Section 4(f) Evaluation)

and

Surface Transportation Board (Lead Agency for the Preparation of the EIS)

U.S. Department of Defense Alaskan Command, Bureau of Land Management, U.S. Air Force
354th Fighter Wing Command from Eielson AFB, U.S. Army Corps of Engineers,
U.S. Coast Guard, Alaska Department of Natural Resources

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F. Draft Section 4(f) Evaluation

The U.S. Department of Transportation (USDOT) regulation known as “Section 4(f)” does not apply to Surface Transportation Board (STB or the Board) actions. However, it does apply to the proposed Northern Rail Extension (NRE) through the involvement of the Federal Railroad Administration (FRA) and the Federal Transit Administration (FTA).¹ FRA is administering grant funding to the Alaska Railroad Corporation (ARRC or the Applicant) for NRE preliminary engineering and environmental analysis. FRA could also provide funding for rail line construction and would enforce rail safety regulations on the operating rail line. FTA is involved because of the project’s passenger rail component and could fund equipment purchases and maintenance of the rail line for passenger rail service. ARRC intends to apply for FTA grant funds related to the passenger component of the proposed NRE.

Section 4(f) was originally established in the U.S. Department of Transportation Act of 1966 [49 United States Code (U.S.C.) Section 1653(f) and later recodified as 49 U.S.C. 303]. In 2005, Congress enacted legislation that required the USDOT to issue additional regulations that clarify Section 4(f) standards and procedures. These new regulations were finalized in March, 2008, at 23 Code of Federal Regulations (CFR) 774. Section 4(f) mandates that the Secretary of Transportation shall not approve any transportation project requiring the use of publicly owned parks, recreation areas or wildlife and waterfowl refuges, or significant historic sites, regardless of ownership, unless:

- There is no prudent and feasible alternative to using that land.
- The program or project includes all possible planning to minimize harm to the public park, recreation area, wildlife or waterfowl refuge, or significant site, resulting from that use.

To be protected under Section 4(f), public parks and recreation facilities must be considered “significant” (USDOT, 2005). Historic sites qualifying for Section 4(f) protection must be officially listed on, or eligible for inclusion on the *National Register of Historic Places*, or contribute to a historic district that is eligible for or listed on the National Register.

A “use” of properties protected under Section 4(f) occurs under either of the following conditions (23 CFR 771.135(p)):

- When land from a qualifying 4(f) property is acquired and permanently incorporated into a transportation facility.
- When there is a temporary occupancy of 4(f) land during construction of the transportation facility that is considered adverse to the preservationist purposes of the Section 4(f) statute.

In addition, a “constructive use” may occur when no land is acquired from a Section 4(f) property but the proximity of the project results in indirect impacts which would “substantially impair” the current use of the property such as visual, noise, or vibration impacts, or impairment of property access.

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2003: A Legacy for Users (SAFETEA-LU), amended existing Section 4(f) legislation to simplify the

¹ The lead agency for the Northern Rail Extension is the STB. FRA and FTA are cooperating agencies in the Environmental Impact Statement (EIS) process. Section 4(f) does not apply to the STB, so the FRA and FTA act as lead agencies in regard to the Section 4(f) analysis. The FRA has decided it is appropriate to defer finalization and signature of the 4(f) statement until a FRA Record of Decision approving any program or project related to the proposed Northern Rail Extension.

processing and approval of projects that have only *de minimis* impacts on resources protected by Section 4(f). A *de minimis* finding refers to a finding with little or no influence to the activities, features, and/or attributes of the Section 4(f) resource. This revision provides that once USDOT determines that the transportation use of any Section 4(f) property would result in a *de minimis* impact on that property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete for that resource.

A finding of *de minimis* impact on a historic site may be made when:

- The process required by Section 106 of the National Historic Preservation Act of 1966 results in the determination of “no adverse affect” or “no historic properties affected” with the concurrence of the State Historic Preservation Office (SHPO) if participating in the Section 106 consultation.
- SHPO is informed of the lead agency’s intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination.
- The lead agency has considered the view of any consulting parties participating in the Section 106 consultation.

Transportation project use of a park, recreation area, or wildlife and waterfowl refuge that qualifies for Section 4(f) protection may be determined to be *de minimis* if the following criteria are met:

- The transportation use of the Section 4(f) resource, together with any avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).
- The official(s) with jurisdiction over the property are informed of the lead agency’s intent to make the *de minimis* finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).
- The public has been afforded an opportunity to review and comment on the impacts of the project on the protected activities, features, and attributes of the Section 4(f) resource.

Table F-1 summarizes the Section 4(f) uses by alternative segment. The table lists only the alternative segments that could impact Section 4(f) resources, and includes the No-Action Alternative for comparison.

F.1 Purpose and Need

The Applicant has stated that the purpose of the project is to provide freight and passenger rail service to the region south of North Pole, Alaska, including the Tanana Flats and Donnelly Training Areas and the area of Delta Junction, Alaska. According to the Applicant, the proposed NRE would provide an alternative to Richardson Highway for commercial freight service for businesses, military, and communities in or near the rail line, including existing industries in the

Table F-1
Section 4(f) Property Resources Summary

	No-Action Alternative	North Common Segment	Eielson Alternative Segment 1	Eielson Alternative Segment 2	Eielson Alternative Segment 3	Salcha Alternative Segment 2
Recreation Resources						
Chena River Lakes Flood Control Project Flood Management Units I2 and I4		X				
Salcha School Grounds and Salcha Ski Area						X
Cultural Resources						
Two archaeological sites within Salcha Alternative Segment 2 Area of Potential Effects						X

agricultural, mining, and petrochemical sectors in the Delta Junction region; and a transportation alternative to Richardson Highway for individuals traveling between Fairbanks and Delta Junction. Proposed passenger service could also support area tourism and provide an opportunity for tourists to travel by rail beyond the existing Fairbanks terminal to a proposed passenger facility at Delta Junction. At present, U.S. Army and U.S. Air Force ground access to the Tanana Flats and Donnelly Training Areas on the southwestern side of the Tanana River and the west side of the Delta River is limited to winter months by way of ice bridges. The construction of a combined road-rail bridge over the Tanana River for the rail line would provide the Army and the Air Force dependable year-round ground access to these training areas.

Any full combination of the alternative segments would meet the project purpose and need.

F.2 Proposed Action and Alternatives

The proposed NRE would involve construction of an approximately 80-mile rail line extension from the existing Eielson Branch. The Eielson Branch runs from Fairbanks, Alaska, through the community of North Pole to the Eielson Air Force Base (AFB). The proposed extension would begin at Milepost 20.18 of the Eielson Branch (Milepost 0 for the Northern Rail Extension) at the east end of the Chena River Overflow Bridge, just south of the community of North Pole, and extend to the southern side of the community of Delta Junction. ARRC would also construct a dual-modal bridge over the Tanana River that would be capable of supporting both rail and vehicular traffic.

Construction activities would include railbed construction, which would require clearing, excavating earth and rock on previously undisturbed lands, and removing and stockpiling topsoil where needed. Construction would require both cuts and fills. Suitable material excavated from cuts would be used as fill material in other areas. The railbed would form the base upon which the ballast, concrete rail ties, and rail would be laid.

The alternative segments are the outcome of an extensive alternatives analysis process that began in 2005 when ARRC presented potential alignments for NRE. Since that time, ARRC refined and evaluated potential routes both internally and through a public outreach and consultation process. The Board's Section of Environmental Analysis (SEA) alternative development process started in 2006 with ARRC's Alternatives Analysis Study, and continued until July 2007 when ARRC filed a petition with STB to construct and operate a new rail line extension.

ARRC used existing topographic and other data in the early phases of alignment development and analysis, which occurred in three general phases. In Phase 1 (Study Area Identification), ARRC identified the general study area within which the rail line extension could be developed and potential points for bridging the Tanana River and several representative routes.

In Phase 2 (Corridor Development), ARRC performed a preliminary screening of the representative routes and Tanana River crossing locations identified in Phase 1 to eliminate any alignment segment with fatal flaws before continuing with alignment segment development. This involved technical and practical considerations including natural barriers such as rivers and topography; engineering design; cost-effectiveness; geological considerations; and general land use patterns.

Phase 3 (Corridor Analysis) involved a qualitative comparison of the relative advantages and disadvantages of various alignment segments. ARRC based the evaluation of each alignment

segment's relative merits primarily on engineering and environmental considerations, including issues raised by regulatory or resource agencies or the public during ARRC's agency coordination and public outreach efforts. ARRC eliminated many of the preliminary alignment segments or combined them with other similar alignment segments because they presented no clear advantages over adjacent alignment segments or they had more disadvantages than other alignments.

SEA reviewed the alignment development process during the project scoping period, and requested refinements to alignment segments based on public comment and consultation with cooperating agencies. Both SEA and the cooperating agencies utilized the purpose and need factor (as described in Section F.1) to review ARRC's initial alignments. Through this review, SEA and the cooperating agencies selected a set of reasonable alternatives to study in detail in the Environmental Impact Statement (EIS), and to eliminate alternatives and alternative segments from detailed study. SEA and the cooperating agencies eliminated from detailed study alternative segments that did not meet fundamental components of the purpose and need, would lead to substantially greater adverse environmental impacts, or that featured insurmountable construction and/or operations limitations. Section F.5 describes consideration of alternatives under Section 4(f) criteria.

Chapter 2 and Appendix D of the Draft EIS summarize the alignment segment development process and alternatives analyzed and eliminated from detailed study. There is no option for the Board to authorize an individual alternative segment; the Board would only authorize a complete route from North Pole to Delta Junction, which would be comprised of a combination of the alternative segments under consideration.

F.3 Section 4(f) Property Description

A publicly owned park, recreation area or wildlife and waterfowl refuge must be a "significant" resource for Section 4(f) to apply. Pursuant to 23 CFR 771.135(c), Section 4(f) resources are presumed to be significant unless the official having jurisdiction over the site concludes that the entire site is not significant. SEA, on behalf of FRA and FTA, consulted with the agencies with jurisdiction over the Section 4(f) resources. These agencies have commented on the significance of the Section 4(f) resources in question. This Draft Section 4(f) evaluation has been updated since the Draft EIS to reflect agency input and public comments. Based on this consultation and information provided by the agencies with jurisdiction, SEA has removed several preliminarily determined Section 4(f) resources from further consideration because they do not qualify for protection. Sections F.3.1 through F.3.3 describe the remaining Section 4(f) resources SEA retained in this Final EIS.

F.3.1 Parks and Recreation Areas

Since SEA circulated the Draft EIS, the Alaska Department of Natural Resources (ADNR) has determined that it does not consider any of its properties identified as presumed Section 4(f) properties in the Draft EIS as significant recreational resources. Therefore, SEA has eliminated from further consideration ADNR properties (Silver Fox Lodge Trail, Koole Lake Trail, Donnelly-Washburn Trail, ADNR Forestry Winter Road, Rainbow Lake Trail, Phillips Road/Delta Junction Area Trail Network, and Dispersed Use Areas) identified in the Draft EIS as potential Section 4(f) resources (Perrin, 2009). Coordination with the Air Force regarding impacts to Eielson Air Force Base (AFB) revealed Air Force lands on the west side of Richardson Highway, in the vicinity of the Eielson alternative segments are not considered

significant recreational resources and are intended for military use, as opposed to recreational use². Therefore these properties do not qualify for protection under Section 4(f) and SEA has eliminated Eielson Outdoor Recreation Area (ORA) and Twentythreemile Slough Dog Sledding Trails on Air Force land, identified in the Draft EIS as potential Section 4(f) resources, from further consideration.

Two park and recreation resources located in the project area are considered significant recreational resources by the agencies with jurisdiction over these resources and therefore are Section 4(f) resources, as described below.

Chena River Lakes Flood Control Project

Size and Location: The flood control project includes approximately 20,000 acres at the northernmost section of the proposed project area. The North Common Segment would cross portions of this area (Figure F-1).

Ownership³ and Type of Section 4(f) Property: The U.S. Army Corps of Engineers (USACE) owns this parcel. Flood management units I2 and I4 would be considered a direct use of Section 4(f) property.

Function of the Property and Available Activities: The property functions primarily as part of the Chena River Lakes Flood Control Project, and includes portions of the Chena River Floodway and its southern levee. Flood management unit I2 crosses the Diverson Dike Access Road (Chena Flood Road) and is managed to provide public recreation access to Piledriver Slough and the Tanana River and low density uses including canoeing, wildlife viewing and fishing. Flood management unit I4 does not maintain a permanent pool of water and flooding events in this area are infrequent (the last flooding event that inundated this area occurred in 1992). Flooding events in this area typically cause pool impoundment for a short time. These characteristics allow flood management unit I4 to be used extensively for recreational purposes. Between periods of the year known as “break up to freeze up,” roughly May to September, all lands within the Federal boundary are off limits to motorized vehicles and motorized recreational vehicles. During the remainder of the year, these lands are open and frequented by snowmachiners and some all-terrain-vehicle traffic, dog sledding, skiing, and skijoring. Summer recreational activities in flood management unit I4 include running, walking, and hiking. Hunting for in-season game is allowed in this management unit. Other uses for the management unit include hosting cross-country meets, fun runs, marathons, and access to Piledriver Slough for fishing, hunting, hiking, float trips, and other recreational activities. The floodway accommodates a portion of the Fairbanks North Star Borough (FNSB) proposed 100-Mile Loop Trail, a multi-use public trail comprised of existing and proposed trails and connectors that collectively would provide a continuous recreational trail in proximity to the Cities of Fairbanks and North Pole, Alaska (FNSB, 1985, 2005; USACE, 1989). The proposed NRE would begin just south of the floodway (flood management unit I2), and cross a private road that follows the southern levee toward the Tanana River.

Description of Existing and Planned Uses: The flood control project’s management units I2 and I4, which the proposed NRE would cross along the North Common Alternative Segment, are designated for recreation and wildlife management in the Chena River Lakes Master Plan for Resource Use

² Written confirmation has been requested from the US Air Force, 354th Fighter Wing Command from Eielson Air Force Base.

³ “Ownership” refers to the current owner of the property.

(Schaake, 2008; USACE, 1989). There are no planned additional facilities or improvements for the area.

Access: Access is available from Richardson Highway, Chena Flood Road, and the Chena River Floodway.

Relationship to other Similarly Used Lands in the Vicinity: Nearby ADNR and U.S. military lands provide access to some dispersed recreation activity. There is an area managed for public recreation within Eielson AFB immediately south of the flood control project area (Eielson Outdoor Recreation Area) and dog sledding trails within Piledriver and Twentythreemile Sloughs. These areas provide opportunities for fishing, boating, picnicking, camping, and trails use.

Applicable Clauses Affecting Ownership: There are no known applicable clauses that would affect acquisition of the property.

Unusual Characteristics Reducing or Enhancing the Value of the Property: Flood management unit I4 is adjacent to flood management unit I2, which is adjacent to the Chena River Floodway, subject to emergency flood conditions. According to agency personnel, management unit I4 rarely floods and flood water typically recedes within a few days (Schaake, 2009).

Salcha Elementary School Grounds and Salcha Ski Area

Size and Location: Salcha Alternative Segment 2 would cross the Salcha Elementary School grounds and an adjacent public ski area approximately 1 mile north of the Salcha River (Figures F-2 and F-3). The school and trails are adjacent to Richardson Highway. The school includes recreational features, totaling approximately 0.5 acre. School grounds are open for public use on a first-come, first-served basis any time they are not being used by the school or school district personnel (Vargo, 2008). The ski area includes multi-use trails totaling 9.3 miles, and a start/finish and stadium area just north of the school totals approximately 2.2 acres.

Ownership and Type of Section 4(f) Property: The school, recreation facilities, and ski area are all on land owned by FNSB, Department of Land Management. The ski trail and school grounds would be considered a use of Section 4(f) property.

Function of the Property and Available Activities: The school recreation fields and facilities function to provide physical education opportunities to students of Salcha Elementary School, and for members of the public when not in use for school activities.

Available activities on the school grounds include organized sports such as baseball, soccer and basketball, and a playground area. The Salcha Ski Area trails are multi-use running, hiking, and skiing trails. The Salcha Ski Area also functions to provide recreational opportunities to the general public, and to host competitive events.

Description of Existing and Planned Uses: Existing uses on the school grounds include a ball field, a basketball court, a playground area, several outbuildings that house recreational equipment, a public parking/turnaround area, and the school itself. The ski area includes a large open start/finish and stadium area, several small structures that house recreational equipment, and the multi-use trails. At present, there are no other planned uses for the site.

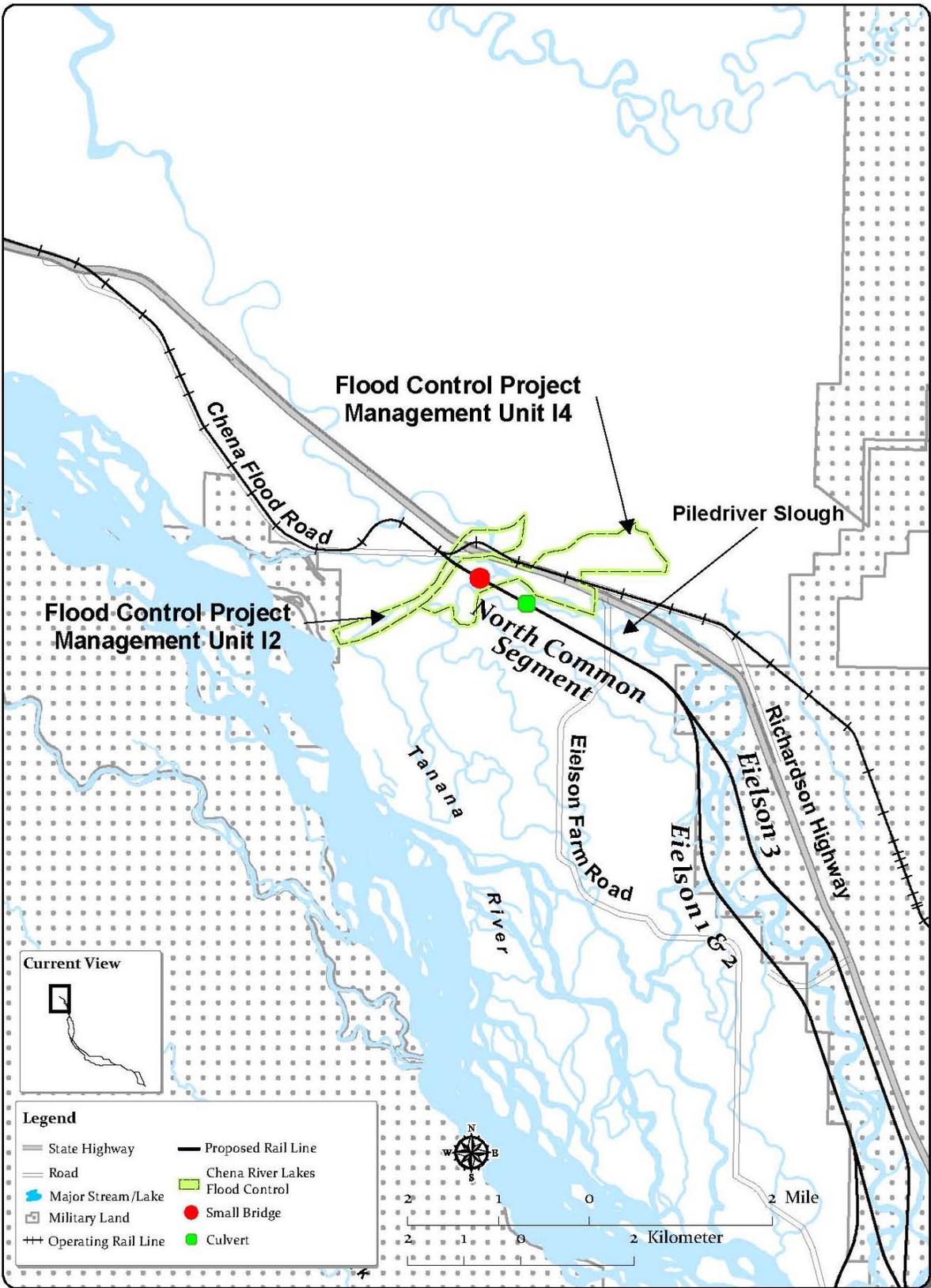


Figure F-1 – Park and Recreational Facilities along North Common Alternative Segment

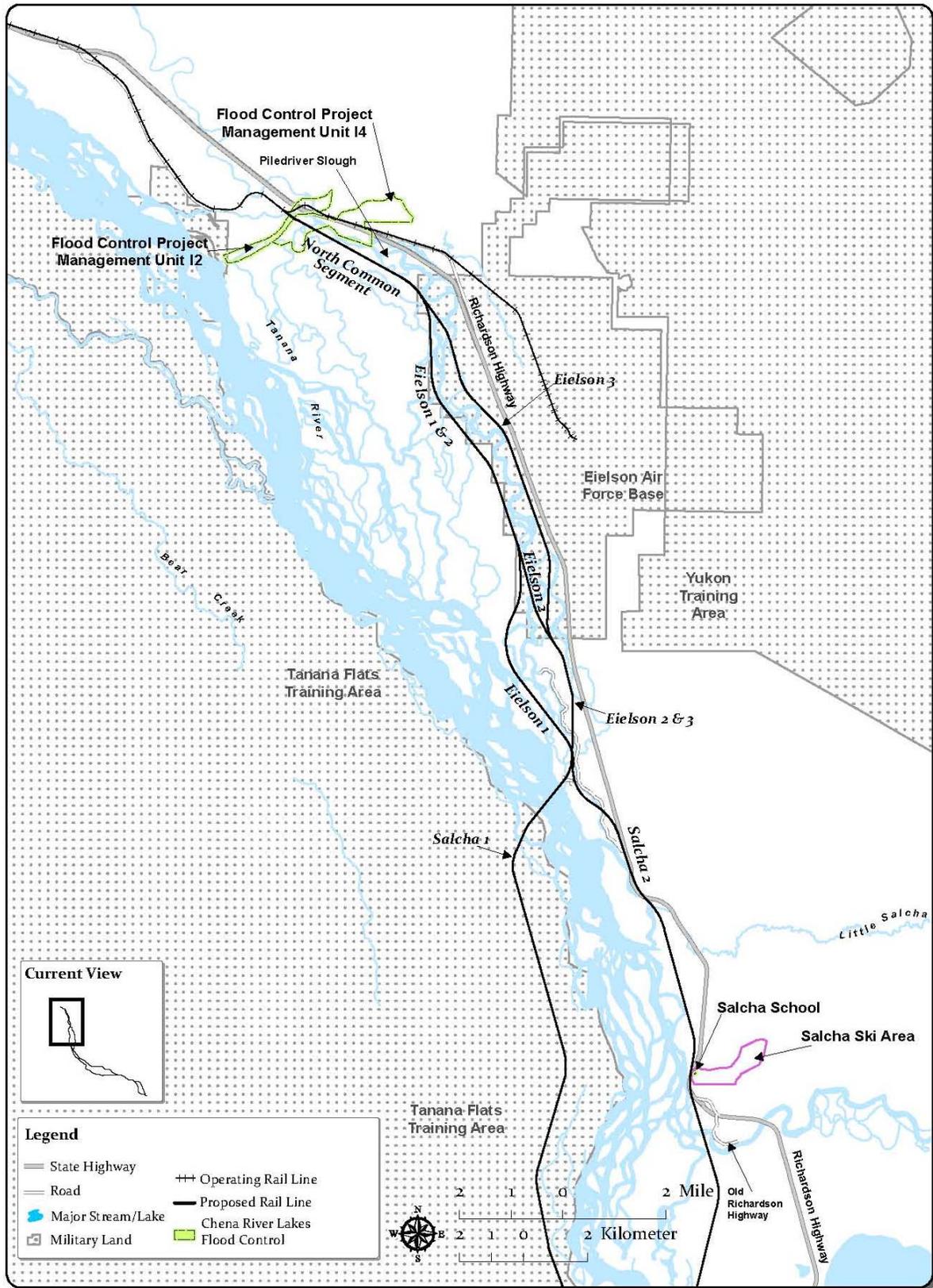


Figure F-2 – Map of Recreational Facilities along the North Common and Salcha Alternative Segments

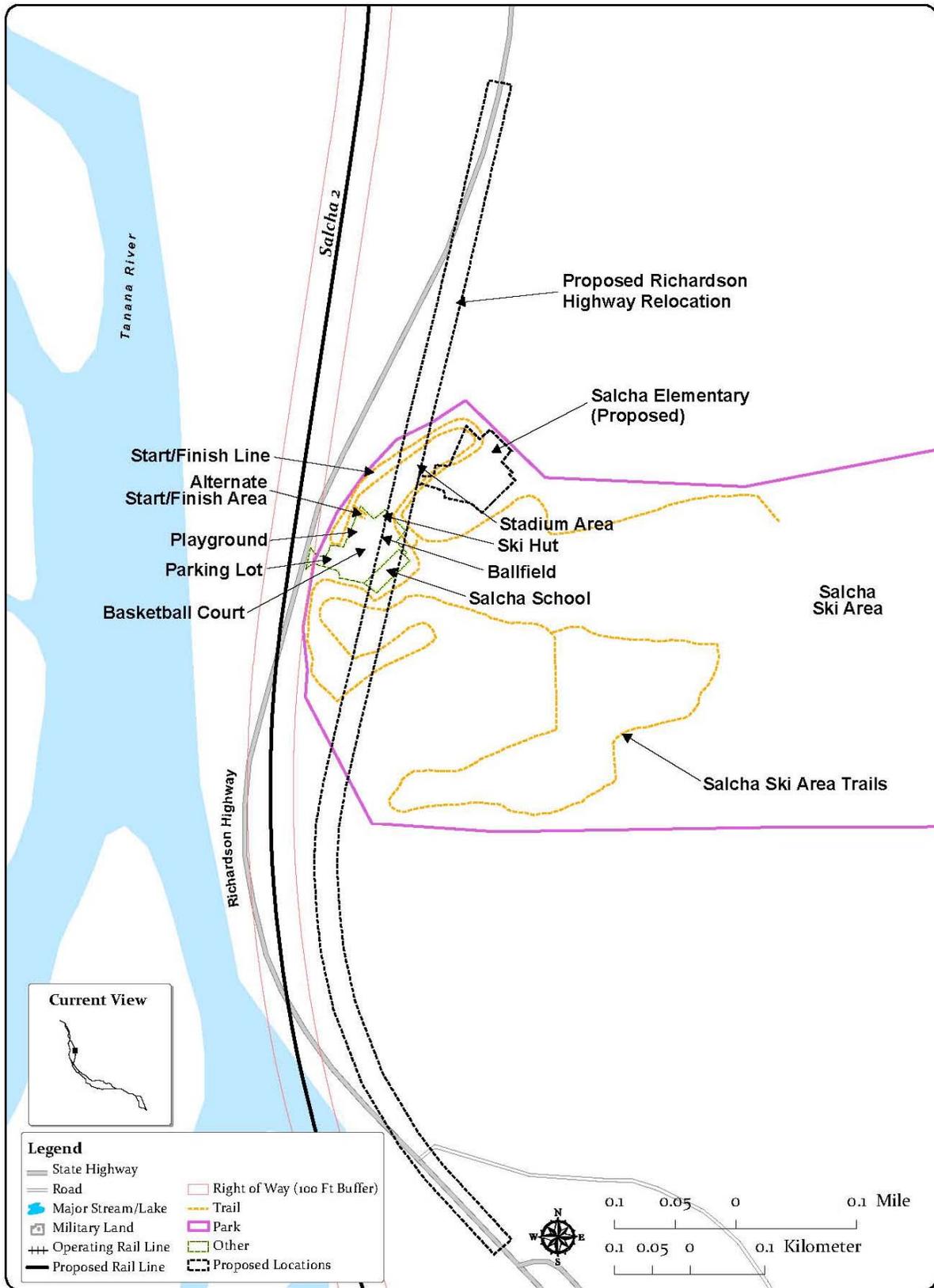


Figure F-3 - Map of the Salcha Elementary School Grounds and Skiing Area

Access: The school grounds and ski area are readily accessible from Richardson Highway. The general public uses the school parking lot to access the ski area.

Relationship to other Similarly Used Lands in the Vicinity: There is a system of multi-use trails near Eielson AFB to the north; however, these are used primarily for dog sledding. FNSB maintains a groomed trail system at Birch Hill Recreation Area north of Fairbanks; this site is approximately 35 miles north of Salcha School.

Applicable Clauses Affecting Ownership: The Salcha Ski Area is recognized in the FNSB Comprehensive Recreational Trails Plan.

Unusual Characteristics Reducing or Enhancing the Value of the Property: The school and trail system have no known unusual characteristics.

F.3.2 Wildlife and Waterfowl Refuges

The proposed NRE would not affect any wildlife or waterfowl refuge; therefore, no Section 4(f) analysis is required for this type of resource.

F.3.3 Cultural Resource Areas

Cultural resources known to exist from previous surveys and historic documentation were reviewed for their proximity to the Area of Potential Effects (APE). The area was also surveyed for cultural resources, using a site location model to guide the survey methods used. Areas determined to be of high potential for the discovery of archaeological resources were examined with subsurface testing, and determinations of eligibility for inclusion on the National Register were made for identified resources. Chapter 6 of the Draft EIS provides a full description of cultural resources findings and the analysis process.

Surveys for the proposed NRE identified 51 archaeological sites that are considered eligible for the inclusion on the National Register under Criterion D, for their potential to yield information important to history or prehistory. In the case of archaeological sites, Section 4(f) applies to sites on or eligible for inclusion on the National Register and that warrant preservation in place. It does not apply to sites that are eligible only for their research potential. Three sites were identified in or near the APE that might be eligible under criteria A and B, and that could warrant preservation in place (sites XBD-293, XBD-294, and XBD-295). All three sites are along Salcha Alternative Segment 2. More information is needed to complete a determination of eligibility for these sites, but they are treated here, based on preliminary determinations, as if they are eligible for protection under Section 4(f).

Salcha Alternative Segment 2 Area of Potential Effect

Size and Location: Two historic archaeological sites have been identified within the APE associated with Salchaket Village. Site size has not been fully determined, because archaeological surveys were limited. The Salchaket Village site is near the mouth of the Salcha River.

Ownership and Type of Section 4(f) Property: Property along Salcha Alternative Segment 2 includes land owned by the ADNR, FNSB, the University of Alaska, the Alaska State Mental Health Trust, and private owners. The historic sites associated with Salchaket Village require further analysis to fully determine eligibility, but would likely qualify for inclusion on the National Register under Criteria A, B, and D. Criterion A includes resources associated with significant events in history; Criterion B includes resources associated with the lives of persons

significant in the past. The proposed rail lines' potential impact on these sites would be considered a direct use of Section 4(f) properties.

Function of the Property and Available Activities: The Tanana Basin Area Plan designates land near the mouth of the Salcha River primarily for wildlife habitat and secondarily for public recreation. A wide variety of activities may occur on these lands.

Description of Existing and Planned Uses: Salcha Alternative Segment 2 would lie in areas having high potential for both prehistoric and historic sites. There are no known planned additional recreational facilities or improvements for these areas.

Access: Access is available to this area via Richardson Highway and secondary roads near the Town of Salcha.

Relationship to other Similarly Used Lands in the Vicinity: Five other cultural resources (two prehistoric and three historic) are known to be within 0.25 mile (1,312 feet) of the APE.

Applicable Clauses Affecting Ownership: There are no known applicable clauses that would affect the property to be acquired.

Unusual Characteristics Reducing or Enhancing the Value of the Property: The property has no known unusual characteristics.

F.4 Impacts to Section 4(f) Resources

Impacts to Section 4(f) resources were evaluated for each proposed alternative segment. This section describes the potential impacts to park and recreation areas and cultural resources as a result of the proposed project.

F.4.1 Parks and Recreation Areas

Chena River Lakes Flood Control Project

North Common Segment would track in a southeasterly direction across this area, affecting approximately 14.3 acres within the Chena River Lakes Flood Control Project, flood management units I2 and I4. In addition, the Applicant might acquire a construction staging area near the existing Eielson Branch and North Common Alternative Segment, within flood management unit I4, to store material and otherwise support rail line construction activities. The staging area would cover approximately 140 acres south of the Chena Overflow Bridge and would have road access to Richardson Highway and the existing Eielson Branch rail line.

Construction would result in a temporary suspension of recreational activities and would temporarily affect access along Chena Flood Road. Eielson Farm Road is just south of flood management units I2 and I4 and is a commonly used access point for the Piledriver Slough Area trails and recreational resources. The Applicant has proposed at-grade crossings of Chena Flood Road and Eielson Farm Road.

Rail line construction and operations would likely result in clearance and maintenance of a 200-foot-wide right-of-way (ROW). The associated vegetation clearance would be a highly visible line of deforestation that could reduce user enjoyment of the area, and could decrease the game productivity if this area is used for hunting. However, analysis of aerial photography shows that the area is already affected by substantial maintained vegetation lines along the flood project, and is also subject to other visual features such as roads, levees, and ARRC's existing Eielson Branch. The visual impact of the new ROW to this recreational area would be consistent with other features that currently make this area uncharacteristic of a natural or wilderness setting.

Based on the analysis of temporary construction impacts and visual impacts, SEA, FTA, and FRA have determined that Chena River Lakes Flood Control Project flood management units I2 and I4 would experience *de minimis* impacts as a result of the proposed NRE. This finding includes measures to minimize harm and mitigate impacts, and other measures that could be developed in consultation with the USACE, as described in Section F.6.

The USACE stated its concurrence with the lead agency's findings of *de minimis* impacts to this resource⁴.

Salcha Elementary School Grounds and Salcha Ski Area

Salcha Alternative Segment 2 construction and operations would require rerouting Richardson Highway through the public school grounds and portions of the ski area and its trails. The proposed rerouting would directly affect the school's outdoor ball field, several outbuildings that house recreation equipment, and the school itself. The rerouted highway would bisect the existing school, and the existing public parking area, basketball court, and playground area. These facilities would likely be moved slightly to the east of the school property.

The highway rerouting would directly affect the start/finish stadium portion of the ski area and several trails, including the Lower Loop and the Fall Loop. The proposed relocation of the school grounds and facilities would subsequently affect another portion of the start/finish stadium area. These actions would require the closure of the stadium area in its current location and prevent access to trails. As noted above, rerouting the highway would affect the school parking area, which also serves the general public to access the ski area. SEA has developed preliminary mitigation measures in the Draft EIS and has included them as recommended measures in this Final EIS. The measures would require the Applicant to consult with FNSB, Department of Land Management, the FNSB School Board, and the Salcha School to develop measures to minimize harm that would include, but not limited to, full relocation and reconstruction of affected recreation facilities, parking lots, and recreation-support facilities of all types for both the school and ski area. These facilities would include the public parking area, playground, ball field, basketball court, start/finish stadium area, Lower Loop trail, Fall Trail, and all support buildings that service school and ski area recreation activities.

SEA, FRA, and FTA consulted with FNSB regarding impacts to the Salcha School grounds and ski areas to determine if measures to minimize harm to recreational uses detailed in SEA's proposed mitigation measures would result in a *de minimis* finding. SEA, on behalf of FRA and FTA, proposed mitigation measures to ensure that once the affected resources were relocated, the outdoor sports activities would be expected to resume to existing levels, and the same number and types of facilities would be relocated without any loss of recreational area or support facilities. As detailed in Section F.6, measures to minimize harm to recreational uses at the school would be developed in consultation with the school, school board, and the FNSB, Department of Land Management.

In a letter dated, June 17, 2009, FNSB, Department of Land Management (included in Appendix C of this Final EIS), indicated the impacts to the Salcha School Grounds and Ski Trails would not be *de minimis* for the following reasons:

1. "The Salcha School, playground and ski trails are inextricably linked together in our eyes and that of the local community. The playground has been there since the school was built. The trails were put in with a lot of volunteer help and are well known as a community asset, linked in functionality and in perception, as part of the Salcha School

⁴ Written concurrence has been requested from the USACE regarding a *de minimis* finding for impacts to recreational flood management units within Chena River Lakes Flood Control Project.

and Community. Reconstructing the school in a new location would separate it from what would be left of the trail system. We believe the Salcha community would vehemently object to such an action.

2. As a practical matter, the trail system cannot be partially relocated or modified without the entire system being re-constructed. To change the configuration by the school changes the mileage of the trails and in order to adapt to this change other loops would have to be added in locations at the far end of the system, not a practical or effective result.”

As a result of consultation with FNSB as the officials with jurisdiction over the resource, SEA, FRA and FTA have determined that the impacts to the Salcha School grounds and ski areas would be a “use” of the resource in the context of Section 4(f). Therefore, FRA and FTA, as USDOT agencies, could not provide funding for any alternative that includes the Salcha Alternative Segment 2 because a feasible and prudent alternative that does not “use” Section 4(f) land, Salcha Alternative Segment 1, exists.

F.4.2 Cultural Resource Areas

Salcha Alternative Segment 2 would affect cultural resource sites that could be protected under Section 4(f). Field investigations could identify additional, as yet undiscovered, archaeological resources that might be eligible for inclusion on the National Register.

Cultural resources can be directly damaged (adversely effected) in a number of ways. Removal of surface artifacts, surface disturbance (resulting in artifact and feature dislocations), subsurface disturbance, and contamination of organic residues, such as hearths and fauna, are major types of direct impacts.

Construction-related direct impacts could result from construction of the main track segments and related facilities. Temporary direct impacts could result from construction camps, construction staging areas, and temporary construction bridges.

Operations impacts would result from replacement/repair of rail components (main track rail, sidings, buildings, bridges, etc.), acquisition of additional borrow materials, possible wrecks or spills from railcars and subsequent clean-up operations, and other activities resulting in ground-disturbing impacts.

Indirect (and cumulative) impacts can be divided into two categories: access-related impacts (including other uses of the proposed NRE access routes) and erosion. With the exception of public and private crossings, access to the proposed NRE ROW and access road would require a permit from ARRC. However, it is likely that there would be some unauthorized use.

Unauthorized uses of the rail line ROW and access road could increase recreational use in this area, such as hunting and hiking and use of off-road vehicles. These activities can lead to increased site vandalism, removal of artifacts, and adverse effects from increased camping. Additionally, construction of the project could alter the watershed and groundwater in the area, leading indirectly to changes in soils and, by extension, artifacts.

F.4.3 Summary of Impacts to Section 4(f) Resources

Table F-2 provides a comparison of impacts to Section 4(f) resources by alternative segment. Effects to trails were measured in linear feet of impact and the number of recreation access route intersections, and impacts to recreation areas was measured by the number of acres affected. Cultural resource areas are presented by the number of confirmed historic sites potentially affected by the project.

F.5 Avoidance Alternatives

SEA, FTA, and FRA have determined through consultation with owning agencies that the proposed rail line would result in *de minimis* impacts to the Chena River Lakes Flood Control Project flood management units I2 and I4; therefore, an analysis of avoidance alternatives is not required in accordance with Section 6009(a) of the SAFETEA-LU.

This section describes avoidance alternatives considered early in the project development process, and potential avoidance techniques applied to the alternative segments considered in detail in the EIS.

All alternative segments considered in this analysis are considered feasible because they could be designed and built. An alternative that is not prudent could be eliminated from consideration for the following reasons:

- It would involve extraordinary operational or safety problems;
- There would be unique problems or truly unusual factors present with it;
- It would result in unacceptable and severe adverse social, economic, or other environmental impacts;
- It would cause extraordinary community disruption;
- It would have additional construction costs of an extraordinary magnitude; or
- There is an accumulation of factors that collectively, rather than individually, would result in adverse impacts that present unique problems or reach extraordinary magnitudes.

**Table F-2
Comparison of Potential Impacts by Alternative Segment**

Alternatives	Uses 4(f) Land? (Resource and Area Impacted)	Relative Net Harm to Section 4(f) Land After Mitigation
No-Action Alternative	No	None
North Common Segment	- Chena River Lakes Flood Control Project, flood management units I2 and I4 (14.3 acres) <i>de minimis</i> impact	Negligible/ <i>de minimis</i>
Eielson Alternative Segments		
Eielson Alternative Segment 1	No	None
Eielson Alternative Segment 2	No	None
Eielson Alternative Segment 3	No	None
Salcha Alternative Segments		
Salcha Alternative Segment 1	No	Feasible and prudent alternative to Salcha Alternative Segment 2, which would be a "use" of Section 4(f) resources.
Salcha Alternative Segment 2	- Salcha School Grounds (0.93 acre) - Salcha Ski Area (3.45 acres and 1,254 feet of trails or 0.24 mile) - Salcha 2 Alignment cultural resource sites (2) within 100 meters of the Area of Potential Effects	Greater than Salcha Alternative Segment 1
Connector A	No	None
Connector B	No	None
Connector C	No	None
Connector D	No	None
Central Alternative Segments		
Central Alternative Segment 1	No	None
Central Alternative Segment 2	No	None
Connector E	No	None
Donnelly Alternative Segments		
Donnelly Alternative Segment 1	No	None
Donnelly Alternative Segment 2	No	None
South Common Segment		
	No	None
Delta Alternative Segments		
Delta Alternative Segment 1	No	None
Delta Alternative Segment 2	No	None

F.5.1 Alternatives Eliminated from Detailed Study

A number of alternatives were considered early in the National Environmental Policy Act process but were eliminated from further consideration. Chapter 2 in the Draft EIS describes the process of narrowing the alternatives, and Table 2-1 in the Draft EIS summarizes the alternatives eliminated from consideration. None of those alternatives would provide a clear advantage under the criteria of Section 4(f) for avoidance or minimization of Section 4(f) uses at the location of the two cultural resource sites associated with Salchaket Village along Salcha Alternative Segment 2.

One of the potential Salcha area alternatives, called N1, would cross the Tanana River and run along the southwestern side of the river. This option would cross too much of the Tanana Flats Training Area, and is not feasible. The alternative known as N3 was an alignment on the eastern side of the river in the Salcha area. This alternative would affect the same Section 4(f) resources as the Salcha Alternative Segment 2, providing no avoidance scenario. Additionally, the alternative would impact 304 acres of wetlands and more directly affect the historic Salchaket Village, which are environmental impacts considered unacceptable. The alternative that suggests the rail alignment cross into the Tanana River channel to bypass Salchaket Village and the Flag Hill area before crossing back to the northeastern bank is not feasible due to the river hydraulics and shifting sands.

F.5.2 Avoidance Techniques by Alternative Segment

North Common Segment

This segment would affect Section 4(f) resources in the Chena River Flood Control Project (flood management units I2 and I4). However, the impact to this Section 4(f) resource would be *de minimis*; therefore, avoidance is not required.

Eielson Alternative Segments

These segments would not affect Section 4(f) resources; therefore, avoidance measures would not be required.

Salcha Alternative Segments

Salcha Alternative Segment 1 would not affect Section 4(f) resources; therefore, avoidance measures would not be required. Salcha Alternative Segment 2 would affect Salcha School grounds and Ski Area Trails, and cultural resource sites. Although the Salcha Alternative 2 ROW and relocation of Richardson Highway would require relocation of the Salcha School and Salcha Ski Area, avoidance would not be possible because the proposed segment would wrap around Salcha Bluff at this location, and topographic considerations dictate that the alternative segment would need to pass through this area to successfully navigate the bluff and the Salcha River to the south. Additionally, rerouting Richardson Highway at the site (where it would directly cross both the school and ski area) would most likely be unavoidable, because the displaced road alternative segment could not shift away from the school to the west due to topography. The precise extent of cultural resource discoveries is not known; therefore site-specific avoidance measures would be determined as part of the Programmatic Agreement (PA).

Connector Segments and Central Alternative Segments

These segments would not affect Section 4(f) resources; therefore, avoidance measures would not be required.

Donnelly Alternative Segments

These alternative segments would not affect Section 4(f) resources; therefore, avoidance measures would not be required.

South Common Segment

This segment would not affect Section 4(f) resources; therefore, avoidance measures would not be required.

Delta Alternative Segments

These alternative segments would not affect Section 4(f) resources; therefore, avoidance measures would not be required.

F.6 Measures to Minimize Harm

SEA has recommended and the Applicant has volunteered certain measures to minimize harm to Section 4(f) resources (see Chapter 2 of this Final EIS). Sections F.6.1 and F.6.2 describe measures to minimize impacts to Section 4(f) resources.

F.6.1 Parks and Recreation Areas

Chena River Lakes Flood Control Project

Several mitigation measures, described in Chapter 2 of this Final EIS, have been volunteered by the Applicant or recommended by SEA to minimize the effects of the proposed rail line, including construction-period impacts (increased noise, dust and visual effects, including presence of construction vehicles and vegetation clearance). Preliminary mitigation measures 55, 64, and 65 in the Draft EIS, which SEA has included with revisions as recommended mitigation measures 56 and 64 in this Final EIS, would require the Applicant to develop a plan to ensure construction activities occur during the most appropriate timeframe, designate temporary access points if main access routes must be obstructed during construction, and consult with the USACE and user groups to limit potential impacts to recreation activities. Preliminary mitigation measure 63 in the Draft EIS, which SEA has included with revisions as recommended mitigation measure 63 in the Final EIS, directs the Applicant, in collaboration with applicable resource management agencies, to provide for trail crossings for Piledriver Slough area trails, among others. Further, best practices for noise and dust control would be implemented during construction as described in ARRC's voluntary mitigation measures VM-26, VM-27, and VM-28 in the Draft EIS, which SEA has included as recommended mitigation measures VM-25, VM-26, and VM-27 in the Final EIS.

Salcha Elementary School and Salcha Ski Area

Several mitigation measures, described in Chapter 2 of this Final EIS, have been volunteered by the Applicant or recommended by SEA to minimize the effects of the proposed rail line to school and ski area recreation facilities, including determination of a construction period with the least disruption possible to school and ski area recreation activities. Preliminary mitigation measure 57 in the Draft EIS, which SEA has included with revisions as recommended mitigation measure 58 in this Final EIS, directs the Applicant to consult with the Alaska Department of Transportation and Public Facilities, FNSB Department of Parks and Recreation and Department of Land Management, FNSB School Board, Salcha School, and the Salcha Ski Club to determine the precise extent of potential effects to the Salcha School and Salcha Ski Area. Mitigation

would include, but is not limited to, full relocation and reconstruction of affected recreation facilities, parking lots, and recreation-support facilities of all types for both the school and ski area. These facilities would include the public parking area, playground, ball field, basketball court, start/finish stadium area, Lower Loop trail, Fall Trail, and all support buildings that service school and ski area recreation activities.

F.6.2 Cultural Resource Areas

Large portions of the Salchaket Village area were not surveyed due to the presence of private property and native allotments. Predictive modeling identified the area as having high probability for prehistoric and historic archaeological resources. This information would be used to guide subsequent field investigations if the STB authorized construction and operation of this segment as a component of any overall route.

If the STB authorized Salcha Alternative Segment 2, future data collection would be necessary to determine National Register eligibility. A comprehensive survey supported with oral history and archival research to situate these resources within the overall context of Salchaket Village is recommended. The two sites identified are likely to be considered eligible under Criteria A, B, and D, but more research is needed to fully assess their significance.

If additional resources were discovered during field investigations, they could be subject to a separate Section 4(f) evaluation, depending on eligibility and other factors. As part of agency coordination, mitigation and/or avoidance measures for each significant site would be developed. Mitigation of adverse effects to significant archaeological sites could include preservation in place, accomplished through avoidance, easements, or protection. When preservation in place would not be feasible, adverse effects to significant archaeological sites generally could be mitigated through data recovery (excavation) of the site's valuable information.

The STB has developed a draft PA for consideration by the Alaska SHPO, the ACHP, and cooperating agencies. If executed, the PA would guide future efforts to identify and evaluate cultural resources, and procedures for avoiding and mitigating impacts. Appendix E of this Final EIS is a copy of the draft PA.

F.7 Coordination

F.7.1 Parks and Recreation Areas

The location and status of recreational features was determined through informal consultation with public land managers and review of land management plans. SEA has conducted informal consultations with the FNSB, ADF&G, ADNR, Alaska State Mental Health Trust Authority, Eielson AFB, Fort Greely, and Fort Wainwright. Discussions included characterization of recreational access and available activities, and possible impacts that would result from selection of various alternative segments. Section 4(f) applicability, impact avoidance, and possible mitigation were subjects of discussion.

Prior to publishing this Final EIS, SEA presented a preliminary determination of Section 4(f) resources and requested that affected agencies provide their formal response to the significance of the resources. ADNR indicated in their letter dated February 17, 2009, that it does not consider "...state trails and lands listed in Table M-1 [of the Draft EIS] to be 4(f) resources as they are not parks or refuges and are managed under the ADNR Tanana Area Basin Area Plan for multiple use, including economic purposes." Further, SEA, on behalf of FRA and FTA, coordinated with the U.S. Army Corps of Engineers (USACE), the FNSB Department of Parks and Recreation and Department of Land Management, and the FNSB School District for

concurrence regarding *de minimis* impacts to Section 4(f) resources. The USACE concurred that the proposed rail line with measures to minimize harm and mitigate the effects would result in *de minimis* impacts to the Chena River Lakes Flood Control Project, flood management units I2 and I4, while the FNSB Department of Parks and Recreation and Department of Land Management, and the FNSB School District determined the effect on the Salcha School grounds and ski trails would constitute a “use” of the resources in the context of Section 4(f). SEA, on behalf of FRA and FTA also coordinated with Eielson AFB regarding the applicability of Section 4(f) to the lands managed as the Eielson Outdoor Recreation Area (ORA) and the portions of the Twentythreemile Slough Dog Sledding Trails within Eielson AFB land. The Air Force indicated these lands, while managed for recreational purposes, are set aside with military use as their primary purpose and not recreation, and do not qualify for protection under Section 4(f) of the USDOT Act⁵. Appendix C of this Final EIS provides copies of the coordination letters.

F.7.2 Cultural Resources

Following consultation with the SHPO and the Bureau of Land Management, SEA surveyed the APE where available for entry (i.e., excluding private and native land) to identify cultural historical resources and characterize the affected environment. By agreement with the above-mentioned parties, SEA focused on identification, and did not conduct systematic excavation to determine site boundaries horizontally. Therefore, systematic survey and testing was shifted to a later phase of the project (i.e., pre-construction surveys).

As part of the Section 106 process, the STB will continue with the consultation process with appropriate regulatory agencies, tribal entities, and affected private parties. Future consultation could involve meetings to determine protocols for assessment and mitigation of cultural resource data, as being formalized in the PA among the SHPO, ACHP, and STB. The PA stipulates specific cultural resource considerations for administration; definitions of terms; tribal consultation; identification and evaluation of historic properties and assessment of adverse effects; treatment of historic properties and human remains; monitoring; curation; annual review and reports; procedures for inadvertent discoveries; training for ARRC employees; procedures for consultation; dispute resolution; procedures for amendment or termination of the PA; failure to carry out the PA; duration; and execution and implementation.

Execution and implementation of the PA would evidence that the STB has satisfied its responsibilities under Section 106 of the National Historic Preservation Act pursuant to 36 CFR 800, and that the state has satisfied responsibilities under the Alaska Historic Preservation Act pursuant to Alaska Statute 41.35. Coordination with the involved parties will be ongoing to determine the proper handling of identified Section 4(f) resources.

F.8 Conclusion

The proposed NRE could affect four potential resources protected under Section 4(f) of the USDOT Act. Two are recreational resources and two are cultural resources. SEA, FTA, and FRA have determined, in coordination with agencies with jurisdiction over the resources that the proposed NRE would result in *de minimis* impacts to the Chena River Lakes Flood Control Project flood management units I2 and I4, and would constitute a “use” of the Salcha School grounds and ski trails. A PA is being developed to guide future efforts to identify and evaluate cultural resources including those that could be protected under Section 4(f), and procedures for avoiding and mitigating impacts. All of the proposed route segments evaluated in the EIS and

⁵ Written confirmation has been requested from the US Air Force, 354th Fighter Wing Command from Eielson Air Force Base.

discussed in this Draft Section 4(f) evaluation are technically feasible to build. Likewise, any combination of the alternative segments between the project's termini of North Pole and Delta Junction satisfy the project's purpose and need. However, because Salcha Alternative Segment 1 is a feasible and prudent alternative to Salcha Alternative Segment 2 and Salcha Alternative Segment 1 would not "use" land from a Section 4(f) resource, FRA and FTA, as USDOT agencies, could not provide funding for an alternative that includes Salcha Alternative Segment 2.

The alternative segments with the least impact to Section 4(f) resources would include North Common Segment, any of the Eielson alternative segments, Salcha Alternative Segment 1, any of the connector segments, either of the Central alternative segments, either Donnelly alternative segment, South Common Segment, and either Delta alternative segment.

Minimization techniques for impacts to Section 4(f) resources would include timing construction to avoid times of heavy trail use, ensuring adequate trail crossings appropriate to the use of the trail, and incorporating best practices for management of dust and noise emissions during construction activities. Implementation of the measures to minimize harm and consultations with the managing agencies for eligible Section 4(f) properties described in Section F.6 would reduce overall impacts to Section 4(f) resources. Mitigation of adverse effects to archaeological sites eligible for protection under Section 4(f) could include preservation in place, accomplished through avoidance, easements, or protection.

F.9 References

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