

1. INTRODUCTION

1.1 Background

1.1.1 Proposed Action

On July 6, 2007, Alaska Railroad Corporation (ARRC or the Applicant) filed a petition with the Surface Transportation Board (STB or the Board)¹ pursuant to 49 United States Code (U.S.C.) 10502 for the authority to construct and operate approximately 80 miles of new rail line from North Pole, Alaska, to Delta Junction, Alaska. Referred to as the Northern Rail Extension (NRE), the proposed rail line would extend the Applicant's existing freight and passenger rail service to the region south of North Pole.

The rail extension would begin at the east end of the Chena River Overflow Bridge – north of Eielson Air Force Base and end at the southern side of Delta Junction. In addition to constructing the rail line, rail line operations would require construction of new structures, such as bridges, a passenger facility, communications towers, access roads for rail line construction and operations, and sidings.

1.1.2 Lead and Cooperating Agencies

The STB, pursuant to 49 U.S.C. 10901, is the agency responsible for granting authority for the construction and operation of new rail lines and ancillary facilities. Accordingly, the STB, through its Section of Environmental Analysis (SEA), is the lead agency responsible under the National Environmental Policy Act (NEPA) for preparing this Environmental Impact Statement (EIS) to identify and evaluate the potential environmental impacts associated with the proposed action and alternatives.

Council on Environmental Quality (CEQ) regulations at 40 Code of Federal Regulations (CFR) 1501.6 emphasize agency cooperation early in the NEPA process and allow a lead agency (in this case, the Board) to request the assistance of other agencies with either jurisdiction by law or special expertise in matters relevant to preparing an EIS. There are eight cooperating agencies included in this NEPA review, including the Alaska Department of Natural Resources (ADNR) and seven Federal agencies. Table 1-1 lists each cooperating agency and describes its roles and responsibilities.

SEA and the cooperating agencies prepared this Final EIS² in accordance with NEPA, CEQ regulations, and the Board's environmental regulations (49 CFR 1105) to provide the Board; the cooperating agencies; other Federal, State of Alaska, and local agencies; Alaska Natives; and the public clear and concise information on the potential environmental impacts of the proposed action and alternatives, including the No-Action Alternative. Under the No-Action Alternative,

¹ The STB is a bipartisan, decisionally independent adjudicatory body, organizationally housed within the U.S. Department of Transportation (USDOT). The Board was established by the ICC [Interstate Commerce Commission] Termination Act of 1995 (49 U.S.C. 10101 *et seq.*; P.L. 104-88, December 29, 1995) to assume some (but not all) functions of the ICC, particularly those related to the regulation of freight rail lines. The STB has jurisdiction over rail line rate and service issues, and rail structuring transactions, such as new line construction, line sales, line abandonments, and rail line mergers.

² While much of the EIS text generally refers only to SEA, the document reflects input from all eight cooperating agencies.

**Table 1-1
Cooperating Agency Involvement in the Northern Rail Extension**

U.S. Department of Defense Alaskan Command	May grant the proposed rail line access across the Tanana Flats and Donnelly Training Areas on the west side of Tanana River. May use the rail line or associated infrastructure to access these training areas.
Bureau of Land Management	May approve or deny a right-of-way grant for the proposed rail line across Bureau of Land Management-managed lands, which include the Tanana Flats and Donnelly Training Areas.
Federal Transit Administration	May provide funding related to the passenger component of the rail extension.
Federal Railroad Administration	Administered funding for the Environmental Impact Statement and preliminary engineering to construct the rail line.
U.S. Air Force 354 th Fighter Wing Command from Eielson Air Force Base	May decide to grant a right-of-way crossing through a portion of Eielson Air Force Base.
U.S. Army Corps of Engineers	May issue or deny a Section 404 Clean Water Act permit and/or a Section 10 Rivers and Harbors Act permit.
U.S. Coast Guard	May issue bridge permits.
Alaska Department of Natural Resources	May convey land to Alaska Railroad Corporation for the purpose of the rail line.

ARRC would not construct an extension of the existing rail line or construct the dual-modal bridge over the Tanana River to transport commercial freight, military cargo and personnel, or passengers.

SEA also prepared this EIS in accordance with Bureau of Land Management H-1790-1 (The National Environmental Policy Act Handbook); the Department of the Interior’s manual guidance on NEPA (516 Department Manual 1-7); the Federal Railroad Administration NEPA guidance at 64 CFR 28545; the Federal Transit Administration NEPA-implementing regulations at 49 CFR 622; Air Force Instruction 32-7061 (Environmental Impact Analysis Process); U.S. Army Corps of Engineers NEPA-implementing regulations at 33 CFR 230; U.S. Coast Guard COMDTINST M16475.1D (NEPA-Implementing Procedures and Policy for Considering Environmental Impacts); and the Army’s NEPA implementing regulations at 32 CFR 651.

This Final EIS is intended to be read in conjunction with the Draft EIS, which provides more detailed information on the Proposed Action and alternatives for decisionmakers and the public. The Draft EIS describes the project’s purpose and need, the Proposed Action and alternatives, the affected environment, and the potential environmental consequences associated with the Proposed Action and alternatives. The Draft EIS also includes a glossary and a list of acronyms and abbreviations.

Following scoping and public outreach, SEA issued the Draft EIS for public review and comment on December 12, 2008. SEA carefully considered all comments received on the Draft EIS and has responded to all substantive comments in this Final EIS. This Final EIS includes final recommended measures to mitigate environmental impacts. This Final EIS also includes some corrections and minor changes to information presented in the Draft EIS. The Board will consider the entire environmental record, the Draft and Final EISs, all public and agency comments, and SEA’s environmental recommendations in making its final decision on ARRC’s application to construct and operate the proposed NRE.

CEQ regulations (40 CFR 1506.10(b)) provide that an agency shall not make a decision on a proposed action less than 30 days from publication of a notice of a Final EIS in the *Federal Register* unless the agency’s decision is subject to a formal administrative review process after publication of this Final EIS. In such cases, the CEQ regulations provide that the period for

appeal of the agency's decision and the 30-day period prescribed in 40 CFR 1506.10(b) may run concurrently.

1.1.3 Surface Transportation Board Jurisdiction

In 1995, Congress enacted a broad Federal preemption provision, Section 10501(b), which expressly makes the Board's jurisdiction "exclusive" for all transportation by rail carriers, including the facilities and structures that are an integral part of that transportation.³ Section 10501(b) also expressly states that "the remedies provided under this part are exclusive and preempt the remedies provided under Federal and State law." Thus, Section 10501(b) does not permit dual state and Federal regulation of railroads or activities related to rail transportation at railroad facilities. Accordingly, the case law interpreting this provision consistently has found state and local permitting or preclearance requirements (including zoning ordinances and environmental and land use permitting requirements) to be wholly preempted where the railroad facility is an integral part of the railroad's operations.⁴ This is because permitting or preclearance requirements could give a local body the ability to deny the carrier the right to construct, develop, and maintain facilities or conduct operations, which would create an irreconcilable conflict with the Board's exclusive jurisdiction over those facilities and operations.⁵

While exempt from traditional permitting, zoning, and land use processes for their railroad operations, railroads like those operated by the Applicant are not necessarily exempt from other generally applicable laws. The legislative history makes it clear that "the States retain the police powers reserved by the Constitution."⁶ Thus, states can take appropriate actions to protect public health and safety so long as their actions do not serve to regulate rail operations or unreasonably interfere with interstate commerce.⁷

For example, a state or local government could issue citations or seek damages if harmful substances are discharged during a railroad construction or upgrading project. Similarly, nondiscriminatory application of state and local requirements such as building and electrical codes generally would not be preempted.⁸ In addition, railroads cannot avoid their obligations under consensual measures worked out between the railroad and the community.⁹ Section 10501(b) must also be harmonized to the extent possible with other Federal statutes.¹⁰ Thus, Federal environmental statutes such as the Clean Air Act and the Clean Water Act—statutory schemes that are implemented in part by the states—and railway safety regulation under the Federal Railway Safety Act—continue to apply to railroads to the extent that they would not unreasonably interfere with interstate commerce. Finally, state and local entities can raise their

³ 49 U.S.C. §10102(9); §10501(b).

⁴ *Green Mountain Railroad v. State of Vermont*, 404 F. 3d 638 (2nd Cir. 2005) (*Green Mountain*); *City of Auburn v. United States*, 154 F.3d 1025 (9th Cir. 1998) (*Auburn*); *Friberg v. Kan. City S. Ry.*, 267 F.3d 439 (5th Cir. 2001); *Norfolk S. Ry. v. City of Austell*, 1997 U.S. Dist. LEXIS 17236 (N.D. Ga. Aug. 18, 1997); *Flynn v. Burlington N. Santa Fe Corp.*, 98 F. Supp. 2d 1186 (E.D. Wash. 2000); Joint Pet. for Decl. Order—*Boston & Maine Corp. v. Town of Ayer, MA*, 5 S.T.B. 500 (2001), aff'd, *Boston & Maine Corp. v. Town of Ayer*, 206 F. Supp. 2d 128 (D. Mass. 2002), rev'd solely on attorneys' fee issue, 330 F.3d 12 (1st Cir. 2003) (*Ayer*).

⁵ *Auburn*, 154 F.3d at 1029-31.

⁶ H.R. Rep. No. 104-311, 104th Cong., 1st Sess. at 95-96 (1995).

⁷ *See Ayer*.

⁸ *Id.*

⁹ *Township of Woodbridge v. Consol. Rail Corp.*, No. 42053 (STB served Dec. 1, 2000).

¹⁰ *Tyrrell v. Norfolk S. Ry.*, 248 F.3d 517 (6th Cir. 2001); *Friends of the Aquifer et al.*, STB Finance Docket No. 33966 (STB served Aug. 15, 2001).

environmental concerns before the Board during the environmental review process under NEPA for consideration in cases like this that require a license from the Board.¹¹

In cases that trigger a NEPA review, the Board's mitigation sometimes will include conditions that require a railroad to consult with or seek approvals from other government entities when the Board is reasonably confident that those requirements will not be applied in a discriminatory manner, or in a manner that would interfere with the railroad's right to conduct its operations. When the Board imposes a condition that a railroad applicant meet the reasonable requirements of other government entities as a condition to a license from the Board, the Board controls the process and can take steps later, if necessary, to ensure that the laws of those governmental entities are not being applied in such a way as to unduly restrict a railroad's operations or unreasonably burden or interfere with interstate commerce.

1.2 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 Delta Junction, Alaska, area. The Applicant has stated that 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 agricultural, mining, and petrochemical sectors in the Delta Junction region. At present, both the agricultural community and the mineral industries in this area receive their desired import materials indirectly. Such materials are first shipped by rail to or near Fairbanks, offloaded, and then transported by truck over Richardson Highway for approximately 90 miles to Delta Junction.

The Applicant has also stated that the proposed NRE would provide a transportation alternative to Richardson Highway for individuals traveling between Fairbanks and Delta Junction. At present, there is a coach service, partially funded by the City of Delta Junction, that operates between Fairbanks and Delta Junction with one round-trip per day Monday through Friday. According to ARRC, 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 Tanana River for the rail line would provide the Army and the Air Force dependable year-round ground access to these training areas.

1.3 Preferred Alternative

Council on Environmental Quality NEPA implementing regulations (40 CFR 1502.14(e)) require an agency to identify its preferred alternative in the Final EIS if it has not already done so in the Draft EIS. In 2005, ARRC presented potential rail alignments, which were subsequently refined and from which SEA selected alternatives for detailed environmental review in the Draft EIS. To facilitate comparison of the alternatives, the alternatives were divided into segments based on

¹¹ See *Auburn*, 154 F.3d at 1033.

common start, end, and intersection points. The alternatives considered in the EIS include construction and operation of a rail line along common segments, alternative segments, and connector segments, and a No-Action Alternative (see Figure 1-1 for a key to map areas). If the Board authorizes the proposed rail line extension in its final decision, the preferred alternative is the alternative the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors.¹² The preferred alternative is not necessarily the same as the environmentally preferable alternative, although in some cases one alternative may be both preferred and environmentally preferable.¹³

Table 1-2 presents the set of alternative segments that make up SEA's preferred alternative, which SEA recommends the Board find acceptable from an environmental standpoint. Table 1-2 also shows the Applicant's preferred segments. This section discusses the potential environmental impacts of the alternative segments and describes SEA's basis for recommending certain alternative segments.

Segments Evaluated in this Environmental Impact Statement	Section of Environmental Analysis's Preferred Segments	Applicant's Preferred Segments
North Common Segment	✓	✓
Eielson Alternative Segments 1, 2 and 3	Alternative Segments 1, 2 and 3	Alternative Segment 3
Salcha Alternative Segments 1 and 2	Alternative Segment 1	Alternative Segment 1
Connector Segments A, B, C, and D	Connector B	Connector B
Central Alternative Segments 1 and 2	Alternative Segment 2	Alternative Segment 2
Connector Segment E	✓	✓
Donnelly Alternative Segments 1 and 2	Alternative Segments 1 and 2	Alternative Segment 1
South Common Segment	✓	✓
Delta Alternative Segments 1 and 2	Alternative Segment 1	Alternative Segment 1

The potential environmental impacts of the following resource areas are negligible and do not offer a means to discriminate between alternative segments: subsistence, climate and air quality, energy resources, visual resources, socioeconomics, and environmental justice. The North Common Segment and the South Common Segment are both included in SEA's preferred alternative because for each of these two segments there was a single alternative.

1.3.1 Eielson Alternative Segments

The proposed NRE would begin with the North Common Segment, which would connect to ARRC's existing Eielson Branch just south of the Chena River Overflow Bridge (Figure 1-2). Traveling south, the proposed rail line could follow one of three alternative routes past Eielson AFB, before connecting to one of the Salcha Alternative Segments. The construction of Eielson

¹² 40 CFR 1505.2(b)

¹³ CEQ, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Question 6a, March 16, 1981; *Friends of Yosemite Valley v. Norton* 194F.Supp.2d 1066(B.D. CA, 2002).

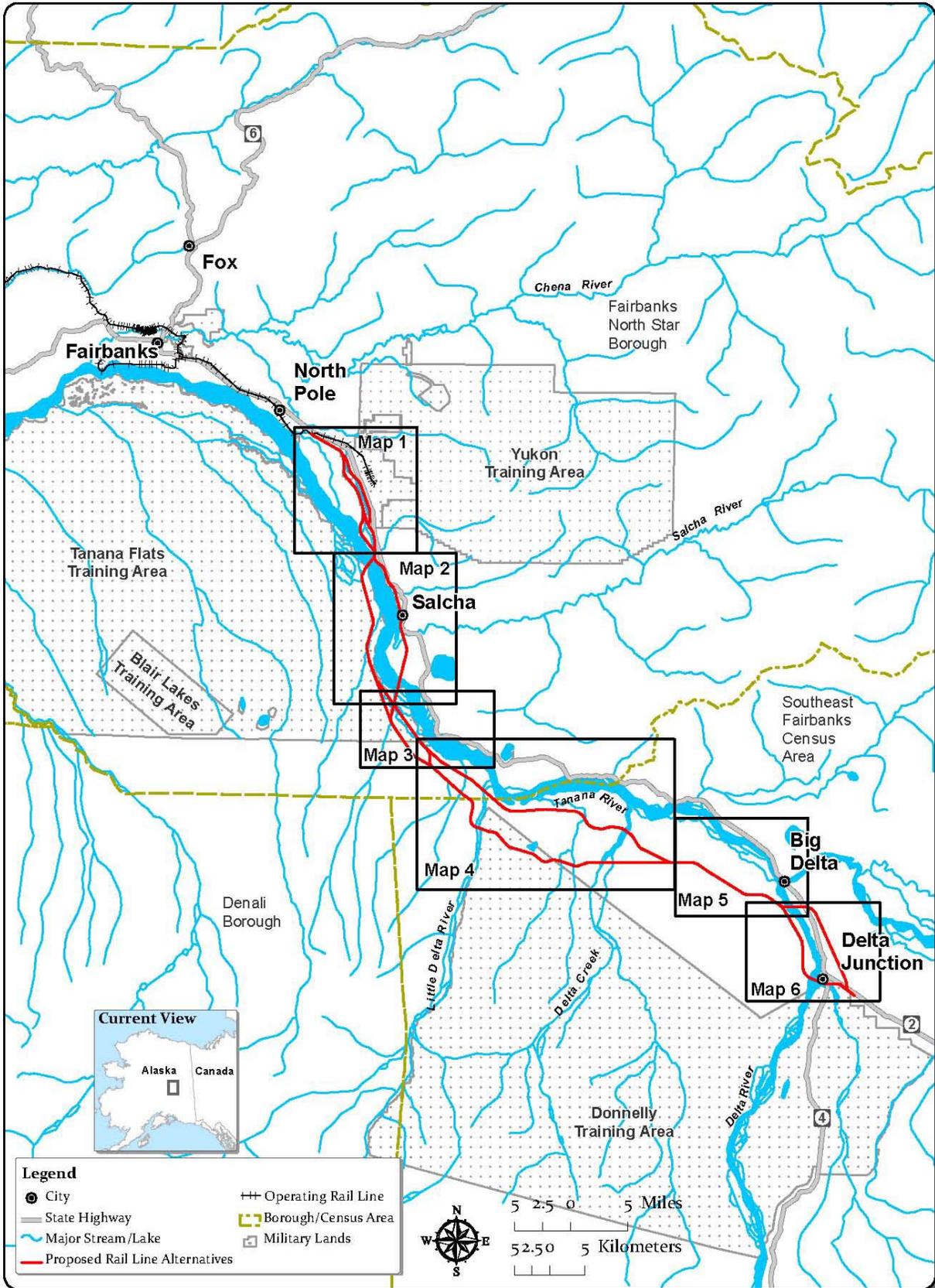


Figure 1-1 – Map Key for Areas along the Proposed Northern Rail Extension

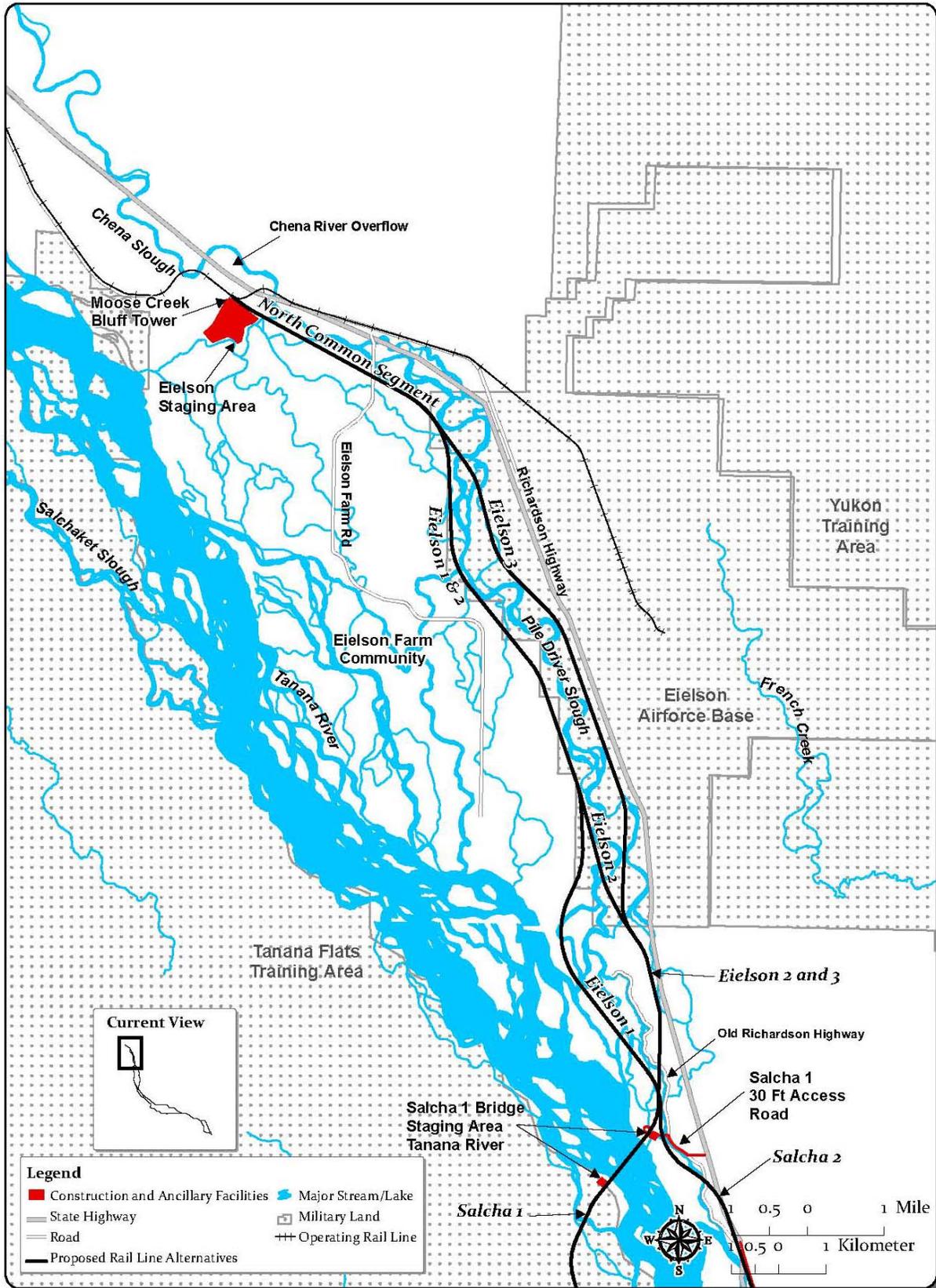


Figure 1-2 – North Common Segment and Eielson Alternative Segments within Map Area 1

Alternative Segment 1 would require the removal of two or three residences that are located within the 200-foot right-of-way (ROW). Neither Eielson Alternative Segments 2 nor 3 would necessitate acquisition of residences, and Eielson Alternative Segment 3 received more support during the public comment period than the other Eielson segments. Though it would affect more residences, Eielson Alternative Segment 1 would not be expected to result in any adverse noise impacts. In contrast, an estimated four receptors would be adversely affected by noise on Eielson alternative segments 2 and 3. Comparable amounts of private land would be affected by Eielson Alternative Segment 1 (52 acres) and Eielson Alternative Segment 3 (55 acres), though more private land would be affected by Eielson Alternative Segment 2 (78 acres). Each of the three segments would require construction of between two and three small bridges, and from 10 to 14 culverts; however, Eielson Alternative Segment 3 would cross seven fish-bearing streams, compared to two fish-bearing stream crossings for Eielson Alternative Segment 1 and three for Eielson Alternative Segment 2. Of these crossings, Eielson Alternative Segments 1 and 2 would each cross two streams that are identified as Essential Fish Habitat (EFH), while Eielson Alternative Segment 3 would cross one EFH stream. The amount of wetland and other waters of the U.S. that would be affected would vary considerably by segment; Eielson Alternative Segment 1 would affect 16.8 acres, Eielson Alternative Segment 2 would affect 70.8 acres, and Eielson Alternative Segment 3 would affect 100.3 acres. All three segments would result in the clearing of similar amounts of vegetation and would be located in an area of relatively low archeological sensitivity for prehistoric sites and moderate sensitivity for historic sites.

In light of the general similarities of the overall level of potential impacts, but the difference in the wetland acreage that would be affected, SEA recommends that the Board find all three Eielson alternative segments acceptable from an environmental standpoint. Therefore, the segment that would be constructed would be determined during U.S. Army Corps of Engineers (USACE) permitting under Section 404 of the Clean Water Act, which requires an applicant to demonstrate that the proposed project is the Least Environmentally Damaging Practicable Alternative to achieve the project's purpose.

1.3.2 Salcha Alternative Segments

The Eielson alternative segments would connect to one of two alternative segments through the Salcha region (Figure 1-3). SEA has determined that Salcha Alternative Segment 1 would be preferable to Salcha Alternative Segment 2 for several reasons. The construction of Salcha Alternative Segment 1 would encounter soil types with less permafrost (5 to 25 percent permafrost) than Salcha Alternative Segment 2 (5 to 75 percent permafrost). Additionally, mass wasting events such as landslides, rockslides, and slump would be less likely to affect Salcha Alternative Segment 1 than Salcha Alternative Segment 2. Salcha Alternative Segment 1 would require the construction of one large bridge across the Tanana River, while Salcha Alternative Segment 2 would require bridges across both the Tanana and Salcha rivers. Preliminary designs for both Tanana River crossings include features to channel the flow of the river, including channel plugs, rock revetments and/or levees. The design for Salcha Alternative Segment 2 would require more in-river fill and greater potential fishery impacts. Salcha Alternative Segment 1 would cross 13 waterbodies, five fewer than Salcha 2. Additionally, Salcha Alternative Segment 1 would cross three fish-bearing streams (including one EFH stream), compared to the nine streams (all have EFH) that would be crossed by Salcha Alternative Segment 2. Impacts to wetlands and vegetation would also be greater under Salcha Alternative

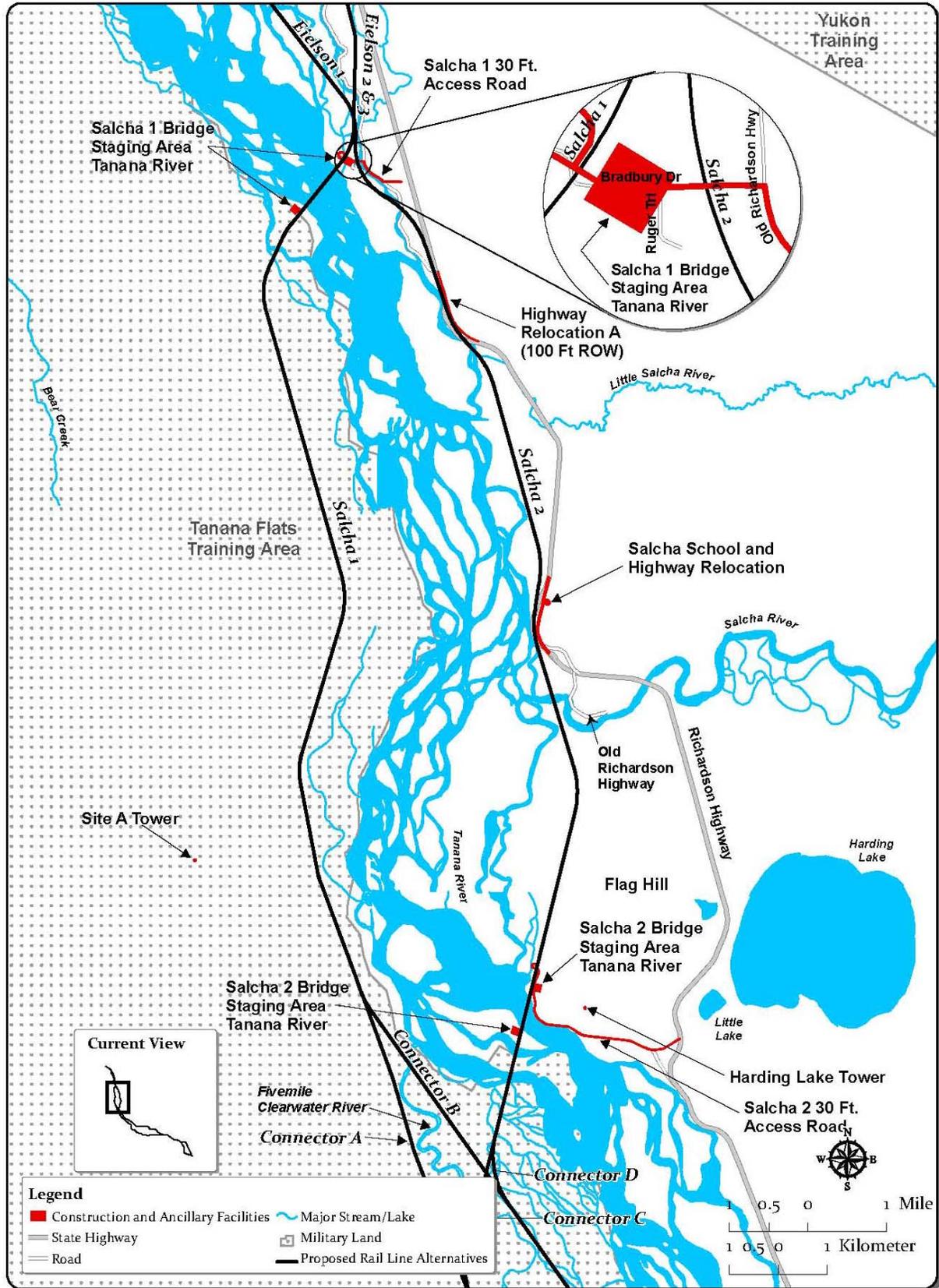


Figure 1-3 – Salcha Alternative Segments within Map Area 2

Segment 2, which would have 536.8 acres of vegetation and 262.3 acres of wetlands and other waters of the U.S. in the ROW. In contrast, Salcha Alternative Segment 1 would have 434.9 acres of vegetation and 179.9 acres of wetlands and other waters of the U.S. in the ROW. Although Salcha Alternative Segment 1 would affect less game mammal habitat, it would cross an area considered prime moose calving ground and would be expected to result in a larger number of moose strikes by trains on the proposed rail line. Potential impacts to historic and prehistoric sites would be negligible under Salcha Alternative Segment 1 and high under Salcha Alternative Segment 2, especially in the vicinity of the Salchaket Village site. While Salcha Alternative Segment 1 would not adversely affect any noise receptors, approximately 32 receptors would be exposed to adverse noise from Salcha Alternative Segment 2. The Salcha School grounds and ski trails – a 4(f) resource – and 92 acres of private land would be affected by Salcha Alternative Segment 2. SEA has recommended additional mitigation measures pertaining to this 4(f) resource. If these measures are imposed by the Board in any decision granting the Applicant with the authority to construct and operate the proposed rail line, the impacts to this 4(f) resource would be considered a “use” in the context of Section 4(f); therefore, FRA and FTA could not provide funding for an alternative that includes Salcha 2, because there exists a feasible and prudent alternative (Salcha Alternative Segment 1) that does not use land from a Section 4(f) resource. Unlike Salcha Alternative Segment 2, Salcha Alternative Segment 1 would not include any known hazardous waste sites. Due to these advantages, SEA has determined that Salcha Alternative Segment 1 is the preferable Salcha alternative segment from an environmental standpoint.

1.3.3 Connector Segments and Central Alternative Segments

From Salcha Alternative Segment 1, the rail line could follow either Connector Segment A connecting to Central Alternative 1, or Connector B connecting to Central Alternative 2 (Figure 1-4).¹⁴ Connector B and Central Alternative Segment 2 would affect considerably less wetland and other waters of the U.S. (8.1 acres) than Connector A and Central Alternative Segment 1 (107.2 acres). Soil types with a lower frequency of permafrost would be encountered by Connector B and Central Alternative Segment 2 than Connector A and Central Alternative Segment 1 and either combination would require similar numbers of bridges and culverts. Connector B and Central Alternative Segment 2 would lie within the 100-year floodplain, while Connector A and Central Alternative Segment 1 would lie outside the floodplain. Connector B and Central Alternative Segment 2 would cross two more fish-bearing streams and two more EFH streams than Connector A and Central Alternative Segment 1. Less vegetation would be cleared for Connector B and Central Alternative Segment 2 (166.3 acres) than Connector A and Central Alternative Segment 1 (228.7 acres), and the former combination would also impact fewer acres of game mammal habitat. Both alternative segments would lie in an area of relatively low potential for prehistoric and historic sites. While many of the potential environmental impacts would be similar for either combination of segments, SEA has determined that Connector B and Central Alternative Segment 2 is the preferable combination primarily because it would result in fewer impacts to wetlands and less vegetation clearing and encounter soils with less permafrost than Connector A and Central Alternative Segment 1.

¹⁴ Because Connector C and D only connect to Salcha Alternative Segment 2, they are not relevant to SEA’s preferred alternative and are not discussed here.

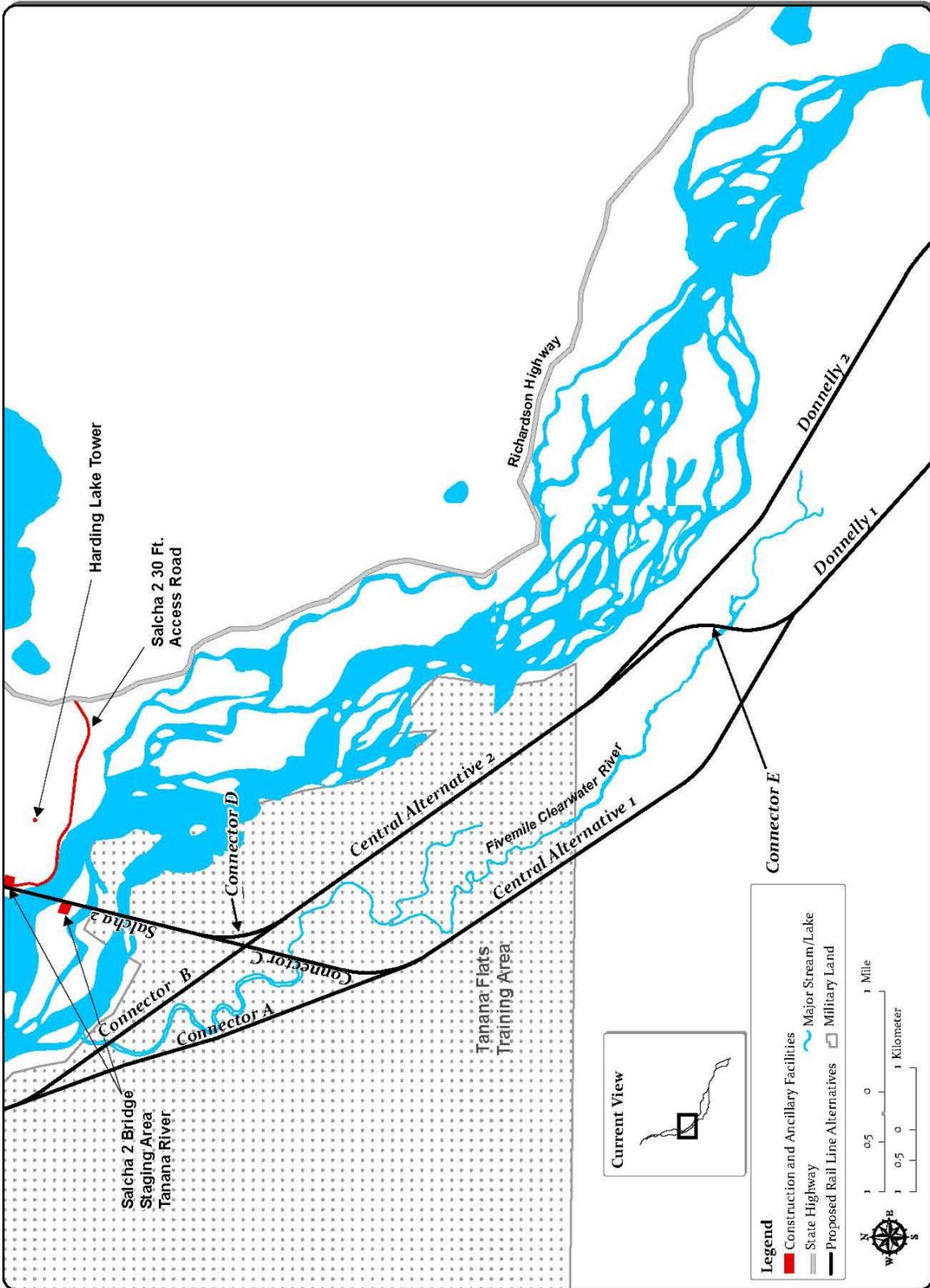


Figure 1-4 – Central Alternative Segments and Adjoining Alternative Segments within Map Area 3

1.3.4 Donnelly Alternative Segments

The Draft EIS analyzed the potential impacts of two alternatives in the Donnelly area that would connect to Central Alternative Segment 2 to the northwest of the Little Delta River and connect to the South Common Segment to the east of Delta Creek (Figures 1-5 and 1-6). From the Central Alternative Segment 2, the rail line can either connect directly to Donnelly Alternative Segment 2, or connect to Connector Segment E and then Donnelly Alternative Segment 1. Soils types in the ROW of the combination of Donnelly Alternative Segment 1 and Connector E would include soils with a higher percentage of permafrost than Donnelly Alternative Segment 2, but Donnelly Alternative Segment 2 would pass close to the Tanana River near the base of a steep bluff east of Little Delta River and would be subject to ice formation and changes in Tanana River morphology. Connector Segment E and Donnelly Alternative Segment 1 construction would include eight fewer culverts and three more small bridges than Donnelly Alternative Segment 2. Donnelly Alternative Segment 2 would impact fewer acres of wetlands (302.5 acres) and other waters of the U.S. than Connector Segment E and Donnelly Alternative Segment 1 (400.5 acres) and would require clearing fewer acres of vegetation as well. The number of fish-bearing streams crossed would be similar for the two routes; no EFH streams would be crossed by Connector Segment E or Donnelly Alternative Segment 1, while Donnelly Alternative Segment 2 would cross four EFH streams. Both Donnelly alternative segments would result in fragmentation of closed needleleaf forests, but Donnelly Alternative 2 would also result in fragmentation of closed broadleaf forests, which is characterized by a higher occurrence of furbearers. Connector Segment E and Donnelly Alternative Segment 1 would result in slightly more acres of impacts to game mammals. Eight identified historic or prehistoric sites are located within Connector Segment E and Donnelly Alternative Segment 1; four more than Donnelly Alternative Segment 2. Both Donnelly alternative segments are located in areas with high potential for prehistoric resources and a variety of sites were identified on both routes during preparation of the Draft EIS. One prehistoric site identified along Donnelly Alternative Segment 1 was determined to be over 11,300 years old, indicating that it is one of the oldest known human habitation sites in North America. Few acres of privately owned land would be affected by either of the segments. In light of the general similarities of the overall level of potential impacts, and acknowledging the difference in the wetland acreage that would be affected, SEA recommends that the Board find both Donnelly alternative segments acceptable from an environmental standpoint. Therefore, the segment that would be constructed would be determined during USACE permitting under Section 404 of the Clean Water Act, which requires an applicant to demonstrate that the proposed project is the Least Environmentally Damaging Practicable Alternative to achieve the project's purpose.

1.3.5 Delta Alternative Segments

SEA analyzed two alternatives in the Draft EIS for the vicinity of the City of Delta Junction. Delta Alternative Segment 1 would cross the river north of Delta Junction, while Delta Alternative Segment 2 would cross south of the Delta Junction (Figure 1-7). The number of stream crossings and acres of vegetation in the ROW would be similar for the two alternative segments; however, there would be more acres of wetlands and other waters of the U.S. potentially affected by Delta Alternative Segment 1 (94.9 acres) than Delta Alternative Segment 2 (59.9 acres). Delta Alternative Segment 1 would require more grading and filling activities during construction, but Delta Alternative Segment 1 would have no at-grade highway-rail crossings. Delta Alternative Segment 2 would have two at-grade highway-rail crossings in Delta

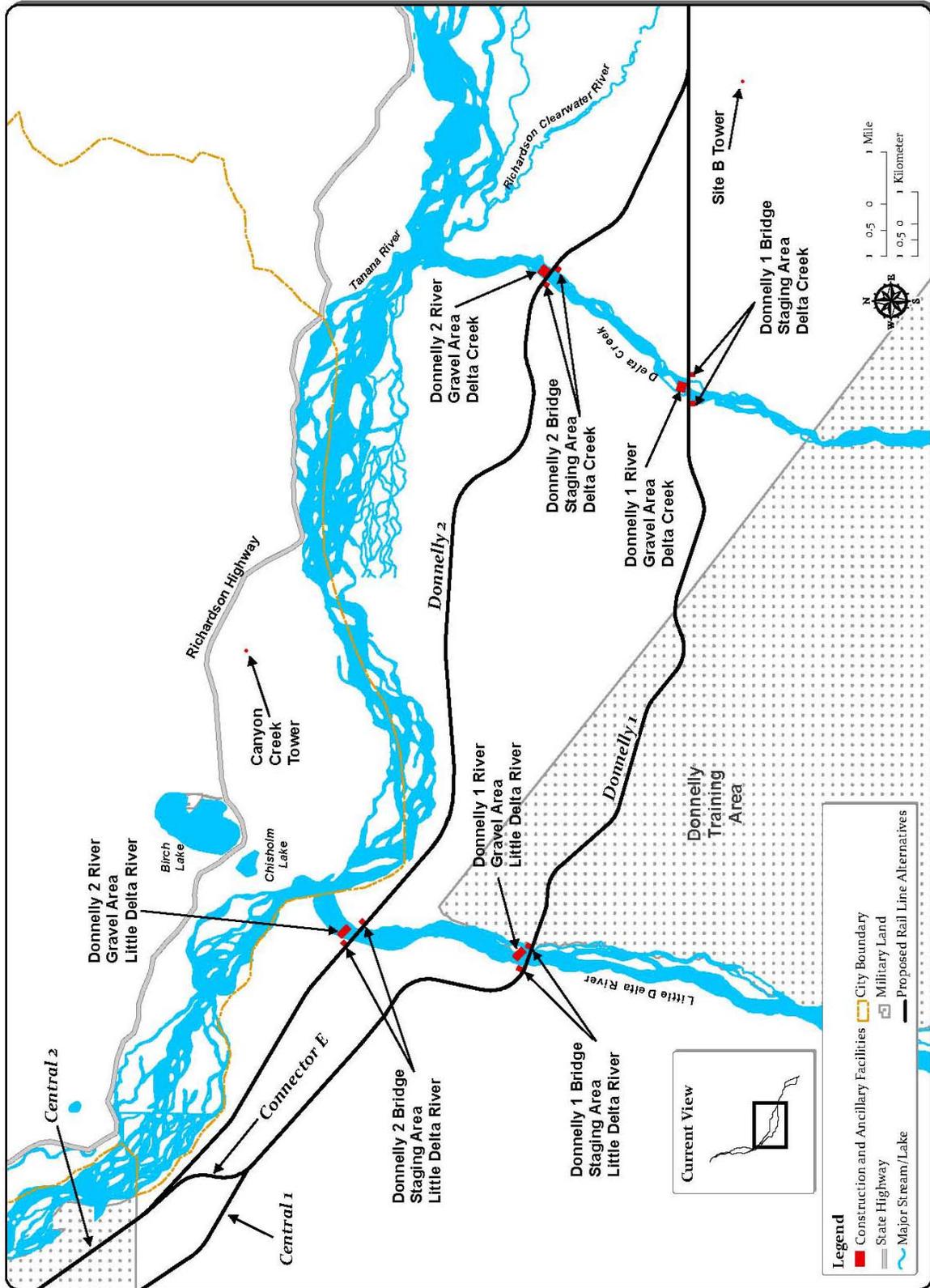


Figure 1-5 – Donnelly Alternative Segments within Map Area 4

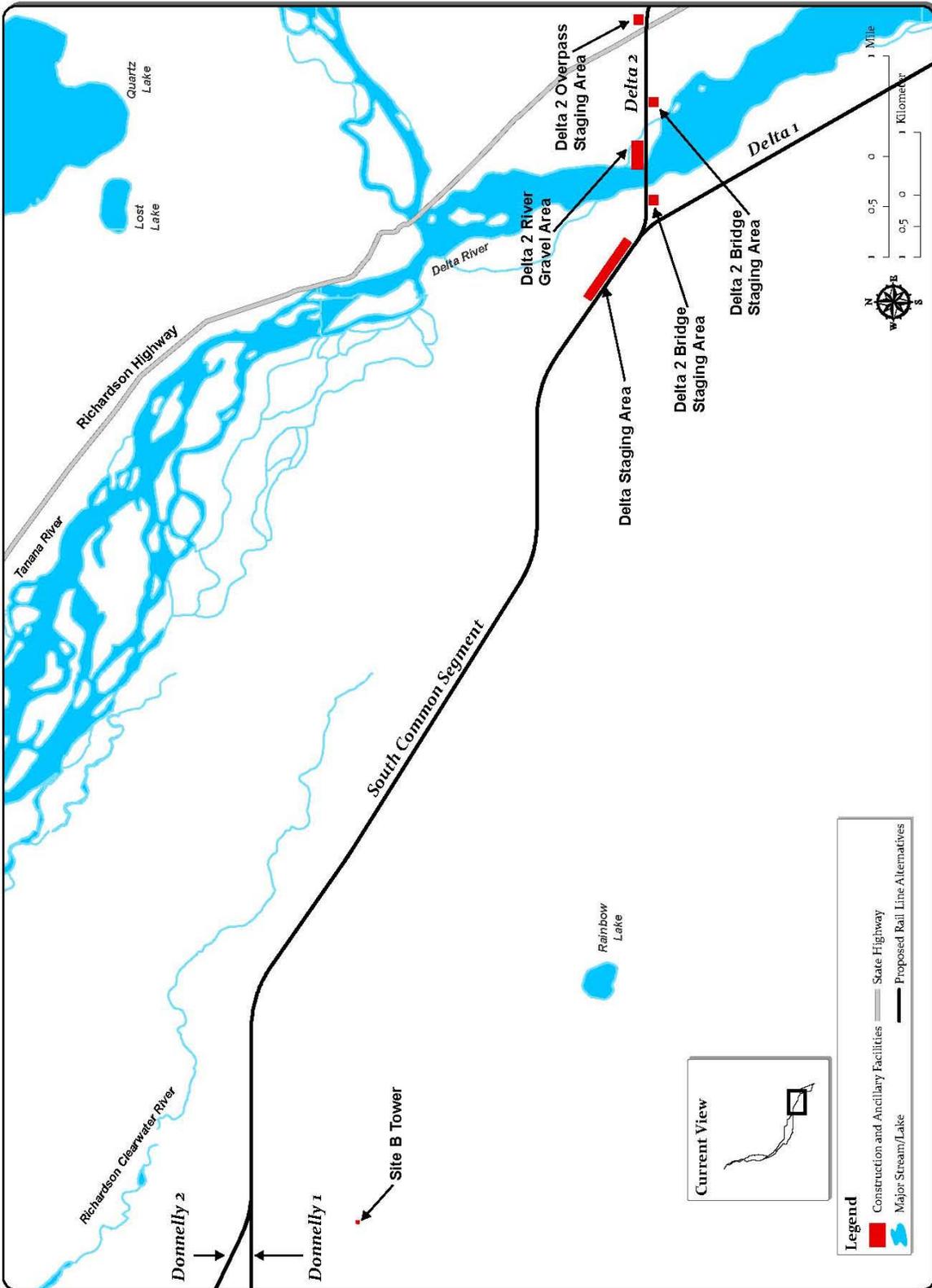


Figure 1-6 -- South Common Segment and Alternative Segments within Map Area 5

Junction. With the exception of bison habitat, more acres of game mammal habitat would be affected by Delta Alternative Segment 1 than Delta Alternative Segment 2. Additionally, a rare willow, *salix setchelliana*, was reported to occur on Delta Alternative Segment 2. Though both segments would have moderate potential for impacts to prehistoric and historic resources, Delta Alternative Segment 2 could have greater direct impacts on historic resources than Delta Alternative Segment 1. Delta Alternative Segment 2 would affect 59 acres of private land, mostly in or near Delta Junction, while Delta Alternative Segment 1 would affect 3 acres of private land. Due primarily to the greater potential impacts on private land and historic resources and the greater number of at-grade crossings that would occur with Delta Alternative Segment 2, SEA believes that Delta Alternative Segment 1 is preferable from an environmental standpoint.

1.4 Public Involvement

On December 12, 2008, SEA published the Notice of Availability of the Draft EIS and delivered the EIS to the U.S. Environmental Protection Agency (USEPA). USEPA published the Notice of Availability of the Draft EIS in the *Federal Register* on December 19, 2008. SEA distributed the Draft EIS to elected officials, Federal, state, and local agencies, interested organizations, and citizens who had requested a copy. SEA also made the Draft EIS available for public review in the reference section of three public libraries in the project area.

After publishing the Draft EIS, SEA hosted public meetings with the cooperating agencies to share information with and gather comments from the general public. At each meeting, SEA gave a brief presentation and then accepted oral comments from the public. SEA retained a court reporter at each meeting to record the oral comments. Written comments were also submitted at the meetings. Meetings were held in Fairbanks, North Pole, Salcha, and Delta Junction, Alaska, on January 12, 13, 14, and 15, 2009, respectively. An average of 35 people signed in at each meeting. A total of 42 oral comments were received at the meetings, and 11 written comments were submitted at the meetings. Appendix A of this Final EIS contains copies of the transcripts from the public meetings.

SEA received a total of approximately 120 written and oral comments during the Draft EIS comment period, which closed on February 2, 2009. Comments were received from elected officials, Federal, state, and local agencies, organizations, and citizens. Appendix B of this Final EIS contains copies of the comment letters. Chapter 3 of this Final EIS summarizes and responds to the oral and written comments.

1.5 Modifications to the Draft EIS

SEA has reviewed the comments received on the Draft EIS. In response to the comments, SEA has made some minor corrections and changes to information presented in the Draft EIS. Chapter 4 of this Final EIS, *Errata and Other Changes to the Draft EIS*, describes those changes. These changes resulted from public comments, agency comments, or SEA's independent review. Appendix C contains additional correspondence from SEA, the U.S. Fish and Wildlife Service, the Advisory Council on Historic Preservation, and the Alaska State Historic Preservation Officer. Sections 1.5.1 through 1.5.4 describe other changes to the Draft EIS for mitigation and three appendices that are reprinted in their entirety in this Final EIS. Because the mitigation chapter and three appendices are re-printed in their entirety, changes to these sections do not appear in the errata section of Chapter 4.

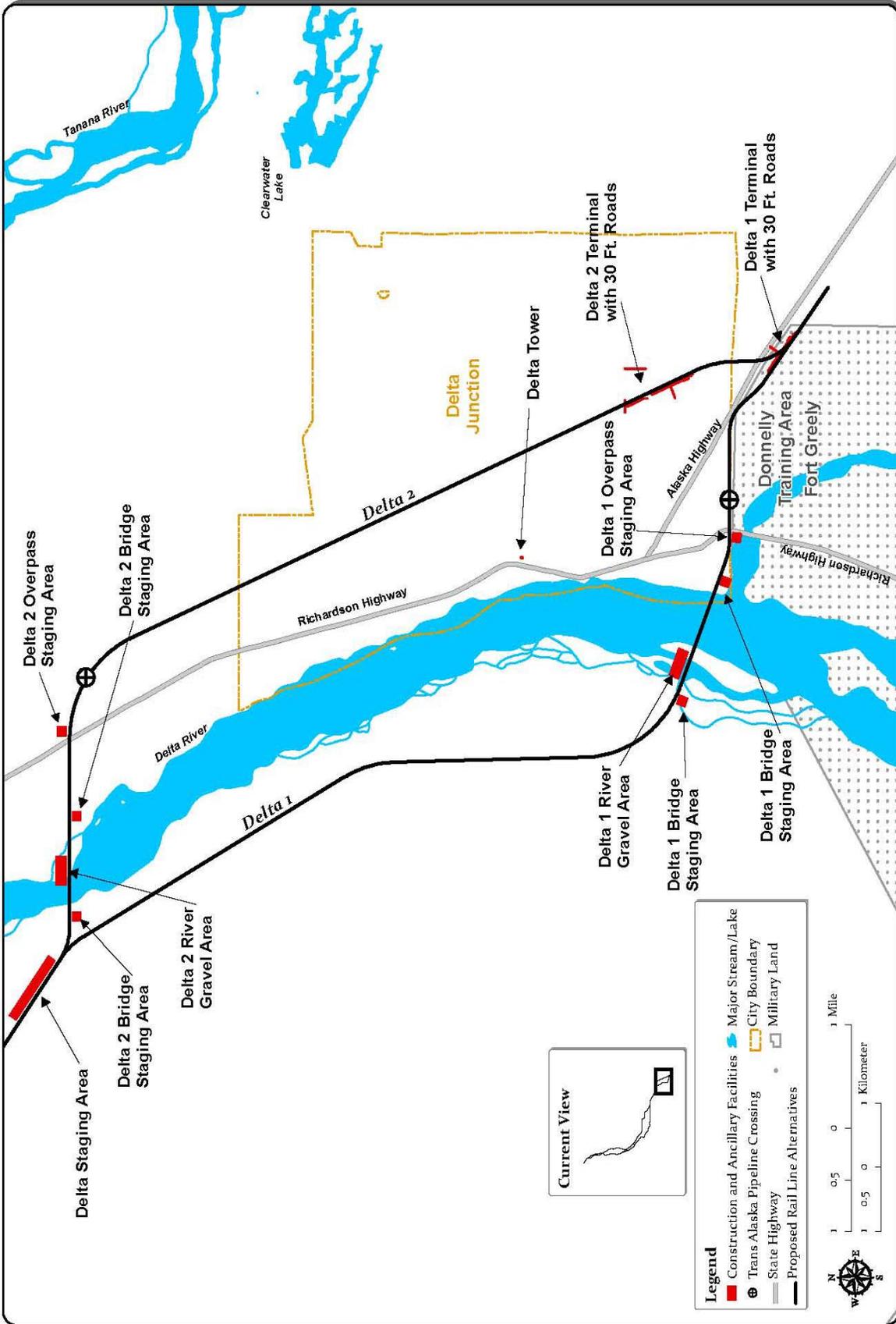


Figure 1-7 – Delta Alternative Segments within Map Area 6

1.5.1 Mitigation

As indicated in Chapter 2, Final Recommended Mitigation, many of the recommended mitigation measures are similar to voluntary and preliminary mitigation measures presented in the Draft EIS, some are revised or contain minor clarifying changes, some are not included, and some additional mitigation measures have been added. The principal revisions that were made to the chapter are highlighted below.

Design and Construction

SEA revised several mitigation measures presented in the Draft EIS in response to concerns expressed in comments that some provisions of preliminary mitigation measures would not be feasible. For example, SEA revised recommended mitigation measure 1 such that placement of bridge piers in permafrost would be allowed but avoided when practical. Similarly, preliminary mitigation measure 32 in the Draft EIS was revised as recommended mitigation measure 34 so that communication towers with guy lines would be acceptable. SEA also revised preliminary mitigation measures 69 and 70 (recommended mitigation measures 70 and 71) not to include the painting of bridges.

Public Access to Trails and Waters

Public access across the rail line and the potential effects of the proposed rail line on recreational trails in the study area were raised in many comments on the Draft EIS. Commenters were concerned with maintaining continuity of existing trails, providing access across the rail line for future trails, providing crossing structures that accommodate a variety of users (dog sledgers, snowmachiners, skiers, pedestrians, bicyclists, ATV users, recreational boat users), coordinating with user groups and owning agencies regarding locations of crossings and types of crossings, and providing year-round access (accommodating frozen sloughs in the winter and navigable waters in the summer), among other concerns. Commenters also pointed to State of Alaska Statute (AS) 42.40.460, *Extension of the Alaska Railroad*, to provide crossings of the proposed rail line on state-owned lands.

SEA presented several preliminary mitigation measures in the Draft EIS to provide continuity of trails and require the Applicant to coordinate with user groups and owning agencies in determining access needs and providing appropriate trail crossings. After the publication of the Draft EIS, the Applicant indicated it would grade-separate crossings of all officially recognized trails with the exception of trails used by heavy vehicles where an at-grade crossing could be more appropriate. Further, where the proposed rail line crosses ADNR land, AS 42.40.460 provides that after the transfer of fee-title ROW from ADNR to the Applicant, ADNR has the authority to obtain additional future crossing of the proposed rail line. The Applicant and ADNR are presently discussing existing and proposed crossing locations and types. The Applicant has offered, and SEA recommended mitigation measures to ensure that while public access could be altered, it would not be blocked by the proposed rail line.

In regards to recreational access to navigable or public waters, preliminary mitigation measure 54 in the Draft EIS was revised as recommended measure 54 in the Final EIS to ensure that public access for recreational boat users would be maintained. A new recommended mitigation measure (55) was added to ensure that existing recreational boat access to Fivemile Clearwater Creek would be maintained if the Board authorized Salcha Alternative Segment 2.

Water Conveyance Structures and Fish Passage

In response to concerns about maintaining existing water patterns and flow conditions and allowing for the passage of fish through conveyance structures, several measures were revised and added. After publication of the Draft EIS, the Applicant revised voluntary mitigation measure VM-9 to indicate that it would design culverts in anadromous waters in accordance with the National Marine Fisheries Service (NMFS) 2008 publication, “Anadromous Salmonid Passage Facility Design” [NMFS 2008. Anadromous Salmonid Passage Facility Design. NMFS, Northwest Region, Portland, Oregon.] SEA added a new recommended measure, 28, that expands upon VM-9; it states that for all fish-bearing waters (i.e. waters with resident or anadromous fish) the Applicant shall design, construct, and maintain conveyance structures in accordance with the MOA, or equivalent and reasonable permitting requirements. Preliminary measure 38 in the Draft EIS was expanded upon as recommended mitigation measure 39 in the Final EIS to provide for monitoring of culverts to ensure that it provides for adequate fish passage. Similarly, new recommended mitigation measure 29 provides for monitoring culverts and bridges to ensure that debris has not accumulated that could lead to stream flow alteration and increased flooding.

Preliminary mitigation measure 10 in the Draft EIS has been revised and included as recommended mitigation measure 10 in this Final EIS to state that the rail line and ancillary facilities, including bridge abutments, shall be designed, constructed, and operated to maintain existing water patterns and flow conditions and provide long-term hydrologic stability by conforming to natural stream gradients and stream channel alignment and avoiding French draining, as practicable.

In addition, the Applicant has proposed a new measure (VM-23), which SEA has included in this Final EIS as a recommended mitigation measure, to complete a reasonable ecological study of the Fivemile Clearwater area, in consultation with relevant agencies, to characterize the environmental attributes of the area that are critical to the survival of salmonids and resident fish species. The Applicant will use the information obtained during this study to minimize potential impacts in the area during project-related construction.

Moose

The Final EIS contains revisions that indicate that the Applicant shall evaluate, implement, and monitor aspects of rail design, maintenance, and operations, in consultation with ADF&G and ADNR, to document and reduce moose-train mortality (see recommended mitigation measure 44). This measure is more specific than preliminary mitigation measure 43, which had stated that the Applicant shall review and discuss methods to reduce moose-train mortality with the agencies, but did not include an implementation obligation.

Visual Resources

Following consideration of comments received on the Draft EIS, SEA revised several of the preliminary visual resource mitigation measures. Specifically, recommended mitigation measures 70 and 71 in this Final EIS, unlike preliminary measures 69 and 70 in the Draft EIS, would not require painting of bridges or other structures, such as communication towers. SEA also revised preliminary mitigation measures 69 and 70 (recommended mitigation measures 70 and 71) to clarify that measures to reduce visual impact would be applicable only if they are consistent with safety, maintenance and access considerations and would not increase the project footprint, i.e., the area that would be affected by construction activities.

1.5.2 Essential Fish Habitat Assessment

SEA identified potential EFH that would be affected by the proposed NRE in the Draft EIS. Since publication of the Draft EIS, SEA consulted with the National Marine Fisheries Service on the EFH Assessment (Appendix G in the Draft EIS). The consultation resulted in National Marine Fisheries Service proposing EFH Conservation Recommendations for the project. SEA has responded to each of the EFH Conservation Recommendations in a letter, and some of the responses led to a revision of a mitigation measure in the Draft EIS. In addition, several other mitigation measures in the Draft EIS were revised based on comments received from various agencies and individuals. Because of the EFH consultation and changes in mitigation measures, the EFH Assessment is reprinted as Appendix D of this Final EIS. Changes in voluntary and SEA's recommended mitigation measures in Draft EIS Chapter 20, as revised in Chapter 2 of this Final EIS, required the EFH mitigation measures to be updated for consistency with the revisions.

1.5.3 Programmatic Agreement for Cultural Resources

SEA drafted, in consultation with cooperating agencies and signatories, a Programmatic Agreement for the NRE that would guide further cultural resources identification and evaluation efforts. Since the publication of the Draft EIS, SEA has continued coordination with the cooperating agencies and signatories of the Programmatic Agreement to finalize the agreement. The revised Programmatic Agreement is included as Appendix E of this Final EIS. The Programmatic Agreement provides for the completion of the Level 2 identification survey if the Board authorizes the project and the locations of ancillary facilities have been established. Additionally, the Programmatic Agreement establishes responsibilities for the treatment of historic properties, the implementation of mitigation measures, and ongoing consultation efforts.

1.5.4 Section 4(f) Report

The U.S. Department of Transportation (USDOT) regulation known as "Section 4(f)" does not apply to STB actions. However, it does apply to the proposed NRE through the involvement of the FRA and the FTA.¹⁵ In the Draft EIS, SEA identified potential USDOT Act Section 4(f) resources that could be affected by the proposed NRE. Since publication of the Draft EIS, the Applicant has offered to grade separate trail crossings for officially recognized trails intersected by the proposed rail line to reduce impacts and ensure trail continuity with the exception of trails used by heavy vehicles where an at-grade crossing could be more appropriate. ADNR indicated in its comments on the Draft EIS that the Section 4(f) resources listed in the Draft EIS on ADNR land would not be considered Section 4(f) resources because of the multiple-use nature of the resources, including their use for economic purposes. Coordination with Eielson Air Force Base (AFB) regarding the applicability of Section 4(f) to the Eielson Outdoor Recreation Area and portions of Twentythree Mile Slough Dog-Sledding Trails on Eielson AFB land revealed these lands are designated for military purposes and could be converted to military use at any time¹⁶. Therefore, these resources would not be considered a significant recreational resource and would

¹⁵ The lead agency for the Northern Rail Extension is the STB. FRA and FTA are cooperating agencies in the 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.

¹⁶ Written confirmation has been requested from the US Air Force, 354th Fighter Wing Command from Eielson Air Force Base.

not be protected under Section 4(f) of the U.S. Department of Transportation Act. Given that the owning agencies do not feel that these resources would be protected under Section 4(f) of the USDOT Act, SEA has deleted these resources from the analysis. In addition, SEA coordinated with owning agencies, considered the Applicant's proposal to grade separate all officially recognized trail crossings, and potential *de minimis* and other effects to these resources. The effects of the proposed rail line on qualifying Section 4(f) resources, determined pursuant to 49 U.S.C. 303 and 23 CFR 774, and the results of coordination and additional information provided by owning agencies is included in the Final Section 4(f) Evaluation, Appendix F of this Final EIS. Written correspondence regarding Section 4(f) resources is included in Appendix C of this Final EIS.