Alaska District

DEPARTMENT OF THE ARMY

RECORD OF DECISON
&
PERMIT EVALUATION

APPLICANT: Alaska Railroad Corporation
APPLICATION NO.: POA-2007-1586
WATERWAY: Knik Arm

This document constitutes the United States (U.S.) Department of the Army (DA), Corps of Engineers' (Corps) Record of Decision (ROD) under the National Environmental Policy Act (NEPA); the compliance determination with the U.S. Environmental Protection Agency's (EPA) Section 404(b)(1) Guidelines (40 Code of Federal Regulations 230; hereafter referred to as the "Guidelines"), and the public interest review, for the Alaska Railroad Corporation's Port MacKenzie Rail Extension project, under the authority delegated to the District Commander by 33 CFR 325.8, pursuant to Section 404 of the Clean Water.

BACKGROUND

On December 5, 2008 the Alaska Railroad Corporation (ARRC) filed a petition with the Surface Transportation Board (STB) for the authority to construct and operate a new rail line to connect the Port MacKenzie District in Matanuska-Susitna Borough to a point on the existing ARRC main line. Referred to as the Port MacKenzie Rail Extension (PMRE), this approximately 31-mile to 46-mile-long rail would extend the ARRC's existing freight service to Port MacKenzie. Port MacKenzie is the closest deep-water port to Interior Alaska and has capacity to handle bulk commodities. The Port's market includes bulk commodities (e.g., wood chips, saw logs, sand/gravel, and cement), iron or steel materials (e.g., scrap metal), vehicles and heavy equipment, and mobile or modular buildings. Unlike similar port facilities that serve Panamax and Capesize vessels, Port MacKenzie does not have rail service. The project would support ARRC's statutory goal to foster and promote long-term economic growth and development in the State of Alaska.

In response to this request, the STB initiated the NEPA process to identify and analyze alternatives to the proposed PMRE. The STB was the lead federal agency and the Corps served as one of the cooperating federal agencies on the draft Environmental Impact Statement (DEIS), and throughout the process, until the issuance of the final EIS (FEIS) on March 25, 2011. The STB published their ROD on November 21, 2011. The DEIS and FEIS analyzed alternatives encompassing 31 to 46 miles of proposed new rail line from the existing ARRC main line between Wasilla and an area north of Willow, Alaska

to Port MacKenzie, Alaska. The ARRC's preferred alternative was to construct a 35.8-mile long rail line consisting of the Mac East Variant Segment, Connector 3 Variant Segment, and the Houston and Houston South Segment (STB FEIS). The ARRC's preferred alternative is also referred to as the Mac Central-Houston South, in their 404(b)(1) evaluation.

The ARRC submitted an application for a DA permit for the PMRE in March 2011. After the submittal of additional information, the application was determined to be complete on April 20, 2011, and a public notice was issued May 12, 2011. This ROD documents the permit decision for the PMRE. It incorporates by reference the analysis of the impacts as required by NEPA (see STB FEIS), and discusses the secondary and cumulative impacts of the proposed project as required by the Guidelines (40 CFR 230.11(g and h) in Section 6.1.7 and 6.1.8).

AUTHORITY

I have independently reviewed and evaluated the information in the FEIS, including all information subsequently provided, in accordance with 40 CFR 1506.3 and 33 CFR 230.21, and have found them to be sufficient and accurate assessments, and therefore appropriate for the purposes of the public interest review and alternatives analysis required by 33 CFR 320.4(b)(4) and 40 CFR 230.10. The Corps hereby adopts the FEIS for the Alaska Railroad Corporation Construction and Operation of a Rail Line Extension to Port MacKenzie, Alaska, which can be accessed at the following STB website:http://www.stb.dot.gov/stb/environment/key_cases_alaska_PortMacKenzie.html.

While the EIS is fully sufficient, this ROD also incorporates the following documents provided by the ARRC to clarify information presented in the FEIS, provide information on minor changes to the rail alignment to reduce impacts to WOUS, provide information required by 33 CFR325, and to provide information in response to comments received during the Public Notice period.

ARRC materials submitted January 2011 and March 2011, as updated on February 29, 2012.

ARRC memorandum, Port MacKenzie Rail Extension Alignment Modification FAA VORTAC Lease-ADL 18248, dated February 28, 2012.

ARRC response to comments on the FEIS for the Port Mackenzie Rail Extension Project dated June 27, 2011.

ARRC response to comments and requests for additional information dated September 9, 2011 and December 16, 2011. ARRC electronic correspondences dated April 12, 2012 and April 25, 2012 regarding embankment width. ARRC letter dated June 11, 2012, electronic correspondences dated June 22, 2012 and June 27, 2012.

Final Environmental Impact Statement, Surface Transportation Board, Finance Docket No. FD 35095, Alaska Railroad Corporation Construction and Operation of a Rail Line Extension to Port MacKenzie, Alaska. March 25, 2011. http://www.stb.dot.gov/stb/environment/key_cases_alaska_PortMacKenzie.html

Fisheries Field Report, Port MacKenzie Rail Extension Project. Prepared for Matanuska-Susitna Borough and ARRC by HDR Alaska, Inc. December 2010.

Port MacKenzie Rail Extension, Alaska Railroad Corporation Compensatory Mitigation Plan, submitted February 24, 2012.

Port MacKenzie Rail Extension Project, 404(b)(1) Evaluation. Prepared for ARRC by HDR Alaska, Inc. Submitted by ARRC, March 2011.

Port MacKenzie Rail Extension Project, Preliminary Environmental and Alternatives Report. Prepared for ARRC and Matanuska-Susitna Borough, by HDR Alaska Inc., dated January 2008.

Port MacKenzie Rail Extension Project, Mac East Variant Assessment. Prepared for ARRC by HDR Alaska, Inc. Submitted by ARRC, August 2010.

Port MacKenzie Rail Extension: Reclamation Plan dated February 2012.

Port MacKenzie Rail Extension Project, Wetland Field Data Supplement. Prepared for ARRC by HDR. January 2011.

Port MacKenzie Rail Extension Project, Wetlands Technical Report and Functional Assessment. Prepared for ARRC by HDR. November 2008.

Surface Transportation Board ROD, STB Finance Docket No. FD 35095. Alaska Railroad Corporation, Construction and Operation Exemption, a rail Line Extension to Port MacKenzie, Alaska. Issued November 21, 2011.

1.0 SUMMARY OF DECISION

I have decided, in light of the overall public interest, to issue a permit pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344) for the applicant's Preferred Alternative as described in Section 3.6 "Alternative 2 - Applicant's Preferred Alternative" below. This alternative incorporates all practicable avoidance and minimization measures. This permit would authorize the discharge of fill into waters of the U.S., including wetlands.

Principal impacts resulting from the discharge of fill in waters of the U.S., including wetlands, will be permanent filling of 95.8 acres of wetlands. This authorization also requires compensatory mitigation for the direct, indirect secondary impacts to waters of the U.S., including wetlands, as described in Section 5.0.

The authorization will include special conditions to avoid and minimize potential adverse impacts and to compensate for unavoidable adverse impacts to the aquatic ecosystem, and to ensure that the project would not be contrary to the public interest and is in compliance with the Guidelines of the Clean Water Act (40 CFR 230).

All work will be performed in accordance with the attached plan, sheets 1-59, dated February 2012.

2.0 PROPOSED PROJECT

2.1 Project Description: This project description incorporates the changes to the proposed PMRE since the FEIS and public notice (see Section 2.2 below). The ARRC proposes to discharge 1,619,587 cubic yards of fill material into waters of the U.S. (WOUS), including wetlands, as part of the construction of a 35.8-mile rail line. The project will consist of three segments the Mac East Variant Segment, Connector 3 Variant Segment, and the Houston and Houston South Segment. The proposed project will result in the permanent discharge of fill material to construct the rail line resulting in the permanent loss of 95.8 acres of WOUS. The proposed rail embankment would consist of a forty-foot top surface, varying width toe-to-toe, which incorporates the rail line and access/maintenance road within one embankment. Overall, the proposed activity would have a 758.5 acre footprint, with 662.7 acres located outside of the DA's jurisdiction

Southern Section (Mac Central)
The southern section would begin at the northern boundary of the Bi-Modal Bulk Facility (BMBF) of Port MacKenzie and head northwest until mile post (MP) 3.7 where it exits the Port District. Within the Port District there would be a clear span structure installed for the crossing of the Figure 8 Loop Trail. At MP 4.7 the rail line would cross an unnamed stream near Baker's Farm Road with a bridge. The hydrology of the Baker Farm drainage has been impacted and altered by the previous construction of a section line easement road. Further, the easement road has since washed out due to the inadequate installation of culverts. The bridge would be constructed immediately north of the existing road.

The proposed route would continue north through the Port MacKenzie Agricultural Project Area and proceed to West Ayrshire Avenue. The southern section includes 3 crossings of public roads and one trail crossing.

The southern section also includes the construction of the terminal reserve. The terminal reserve will include yard sidings, storage areas and terminal buildings and facilities for crew facilities and vehicular inspection. The terminal reserve will be approximately 1,000 feet wide and 10,000 feet long constructed in an upland location. The construction of the southern section would also include staging areas and gravel sources within existing upland areas.

Northern Section (Modified Connector 3 to Houston to Houston South)
The northern section of the rail line would begin just north of West Ayrshire Avenue and would curve to the northwest as part of the modified Connector 3 segment that would run

north of My Lake and cross an adjacent ravine. It would then turn to the north east on the Houston Segment which would travel through undulating terrain with areas of wetlands. It would cross between West Papoose Twins Lake and Crooked Lake, crossing an area of hilly terrain. The remaining four miles would be on a gradually rising plain to an area near Muleshoe Lake and Little Horseshoe Lake before connecting to the Houston South Segment.

The Houston South Segment would extend northeast, passing just west of Pear Lake. This segment would cross several gravel moraine ridges that parallel the lakes in the area. There would be three crossings of public roads and five trail crossings. This segment would then tie into the ARRC mainline near MP 174.0 without crossing the Parks Highway to facilitate both north and southbound train movements. The existing track would be reconfigured to the main line and siding including 1.5 miles of track construction within the existing right-of-way. (The attached plans include ARRC's proposed route)

The following table summarizes impact from the proposed project to both WOUS and uplands. This information was taken from the updated materials received from the ARRC on February 24, 2012. The wetland categories are defined in Alaska District Regulatory Guidance Letter 09-01.

Table 1.0 - PMRE Project Wetland and Upland Impact Summary (from update received February 24, 2012)

	Permanent Impacts (acres)
Category I Wetlands (High Functioning Wetlands)	0.6
Category II Wetlands (High to Moderate Function Wetlands)	23.4
Category III Wetlands (Moderate to Low Functioning Wetlands)	71.8
Total Wetlands and Waters (acres)	**95.8**
Total Uplands (U)	662.7
Total Footprint (acres)	758.5

2.2 Project Design Revisions:

Changes since the STB FEIS: The STB included several alternatives and identified an environmentally preferred alternative in the FEIS. The ARRC provided a complete application which included a variation of the STB's environmentally preferred alternative. The ARRC provided plans that included an alternate location of the terminal reserve and a shift in a segment of the rail alignment.

The STB's FEIS analyzed two alternative locations for the rail terminal reserve, both of which would result in placement of fill into WOUS, including wetlands. In the ARRC's, April 20, 2011 application, the terminal reserve was relocated from the location in the Port District identified in the FEIS to a new location approximately 2.2 miles to the north. The new location would be within the Point MacKenzie Agricultural Area, along the Mac East Variant segment, which are uplands. The relocation of the terminal reserve

would reduce impacts to WOUS, including wetlands, by approximately 34 acres. The relocation would result in additional impacts to approximately 246 acres of agricultural area. This area is currently disturbed through agricultural activities and used for hay fields.

In addition to the proposed relocation of the terminal reserve, the application included minor modifications to the alignment, of the rail segment, to avoid or minimize impacts to WOUS, including wetlands. A section of the Modified Connector 3 segment of the STB's environmentally preferred alternative was realigned to a more direct and easterly location than presented in the FEIS to lessen impacts wetlands and jurisdictional streams that contain anadromous fish. The straightened 3-mile section reduced the rail line length by 0.5 miles, accounting for a 4-acre reduction in wetland impact and providing a more suitable stream crossing location, which would result in less impact to off-channel salmon rearing habitat. (Dorsey letter, June 27, 2011).

The STB issued their ROD on November 21, 2011. In their ROD the STB determined that the EIS adequately addressed the impacts of the proposed project and that "the preparation of a Supplemental EIS was not warranted because the impacts from the modification to the proposal are not significant or substantial. Rather, these changes would minimize potential environmental impacts, particularly in relation to wetlands considered during the EIS process. The Corps has a responsibility to independently evaluate the project modifications since the FEIS and determine if a Supplemental EIS is warranted under 40 CFR 1502.9 (c)(1)(i)(ii).

The changes to the applicant's Preferred Alternative, since the FEIS, were reflected in the Corps public notice, issued May 12, 2011.

Changes since the Corps Public Notice (PN):

The ARRC submitted a complete application on April 20, 2011. A public notice describing the project was issued and posted on our website on May 12, 2011. The public notice comment period was extended 30 days at the request of the USFWS and EPA and the PN expired on July 12, 2011.

Final updated project plans and revised calculation of all impacts to WOUS were received February 24, 2012, and are outlined below.

In response to comments received during the public notice and in response to the Federal Aviation Administration (FAA) denial of a request made by the ARRC to cross a FAA lease area near Big Lake, Alaska, the ARRC modified a portion of the proposed route to shift a 2-mile segment of the proposed rail located near milepost 26 of the proposed rail line. The original proposed location traversed an area west of Muleshoe Lake. The shift in the alignment would reduce wetland impact by 4.4 acres and would eliminate an anadromous fish stream crossing on the eastern side of Muleshoe Lake.

These changes were made either in response to comments, or as a result of refining the design, and resulted in an overall reduction in impacts to WOUS. The final determination of permanent impacts to WOUS is as stated in Table 1.0 above. The proposed change would further reduce environmental impacts and are considered minor modifications. Therefore, no additional Public Notice or public comment period was necessary for these changes. (ARRC memorandum, Port MacKenzie Rail Extension Alignment Modification FAA VORTAC Lease-ADL 18248, dated February 28, 2012.)

2.3 Project Purpose:

ARRC Purpose and Need: The ARRC stated purpose is to provide rail service to Port MacKenzie and connect the Port with the existing ARRC main line, providing Port customers with an alternative means of transportation between Port MacKenzie and Interior Alaska.

Port MacKenzie is the closest deep-water port to Interior Alaska and has capacity to handle bulk commodities. The Port's market includes bulk commodities (e.g., wood chips, saw logs, coal, sand/gravel, and cement), iron or steel materials (e.g., scrap metal), vehicles and heavy equipment, and mobile or modular buildings. Unlike similar port facilities that serve Panamax and Capesize vessels, Port MacKenzie does not have rail service. The project would support ARRC's statutory goal to foster and promote long-term economic growth and development in the State of Alaska.

Basic Project Purpose: The Corps has determined that the basic project purpose [40 CFR 230.10(a)(3)] is to provide bulk material transportation. Providing transportation is not a water dependent activity. The project is partially sited in a special aquatic site, jurisdictional wetlands; therefore, pursuant to 40 CFR 230.10(a)(3), practicable alternatives not involving special aquatic sites are presumed to be available and are presumed to have less adverse impact on the aquatic ecosystem unless clearly demonstrated otherwise. Alternatives are discussed below in Section 3.0.

Overall Project Purpose: The overall project purpose is used in the determination of practicable alternatives since the Guidelines define practicable to mean: "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the *overall project purpose*" [40 CFR 230.10(a)(2)]. While the definition of overall project purpose is the Corps' responsibility, it must take into consideration the ARRC stated need for the project and the type of project being proposed [33 CFR 325 Appendix B paragraph 9b(4)]. The overall project purpose should be specific enough to define the ARRC needs, but not so restrictive as to constrain the range of alternatives that must be considered under the Guidelines. The overall project purpose is predicated on two needs:

- Providing an additional mode of surface transportation to Port MacKenzie users, providing an economical alternative for movement of bulk materials.

- Foster and promote long-term economic growth and development in the State of Alaska.

The Corps has determined that the overall project purpose is to provide efficient and cost effective bulk material transportation between Port MacKenzie/Knik Arm and Interior Alaska. Although the ARRC is a railroad corporation, focusing specifically on rail transportation would exclude other modal alternatives, and result in an overall project purpose that is too narrow, such that the consideration of alternatives would be unreasonably limited.

Where the activity associated with the placement of fill material in a special aquatic site does not require access or proximity to or locating within the special aquatic site in order to fulfill its basic purpose (i.e., the activity is not water dependent) the Guidelines pose two rebuttable presumptions: 1) practicable alternatives not involving special aquatic sites are presumed to be available, and 2) practicable alternatives not involving discharges to special aquatic sites are presumed to have less adverse impact on the aquatic ecosystem. It is the ARRC's responsibility to clearly and convincingly rebut the presumptions for non-water dependent projects [CFR 230.10(a)(3)].

Failure to rebut the presumptions and demonstrate compliance with the Guidelines would result in a permit denial, regardless of a lead federal agency's selection of a preferred alternative through the NEPA process. Stated another way, if the permit application for the preferred alternative is denied by the Corps, that alternative shall not be built. This underscores the critical distinctions between 'purpose and need' (for NEPA) and 'basic project purpose' (for the Guidelines); and between 'preferred alternative' (for NEPA) and 'least environmentally damaging practicable alternative' (LEDPA; for the Guidelines). NEPA imposes procedural, not substantive requirements. The Guidelines, however, impose a substantive regulatory requirement that prohibits the discharge of dredged and/or fill material where there is a practicable alternative that would have less adverse impact on the aquatic environment, so long as the alternative does not have other significant adverse environmental consequences (230.10(a)).

2.4 Scope of Analysis

The District Commander (DC) shall establish the scope of the environmental assessment to address impacts of the specific activity requiring a DA permit and those portions of the entire project over which the DC has sufficient control and responsibility to warrant Federal review. This control and responsibility over portions of the project beyond DA jurisdiction exists when Federal involvement turns an essentially private action into a Federal action for purposes of the NEPA review. These are cases where the environmental consequences of the larger project, including activities in uplands, are essentially a product of the DA permit action.

The factors considered to determine whether there is sufficient control and responsibility over other portions of a project or the entire project is:

1. Whether the regulated activity comprises “merely a link” in a corridor type project (e.g. a transportation or utility transmission project).

2. The extent to which the entire project will be subject to Corps jurisdiction.

3. Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity.

4. The extent of cumulative Federal control and responsibility.

Our consideration of these four factors and our determined Scope of Analysis for National Environmental Policy Act (NEPA) purposes are as follows.

1. Whether the regulated activity comprises “merely a link” in a corridor type project (e.g. a transportation or utility transmission project).

The project is part of a larger transportation system or utility system. The Corps jurisdiction for this project is the placement of fill into WOUS, including wetlands, for the proposed rail line. The Corps jurisdiction for this project is not limited to a single stream or wetland. The wetlands are distributed throughout the proposed 35-mile long rail line and include wetland crossing several miles long.

2. The extent to which the entire project will be subject to Corps jurisdiction.

Portions of the proposed project area would be constructed in WOUS, including wetlands. The total size of the proposed rail line is approximately 758.5 acres of which 95.8 acres are wetlands. No additional DA authorizations would be required for the project unless the applicant makes modifications to the development plans.

There does not appear to be sufficient control and responsibility for the Corps to “Federalize” the project because:

a. Approximately 13% of the project area within the Corps jurisdictional wetlands.

3. Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity.

The uplands in the immediate vicinity of the regulated activity are included in the proposed development plan. Due to the extent of wetlands and other WOUS within the project area, and the lack of alternatives sited entirely in uplands, authorization from the DA prior to project implementation is required. Without a permit from the DA authorizing the placement of fill material in WOUS, a large portion of the project located in uplands could not be accessed and therefore could not be constructed.

4. The extent of cumulative Federal control and responsibility.

In determining whether sufficient cumulative involvement exists to expand the scope of Federal action, the DC shall consider whether other Federal agencies are required to take Federal action:

- The placement of fill material in waters of the U.S. for the proposed project is regulated activity by the Corps under Section 404 of the Clean Water Act. This action is being reviewed as part of the proposed project.
- The construction and operation of the proposed rail line required approval from the Surface Transportation Board, pursuant to 49 United States Code Sections 10502 and 10901.
- Other potential Federal involvement which could affect our control and responsibility include laws applicable to agency coordination efforts (e.g., Endangered Species Act, Fish and Wildlife Coordination Act, the National Historic Preservation Act, and other environmental laws and executive orders). The Corps will complete the requirements of these statutes and applicable regulations.

Taken as a whole, there is a substantial level of Federal control over the proposed project.

Determined Scope of Analysis

Due to the DA control and responsibility associated with the project, the scope of analysis for the proposed action will include the evaluation of direct, indirect/secondary, and cumulative impacts; project benefits and detriments resulting from the proposed work within WOUS and outside WOUS.

For the purposes of NEPA, reasonably foreseeable project-related impacts will be summarized and/or identified in the secondary and cumulative sections of this document (see Section 6.1).

3.0 ALTERNATIVES

3.1 Alternatives Considered but eliminated from detailed study during the EIS process:

Alternatives eliminated during the EIS process are discussed in Section 2.2.2 of the FEIS. The STB considered adjustments to the proposed rail segments and considered a new segment to reduce potential environmental impacts. A total of nine adjustments to alignments and/or new alignment were considered during the EIS process. These alternatives were eliminated from detailed study because they were infeasible or would result in increased environmental impacts. The Corps was a cooperating agency on the EIS and agrees that the alternatives dropped from further analysis were either not reasonable alternatives under NEPA, not practicable alternatives as defined by 40 CFR 230.10(a)(2), and/or would result in greater impacts to WOUS.

3.2 Reasonable Alternatives Carried Forward in the STB FEIS:

The alternative corridors presented in the STB FEIS consisted of a combination of segments. The project alternative corridors consist of a southern, connector, and northern segments. Descriptions of these segments comprising the complete range of build alternatives are addressed in Section 2.3 of the STB FEIS.

The following discussion includes all alternatives carried forward in the STB FEIS as reasonable under NEPA. Attachment 1 of this document provides a map of the location of the Reasonable Alternatives from the FEIS.

Table 2.0 Comparison of All Alternatives Analyzed as Reasonable in the STB FEIS. (August 2010)

Parameter	Mac West-Willow	Mac West-Houston North	Mac West –Houston South	Mac West-Big Lake	Mac East-Willow	Mac East-Houston North	Mac East-Houston South	Mac East-Big Lake	Mac Central-Willow	Mac Central-Houston North	*Mac Central-Houston South*[1]	Mac Central-Big Lake
Length (miles)	48.0	35.6	36.3	36.8	46.2	35.0	35.7	32.1	49.7	39.4	*35.8*	36.6
Total Wetlands/Waters Filled (acres)	254.6	315.4	278.4	268.6	143.9	207.6	167.5	172.5	140.7	204.3	*164.2 *(95.8)*	167.0
Category I Wetlands	4.3	1.2	1.4	2.5	4.2	1.0	1.3	2.5	4.2	1.0	*1.3 *(0.6)*	2.5
Category II Wetlands	32.0	49.2	37.4	43.5	21.0	37.7	25.9	35.6	17.6	34.3	*22.4 *(23.4)*	32.2
Category III Wetlands	218.3	268.1	239.6	222.6	118.8	168.8	140.3	134.5	119.0	169.0	*140.5 *(71.8)*	132.4
Upland Impacts	353.9	467.7	358.8	552.4	699.2	507.0	502.1	570.2	700.7	508.6	*503.7 (662.7)*	558.7
Total Footprint (acres)	632.3	736.3	677.3	806.9	843.1	714.6	669.6	742.8	841.4	712.9	*667.9 (758.2)*	725.7
Stream Crossings												
Anadromous	7	9	6	6	6	8	5	8	6	8	*5 *(4)*	8
Non-Anadromous	9	9	7	9	7	7	5	2	7	7	*5*	2
Private Property Impacts (acres)	244	210	317	487	262	228	335	422	237	196	*233*	378
Residential Displacements	-	-	-	20	1	1	1	21	-	-	-	20
At-Grade Road Crossings	5	7	7	8	8	6	7	7	7	6	*6*	9
Trail Crossings	11	8	8	11	9	6	6	9	9	6	*5*	9
Section 4(*f*) Impacts												
Parks and Rec/Refuges (acres)	217	187	119	83	100	69	-	-	100	69	-	-
Noise impact (acres)	2,765	2,258	1,489	992	1,276	769	-	-	1,276	769	-	-
6 (f) Impacts	1	-	-	-	1	-	-	-	1	-	-	-
Project Cost (+25% contingency)[2]	$287M	$224M	$203M	$238M	$283M	$220M	$199M	$217M	$250M	$186M	*$167M*	$193M

[1] FEIS Environmentally Preferred Alternative
[2] Based upon 2007/2008 dollars
* (As proposed and Modified by ARRC)

3.3 Consideration of the Environmentally Preferred Alternative:

Table 2.0 above provides a comparison of impacts associated with the reasonable alternatives carried through the FEIS. This impact information and information provided by both the STB FEIS (Table 2-2) and the ARRC's DA permit application material is used for the Corps consideration of the Environmentally Preferred Alternative.

The Mac East Variant-Connector 3 Variant-Houston-Houston South Alternative (Mac Central-Houston South), as described in the STB FEIS Section 2.5.1 and as modified by ARRC (See Section 2.2 for revisions) is the Corps Environmentally Preferred Alternative, and would have a comparatively low level of potential impacts to most of the specific resource categories in Table 2.0 and the STB FEIS Table 2-2, making it the alternative with the least potential for environmental effects overall. This alternative is located in an area of flat topography. In addition, it is 1 of 2 alternatives with the fewest overall water crossings, proposed drainage structures, and culvert extensions; one of the alternatives with the fewest number of proposed culverts; it has a comparatively low level of both floodplain acres and floodplain and potential floodplain crossings; and in the FEIS had had the third lowest amount of wetlands and water acreages disturbed. ARRC has modified this alternative to further reduce impacts to wetlands post FEIS and Public Notice (See Section 2.2 for revisions). It is 1 of 4 alternatives with the fewest number of fish-bearing stream crossings, 1 of 2 alternatives with the fewest number of anadromous stream crossings, and 1 of 2 alternatives with the lowest estimated index of upstream fish habitat potential. It would have no direct impacts to State parks or recreational area and no residences or businesses within the 200-foot right-of-way (ROW), a moderate number of officially recognized trails crossed and a small number of Iditarod Dog Sledding Historic District contributing trails crossed, and no impacts to state recreation or refuge areas.

3.4 Practicable Alternatives Determination:

Although the following alternatives were determined reasonable alternatives presented in the STB FEIS, the Corps has determined that some of the alternatives presented would not be practicable, "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the *overall project purpose*" [40 CFR 230.10(a)(2)]. The Corps reviewed the costs provided by the Railroad and STB for construction of the railroad alternatives listed and shown in Table 2.0. The Corps must determine when excessive construction costs would render a project alternative not practicable. In this case, the Corps determined that construction costs exceeding the applicant's alternative by more than fifteen percent (15%) would render the project alternative not practical. The following is the Corps determination of practicability of these alternatives.

Mac West, Connector 1, and Willow (Mac West Willow): This route would be the longest, 46.4 miles and would result in the impacts to 254.6 acres of WOUS, wetlands and have greatest impact to category I (4.3 acres) wetlands. The total cost of this alternative would be 287 million dollars, 71 percent more than the applicant preferred

alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac West, Connector 1, Houston, and Houston North (Mac West-Houston North): This route would be 35.6 miles long and would have the greatest acreage of wetland impacts, 315.4 acres, across alternatives. In addition, this alternative would cross nine anadromous streams and nine non-anadromous streams. The total cost of this alternative would be 224 million dollars, 34 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac West, Connector 1, Houston, and Houston South (Mac West-Houston South): This route would be 36.5 miles long and impact 278.4 acres of wetlands. This alternative would also directly impact 119 acres of parks and recreational areas. The total cost of this alternative would be 203 million dollars, 21 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac West, Connector 2, and Big Lake (Mac West-Big Lake): This route would be 36.7 miles long and would impact 268.6 acres of wetlands. This alternative would also impact 4(f) resources and result in 20 residential displacements. In addition, the Big Lake segment of this alternative would cross two wetland mitigation bank parcels that are part of the Su-Knik Mitigation Bank. The Big Lake segment would also require the relocation of nearly 2,460 linear feet of anadromous stream. The total cost of this alternative would be 238 million dollars, 42 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac East, Connector 3, and Willow (Mac East-Willow): This route would be 46.0 miles long and impact 143.9 acres of wetlands. This route would have the second highest amount of Category I wetland impacts. In addition, this route would directly impact parks and recreational areas and would result in one residential displacement. The total cost of this alternative would be 283 million dollars, 69 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac East, Connector 3, Houston, and Houston North (Mac East-Houston North): This route would be 35.2 miles long and impact 207.6 acres of wetlands. Similar to other routes this alternative would result in direct impacts parks and recreational areas and result in one residential displacement. The total cost of this alternative would be 220 million dollars, 31 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac East, Connector 3, Houston, and Houston South (Mac East-Houston South): This alternative would be 36.0 miles long and would impact 167.5 acres of wetlands. This

alternative would also result in one residential displacement. The total cost of this alternative would be 199 million dollars, 19 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac East and Big Lake (Mac East-Big Lake): This route would be 32.1 miles long and impact 172.5 acres of wetlands. Similar to the other route alternative including the Big Lake Segment this alternative would result in the greatest number of residential displacements. The total cost of this alternative would be 217 million dollars, 29 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac East Variant, Connector 3 Variant, and Willow (Mac Central-Willow): This route would be 45.1 miles long and would impact 140.7 acres of wetlands. Although the wetland impacts are less in this comparison, this alternative would have the second highest amount of Category I wetland impacts. In addition, this alternative would impact 100 acres of parks and recreational areas. The total cost of this alternative would be 250 million dollars, 49 percent more than the applicant preferred alternative. The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

Mac East Variant, Connector 3 Variant, Houston, and Houston North (Mac Central-Houston North): This route would be 34.3 miles long and would impact 204.3 acres of wetlands. In addition to having a greater impact on wetlands this route would also impact parks and recreational areas. The total cost of this alternative would be 186 million dollars, 11 percent more than the applicant preferred alternative. This alternative was determined to be practicable as defined by 40 CFR 230.10(a)(2) and is carried forward for further analysis to determine if it is the LEDPA.

Mac East Variant, Connector 3 Variant, Houston and Houston South (Mac Central-Houston South): This Alternative was identified as the "Environmentally Preferred Alternative" in the STB FEIS. This alternative would be 35.8 miles long and as proposed would impact 164.2 acres of wetlands. As shown in Table 2.0 above, the proposed route would result in the least impacts to private property and no residential displacements. In addition, it would have no direct impacts to parks and recreational areas. ARRC has modified this alternative to reduce impacts to wetlands post FEIS and Public Notice (See Section 2.2 for revisions). This alternative was determined to be practicable as defined by 40 CFR 230.10(a)(2) and is carried forward for further analysis to determine if it is the LEDPA.

Mac East Variant, Connector 2a, and Big Lake (Mac Central-Big Lake): This alternative would be 36.6 miles long and impact 167 acres of wetlands. Similar to the other route alternative including the Big Lake Segment this alternative would result in the second greatest number of residential displacements. The total cost of this alternative would be 193 million dollars, 15 percent more than the applicant preferred alternative.

This alternative was determined to be practicable as defined by 40 CFR 230.10(a)(2) and is carried forward for further analysis to determine if it is the LEDPA.

3.5 Discussion of Project Component Alternatives:

Several comments received during the EIS process and Public Notice period raised concerns regarding the width of the proposed rail embankment. In response to these concerns and at the request of the Corps, ARRC provided the following comparison of Rail Embankment width alternatives.

Rail Embankment width: Several comments received during the EIS process and Corps Public Notice questioned the need for a widened rail embankment including a construction/maintenance area, adding 12 feet in width to the embankment crown. The ARRC has stated that constructing the rail embankment without including a side access/maintenance area would not be practicable in light of logistics. Section 2.1.1.2 of the STB FEIS states the road would be installed before the rail line, and initially used to accomplish the construction of the proposed rail, which is now the standard practice for railroad construction. It is also standard practice to leave those roads in place after the rail line is complete because the roads are used for maintenance of the track and rail bed, emergency access to the rail, and other miscellaneous needs. In addition, ARRC has provided an analysis of rail embankment widths compared to the proposed 40-foot embankment. Based on the analysis below, I concur with the ARRC that the proposed embankment width would be the LEDPA.

Table 3.0 – Comparison of Embankment width Alternative

	ARRC Proposed 40-fFoot Embankment w/2:1 Side Slopes	**Narrow 28-foot Embankment with 4:1 Side Slopes**	**Narrow 28-foot Embankment restored to 3:1 Side Slopes After Track Construction is Complete**	**Narrow 28-foot Embankment Built with Select Material Restored to 2:1 Sides Slopes After Construction**
Permanent Wetland Impacts	96 Acres	117 Acres	96 Acres	87 Acres
Temporary Wetlands Impacts	0 Acres	0 Acres	11 Acres	11 Acres
Total Wetland Impacts	**96 Acres**	**117 Acres**	**107 Acres**	**98 Acres**
Estimated Additional Construction Time	**-**	**1 Year**	**2 years**	**2 years**
Total Estimated Additional Track Construction Costs ($)	**-**	**$ 8,603,200**	**$ 8,815,900**	**$ 17,117,000**
Track Construction	-	$ 5,265,000	-	-
Clearing and Grubbing	-	$ 144,900	-	$ 100,000
Embankment	-	$ 6,900	$ 224, 200	$ 4,953,000
Section Building	-	$ 1,280,000	$ 1,280,000	$ 1,280,000
Environmental Compliance	-	$ 96,000	$ 192,000	$ 217,000
Seeding	-	$ 53,400	$ 89,000	$ 164,000
Removal of Material	-	-	$ 3,920,000	$ 5,668,000

Project Administration	-	$ 1,550,000	$ 3,100,000	$ 3,100,000
Additional Material Site Development	-	-	-	$ 1,710,000
Estimated Additional Annual Avoidable Maintenance Costs ($)	**$ 50,000**	**$ 960,625**	**$ 960,625**	**$ 960,625**
Estimated Additional Annual Avoidable Maintenance Costs (%)	**-**	**915%**	**915%**	**915%**

40-foot Rail Embankment with 2:1 side slopes (ARRC Proposed Design): This design would include a 28-foot area for the rail construction of center of the embankment and include a 12-foot area to be used for construction and maintenance purposes. The side slope of the embankment would be 2:1. It is anticipated that the steeper slope would have some failure, but ARRC would be able to perform maintenance from the side access area. Access for maintenance from narrower top embankment would have to be performed from the ground and could impact additional wetlands as a result of equipment operations.

28-foot Rail Embankment with 4:1 side slopes: This design would consist of a 28-foot top surface (crown) of the embankment and 4:1 side slopes. The ARRC has stated that a 28-foot embankment would leave less than 10 feet available on the embankment top for vehicular access alongside the work area once the ties have been laid on the grade. With a 28-foot embankment top, vehicles would be forced to operate with one set of wheels on the 5 feet or less of remaining embankment surface. An embankment slope of 2:1 would be too steep to safely operate vehicles during construction. ARRC would have to flatten the embankment slopes from 2:1 to at least 4:1, the minimum slope considered "recoverable." ARRC states that a 28-foot embankment top would have a greater impact on wetlands than the use of 2:1 slopes with a 40-foot embankment top, increasing the typical overall footprint by 8.5 feet and increasing the total wetland impact by 21 acres. The Corps has determined that this alternative would not be practicable due to cost and logistics and has eliminated it from detailed analysis.

28-foot Embankment restored to 3:1 side slopes after track construction: As stated in ARRC's June 11, 2012 letter, a 4:1 side slope would be the steepest slope that could be safely operated on during construction. ARRC also looked at restoring the embankment side slopes to 3:1 after track construction is complete. ARRC states that a 3:1 side slope is the minimum possible for long-term stability of the slopes and integrity of the railroad structure, as a result of the material available for fill. This would result in the same acreage of wetland impacts as a 40-foot embankment, but would result in an additional 11 acres of temporary fill in wetlands that would be restored. In addition, this would result in two additional years of construction time and an increase in construction cost. The Corps has determined that this alternative would not be practicable due to cost and logistics and has eliminated it from detailed analysis.

28-foot Rail Embankment Built with Select Material Restored to 2:1 side slopes after construction: ARRC also provided information regarding a 28-foot embankment and restoring the embankment slopes from 4:1 to 2:1 after track construction and using material that provides greater stability for the embankment. Based on the information ARRC has provided the quantity of higher quality material is not available. In addition this method would increase the construction period 2 additional years and increase the overall cost by 17 million dollars. The Corps has determined that this alternative would not be practicable due to cost and logistics has eliminated it from detailed analysis.

Elevated Rail: Comments were received during the EIS process and Corps Public Notice that suggested that elevating the rail through wetlands would be an alternative that would minimize wetland impacts. The ARRC responded to questions regarding the practicability of elevated portions of the rail through wetlands. Section 4.5.5 of the STB FEIS discussed the practicability of elevating portions of the rail through wetlands. In the referenced documents above the ARRC states "In general, it costs approximately $13,000 per foot to build an elevated rail trestle. By contrast, the cost of a standard rail line constructed at ground level is approximately $1,000 per foot. Assuming a 35-mile project, the elevation of less than 1.5 miles of track would add 50% to the overall project cost. Less than 3 miles would double the overall project cost. That added cost alone makes trestle construction not practicable." The Corps has determined that this alternative would not be practicable due to cost and has eliminated it from detailed analysis.

3.6 Alternatives Carried Forward for Determination of the Least Environmentally Damaging Practicable Alternative (LEDPA)

3.6.1 No Action Alternative (Hereafter Alternative 1): The No-Action alternative was analyzed in the STB EIS under that name. Under this alternative, no permit would be issued for the Port MacKenzie Rail Extension project and bulk material would continue to be transported to Port MacKenzie via truck on roads. Cost of transport of material would increase along with continued road maintenance from usage. There would be minimal impacts to the physical or human environments from the proposed action. 33 CFR 325, Appendix B (NEPA Implementation Procedures for the Regulatory Program), Section 9(b)(5)(a) states that "those alternatives that are unavailable to the ARRC, whether or not they require Federal action (permits), should normally be included in the analysis of the no-Federal-action (denial) alternative. Such alternatives should be evaluated only to the extent necessary to allow a complete and objective evaluation of the public interest and a fully informed decision regarding the permit application."

Non-rail alternatives, which are unavailable to the ARRC, were briefly discussed in Sections 1.2 and 2.2.2 of the STB FEIS for the Port MacKenzie Extension project. Discussion of continued use of trucking freight on the existing road was discussed in Section 1.2 of the FEIS. The Corps determined that other modal alternatives needed to be evaluated under the Guidelines as potentially practicable alternatives. These non-rail modal alternatives are discussed below, as part of the No Action Alternative.

Trucking freight: The discussion of trucking freight was generated in response to the Corps comments on the STB DEIS. The FEIS states: "At present, trucks are the only available mode of surface transportation for bulk materials and other freight to and from Port MacKenzie. Trucks, as compared to rail, are inefficient for bulk commodity movements and generally are used for short-haul movements of these commodities. A bulk commodity is carried by rail to within 30 miles of Port MacKenzie. From this point the commodity must be transloaded to trucks for final delivery to Port Mackenzie. The ARRC states that the cost of intermediate transloading from rail to truck and the additional truck ton-mile cost for final delivery places Port MacKenzie at a significant disadvantage to other regional ports with rail service. The ARRC believes that by creating a rail connection with Port MacKenzie, the proposed project would make the development of existing natural resources in Interior Alaska, including the coal, limestone, timber, and metallic mineral resources along the existing ARRC main line corridor, more economically feasible."

"For example, a railroad can move 1 ton of freight 457 miles on a gallon of diesel fuel, compared to 133 miles for a truck. The Federal Railroad Administration (FRA) recently compared overall fuel efficiency of rail and truck transport on 23 competitive corridors throughout the nation and concluded that, in all cases, moving freight by railroad is more fuel efficient than by truck. The report concluded that, "rail fuel efficiency varies from 156 to 512 ton-miles per gallon, truck fuel efficiency ranges from 68 to 133 ton-miles per gallon." Both efficiency in handling and reduction in fuel use translate into substantial cost savings for freight shipped via rail transport rather than transport by truck over the highway."

The above analysis shows that the non-rail modal alternatives are not practicable in light of the overall project purpose, and therefore, for the purposes of the Guidelines, further evaluation is unnecessary.

3.6.2 Alternative 2 - ARRC Proposed Project:

Mac East Variant, Connector 3 Variant, Houston and Houston South (Mac Central-Houston South): This Alternative is described in detail in Section 2.0 above. This alternative would be 35.8 miles long and as proposed would impact 95.8 acres of wetlands. As shown in Table 2.0 above, the proposed route would result in the least impacts to private property and no residential displacements. In addition, no direct impacts to parks and recreational areas would occur.

3.6.3 Alternative 3 - Mac East Variant, Connector 3 Variant, Houston, and Houston North (Mac Central-Houston North):

This route would be 34.3 miles long and would impact 204.3 acres of wetlands. In addition to having a greater impact on wetlands this route would also impact parks and recreational areas. This alternative would have greater impacts to the aquatic resource and would have other adverse environmental consequences compared to the proposed

action, and therefore would not be the least environmentally damaging practicable alternative.

3.6.4 Alternative 4 - Mac East Variant, Connector 2a, and Big Lake (Mac Central-Big Lake):

This alternative would be 36.6 miles long and impact 167 acres of wetlands. Similar to the other route alternative including the Big Lake Segment this alternative would result in the second greatest number of residential displacements. This alternative would have greater impacts to the aquatic resource and would have other adverse environmental consequences compared to the proposed action, and therefore would not be the least environmentally damaging practicable alternative.

3.7 Determination of the Least Environmentally Damaging Practicable Alternative:
The ARRC Preferred Alternative (Mac Central-Houston South), Mac Central-Houston North, and Mac Central-Big Lake, was shown to be Practicable in Sections 3.6.2, 3.6.3, and 3.6.4 above. The ARRC's Preferred Alternative would result in less impact to aquatic resources when compared against the other practicable alternatives. Furthermore, the ARRC Preferred Alternative would not result in other significant adverse environmental consequences. The ARRC Preferred Alternative as described in Sections 3.6.2 and 2.0 above is in compliance with 40 CFR 230.10(a) and was determined to be the LEDPA with the incorporation of mitigation measures and compensation for the aquatic resources functions and values lost (see Sections 5.0 and 6.0). This alternative is carried forward for further analysis to determine compliance with the Guidelines, specifically, 40 CFR 230.10 (b), (c) and (d), and to determine whether it could be contrary to the public interest (33 CFR Section 320.4 (a)(1)).

4.0 PUBLIC INVOLVEMENT

4.1 Federal Agencies:

4.1.1 Environmental Protection Agency (EPA):
The EPA submitted the following comments in a letter dated July 13, 2011. The ARRC responded to EPA comments in a letter dated September 8, 2011. A copy of the ARRC's response was provided to the agency. EPA did not provide additional comments. The following are EPA's comments:

EPA 1. The EPA commented that the ARRC has not demonstrated that the proposed discharge is the Least Environmentally Damaging Practicable Alternative (LEDPA) to achieve the overall project purpose.

Corps Response: See Section 3.0 for discussion on alternatives considered and the determination of the LEDPA. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to demonstrate the least environmentally damaging practicable alternative.

EPA 2. The ARRC has not demonstrated that the proposed discharge will not cause or contribute to significant degradation of the waters of the United States.

Corps Response: Sections 6.1.1, 6.1.5, 6.1.8 and 6.4.2 discuss impacts to WOUS. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine the proposed project would not result in significant degradation to aquatic resources, with the inclusion of the special conditions in Section 5.0 of this document.

EPA 3. Finally, the ARRC has not demonstrated that the proposed discharge includes all appropriate and practicable measures to avoid and minimize potential harm to the aquatic ecosystem."

Corps Response: ARRC has provided avoidance and minimization measures to minimize potential harm to the aquatic resource, see Section 5. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine the ARRC's proposal avoids and minimizes impacts to the aquatic environment to the maximum extent practicable.

EPA 4. "The embankment segment depicted on pages 2, 36 and 37 of 58 of Attachment B, Permit Application Drawings, would result in the loss of 29 acres of wetlands. The proposed embankment at this location differs from that identified in Volume Three of the Preliminary Environmental and Alternatives Report (PEAR). The rail alignment depicted in the PEAR is closer to Port MacKenzie Road and utilizes more MSB-owned uplands between the Port and Baker Farm Road. The EPA concludes the PEAR alignment would result in fewer wetland impacts, both in terms of footprint and secondary impacts to hydrology and habitat. Proximity to Port MacKenzie Road should facilitate access for construction and maintenance. In addition, track curvature on the southern approach to the bridge at the Baker Farm Road stream (MP Mac Central 4.5) is considerably less sharp in the PEAR alignment... The ARRC has not presented any reason why the specific alignment shown in the PEAR would not be practicable." (Pg. 3, Par. 3)

ARRC Response: The ARRC responded to this comment in their December 16, 2011 response to comments. The ARRC states that if the railroad were to be placed immediately adjacent to the roadway, all surface access to adjoining businesses would be severed as the railroad switches cars along the roadway. This would create a logistical and safety problem, because of the unpredictable movement back and forth of railroad traffic as it is being switched across all the driveway entrances along the existing Point MacKenzie road.

The lands along Port MacKenzie road have been identified by the Matanuska-Susitna Borough as industrial sites in their port development plan. The limitation of railroad grades make it impossible for the proposed railroad to be immediately next to the roadway and still provide vehicle access into the industrial development along the Point MacKenzie Road.

Corps Response: I concur with the ARRC that aligning the rail closer to Port MacKenzie road would not be practicable in light of logistics (December 16, 2011 response to comments pg. 6).

EPA 5. The EPA expressed concerns regarding the need for an access road long the entire rail line and the width of the proposed embankment. Regarding their concerns, they opined:

- "The EIS did not evaluate constructing a rail line without an access road, did not evaluate different widths, and did not provide specific information about the proposed embankment.

- "The ARRC 404(b)(1) evaluation does not address how the proposed embankment width is the LEDPA."

- "The evaluation suggests that an embankment width of less than 40 feet would be a practicable alternative, although it also suggests that the 28-foot embankment would be practicable."

- "The Evaluation does not reference any industry standard or regulatory requirement for the proposed embankment width. Reducing the embankment width in wetlands could significantly reduce the overall footprint impacts."

- "The EPA concludes the ARRC has not demonstrated that their proposed discharge is the LEDPA in terms of embankment width."

- "There are multiple proposed at-grade road crossings and section line easements that can provide access for construction, maintenance, and emergency response for the wetland areas were the embankment is narrower."

Corps Response: The ARRC responded to these comments regarding the rail embankment width in their September 8, 2011 and November 16, 2011 responses to comments and provided additional information in emails, dated April 12, 2012, April 25, 2012, ARRC letter dated June 11, 2012, emails dated June 22, 2012 and June 27, 2012.at the request of the Corps. The ARRC has stated the construction of the rail embankment without including a side access/maintenance road would not be practicable in light of cost and logistics, and I agree with the ARRC on this topic for reasons provided in Section 3.5. In addition, ARRC presented information that the construction of a rail with a narrower embankment would result in additional impacts to the aquatic resource. Section 3.5, of this document provides an analysis of embankment width for the proposed project.

EPA 6. The practicability of elevating portions of the rail to avoid impacts to wetlands and waters should be evaluated. They expressed an interest in the practicability of bridging areas where the differential between the proposed rail elevation and the existing ground is 15 feet or greater. Specifically, EPA raised these concerns:

- The cost of elevated rail has not been compared to the actual cost of the proposed fill embankment.

- No bridges are currently proposed for crossing wetlands but no explanation has been provided as to how bridging streams and uplands would be practicable but bridging wetlands would not.

- The ARRC has not provided any information identifying special circumstances that would make elevating rail within the proposed corridor more expensive than at another location.

The ARRC responded to questions regarding the practicability of elevated portions of the rail through wetlands. In the reference documents above the ARRC states "In general, it costs approximately $13,000 per foot to build an elevated rail trestle. By contrast, the cost of a standard rail line constructed at ground level is approximately $1,000 per foot. Each of the proposed alternatives in this case would cross stretches of wetlands and floodplains. Assuming a 35-mile project, the elevation of less than 1.5 miles of track would add 50% to the overall project cost. Less than 3 miles would double the overall project cost. That added cost alone makes trestle construction not practicable."

Corps Response: The Corps concurs with the ARRC that elevating portions of the rail in wetlands would not be practicable in light of cost and logistics. (STB FEIS, pg 5.4-31, March 2011 Section 404(b)(1) evaluation, pg. 14 and 15, September 8, 2011 response to comments, pg 6 and 7; and December 16, 2011 response to comments pg. 5).

EPA 7. The information in the EIS does not demonstrate that an earthen embankment stretching from horizon to horizon would not adversely affect aesthetic appreciation opportunities.

Corps Response: Although the earthen embankment would be aesthetically different from the current natural condition, the majority of the project area is located within undeveloped area. Aesthetic appreciation of the proposed project would be dependent on users of the area. STB FEIS adequately addresses aesthetic impacts and with mitigation imposed by the STB, the proposed project would not result in significant degradation to aesthetics. In addition aesthetics are discussed in Section 6.5.4 of this ROD.

EPA 8. The EIS does not provide information sufficient to demonstrate that unavoidable effects would not be significant.

Corps Response: Sections 6.1.1, 6.1.5, 6.1.8 and 6.4.2 discuss impacts to WOUS. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine that the proposed project would not result in significant degradation to aquatic resources.

EPA 9. The proposed discharge would adversely affect special aquatic sites through

permanent loss of wetlands. The effect of this loss on the "diversity, productivity, and stability" of these special aquatic sites has not been evaluated. Nor have the secondary effects of the project (beyond the footprint) been evaluated sufficiently to demonstrate that they would not contribute to significant degradation and that measures to avoid and minimize those effects do not exist.

Corps Response: Impacts to the aquatic environment and organisms are discussed in Section 6.1, including Cumulative and Secondary Effects on the Aquatic Resource. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine the proposed project would not result in significant degradation to aquatic resources.

EPA 10. EPA commented that ARRC has not reported collecting wetland hydrologic data such as flow volume or direction, and did not attempt to quantify the impacts of the proposed discharges on wetland hydrology in their 404(b)(1) evaluation.

Corps Response: The ARRC responded this comment in their September 08, 2011 letter. The ARRC stated the current proposed project has been designed to minimize impacts to surface and shallow subsurface hydrology and is intended to maintain the existing hydrologic conditions. Most of the culverts within wetlands are placed to support incidental cross drainage and maintain existing wetland type hydrologic regimes (i.e., saturated, seasonally flooded, and semi-permanently flooded). Culvert specifications and locations were initially determined by a comprehensive evaluation of site topography and wetland field data; project engineers, wetland scientists, and fish scientists then consulted with environmental regulators during the pre-application process to refine many of the locations and size culverts accordingly. An examination of existing fill embankments within nearby wetland areas was also conducted to determine how upslope/downslope wetland would react to a similar linear development. Examples of this are included in Attachment D of ARRC's September 08, 2011 letter. Each of the locations shown on the six maps has wetland cross drainage culverts installed within the embankment; notably, none of the locations appear to demonstrate a significant change in wetland type or hydrologic regime. Cross drainage culverts placed within wetlands are not being placed in areas of flowing water and are not expected to be subject to erosive forces that would result in debris plugging them. Detailed wetland field data collected for the project and high resolution topography indicate that seasonally flooded, semipermanently flooded and permanently flooded wetlands not adjacent to streams, generally lack any measurable surface flow. Instead, most inundated wetlands are often situated in depressions or low-lying areas that lack channelized inflow or outflow. ARRC expects that any movement of water throughout the growing season is within the vertical column (surface and shallow subsurface water table fluctuations driven primarily by precipitation) and not along a horizontal flow pattern (i.e., stream, tributary, or widespread overland flow). As such, the likelihood of debris entering a wetland cross drainage culvert and plugging it is very low. Furthermore, several mitigation measures in the EIS require ARRC to routinely inspect crossing structures and remove blocking debris from them, if present. And even apart from this EIS requirement, it is standard

ARRC practice to maintain their culverts and bridges to prevent water impoundment or lessen opportunities for erosion of the embankment.

EPA 11. The information provided is insufficient to demonstrate that the equalization culverts would be effective in preventing the embankment fill from disrupting wetland hydrology and contributing to significant degradation.

Corps Response: See response to EPA 10 above. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine that the proposed project would not result in significant degradation to aquatic resources, with the inclusion of Special Conditions in Section 5.0, to maintain wetland hydrology. This ROD documents the process used to make the permit decision.

EPA 12. A geophysical analysis should be performed to characterize the wetland hydrology and allow for the identification of avoidance and minimization measures.

Corps Response: Hydrology is discussed in Sections 6.1.2, 6.2.3, 6.2.4 and 6.2.5 of this document. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine ARRC's proposal avoids and minimizes impacts to the aquatic environment to the maximum extent practicable.

EPA 13. The EPA commented that the information in the EIS is insufficient to demonstrate that the proposed discharges will not contribute to significant degradation to wildlife and wildlife habitat.

Corps Response: Sections 6.3.2, 6.3.3 and 7.2 discuss impacts to wildlife. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine that the proposed project would not result in significant degradation to wildlife and wildlife habitat., with the inclusion of Special Conditions in Section 5.0.

EPA 14. The ARRC should provide additional information regarding restricting access to public land and resources compared to the current situation, to demonstrate that the adverse effects of the proposed project will not be significant.

Corps Response: The Corps does concur with EPA that there would be restricted access within the project area. The public would be restricted from accessing the ARRC right-of-way. The ARRC responded to questions regarding the access in their September 8, 2011 letter. The ARRC states that there would be 17 crossing opportunities maintained through/over or under the rail embankment and existing trail easements would be maintained.

EPA 15. The EPA commented that in virtually all cases, the proposed bridges do not fully span the riparian wetlands associated with the streams. The discharge of fill into

these wetlands is avoidable by increasing the total length of the individual bridges.

Corps Response: The ARRC provided information regarding bridges that fully span the riparian wetlands in their March 2011 404(b)(1) evaluation and September 8, 2011 response to comments. All the bridge crossings proposed would span the majority of the riparian wetlands associated with the streams. We concur with the ARRC that fully spanning the entire length of riparian wetlands associated with streams is not a practicable alternative due to cost and logistics, and that the ARRC has taken the appropriate steps to avoid and minimize adverse impacts to riparian wetlands to the maximum extent practicable.

EPA 16. "Bridging all stream crossings would not only avoid the additional discharge associated with culverts, it would also reduce the impacts of the crossing to aquatic resources. The drawings that depict the proposed culvert crossing at MP 5.6 of the Houston segment (sheets 18 and 19 of 58 in Attachment B of the application package) indicate that there will be approximately 21.5 feet of fill over the culvert at the top of the subgrade. Given the embankment height at this location, bridging the stream crossing appears practicable."

Corps Response: The ARRC responded to this comment regarding the culvert crossing depicted at MP 5.6 of the Houston segment, in their September 8, 2011 letter. The ARRC clarified that the area is not a stream crossing; rather, it is a seasonally flooded wetland with no surface flow that is situated between two anadromous lakes. The ARRC fish presence studies conducted in 2010 trapped one stickleback in a shallow area of surface water within the wetland. No stream channel was observed along transects that were walked. As a precautionary measure, and at the recommendation of The Alaska Department of Fish and Game, the ARRC proposed to install a fish passage culvert at this location.

EPA 17. The EPA commented that they do not concur with the assessment of the functional value of the wetlands that would be impacted by the proposed discharges. "The ARRC's assessment appears to understate the value of the functional capacity of the impacted wetlands relative to other assessment methodologies." Assigned values are lower than those in the EIS and the PEAR, as well as those in other regional assessments.

Corps Response: The Corps does recognize that other functional assessments exist for use. Information provided in the EIS and the PEAR was not from the result of the ARRC's functional assessment. The Corps has determined that the information the ARRC presented in their evaluation is consistent with the Alaska Regulatory Guidance letter 09-02 and concurs with the evaluation of wetland functions and values.

EPA 18. The EPA expressed concerns regarding compensatory mitigation for the temporal functional loss associated with the impacts to wetlands outside of the fill footprint.

Corps Response: The ARRC has incorporated minimization measures in their proposed

plan to reduce impacts to wetlands outside of the fill footprint. In addition temporary fills would not be authorized outside the fill footprint and the ARRC would have to submit revised plans for approval prior to placing temporary fills in wetlands outside the fill footprint. The ARRC has incorporated a 20-foot construction zone from the toe of the embankment. This area would not be disturbed, but in the event that construction machinery entered this zone, the ARRC would reclaim any areas outside the footprint if they are disturbed. In addition the ARRC has proposed compensatory mitigation at a ratio of 0.1:1 for potential wetland disturbance of the construction work zone. In addition special conditions 5, 6, 7, and 9 would minimize impacts outside the fill footprint. Mitigation is discussed in Section 5.0 of this document. Due to these reasons we disagree with EPA that appropriate compensatory mitigation is not included in the ARRC's proposal.

4.1.2 United States Fish and Wildlife Service (USFWS):
The USFWS submitted comments in a letter dated July 13, 2011. The ARRC submitted a response to USFWS comments on September 8 2011. Their response did not fully address all substantive comments submitted by the USFWS. USFWS provided additional comments regarding ARRC's response. UFWS comments included request clarification and additional information. Additional information in response to USFWS comments was requested on November 21, 2011. The ARRC responded to this request in a letter dated December 16, 2011. The USFWS comments are as follows:

USFWS 1. The segments "Mac Central" and "Mac Central/Connector 3" included in the Public Notice were not included in the FEIS or otherwise previously reviewed. "It is therefore difficult to make complete comparisons among resources and impacts of all segments, and so we note that our comments are based on an assumption that these new segments are some general "average" of other segments in the vicinity (e.g., Mac East, Mac East Variant, Mac West, etc.).

Corps Response: The alignment as described in the Public Notice was presented as the Environmentally Preferred Alternative in the STB FEIS, except for the modifications (described in Section 2.2 above) to reduce impacts to wetlands. The ARRC presented the Mac East Variant segment as Mac Central in their application.

USFWS 2. A 40-ft rail top appears to be at least twice the embankment width of typical existing ARRC rail lines. Neither a second track nor a permanent access road (both tentatively proposed to be accommodated in the 40-ft rail top width) is addressed in the Public Notice materials. USFWS understood that these potential needs had been dropped from consideration. USFWS refers to the May 10, 2010, EPA comment on the DEIS that other sections of rail in state do not require access road; maintenance can be performed from the rail line itself via hi-rail equipment.

Corps Response: This comment is similar to EPA comment EPA 5 above.

USFWS 3. The term "low profile" is unclear in terms of typical height or relative to the surrounding topography. "The proposed maximum heights or depths of fill are not given,

nor are the lengths of stretches of varying (or typical) heights with regard to different surrounding vegetation types. Given this lack of detail, it is difficult to make certain important assessments, such as whether fill footprints have been minimized or what the level of habitat fragmentation with regard to, in particular, territorial landbirds may be."

ARRC Response: The ARRC responded to this comment in their September 8, 2011 letter. The ARRC stated that the term "low-profile" means the lowest embankment height that still provides a stable rail base. This height may be different based upon location and underlying substrate. The overall profile designed for the project minimized embankment height as much as possible while still providing clearance for streams and trail crossings. In order to provide a stable embankment across a typical upland area, a minimum three feet of select material, type A, with twelve inches of sub ballast above the selected material and 20 inches of ballast above the sub ballast is still necessary. In wetlands with deep underlaying peat, a more substantial base is required. Whenever possible the embankment profile follows the profile of the original ground and uses the minimum necessary embankment material.

Corps Response: ARRC's responses to comments were provided to USFWS, including rail profile plans. We believe the ARRC has adequately explained the issue.

USFWS 4. "It appears from the Summary of Project Design and Construction that the ARRC intends to clear vegetation for the entire width of ROW along the 32-mile project length, although no explanation is given for this clearing. Grubbing is anticipated only within the embankment footprint."

ARRC Response: In their September 8, 2011 response to comment letter, the ARRC clarified that vegetation clearing within the project corridor would not extend across the entire right-of-way. Clearing activities would be limited to areas just beyond the project footprint.

Corps Response: A special condition will be incorporated into the Corps permit to minimize vegetation clearing limits to the project footprint.

USFWS 5. "The proposed Port MacKenzie rail line project crossings are inadequate to allow for full functioning of riparian and floodplain processes. While bridges are preferred to culverts, all five proposed project bridges will constrict and control flows and will displace valuable riparian habitat with riprap."

Corps Response: In their September 8, 2011 response to comment letter, the ARRC provided additional information regarding bridge crossing and flow. The ARRC states that nearly all waterway crossing structures have been oversized to exceed a 100-year flood event, provide clearance for crossing moose, pedestrian, and boat traffic, and preserve sensitive off-channel fish habitat. Additional response regarding the practicability of spanning the riparian wetlands completely is found in the response to EPA comment EPA15 above. As we have responded to the EPA comment 15, we believe the ARRC has taken all appropriate and practicable steps to avoid and minimize adverse

impacts to the aquatic environment at the bridge crossing sites.

USFWS 6. The USFWS expressed concerns of the rail line embankment height presenting barriers to small animals and habitat fragmentation.

ARRC Response: The ARRC responded to this comment in their September 08, 2011 and December 16, 2011 letters. ARRC believes the proposed embankment would provide wildlife crossings through both stream and bridge crossing. All bridge structures would be at a minimum of 15 feet to allow for large animals to cross. In addition 100 drainage and equalization culverts would be placed along the embankment that could be used for small animal crossings.

Corps Response: We agree with ARRC, that there would be opportunities for wildlife crossings.

USFWS 7. The USFWS expressed concerns regarding the extent of temporary impacts and compensatory mitigation for the temporary impacts.

Corps Response: We believe the ARRC has adequately addressed these concerns, see responses to EPA comments 17 and 18, above. Mitigation is discussed in Section 5.1 of this document.

USFWS 8. The USFWS recommended the following:

- To minimize impacts to the aquatic environment while still meeting the ARRC stated purpose and need, the typical width of the embankment top shall be reduced to 20 feet.

Corps Response: We disagree with the recommendation and have addressed the concern above (See response to EPA comment 5).

- To help assure that habitat fragmentation is minimized, additional information (including average and maximum embankment heights, approximate lengths of rail line of the various embankment height categories, and locations of "high-profile" embankment segments – i.e. exceeding 4 feet – with respect to habitat types) shall be provided which satisfactorily supports the description of the embankment as "low-profile" (as possible).

Corps Response: ARRC provided embankment profile information.

- Bridge spans and culverts shall be properly sized to allow for full functioning of riparian and floodplain processes. In the case of bridges, replacement of riparian habitat with riprap will therefore be unnecessary and avoided.

Corps Response: See response to EPA comment 15 and USFWS comment 5. In addition a special condition would be added to the permit to minimize impacts to riparian areas.

- Quantitative information shall be provided regarding temporary and indirect impacts. This will include, but not be limited to, maps and location descriptions of areas of proposed temporary impacts, and quantitative descriptions of the types of temporary impacts (e.g. temporary fills to accommodate access roads and/or staging and stockpiling areas) that may occur.

Corps Response: The ARRC has stated in that there would be no temporary fills as the result of the proposed project. Fills would be placed within the rail embankment footprint. The construction of the rail would be done from the access road portion of the embankment. Temporary fills would not be authorized in this permit. The ARRC has provided a reclamation plan in the event of disturbance within the 20-foot work zone. For these reasons we are not adopting this recommendation.

- A more detailed plan for construction access and heavy equipment operation with pre-delineated impact limits is needed to ensure the temporary impacts are minimized. Additionally, use of geogrid or other more protective material is more appropriate during construction than geotextile fabric.

Corps Response: Temporary fills would not be included in this authorization. A special condition would be added to address construction limits.

- The compensatory mitigation plan shall be revised to reflect the high-functioning nature (including wildlife habitat) of most of the wetland acreage to be lost. The compensatory mitigation plan shall also be revised to address direct, permanent impacts to wildlife, including habitat and territory losses and direct mortality. The plan shall also be revised to mitigate for "temporary" fills that are actually likely to have long-term impacts (such as where wetlands are damaged by heavy equipment or stockpiling). Finally, the plan shall be revised to address indirect impacts, such as any unavoidable constriction of stream flows, wetland ponding, etc.

Corps Response: See response to EPA comments 17 and 18. Mitigation is also discussed in Section 5.1 of this document.

- Prior to construction, an eagle nest survey shall be conducted. Any bald eagle nests within the project area shall be reported to U.S. Fish and Wildlife Service.

Corps Response: The STB included a condition to minimize impacts to bald eagle, STBs mitigation measure 36.

- In order to comply with the Migratory Bird Treaty Act, site preparation activities that involve removal or grubbing of vegetation are to be confined to the time period outside the location breeding season. i.e. May 1 through July 15.

Corps Response: The STB included a condition to minimize impacts to migratory birds, mitigation measure 35. A special condition will be incorporated into the Corps permit to minimize impacts to migratory birds.

4.2 Organizations:

4.2.1 Alaska Public Interest Research Group, Appalachian Center for the Economy and the Environment, Cook Inletkeeper, and Sierra Club: The organizations submitted the following comments in a letter dated July 13, 2011. The ARRC responded to the comments in a letter dated September 8, 2011. The following are the group's comments:

ORG 1. "Both the FEIS and the PN consistently fail to discuss the significance of potential impacts or provide enough information to make a reasonable determination as to whether a permit may be granted for discharges of fill material associated with the proposed project in compliance with NEPA or CWA § 404(b)(1)."

Corps Response: Section 4.5 of the STB FEIS discusses impacts of the proposed project on wetland resources. The purpose of the Corps public notice is not to discuss "significance of impacts, but to notify the public of the receipt of an application for a Department of the Army permit, and solicit public comment for consideration in the permit evaluation process. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine that the proposed project to determine the least environmentally damaging practicable alternative, whether the proposed project would result in significant degradation to aquatic resources, and to reach a public interest determination. This ROD documents the process used to make the permit decision.

ORG 2. The Public Notice and the FEIS fail to give the public adequate information regarding mitigation of adverse impacts. They opined:

- "The PN is insufficient and illegal because it does not provide the public with sufficient information to adequately assess and develop meaningful comments on the proposal. Specifically, the PN fails to provide any detail on the ARRCs' proposed mitigation of presumed unavoidable adverse impacts of the project."

- "The PN should contain a detailed assessment of how impacts would be mitigated."

- "The ARRC fails to outline site-specific mitigation plans or the ARRC intensions to use a mitigation bank."

- "The PN or FEIS do not discuss preservation of hydrology of the area."

- "FEIS does not explain how loss of wetland structure and function would be mitigated."

Corps Response: 33 CFR 325.1(d)(10) states "Complete application. An application will be determined to be complete when sufficient information is received to issue a public notice (See 33 CFR 325.1(d) and 325.3(a).) The issuance of a public notice will not be delayed to obtain information necessary to evaluate an application."

33 CFR 325.1(d)(7) states "For activities involving discharges of dredged or fill material into waters of the United States, the application must include a statement describing how impacts to waters of the United States are to be avoided and minimized. The application must also include either a statement describing how impacts to waters of the United States are to be compensated for or a statement explaining why compensatory mitigation should not be required for the proposed impacts. (See §332.4(b)(1) of this chapter.)"

33 CFR 332.4 (b) states "Public review and comment. (1) For an activity that requires a standard DA permit pursuant to section 404 of the Clean Water Act, the public notice for the proposed activity must contain a statement explaining how impacts associated with the proposed activity are to be avoided, minimized, and compensated for. This explanation shall address, to the extent that such information is provided in the mitigation statement required by §325.1(d)(7) of this chapter, the proposed avoidance and minimization and the amount, type, and location of any proposed compensatory mitigation, including any out-of-kind compensation, or indicate an intention to use an approved mitigation bank or in-lieu fee program. The level of detail provided in the public notice must be commensurate with the scope and scale of the impacts ….."

The ARRC's DA permit application contained the following information which was presented the in Corps PN; "The ARRC will need to compensate for the unavoidable impacts to 101.8 acres of wetlands. Using preservation as their compensatory mitigation method would require 165.7 mitigation credits, while using restoration, establishment, or enhancement as their compensatory mitigation method would require 102.6 credits." This calculation of proposed compensatory mitigation was presented prior to additional minimization measure to reduce impacts to wetlands. The ARRC also provided a table of the categories of wetlands that would be compensated for and proposed a ratio following the Alaska District Regulatory Guidance Letter No. 09-01. When the application was submitted one mitigation bank and one in-lieu program were approved for use in the vicinity of the proposed project. Both of these could provide credits. Therefore, the ARRC proposed preservation credits would be the same for the mitigation bank, in-lieu fee or permittee-responsible mitigation. In addition, the ARRC was considering restoration, establishment, or enhancement as compensatory mitigation as well, but did not provide plans with the application. The Corps determined that the information was sufficient and the application was considered complete.

33 CFR 325.3 (a) states; "The public notice is the primary method of advising all interested parties of the proposed activity for which a permit is sought and of soliciting comments and information necessary to evaluate the probable impact on the public interest. The notice must, therefore, include sufficient information to give a clear understanding of the nature and magnitude of the activity to generate meaningful comment. The Corps determined that ARRC presented sufficient information regarding the proposed project, including the project description, WOUS impacts, and mitigation

statement. The public notice also provided a link to the STB FEIS for additional information.

ORG 3. The project is unnecessary and is not in the public interest; in addition the group also questioned the purpose and need of the proposed activity.

- Port Mackenzie has no known contracts in place to demonstrate expanded Port usage, and for the reasons cited herein, it's unlikely the Port will ever see much use.

- Port Mackenzie is plagued by heavy icing conditions for approximately three-four months each year, and as a result, it will be very difficult to obtain contracts for commodities shipments based on intermittent shipping schedules.

- There are serious questions about navigational and shipping safety on and around the Port MacKenzie dock, where currents up to 6 knots are known to wreak havoc on large bulk vessels.

- There are obvious, known, existing alternatives to the Port MacKenzie rail link – including the Port of Anchorage and the ice-free Ports of Whittier and Seward – all of which are serviced by existing rail lines.

Corps Response: Purpose and Need for the project is discussed in the FEIS Chapter 1.2, the March 2011, the 404(b)(1) evaluation provided by the ARRC and the ARRC Response to Comments dated September 8, 2011. The Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program dated July 1, 2009, explains: "For transportation projects, guidance for the lead federal agency to define "purpose and need" for environmental impact statements was provided by the Council on Environmental Quality (CEQ) in a letter dated May 12, 2003. The CEQ's guidance states that joint lead or cooperating agencies should afford substantial deference to the Department of Transportation's articulation of purpose and need for NEPA purposes…"

This notwithstanding, the Corps exercises independent authority to establish the overall project purpose (33CFR 325 Appendix B paragraph 9b(4)) as we have done in this ROD. The Corps has determined sufficient evidence to support the purpose and need for this project has been provided and the Corps has defined the basic and overall project purpose as described in Section 2.3 above. Port MacKenzie currently serves for shipping bulk material such as wood chips, concrete, and steel. In addition, Port MacKenzie is an existing facility that has been evaluated through the permitting process for the project.

ORG 4. The organizations comment that the Corps must consider practicable alternatives to the proposed project that would have less adverse impacts on the aquatic ecosystem.

- The Corps must consider modifications to the proposed route that would lessen impacts to special aquatic sites.

- The Corps must consider alternative methods of constructing the rail through any unavoidable special aquatic sites that would reduce the project's adverse impacts. A rail line including elevated sections crossing sensitive wetland areas would have less adverse impacts to the aquatic ecosystem.

Corps Response: We agree with the comments and have taken the necessary steps to ensure that ARRC avoids, minimizes and compensates for unavoidable impacts to the aquatic environment. The ARRC has modified the proposed project to minimize impacts to the aquatic resource. The proposed rail alignment has been routed to avoid wetlands to the extent practicable, and Section 5.1 of this document provides information regarding the minimization measures ARRC has proposed. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to determine that the least environmentally damaging practicable alternative, and whether the proposed project would result in significant degradation to aquatic resource. This ROD documents the process used to make the permit decision.

ORG 5. The organizations commented that the Corps fails to adequately assess project impacts to wetlands and other aquatic resources. They opined:

- The wetlands assessment methodology used is flawed.

- The Corps fails to quantitatively assess and mitigate for significant impacts to wetlands outside the footprint of the fill.

- The FEIS and the Corps fail to assure that existing hydrology will be maintained and protected; and,

- The Corps and the FEIS fail to adequately assess impacts to fish and the beluga whale.

Corps Response: See response to EPA comments 17 and 18, above regarding wetland assessment methodology. Secondary impacts to the aquatic resource are discussed in Section 5.0, of this document.

See response to EPA 10 and EPA 11 regarding hydrology. In addition a special condition would be added to the permit to minimize impacts to hydrology and natural drainage.

Compensatory mitigation is also discussed in Section 5.1 of this document.

Regarding the Cook Inlet beluga whale, the STB determined that the activity is not likely to adversely affect the species designated critical habitat, under the Endangered Species Act of 1973 (87 Stat. 844). National Marine Fisheries Service (NMFS) concurred with the STB's determination in a letter dated November 25, 2009. The Corps notified the NMFS of the permit application for the proposed project in the Public Notice dated May

12, 2011. NMFS did not comment on the Public Notice for the Port MacKenzie Rail Extension project. STB FEIS Chapter 5.4 and Appendix F identify and analyze impacts to fisheries resources. Conservation recommendations provided by NMFS have been incorporated into the mitigation measures for the proposed project. In addition, the Alaska Department of Fish and Game have issued permits for the proposed project with measures to minimize impacts.

ORG 6. The Corps and the FEIS have not sufficiently address rail crossings.

- The railroad crossing design does not address a number of problems associated with railroad crossings and fails to provide for Elk, Deer, and other 4 footed animals to cross the railroad right of way. This is normally accomplished with fencing to direct the wildlife to either overpass or underpass structures provided in the area of existing wildlife trails and are landscaped to provide a natural trail across the right of way.

Corps Response: See response to USFWS 6.

ORG 7. The organizations commented on the assessment of cumulative impacts in the FEIS.

- The assessment done in the FEIS does not meet the requirements of the NEPA or the Guidelines that require the Corps to determine "the nature and degree of effect that the proposed discharge will have, both individually and cumulatively, on the structure and function of the aquatic ecosystem and organisms." 40 C.F.R. § 230.11(e) (emphasis added). Thus, the Corps must supplement the work done in the FEIS to meet NEPA and CWA's requirements.

Corps Response: Impacts to the aquatic environment and organisms are discussed in Section 6.1, including Cumulative and Secondary Effects on the Aquatic Resource. The Corps has determined that the FEIS, as clarified by the ARRC information listed in the section entitled AUTHORITY, above, is fully sufficient to assess the direct and indirect effects of the proposed activity. We do not believe a supplemental EIS is necessary.

ORG 8. The organizations commented on compensatory mitigation of the proposed project.

- The Corps failed to properly consider project-specific impacts when setting the mitigation ratios, resulting in ratios that will not adequately account for losses to wetland function.... The Corps failure to consider the full impacts of the proposed project on wetland functions, renders its mitigation efforts inadequate.

- The Corps must require mitigation of the temporary impacts that result from rail line construction.... The Corps must take into consideration that Alaska's harsh climate and short growing season could readily disrupt revegetation and require a mitigation ratio that accounts for the uncertain duration of "temporary" impacts.

- Additionally, the Corps must limit the amount of mitigation achieved through preservation. The Mitigation Statement's "Option 2" would allow the unavoidable adverse impacts of the project to be mitigated entirely through preservation. That option is inconsistent with several Corps policies and regulations.

- Moreover, the Corps must provide the specifics of the mitigation plan and adequately explain the rationale behind its mitigation ratios prior to permit issuance so that the public can meaningfully comment on the complex issues surrounding mitigation.

Corps Response: See responses to EPA 17 and EPA 18 above. Mitigation requirements are also discussed in the response to ORG 2 above. Mitigation is also discussed in Section 5.1 of this document.

ORG 9. The FEIS failed to consider cumulative and indirect climate impacts from greenhouse gas emissions.

- There is no analysis in the draft or final EIS of the reasonably foreseeable cumulative and indirect impacts of the Port MacKenzie rail project, which would cause additional mining and other resource extraction in the interior part of the state, and a subsequent increase in coal burning and export.

- For Port Mackenzie, the STB did not conduct any analysis of the reasonably foreseeable impact that the rail line is intended to facilitate interior coal development at all, even though it was mentioned as economic justification in the same EIS.

Corps Response: In the STB's Record of Decision it is stated that the ARRC believes that the proposed rail connection with Port MacKenzie would make the development of natural resources (e.g., coal, limestone, timber, and metallic minerals) along the existing ARRC main line corridor more economically feasible. ARRC also states that the proposed rail line would support its statutory goal to foster and promote long-term economic growth and development in the State of Alaska. Sections 6.1.7 and 6.1.8 of this ROD discuss indirect and cumulative impacts.

In the FEIS the STB states that the bulk commodity shipment, such as coal now transported by rail to the port in Seward may be instead transported to Port MacKenzie. As such, this coal would not represent additional coal mined and shipped in Alaska, or additionally burned in Alaska or elsewhere.

The Corps has determined that the overall project purpose is to provide efficient and cost effective bulk material transportation between Port MacKenzie/Knik Arm and Interior Alaska. While this may provide coal industry an alternative to the existing transportation options available, the project purpose does not identify "facilitate interior coal development".

ORG 10. The FEIS failed to consider the project's indirect impacts on air and water quality.

- The draft and FEIS address some dust impacts on vegetation near the rail line from construction, but neither document examines the serious impacts known to be caused by coal dust from the rail transportation of coal, another reasonably foreseeable indirect impact which was not analyzed in the FEIS.

- Consequently, the EIS should have analyzed mercury impacts from coal that this rail project would facilitate.

Corps Response: These are operational issues related to secondary/indirect impacts of fugitive coal dust beyond scope of Corps authority. In regards to water quality, ADEC has issued a 401 Water Quality Certificate of Reasonable Assurance with applicable effluent limitations and water quality standards required under provisions of Section 401 of the Clean Water Act. This is considered conclusive with respect to water quality considerations [33 CFR 320.4(d)].

5.0 MEANS TO MINIMIZE OR AVOID ADVERSE ENVIRONMENTAL IMPACT TO AQUATIC RESOURCES (40 CFR 1505.2(C), 40 CFR 1505.3, 40 CFR 230.70, SUBPART H)

5.1 Mitigation:

5.1.1 ARRC Proposed Mitigation: The ARRC provided information regarding avoidance and minimization measures in Attachment F of the application materials submitted March 2011. The ARRC provided a "Mitigation Statement", Attachment D in their March 2011 application materials, and proposed to compensate using preservation, restoration, establishment, or enhancement. ARRC proposed 165.7 credits if preservation were used and 102.6 credits for restoration, establishment or enhancement. ARRC submitted a final revised mitigation plan on February 24, 2012. Based on the reduction of impacts to wetlands, the new proposal would be to compensate for the loss of 95.8 acres of wetlands through purchasing credits in the Su-Knik Mitigation Bank. In their revised plan ARRC proposes a ratio of 3:1 for 0.6 acre of unavoidable direct impact to Category I wetlands, a ratio of 2:1 for 23.4 acres of Category II wetlands, and 1.5:1 for 71.8 acres of Category III wetlands. ARRC also proposed a ratio of 0.1:1 for potential temporary and secondary impacts as a result of construction equipment, within the proposed 20 foot work zone. The acreage of wetlands that would be within the work zone is 38.5 acres of wetlands. ARRC proposes to purchase 3.9 credits for potential secondary impacts to this area. In addition, ARRC has submitted a reclamation plan for those areas adjacent to the toe of the filled area. If the work zone is disturbed the ARRC will reclaim the area to its preconstruction condition. The Alaska District Regulatory Guidance Letter No. 09-01 categorizes wetlands into four functional performance categories (Categories I, II, III, and IV). The impacted wetlands have been categorized

based on descriptions in the Alaska District Regulatory Guidance Letter No. 09-01. No Category IV wetlands were identified within the project footprint.

5.1.2 Avoidance: Due to comments received during the DEIS and Public Notice, the ARRC modified the proposal by relocating the terminal reserve area to uplands and realigning portions of the route to avoid wetland impacts to the extent practicable reducing the proposed wetland impacts from 164.2 acres of WOUS, including wetlands to 95.8 acres. The Corps has determined that the ARRC has avoided impacts to WOUS to the maximum extent possible.

5.1.3 Minimization: The following are minimization measures the ARRC has incorporated into the proposed project plans.

- Addition of the Mac Central Alignment to reduce impacts to wetlands
- Relocation of the terminal reserve to an all upland location along the Mac Central alignment
- Steepened embankment slopes (2:1) in wetland sections to minimize impacts where technically practicable
- The location of the rail line on uplands to the maximum extent practicable, crossing wetland complexes in narrow locations
- The rail line uses the minimum width fill footprint necessary to provide a stable rail base
- The rail line has a low-profile embankment to limit the fill footprint
- Streams are crossed using bridges or large diameter culverts to reduce impacts to floodplains, anadromous fish habitat and nearby wetlands and to provide wildlife passage
- Streams are crossed perpendicularly to the extent practicable to minimize impacts and reduce length of culvert
- Riprap is used to stabilize toes of slopes at ponds and stream crossings, as necessary
- Culverts are installed through fill slopes in appropriate locations to maintain natural flow patterns for surface water

Construction avoidance and minimization measures

- Material waste and borrow sites will not be located in wetlands
- To the extent practicable, staging areas and temporary construction roads will be located in uplands. ARRC stated that not temporary fills would be placed into wetlands. If it is determined that temporary fills would be required during construction, ARRC would request a permit modification.
- Erosion and sedimentation control measures will be employed during construction and permanent stabilization measures employed as early in construction as possible
- Staking will be done to delineate planned outside limits of disturbance prior to construction to ensure that impacts are limited to that area
- Embankment slopes will be stabilized in a timely manner
- No grubbing will be done outside of the construction footprint

- Appropriate erosion control measures will be used adjacent to waterways just beyond the estimated toe of fill
- Check dams in ditches will be used as necessary to reduce erosion during construction.
- Sedimentation basins will be used, as necessary, during construction
- All fueling and equipment-servicing operations will be located at least 100 feet away from all streams and wetlands
- Spill response equipment will be readily available and construction personnel should be trained in spill response to contain accidental leaks of oil or fuel from construction equipment

5.1.4 Compensatory Mitigation Determination: The ARRC has avoided and minimized to the extent practicable. For the unavoidable impacts to aquatic resources, compensatory mitigation is required to offset environmental losses resulting from unavoidable impacts to WOUS (40 CFR Subpart J 230.93(a)) and to ensure impacts to the aquatic ecosystem diversity, productivity and stability are not significantly adverse (40 CFR 230.10(c)(3)). The ARRC has modified their mitigation plan, and has proposed to purchase credits from the Su-Knik Mitigation Bank (Su-Knik) for the required compensatory mitigation.

ARRC proposes a ratio of 3:1 for 0.6 acre of unavoidable direct impact to Category I wetlands, a ratio of 2:1 for 23.4 acres of Category II wetlands, and 1.5:1 for 71.8 acres of Category III wetlands. ARRC also proposed a ratio of 0.1:1 for potential temporary and secondary impacts as a result of construction equipment, within the proposed 20 foot work zone. A total of 160.2 credits would be required as compensatory mitigation for the proposed project. The impacted wetlands have been categorized into three functional performance categories (Categories I, II, and III) based on descriptions in the Alaska District Regulatory Guidance Letter No. 09-01, and the wetland types by cowardin classification were mapped in Appendix G, figures 1-56, dated January 2011, of the DA permit application, depending on their specific function in the landscape.

Category I – High functioning wetlands
Generally, these wetlands are less common. These are wetlands that: 1) provide a life support function for threatened or endangered species that has been documented; 2) represent a high quality example of a rare wetland type; 3) are rare within a given region; or, 4) are undisturbed and contain ecological attributes that are impossible or difficult to replace within a human lifetime, if at all.

Category II – High to Moderate functioning wetlands
These wetlands are those that: 1) provide habitat for very sensitive or important wildlife or plants; 2) are either difficult to replace (such as bogs); or 3) provide very high functions, particularly for wildlife habitat.

Category III – Moderate to low functioning wetlands
These wetlands can provide important functions and values. They can be important for a variety of wildlife species and can provide watershed protection functions depending on where they are located.

ARRC has designed the proposed project to minimize impacts to Category I wetlands, which are associated with streams supporting anadromous fish, in the project area. Based on the analysis of the functional assessment provided by the ARRC, the Corps has determined that the ratios and category of wetlands presented in the ARRC's proposed mitigation are consistent with 33 CFR 320.4(r), 33 CFR 332; 40 CFR 230 subpart J, and 40 CFR 320.70-77, and with Alaska District Regulatory Guidance letter RGL ID No. 09-01.

Su-Knik and Pioneer Reserve Mitigation Bank (Pioneer Reserve) are two privately owned preservation mitigation banks that are located in the vicinity of the PMRE project area and provide mitigation options within the Susitna River Watershed (Susitna). The PMRE is located within the Little Susitna Watershed, a subwatershed of the Susitna. Su-Knik has credits released in the Big-Lake South mitigation parcel, which is located in the Fish Creek Watershed, also a subwatershed of the Susitna. Pioneer Reserve contains two mitigation parcels, the Edgerton Bank Parcel, located near the upper portion of the Little Susitna Watershed, and Seldon Bank Parcel, located in the Fish Creek Watershed.

At the time of application, Su-Knik Mitigation was the only available mitigation bank in the Matanuska-Susitna Borough. During evaluation of the DA permit application, Pioneer Reserve was approved. Though the applicant proposed to use Su-Knik for all of their compensatory mitigation requirements, consideration was first given to the mitigation bank with a service area in which the proposed impacts occur. Pioneer Reserve's Edgerton parcel is located approximately 17 miles from the closes point to the PMRE, however, it is within the same watershed. Pioneer Reserve's Seldon parcel is located approximately 12 miles from the northern most point of the proposed rail line and Su-Knik's Big Lake south parcel is located within 7 miles of the PMRE.

33 CFR 332.3 (a) states "The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits. The district engineer must determine the compensatory mitigation to be required in a DA permit, based on what is practicable and capable of compensating for the aquatic resource functions that will be lost as a result of the permitted activity. When evaluating compensatory mitigation options, the district engineer will consider what would be environmentally preferable. In making this determination, the district engineer must assess the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project. In many cases, the environmentally preferable compensatory mitigation may be provided through mitigation banks or in-lieu fee programs because they usually involve consolidating compensatory mitigation projects where ecologically appropriate, consolidating resources, providing financial planning and scientific expertise (which often is not practical for permittee-responsible compensatory mitigation projects), reducing temporal losses of functions, and reducing uncertainty over project success.

Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular DA permit. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts".

Ecologically, the Corps has determined the preference for compensatory mitigation would be as follows:

1. Pioneer Reserve's Edgerton parcel (like habitat credits)
   Rationale: Though this parcel is furthest away in distance from the PMRE, Pioneer Reserve's service area encompasses the project area, and the Edgerton parcel contains some credits of the same habitat type that support the Little Susitna Watershed (33 CFR 332.3(a)-(c)) where the PMRE is located
2. Su-Knik's Big Lake South parcel (like habitat credits)
   Rationale: Though this bank's service area does not encompass the location of the PMRE and this parcel is in a different subwatershed (Fish Creek Watershed), the wetlands in this parcel are the closest in proximity, landscape position, and type, as those being impacted by the PMRE.
3. Pioneer Reserve's Seldon parcel
   Rationale: While Pioneer Reserve's Seldon parcel contains habitat types and credits sufficient to offset the impacts from PMRE, this parcel is also located within the Fish Creek Watershed, the wetlands are different in landscape position, and they are not as close as Su-Knik's Big Lake South parcel.

Based on the ecological preference identified above, unavoidable impacts to WOUS resulting from the PMRE will require compensation using Pioneer Reserve's Edgerton parcel credits, where the habitat types are consistent with type(s) being filled; and the remaining balance will require compensation using Su-Knik's Big Lake South parcel credits (see section 5.3 special condition 13).

5.2 Mitigation Measures Required by State Agencies

ADEC's Certificate of Reasonable Assurance for the proposed action issued on March 20, 2012 includes the following

1. Reasonable precautions and controls must be used to prevent incidental and accidental discharge of petroleum products or other hazardous substances. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, surface runoff or water bodies.

2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting

Requirements (AS 46.03.755 and 18 AAC 75 Article 3). Most importantly, the ARRC must contact by telephone the DEC Area Response Team for Central Alaska at (907) 296-3063 during work hours or 1-800-478-9300 after hours. Also, the ARRC must contact by telephone the National Response Center at 1-800-424-8802. Report all spills.

3. This project shall apply for coverage under ADEC's APDES General Permit for Storm Water Discharges from Large and Small Construction Activities in Alaska (AKR10-0000). This permit requires that a Storm Water Pollution Prevention Plan (SWPPP), describing construction runoff and erosion control, be prepared and implemented. For projects that disturb greater than 5 acres, this SWPPP must also be submitted to ADEC prior to construction. Please refer to ADEC's website for information concerning the APDES storm water permit.

4. Prior to fill placement, a silt fence or similar structure shall be installed on a line parallel to and within 5' of the proposed fill toe of slope within all wetland areas that contain standing water that is connected to any natural body of water or where the fill toe is within 25' of such a water body. This structure shall remain in place until the fill has been stabilized or contained in another manner.

5. Any disturbed ground and exposed soil not covered with fill must be stabilized and revegetated with endemic species, grasses, or other suitable vegetation in an appropriate manner to minimize erosion and sedimentation, so that a durable vegetative cover is established in a timely manner.

6. All work areas, material access routes within the project footprint as described in the Corps Public Notice POA-2007-1586, and surrounding wetlands involved with the railroad construction shall be clearly delineated and marked in such a way that equipment operators do not operate outside this corridor.

7. No materials used for fill placement shall consist of unsuitable fill material. This includes but is not limited to trash, metal debris, car bodies, overburden material, wood waste, asphalt, and petroleum products. All material used for construction or discharged must be free from toxic pollutants in toxic amounts as defined by Alaska State law and the Toxic Pollutants List in Section 307 of the Clean Water Act.

8. All solid waste and foreign debris must be eliminated by removal to an off-site DEC-approved facility. Waste, in this paragraph means all discarded matter, including, but not limited to, human waste, trash, garbage, litter, oil drums, petroleum, ashes and discarded equipment. The site must be kept clean at all times. Hazardous waste must not be disposed of on site, but instead must be hauled out for disposal in an approved disposal site.

5.3 Special Conditions of the DA Permit

1. When project-related activities, such as culvert and bridge construction, require work in streambeds, ARRC shall conduct activities when stream disturbances would have the least impact to anadromous fish species. The time period for in-stream construction work in the Matanuska-Susitna Borough area is May 15 through July 15. No in-water anadromous fish stream construction activities shall occur outside this time period, unless authorized by the State of Alaska, Department of Fish and Game. Construction work that occurs above the ordinary high water mark area of the stream and does not include in-water construction may be conducted throughout the year.
   Rationale: This condition is necessary to minimize impacts to fish and fish habitat. [33 CFR 320.4(c) and 320.4(r)(i)]

2. The ARRC is responsible for obtaining any "take" permit required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The ARRC shall contact the appropriate locale office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.
   Rationale: Addresses USFWS concerns [33 CFR 320.4(c)].

3. Natural wetland drainage and inundation patterns shall be maintained through the incorporation of adequately sized (diameter and length), sloped and spaced culverts and/or bridges. The ARRC shall be responsible for annual monitoring, maintenance, and/or repair, and/or replacement of all culverts and bridges for the life of the project to insure that natural wetland drainages and inundation patterns are maintained. The presence of upslope ponding, erosion, flooding scour, obstruction to aquatic organisms, as a result of failing or poorly installed culverts, shall be evidence of non-compliance with this condition. ARRC shall immediately notify the Corps of any non-compliance with this special condition. Obstruction caused by beaver dams or debris, and their removal does not require notification to the Corps. The notification shall include for Corps review and approval ARRC plans for restoration of the natural drainage.
   Rationale: Minimizes impacts to wetlands [33 CFR 320.4(a)(1), and 320.4(b)(1) and (2)]. Minimizes impacts to fish and fish habitat [33 CFR 320.4(c) and 320.4(r)(i)]. On August 12, 2012, after reviewing preliminary permit special conditions, ARRC stated the notification requirement of the special condition would be extensive, as the typical flow blockages were the result of beaver dams. To limit the notification requirement, the Corps as excluded beaver dam and debris obstruction from notification, as these would be maintenance activities.

4. All culverts and bridges shall be designed, installed, and maintained so they do not interfere with free and unobstructed passage of all life states of fish (both anadromous and resident) present in the stream under reasonably expected flow levels.

Rationale: Minimizes impacts to fish and fish habitat [33 CFR 320.4(c) and 320.4(r)(i)].

5. All riparian areas disturbed during construction, must be restored to pre-project conditions as soon as possible. If construction is not complete prior to the end the same growing season, all disturbed riparian areas shall be stabilized appropriately and effectively, such as with jute matting, to satisfactorily withstand erosion from heavy rain during the fall and the next year's spring breakup. Site shall be restored to pre-project conditions during the growing season following construction (year immediately following disturbance). Revegetation shall be considered successful when percent live cover of native wetland vegetation is similar to adjacent wetlands. Evidence of erosion and sloughing from disturbed areas will be considered non-compliance with this condition.
   Rationale: Prevent degradation of WOUS, and fish and wildlife habitat; maintain function and integrity of wetlands adjacent to the permitted area; [40 CFR Part 230.72, 33 CFR 320.4(c)].

6. All disturbed, stockpile and fill areas shall be stabilized to prevent erosion. Increased water turbidity and accumulation of sediment in drainages, sloughs, and other wetlands shall be evidence of insufficient stabilization.
   Rationale: Prevent degradation of WOUS, and fish and wildlife habitat; maintain function and integrity of wetlands adjacent to the permitted area; [40 CFR Part 230.72, 33 CFR 320.4(c)].

7. The limits of clearing, within wetlands, shall be staked and flagged on the ground prior to any work. No ground disturbing activities shall occur in WOUS, including wetlands, beyond limits of clearing or temporary impacts identified on project plans.
   Rationale: Reduces risk of impacts to WOUS outside of the permitted area [40 CFR Part 230.7]. Minimizes impacts to wetlands and other WOUS [33 CFR 320.4(a)(1), and 320.4(b)(1) and (2), 33CFR 332.1(c)(2)].

8. No fill material, equipment or construction materials shall be stockpiled or stored on wetlands that do not have DA authorization for those activities, as shown in the project plans.
   Rationale: Prevent sedimentation outside the permitted area; avoid activities not permitted [40 CFR 230.77 (a)].

9. A 100-foot wide buffer of uncleared natural vegetation shall be maintained on all sides of bridged crossing, except where clearing is necessary for the construction of crossings. The buffer area shall be staked or flagged to identify its boundaries.
   Rationale: Minimizes impacts to wetlands and other WOUS [33 CFR 320.4(a)(1), and 320.4(b)(1) and (2), 33CFR 332.1(c)(2)].

10. To minimize fugitive dust emissions created during project-related construction activities, ARRC shall implement appropriate fugitive dust suppression controls,

such as spraying water or other established measures. ARRC shall also operate water trucks on haul roads as necessary to reduce dust. (MM 77)
Rationale: This condition is necessary to minimize secondary impacts to WOUS [40 CFR 230.11(h) and 230.10(d)], and is required by the STB ROD as Mitigation Measure.

11. The attached Programmatic Agreement Among Surface Transportation Board, Advisory Council on Historic Preservation, and Alaska State Historic Preservation Officer Regarding the Alaska Railroad Corporation Construction and Operation of a Rail Line Extension to Port MacKenzie, Alaska Docket No. FD 35095, executed on June 16, 2011 is adopted by the Corps and is hereby incorporated into and made a Special Condition of this permit. This Programmatic Agreement is adopted for the purposes of this permit pursuant to 'Revised Interim Guidance for Implementing Appendix C of 33 CFR Part 325 with the Revised Advisory Council on Historic Preservation Regulations at 36 CFR Part 800,' paragraph 6(b), dated 25 April 2005. Failure to comply with the terms and conditions of this Programmatic Agreement may result in revocation, suspension, or modification of this permit.
Rationale: Comply with 'Revised Interim Guidance for Implementing Appendix C of 33 CFR Part 325 with the Revised Advisory Council on Historic Preservation Regulations at 36 CFR Part 800,' paragraph 6(b), dated 25 April 2005.

12. **Temporary Construction**: The proposed temporary construction methods for the bridge structures have not been finalized by the contractor. Therefore, temporary fills to waterbodies and adjacent wetlands are not authorized under this permit. The contractor must provide a final plan detailing the acres of temporary impact, methods, and structures that will be used in the construction of all project components requiring temporary construction methods, if fill would be discharged in a WOUS. The final plan shall be submitted sixty day before construction activities are planned to begin. The Corps will review the plan to determine if a modification to this authorization is required and if adequate mitigation of impacts to WOUS, including avoidance, minimization and compensation, are included. Impacts to WOUS due to temporary construction methods shall require compensatory mitigation. No temporary construction activities shall occur until the temporary construction plan is authorized by the Corps and any additional compensatory mitigation requirement is fulfilled.
*Rationale: To ensure **c**ompliance with the Clean Water Act [33 U.S.C. 1344].*

13. **Compensatory Mitigation for Direct Impacts to WOUS:** The following compensatory mitigation shall be required for the proposed project:

Impact Duration	Waters Category/Cowardin Wetland System	Mitigation Ratio	Acres of impacts	Mitigation Bank Credits
Permanent	I (High) - Palustrine	3:1	0.6	1.8

Permanent	II (Moderate) Palustrine	2:1	23.4	46.8
Permanent	III (Moderate) Palustrine	1.5:1	71.8	107.7
Secondary/Temporary		0.1:1	38.5	3.9
		TOTAL:		160.2

For the direct loss of 95.8 acres of WOUS, the ARRC shall purchase 156.3 credits of wetlands as identified in the table above and 3.9 credits for secondary impacts associated with the proposed work zone, for a total of 160.2 credits. Of these credits, 16.92 palustrine credits (i.e., PUB, PEM, PFO) shall be purchased from Pioneer Reserve, LLC,, and 143.28 palustrine credits, shall be purchased from the Su-Knik Mitigation Bank. Documentation from each bank, certifying proof of payment, with Department of the Army (DA) permit number, wetland type and requisite credits identified, shall be submitted to the DA at the address below, within 30 day of the date of this authorization.

DEPARTMENT OF THE ARMY
U.S. Army Engineers District, Alaska
Regulatory Division
PO Box 6898
Elmendorf AFB, Alaska 99506-0898

Rationale: This condition is required to compensate for the unavoidable losses important to the human and aquatic environment [33 CFR 320.4(b), 33 CFR 320.4(r), 40 CFR 230.41, and 33 CFR 332.3].

6.0 EVALUATION OF THE DISCHARGE OF DREDGE AND FILL MATERIAL IN ACCORDANCE WITH GUIDELINES (40 CFR Section 230, Subparts B through F)

6.1 SUBPART B- Compliance with the Guidelines:

Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluation and tests required by subparts B and G, after consideration of subparts C through F, with special emphasis on the persistence and permanence of the effects outlined in those subparts (40 CFR 230.10(c)).

The determinations of potential short or long-term effects of proposed discharges of dredged or fill material on the physical, chemical and biological components of the aquatic environment shall include the following:

6.1.1.Physical Substrate Determinations [230.11(a), *230.20*]: Impacts to the physical substrate are also discussed in Section 6.2.1 below.

References:

ARRC March 2011 application materials

STB FEIS Chapter 3.3-3.5
Wetlands Technical Report and Functional Assessment November 2008
Wetland Field Data Supplement January 2011
March 2011 404(b)(1) Evaluation Section

The FEIS contains a baseline information and discussion of impacts to the physical substrate within the project area. The Corps concurs with this analysis.

The construction of proposed project would result in the permanent loss due to the discharge of fill material of 95.8 acres of wetland substrates.

The placement of fill in these substrates will result in the direct loss of habitat for aquatic species. The localized loss of substrates that provides habitat for aquatic species would not result in adverse population level impacts. See section 6.2.4 for additional discussion.

Special Conditions 5 through 9 listed in Section 5.3 will minimize impacts to wetland substrates. Compensatory mitigation for the permanent loss of wetland substrates, and the function and services they provide would be required as described in Section 5.1.

6.1.2 Water Quality, circulation, fluctuation and salinity determinations*[*230.11(b), *230.22 – 230.25*]: Impacts to water quality, circulation, water fluctuation and salinity are also discussed in Sections 6.2.2 through 6.2.6 below. Also see discussion under Section 6.1.7, Determination of Secondary Effects below.

References:
STB FEIS Chapter 4.2

The referenced document provides baseline information and potential impacts to water quality, circulation, fluctuation and salinity.

Construction activities associated with the proposed rail line would result in impacts to the flow and quality of surface waters. Where the proposed rail line footprint is near, adjacent to, or span waterbodies, impacts to water quality would occur. Impacts to water quality would likely include increased erosion and sediment availability/transport to watercourses during spring breakup, snowmelt, or rainstorms. Small petrochemical leaks from construction equipment that could enter a waterbody, either directly as equipment crossed a waterbody or with surface runoff.

Special Conditions 4 and 5 would minimize impacts to water quality, circulation and water fluctuation. In addition, ADEC has issued a 401 Water Quality Certificate of Reasonable Assurance with applicable effluent limitations and water quality standards required under provisions of Section 401 of the

Clean Water Act. This is considered conclusive with respect to water quality considerations [33 CFR 320.4(d)]. Compensatory mitigation for the permanent loss of wetlands and the function and services they provide would be required as described in Section 5.1.

6.1.3 Suspended Particulate/Turbidity determinations[230.11(c), *230.21*]:

References:

STB FEIS Chapter 4.2 and 4.5
March 2011 404(b)(1) Evaluation

The proposed project will contribute suspended particulates to nearby jurisdictional wetlands and waters through earth-moving activities and, installation of bridges and culverts. Disturbances that will result in increased suspended particulates and turbidity include mechanize land clearing, excavation, grading, and the discharge of fill material. Runoff during construction will potentially add sediment and particulate contamination to nearby surface waters. In addition, fugitive dust and discharge of fill will settle in wetlands and/or waters outside the project area

Special Conditions 1, 3, 5, 7, and 8, listed in Section 5.3, would reduce impacts of suspended particulates and turbidity. Compensatory mitigation for the permanent loss of wetlands and the function and services they provide would be required as described in Section 5.1.

6.1.4 Contaminant determinations [230.11(d)]:

References:

ARRC March 2011 application materials
STB FEIS Appendix N

6.1.4.1 The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material for all alternatives: (checked boxes apply)

☒ Physical characteristics (receiving waters, bottom sediments, slurry constituents).
☐ Hydrograph in relation to known or anticipated sources of contaminants.
☐ Results from previous testing of the material or similar material in the vicinity of the project.
☒ Known, significant, sources of persistent pesticides from land runoff or percolation.
☒ Spill records for petroleum products or designated (§311 of CWA) hazardous substances. (Appendix N of the STB FEIS)
☒ Other public records of significant introduction of contaminants from industry, municipalities or other sources. (Appendix L of the STB FEIS)
☒ Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities (Appendix N of the STB FEIS).

The ARRC is proposing to extract gravel for the construction of the project from multiple sources. This gravel would be no different from the local substrates so it would not be expected to contribute any contaminant or any natural material that is not already found on-site.

6.1.4.2 An evaluation of the information above indicates that there is reason to believe the proposed dredged or fill material is not a carrier of contaminants, or that levels of contaminants are substantively similar at extraction and disposal sites. The material meets the testing exclusion criteria**.**

☒ Yes ☐ No ☐ Unknown

6.1.4.3 Is the discharge site adjacent to the extraction site and subject to the same sources of contaminants, or are the materials at the two sites substantially similar?

☒ Yes ☐ No ☐ Unknown

6.1.4.4 If there is a high probability that the material proposed for discharge is a carrier of contaminants are there constraints available that are acceptable to the permitting authority, and the Regional Administrator, to reduce potential contamination to acceptable levels at the disposal site?

This question is not applicable. There is not a high probability that the material proposed for discharge is a carrier of contaminants.

6.1.5: Aquatic ecosystem and organism determinations [230.11(e)]:

References:

STB FEIS Chapter 5.4 and Appendix F.2

The referenced document above provides baseline information and description of impacts to aquatic ecosystem and organisms.

The proposed project would result in the discharge of fill material in 95.8 acres of wetlands. This work would result in the loss of individual organisms, however adverse impacts to the species as a whole, or the subgroups found within the project area, are not anticipated. Direct impacts to fish and other aquatic organisms, such as aquatic invertebrates, would occur during the construction phase when in-water work is performed. Impacts include noise and vibration within the stream channel, disturbance of the substrate and increases in turbidity, and the placement of fill for the construction of the bridges.

Compensatory mitigation for the permanent loss of wetland and riverine aquatic habitat would be required as described in Section 5.1. Special conditions to reduce impacts to the aquatic ecosystem are listed in Section 5.3.

6.1.6: Proposed disposal site determination [230.11(f)]:

The proposed project would not include disposal of material into open water, or result in dredging of water bodies. Material would be disposed in upland locations.

6.1.7 Determination of Secondary Effects on the Aquatic Ecosystem [40 CFR 230.11(h)]:

References:

STB FEIS Chapter 4.5.4.1
March 2011 404(b)(1) Evaluation Section
Application Materials submitted March 2011

Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.

The FEIS and referenced documents contain a broad discussion of secondary effects for the proposed Port MacKenzie Rail Extension project.

Secondary effect on the aquatic ecosystem as a result of the proposed project would be sedimentation of wetland adjacent to the filled area, changes to runoff and infiltration to groundwater could lower baseflow in the immediate project area and could result in the incremental loss of water storage capacity, and interruption and reduction of natural hydrologic function. Changing the hydrologic regime of wetlands by fragmenting the connection between larger wetland areas also could result in impact to the ability of adjacent wetlands to support a high diversity of wetland fauna. Wildlife habitat would become somewhat degraded.

Other Secondary Effects:

Increased velocity at culvert and bridge openings could result in increased scour and erosion at and above these structures. Fugitive dust generated during the construction period could result in impacts to adjacent wetlands. Secondary impacts to wildlife as a result of habitat disturbance, loss and fragmentation, and disturbance due to increased traffic and access would occur. With the inclusion of the special conditions, adverse impacts will be minimized.

6.1.8 Determination of Cumulative Effects on the Aquatic Ecosystem [40 CFR230.11(g)]:

References:

STB FEIS Chapter 16 and Appendix O

An assessment of cumulative impacts takes into consideration the consequences that past, present, and reasonably foreseeable future projects had, have, or will have on an ecosystem. Every DA permit application must be considered on its own merits. Its impacts on the environment must be assessed in light of historical permitting activity, along with anticipated future activities in the area. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large

number of such projects could cause a significant impairment of water resources and interfere with the productivity and water quality of existing aquatic ecosystems.

The FEIS contains a broad discussion of cumulative effects from the proposed Port MacKenzie Rail Extension project. The FEIS estimates for cumulative effects due to past, present, and reasonably foreseeable future development are given in Chapter 16 of the STB FEIS.

The STB collected and reviewed information on relevant past, present, and reasonably foreseeable future projects and actions that could have effects that coincide in time and space with the potential effects from the proposed action. For those identified relevant projects, STB identified where there could be cumulative impacts. In the FEIS, the STB determined that the appropriate geographic boundaries for the cumulative impacts analysis were Parks Highway on the north, Cook Inlet on the south, Knik Arm on the east, and the Susitna River on the west. The STB also determined that the appropriate timeframes for the cumulative impact analysis were the 2-year construction period and indefinite operation.

Reasonably foreseeable activities within the project area could include: Alaska Stand Alone Pipeline Project; Cook Inlet Area wide Oil and Gas Lease Sale; Cook Inlet Ferry; Cook Inlet OCGenTM Power Project; Knik Arm Crossing; Knik-Willow Transmission Line Upgrade; Goose Creek Correctional Center; MSB Regional Aviation System Plan; a suite of Port MacKenzie Development Projects, including the development of a bulk materials facility, gravel mining operations, deep draft dock expansion, and barge dock expansion; Port of Anchorage Marine Terminal Redevelopment Project; a host of road projects in the MSB; South Wasilla Rail Line Relocation; the Su-Knik Wetland Bank; and the West Mat-Su Access Project.

The placement of the fill material due to the reasonably foreseeable future actions listed above, would directly impact the physical substrate, water and water quality, turbidity or suspended sediments, and would cause the loss of aquatic habitat. Other potential impacts to WOUS would be similar to the ones identified for the proposed project and include impacts to natural drainage patterns and the secondary impact to wetland distribution and extent. Other cumulative impacts to non aquatic resources include impacts on wildlife habitat, including the impacts of a long linear rail embankment and railroad traffic on wildlife migration corridors and breeding grounds. These impacts include habitat disturbance, loss and fragmentation, and disturbance due to increased traffic and access. These impacts would be cumulative to those caused by the Port MacKenzie Rail Extension project. Additional cumulative impacts are discussed in Chapter 16 of the STB FEIS. These impacts would be cumulative to those due to the proposed project and to past actions. Overall, the project when combined with past, present, and reasonably foreseeable future projects would not likely result in significant adverse cumulative impacts to aquatic resources within the area of cumulative effect.

Any proposed future projects requiring a DA permit would be evaluated as separate permit actions and the appropriate environmental analysis (a Categorical Exclusion, EA, EIS, or a supplemental EIS as appropriate) would be required, including a cumulative effects analysis. Permitting of these projects would be subject to Section 404 of the Clean Water Act (33 U.S.C. 1344), including the Guidelines, and/or Section 10 of the Rivers and Harbors Act and other appropriate laws and regulations. If the appropriate avoidance, minimization and compensatory mitigation measures do not result in a project in compliance with the above regulations, authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, could not be granted.

***6.1.9 Findings of compliance or non-compliance with the restrictions on discharge* [40 CFR 230.12]:**

☐ On the basis of these Guidelines (Subparts C through G), the proposed disposal site for discharge of dredged or fill material complies with the Section Guidelines.

☒ On the basis of these Guidelines (Subparts C through G), the proposed disposal site for the discharge of dredged or fill material complies with the Section Guidelines with the inclusion of the appropriate and practicable discharge conditions to minimize pollution or adverse effects to the affected aquatic ecosystem. See Section 5.3 for a list of Special Conditions.

☐ The proposed disposal site for discharge of dredged or fill material does not comply with the Section Guidelines for the following reasons:

☐ There is a less damaging practicable alternative.

☐ The proposed discharge will result in significant degradation of the aquatic ecosystem.

☐ The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem.

☐ There does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.

<u>6.2 Subpart C - Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (40 CFR Section 230 Subpart C)</u> (Note: The effects described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see Section 6.1 above).)

6.2.1 Substrate *[230.20, required under Section 230.11(a)] –*
References:

STB FEIS Chapter 3.3-3.5
Wetlands Technical Report and Functional Assessment November 2008
Wetland Field Data Supplement January 2011
March 2011 404(b)(1) Evaluation Section 4.4(a)
Soil Survey of the Matanuska-Susitna Valley, Alaska

Information regarding the substrate within the project area and impacts from project related structures and activities are discussed in the referenced documents. Additional discussion regarding specific impacts and minimization of impacts is included in the Section 6.1.1, Physical Substrate Determination.

6.2.2 Suspended particulates/turbidity *[230.21, required under 230.11(c)]*

References:

STB FEIS Chapter 4 and Appendix C
March 2011 404(b)(1) Evaluation
September 8, 2011 Response to Comments

Information regarding suspended particulates and turbidity within the project area and impacts from project related structures and activities are discussed in the referenced documents. Additional discussion regarding specific impacts and minimization of impacts is included in the Section 6.1.3, Suspended Particulates/Turbidity Determination.

6.2.3 Water *[230.22, required under 230.11(b)]*

References:

STB FEIS Chapter 4 and Appendix C
March 2011 404(b)(1) Evaluation
September 8, 2011 Response to Comments

Information regarding general water characteristics within the project area and impacts from project related structures and activities are discussed in the referenced documents. Additional discussion regarding specific impacts and minimization of impacts is included in Section 6.1.2, Water Quality, Circulation, Fluctuation and Salinity Determination**.**

6.2.4 Current patterns and water circulation *[230.23, required under 230.11(b)]*

References:

STB FEIS Chapter 4 and Appendix C
March 2011 404(b)(1) Evaluation
September 8, 2011 Response to Comments

Information regarding current patterns and water circulation within the project area and impacts from project related structures and activities are discussed in the referenced documents. Additional discussion regarding specific impacts and minimization of impacts is included in Section 6.1.2, Water Quality, Circulation, Fluctuation and Salinity Determination**.**

6.2.5 Normal Water Fluctuation *[230.24, required under 230.11(b)]*

References:

STB FEIS Chapter 4 and Appendix C
March 2011 404(b)(1) Evaluation
September 8, 2011 Response to Comments

Information regarding normal water fluctuation within the project area and impacts from project related structures and activities are discussed in the referenced documents. Additional discussion regarding specific impacts and minimization of impacts is included in Section 6.1.2, Water Quality, Circulation, Fluctuation and Salinity Determination**.**

6.2.6 Salinity gradients *[230.25, required under 230.11(b)]*

Salinity gradients form where salt water from the ocean meets and mixes with fresh water. The Port MacKenzie Rail Extension project would result in impacts to fresh waters only, and is not near any source of salt water. Therefore this issue is not applicable to this project. No impacts to salinity gradients are anticipated to occur due to the proposed project.

6.3 Subpart D - Potential Impacts on Biological Characteristics of the Aquatic Ecosystem (40 CFR Section 230 Subpart D) (Note: The impacts described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see Section 6.1 above).

6.3.1 Threatened and endangered species *[230.30]*

References:

STB FEIS Chapter 5.5 and Appendix H

The STB OEA conducted a Biological Assessment (BA) for potential affects to the Cook Inlet beluga whale (*Delphinapterous leaucas)* and designated critical habitat, during the preparation of the EIS. The STB determined the described activity may affect but is not likely to adversely affect the endangered Cook Inlet beluga whale (*Delphinapterous leaucas)*. STB also determined that the activity is not likely to adversely affect the species designated critical habitat, under the Endangered Species Act of 1973 (87 Stat. 844).

The NMFS concurred with the STB's Determination in a letter dated November 25, 2009.

The Corps notified the NMFS of the permit application for the proposed project in the Public Notice dated May 12, 2011. NMFS did not comment on the Public Notice for the Port MacKenzie Rail Extension project.

6.3.2 Fish, crustaceans, mollusks, and other aquatic organisms in the food web *[230.31]*

References:

STB FEIS Chapter 5.4 and Appendix F

Information regarding fish, crustaceans, mollusks, and other aquatic organisms in the food web within the project area and impacts from project related structures and activities are discussed in the referenced document. The proposed project would cross streams or waterbodies that provide habitat for fish. All crossings of the fish-bearing streams would result in some loss or alteration of stream and riparian habitats. Impacts could include fish habitat loss and modification at stream crossings along the proposed rail line; loss of rearing, foraging, and cover habitat along the banks within the rail line footprint; loss of overhanging bank habitat structure and vegetation within the rail line footprint; potential changes to natural drainage and altered flood hydraulics; potential for debris jams and overbank flooding upstream of water crossings; potential direct mortality of fish during construction; and potential loss of redds, eggs, and fry due to changes in sedimentation, turbidity, and pollutants during construction. STB included mitigation measures to minimize impact to fish and other aquatic organisms, including to (1) design, construct, and maintain the conveyance structures of salmon-bearing streams using the National Marine Fisheries Service 2008 publication "Anadromous Salmonid Passage Facility Design" or equivalent and reasonable measures implement EFH conservation measures agreed upon with the NMFS during the EFH consultation process. Additional discussion regarding specific impacts and minimization of impacts is included in Section 6.1.5, Impacts to Aquatic ecosystem and organisms**.**

6.3.3 Other wildlife *[230.32]*

References:

STB FEIS Chapter 5.3
September 8, 2011 Response to Comments
USFWS comment letter dated July 13, 2011
EPA comment letter dated July 13, 2011

The placement of fill for the construction of the proposed project would impact wildlife migratory corridors. However, the ARRC has designed bridge crossings with increased clearance to provide for wildlife passage. The proposed project would result in the direct impact to approximately 758.5 acres of potential habitat for wildlife, including moose, wolves, bear, other furbearers, and birds, including waterbirds, raptors and landbirds (662.1 acres of impacts to uplands, and 95.8 acres of impacts to wetlands). This direct loss of habitat due to filling 758.5 acres represents a small percentage of the habitat available for wildlife in the study area of 435,895 acres.

Individual animals within these species may be directly impacted due to the proposed project; however adverse impacts to populations as a whole are not anticipated due to the proposed project, as long as all permit special conditions are implemented.

6.4 Subpart E - Potential Impacts on Special Aquatic Sites (40 CFR Section 230 Subpart E) (Note: The impacts described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see Section 6.1 above).

6.4.1 Sanctuaries and refuges *[40 CFR 230.40]*
There are no Sanctuaries or Refuges within the project area.

6.4.2 Wetlands *[40 CFR 230.41]*

References:

STB FEIS Chapter 4 and Appendix C
Wetlands Technical Report and Functional Assessment November 2008
Wetland Field Data Supplement January 2011
March 2011 404(b)(1) Evaluation

Table 5.0 - PMRE Project Wetland and Waterbody Impact Summary (from update received February 24, 2012)

Mapped Type	**Permanent Impacts (acres)**
Saturated Emergent Wetland (PEM1B)	1.5
Seasonally Flooded Emergent Wetland (PEM1C)	6.4
Semi-Permanently Flooded Emergent Wetland (PEM1F)	2.7
Saturated Broadleaf Scrub-Shrub Wetland (PSS1B, PSS1/EM1B, PSS1/3B, PSS1/4B)	14.1
Seasonally Flooded Broadleaf Scrub-Shrub Wetland (PSS1C, PSS1/EM1C, PSS1/3C, PSS1/4C)	15.0
Semi-Permanently Flooded Broadleaf Scrub-Shrub Wetland (PSS1/EM1F)	3.1
Saturated Broadleaf Evergreen Scrub-Shrub Wetland (PSS3/1B, PSS3/4B,PSS3/EM1B)	0.1
Saturated Needleleaf Scrub-Shrub Wetland (PSS4B, PSS4/EM1B, PSS4/1B, PSS4/3B)	20.3
Seasonally Flooded Needleleaf Scrub-Shrub Wetland (PSS4/1C, PSS4/EM1C)	0.7
Saturated Broadleaf Forest Wetland (PFO/SS3B, PFO1/4B, PFO1/SS1B)	2.3
Seasonally Flooded Broadleaf Forest Wetland (PFO1/SS1C)	0.3
Saturated Needleleaf Forest Wetland (PFO4B, PFO4/1B, PFO4/EM1B, PFO4/SS1B, PFO4/SS3B, PFO4/SS4B)	29.0
Water (PUBH)	0.3
Total Wetlands and Waters (acres)	**95.8**

The proposed project would result in the permanent loss of 95.8 acres of wetlands due to the placement of fill. Table 3.0 above provides a description of the wetlands that would be filled. The primary functions and values provided by the wetlands found within the project area include floodwater retention or passage, groundwater recharge and/or discharge, the filtering of pollutants, habitat for aquatic species (particularly emergent wetlands), habitat for non-aquatic wildlife species, and plant diversity.

Compensatory mitigation for the unavoidable impacts to wetlands would be required, to offset significant impacts. See Section 5.0 for a discussion of mitigation.

6.4.3 Mud Flats *[40 CFR 230.42]*
There are no Mud Flats located in the project area.

6.4.4 Vegetated Shallows *[40 CFR 230.43]*
There are no Vegetated Shallows located in the project area.

6.4.5 Coral Reefs *[40 CFR 230.44]*
There are no Coral Reefs located in the project area.

6.4.6 Riffle and Pool Complexes *[40 CFR 230.45]*
There are no Riffle and Pool complexes identified in the project area. All stream crossing would fully span the waterbody and no pilings would be placed within the stream channel.

6.5 Subpart F - Potential Effects on Human Use Characteristics (40 CFR Section 230, Subpart F) (Note: The impacts described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see 6.1 above).)

6.5.1 Municipal and Private Water Supplies *[40 CFR 230.50]*
References:
STB FEIS Chapter 4.3 (page 4.3-9)

Private water supplies in the project area are mostly from wells. The proposed project could change recharge potential and aquifer dewatering due to increased ground compaction with the rail line footprint and an increased risk of groundwater contamination from the rail line providing additional sources or pathway for pollutants. This issue is discussed in more detail in the referenced section above. The Corps concurs with the STB FEIS that these impacts with mitigation would be negligible.

6.5.2 Recreational and Commercial Fisheries *[230.51]*
References:
STB FEIS Chapter 5.4 (fisheries resources)
STB FEIS Chapter 7
STB FEIS Appendix F
STB FEIS Chapter 13.2

The proposed project would cross the Little Susitna River, a waterbody sustaining recreational, commercial and subsistence/personal-use fisheries. The proposed project would also cross three additional streams that support fish. Chapter 5.4, Chapter 7, and Chapter 13.2 of the STB FEIS provide information and discussion of impacts to recreational and commercial fisheries. Impacts to these fisheries could

include loss or alteration of instream and riparian habitat, direct mortality from instream construction, blockage of fish movement, degradation of water quality, and alteration of stream hydrology. STB included mitigation measures to minimize impact to fish and other aquatic organisms, including to (1) design, construct, and maintain the conveyance structures of salmon-bearing streams using the National Marine Fisheries Service 2008 publication "Anadromous Salmonid Passage Facility Design" or equivalent and reasonable measures implement EFH conservation measures agreed upon with the NMFS during the EFH consultation process. The Corps concurs with the analysis in the FEIS.

6.5.3 Water-related Recreation [230.52]

References:

STB FEIS Chapter 5.4 (fisheries resources)
STB FEIS Chapter 7
STB FEIS Chapter 12 (Navigation)
STB FEIS Chapter 13.2

Water related recreation in the project area include fishing and boating. The proposed project would restrict access to portions of the Little Susitna River during the construction phase of the proposed project. Bridges are designed to be high enough to accommodate boats that currently use this portion of the river and bridge pilings and abutments would not be located within the river. No long-term adverse impacts to navigation are expected due to the proposed project.

6.5.4 Aesthetics [230.53]

References:

STB FEIS, Chapter 13.3

Aesthetic characteristics of the project area are described in the referenced document. Given the location of the project area, the aesthetic services are enjoyed primarily by the residents and businesses located near a portion of the alignment, roadway users, recreationists, and air travelers. The proposed project would result in the construction of a rail embankment that would adversely affect visual resources. Areas that may experience greater visual impacts are likely near existing developments or within close proximity to proposed trail or road crossings. The increase in infrastructure would add to the visual disturbance of the natural landscape and incrementally diminish the aesthetic value of the project site. The proposed project would alter the existing visual character of undeveloped, natural, and agricultural areas by converting them into a rail transportation corridor with trail and waterway crossings. Noise from rail construction and rail traffic as well as facility operations also diminishes the aesthetic quality of the surrounding area. The STB has included conditions to mitigate impacts to visual resources, including the use of directional lighting to minimize nighttime glare on adjacent properties, and to minimize vegetation clearing in a manner that provides a visual buffer between the project and adjacent properties. With the inclusion of the mitigation measures, the proposed project will not result in a significant degradation to aesthetics.

6.5.5 Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves *[230.54]*

References:

STB FEIS Chapter 13.2

No parks, national and historical monuments, national seashores, wilderness areas, research sites or similar preserves are located within the proposed project area. No impacts to these resources are anticipated due to the proposed project.

6.6 <u>Subpart G – Evaluation and Testing</u> (40 CFR Section 230, Subpart G)

Reference:

STB FEIS Appendix N

Information assessed to determine the need for evaluation and testing for the proposed project is discussed in the reference documents. This is discussed in more detail in Section 6.1.4 Contaminant determinations above. There is no reason to believe that any of the material to be discharged into WOUS would be contaminated. Therefore, no requirement for testing is triggered.

6.7 <u>Subpart H – Actions to Minimize Adverse Effects</u> (40 CFR Section 230, Subpart H)

Actions to Minimize Adverse Effects, including required mitigation and permit special conditions are discussed in Section 5.0 above.

7.0 GENERAL POLICIES FOR EVALUATING SECTION 10 RHA AND 404 CWA PERMIT DECISIONS [33 CFR 320.4]:

<u>7.1 Public Interest Review</u> [33 CFR 320.4(a)]: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest.

The Corps has determined, after evaluation of the following general criteria (*i – iii* below) and the factors listed in Section 7.2 through 7.20, that the proposed Port MacKenzie Rail Extension project will not be contrary to the public interest, as long as all permit special conditions listed in Section 5.3 of this ROD are implemented.

i. **The relative extent of the public and private need for the proposed work:**

The overall project purpose is predicated on two needs:

- Providing an additional mode of transportation to Port MacKenzie users, providing an economical alternative for movement of bulk materials.
- Foster and promote long-term economic growth and development in the State of Alaska.

The ARRC is an independent corporation owned by the State of Alaska. It is a regional, self-sustaining full-service railroad. The construction of the proposed project would benefit the ARRC by increasing its service area and generating additional revenues.

The public would benefit from an alternative mode of transportation for freight from the interior of Alaska to the existing Port MacKenzie facility. This benefit would not occur until the project is complete.

***ii.* The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work:**

The Corps has determined that the ARRC has clearly demonstrated that due to the prevalence of wetlands between the existing railroad main line and Port Mackenzie no practicable alternatives exist, including alternative sites or construction methods, that would meet the overall project purpose and not result in greater impacts to special aquatic sites. See Section 3.0, Alternatives, for additional discussion.

***iii.* The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses which the area is suited:**

Due to the discharge of fill, the proposed project would result in the permanent loss of 95.8 acres of wetlands. Port Mackenzie would benefit from a second mode of transportation of bulk materials to the Port for shipping. Shippers would see an economic benefit from reduced cost of shipping on a rail compared to trucking material. Impacts to private property during the construction phase include increased noise, increased construction equipment traffic and temporary disruption to local access. These impacts would be temporary. Long term impacts include increased noise as a result of train operations and impacts to aesthetics due to the proposed rail embankment. Additional discussions of project effects are located in Sections 7.2 through 7.20.

7.2 Effects on Wetlands [33 CFR 320.4(b)]:

References:

STB FEIS Chapter 4 and Appendix C
Wetlands Technical Report and Functional Assessment November 2008
Wetland Field Data Supplement January 2011
March 2011 404(b)(1) Evaluation

The description of wetlands and impacts to wetlands are discussed in the cited reference materials and Sections 6.1.1, 6.1.5, 6.1.8 and 6.4.2 above.

7.3 Fish and Wildlife [33 CFR 320.4(c)]:

Reference:

Chapters 5.3, 5.4, and 5.5 of the STB FEIS

Impacts to Fish and Wildlife are discussed in Sections 6.1.5, 6.1.8, 6.3.2 and 6.3.3 above. Other impacts include reduced winter survival and lowered breeding success from exposure to construction noise/human activity and potential transportation, including train, related collisions with wildlife.

7.4 Water Quality [33 CFR 320.4(d)]: Impacts to water quality are discussed in Sections 6.1.2, 6.1.3, and 6.1.4 above. The Section 401 Certificate of Reasonable Assurance for the Port MacKenzie Rail Extension Project from the State of Alaska Department of Environmental Conservation was received on March 20, 2012.

7.5 Historic, Cultural, Scenic and Recreational Values [33 CFR 320.4(e)]:
Reference:
Chapters 6 and 13 of the STB FEIS
Appendices I, J and P of the STB FEIS

The revised Programmatic Agreement (PA) developed through the Section 106 process under the NHPA is found in Appendix J of the FEIS. Historic resources have been identified within the ARRC's preferred alternative. The Corps will adopt the PA by reference, for the purposes of complying with Section 106 once the PA is finalized and executed. The Area of Potential Effect (APE) established within the PA is within the 200-foot right-of-way (ROW), as well as disturbed area related to the project outside the ROW. The Corps permit area are those areas comprising the WOUS that will be directly affected by the proposed project and uplands directly affected as a result of authorizing the discharge of fill material into WOUS. The permit area for the PMRE will be the 200-foot ROW, including uplands and associated ground disturbing activities outside the ROW. The SHPO did not comment on the Public Notice for the Port MacKenzie Rail Extension project.

Visual resources are discussed in Chapter 13 of the STB FEIS. The proposed project would result in the construction of a rail embankment that would negatively affect visual resources. Areas that may experience greater visual impacts are likely near existing developments or within close proximity to proposed trail or road crossings.

Recreational Resources are discussed in Chapters S.6.11, 13.2, and 3.13.2 of the FEIS. The Corps concurs with the STB FEIS description of impacts to recreational resources in S.6.11. The STB has incorporated several conditions to reduce impacts to recreation resources.

7.6 Effects on Limits of the Territorial Sea [33 CFR 320.4(f)]: The project is not located within the Limits of the Territorial Sea.

7.7 Consideration of Property Ownership [33 CFR 320.4(g)]:
References:
STB FEIS Chapter 13

The land within the proposed project area is under the ownership of CIRI Native Regional Corporation, Knikatnu Native Regional Corporation, Matanuska-Susitna Borough, Mental Heath Trust Authority, University of Alaska, the State of Alaska, and private individuals. The ARRC would need to acquire public and private lands to establish the linear right-of-way for the construction of the project. No comments with regards to impacts of the project on private property were received during the public notice period.

7.8 Activities Affecting Coastal Zones [33 CFR 320.4(h)]: By operation of Alaska State law, the federally approved Alaska Coastal Management Program expired on July 1, 2011, resulting in a withdrawal from participation in the Coastal Zone Management Act's (CZMA) National Coastal Management Program. The CZMA Federal consistency provision, section 307, no longer applies in Alaska. Federal Register Notice published July 7, 2011, Volume 76, No. 130, page 39857.

7.9 Activities in Marine Sanctuaries [33 CFR 320.4(i)]: There are no marine sanctuaries within the project area.

7.10 Other Federal, State, and Local Requirements [33 CFR 320.4(j)]: See Section 8.16 below for State and Local authorizations obtained.

Surface Transportation Board authorization for the construction and operation of the rail line.

State of Alaska, Department of Conservation APDES Permit

State of Alaska, Department of Conservation 401 Certificate of Reasonable Assurance

A Section 9 permit from the United States Coast Guard would be required for the construction of the bridge over the Little Susitna River.

Fish Habitat (Title 16) Permits will be necessary from ADF&G for all aspects (temporary or permanent) of the described project that occur within the current (pre-project) limits of ordinary high water (OHW) of fish bearing waterbodies. ADF&G reserves the right to condition any such permits independently of any conditions that may be developed as part of Corps authorization.

Alaska Department of Natural Resources Land Use Permit

Matanuska-Susitna Borough Flood Hazard Permit

Matanuska-Susitna Borough Port Development Permit

Matanuska-Susitna Borough Land Use Permit

7.11 Safety of Impoundment Structures [33 CFR 320.4(k)]: There are no dams or similar impoundment structures proposed as part of this project.

7.12 Floodplain Management [33 CFR 320.4(l); Executive Order (EO) 11988]: As stated in the referenced regulations, floodplains possess significant natural values and carry out numerous functions in the public interest including: flood attenuation, water quality maintenance, groundwater recharge, living resource values, and cultural resource values. A particular alteration of the floodplain may constitute a minor change; however, the cumulative impact of such changes may result in a significant degradation of floodplain values and functions and in increased potential for harm to upstream and downstream activities.

Baseline descriptions of floodplain functions and values within the project site are found in Section 4.4 in the STB FEIS. Description of changes in circulation patterns and water fluctuation due to the proposed project are discussed in Section 6.1.2, Water quality, Circulation and Salinity Determination, above.

The proposed project requires a bridge across the Little Susitna River and several unnamed tributaries. Approximately 1,945 feet of the rail footprint would cross 4 acres of FEMA-designated 100-year floodplains. This area would account for less than 0.1 percent of the floodplain area along the Little Susitna River. All proposed water crossing would be sized to convey the 100-year flow event associated with local drainages. The Corps has determined that no practicable alternative exists that would eliminate impacts to the Little Susitna floodplain. All practicable measures to avoid and minimize impacts to the floodplain have been incorporated in the project design or included in the permit conditions.

7.13 Water Supply and Conservation [33 CFR 320.4(m)]:

Reference:

STB FEIS Chapter 4.3

Private water supplies in the project area are mostly from wells. The proposed project could change recharge potential and aquifer dewatering due to increased ground compaction with the rail line footprint and an increased risk of groundwater contamination from the rail line providing additional sources or pathway for pollutants. This issue is discussed in more detail in the referenced section above. The Corps concurs with the STB FEIS that these impacts with mitigation would be negligible.

7.14 Energy Conservation and Development [33 CFR 320.4(n)]:

Reference:

STB FEIS Chapter 2.4.8, Chapter 10

The construction of a rail would result in a more efficient mode of transportation for bulk materials compared to trucking bulk material. Energy would be conserved through the more fuel efficient transportation of bulk material. The Corps concurs with the STB EIS that any impacts to energy conservation and development would be small.

7.15 Navigation [33 CFR 320.4(o)]: Within the project area, the Little Susitna River channel is the only navigable waters subject to Section 10 of the Rivers and Harbors Act of 1899. Users are primarily recreational boaters and recreational hunters/fishermen. The proposed project would have no unacceptable adverse impact to navigation. No comments from the United States Coast Guard regarding potential impacts to navigation due to the construction of the bridge across the Little Susitna River were received during the public notice period. ARRC would be required to obtain authorization from the USCG under Section 9 of the Rivers and Harbors Act and comply with the conditions of that authorization to mitigate impacts to navigation.

7.16 Environmental Benefits [33 CFR 320.4(p)]: The construction of a rail would result in a more efficient mode of transportation for bulk materials compared to trucking bulk material. Energy would be conserved through the more fuel efficient transportation of bulk material.

7.17 Economics [33 CFR 320.4(q)]:

References:

STB FEIS Chapter 14

As stated in the regulations, when reviewing permit applications the Corps generally assumes that the proposal is economically viable. Baseline discussion of the regional economy, including subsistence, is contained in Chapter 14 in the FEIS. The economic benefits of the PMRE project would include an increase in employment during the construction period. The local economic base could improve if construction materials, specifically gravel, were obtained from local sources. There would also be an economic benefit for shippers using the rail for shipping bulk materials.

7.18 Food and fiber production [320.4(a)(1)]:

Reference:

STB ROD
STB FEIS Chapter 13.1

A portion of the proposed project would pass through the Port MacKenzie Agricultural Project (PMAP). PMAP covers 14,893 acres. A total of 419 acres of PMAP would be occupied by the proposed rail line right-of-way and the proposed terminal reserve. 2.8 percent of the total PMAP agricultural lands, which largely consists of active and fallow hay fields, would be filled as a result of the proposed project. The STB concluded that the proposed rail line and terminal reserve would not be a significant shift in land use. The Corps concurs with the STB's conclusion.

7.19 Prime and unique farmland [7 CFR Part 658]: Based on information published by the Natural Resources Conservation Service, there are no designated prime and unique farmlands in the State of Alaska. The proposed project will have no adverse effects on prime and unique farmlands.

7.20 Mitigation [33 CFR 320.4(r)]: Mitigation is discussed in Section 5.0 above.

8.0 COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS (33 CFR 320.3 Related Laws):

8.1 Clean Water Act (33 USC Section 1341) Section 401 Certificate of Reasonable Assurance [33 CFR 320.4(d)]:

Date Issued: March 20, 2012 ☒Issued ☐Denied ☐Waived

Special Conditions: ☒Yes ☐No

8.2 Coastal Zone Management Consistency Determination [33 CFR 320.4(h)]: By operation of Alaska State law, the federally approved Alaska Coastal Management Program expired on July 1, 2011, resulting in a withdrawal from participation in the Coastal Zone Management Act's (CZMA) National Coastal Management Program. The CZMA Federal consistency provision, section 307, no longer applies in Alaska. Federal Register Notice published July 7, 2011, Volume 76, No. 130, page 39857.

8.3 Endangered Species Act of 1973 [16 U.S.C. 1531]: Endangered Species are discussed in Chapter 5.5 of the STB FEIS. The ESA Biological Assessment is in Appendix H of the STB FEIS. Endangered Species Act consultation with the STB concluded on November 25, 2009. Coordination with the NMFS and USFWS and completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps responsibilities under the Endangered Species Act.

8.4 Fish and Wildlife Coordination Act [16 U.S.C. 661]: Coordination with the United States Fish and Wildlife Service, State of Alaska Department of Fish and Game, and completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps FWCA responsibilities.

8.5 Magnuson-Stevens Fishery Conservation and Management Act: The Essential Fish Habitat Assessment is discussed in Chapter 1.5.3.4 of the STB FEIS. The EFH Assessment is in Appendix G of the STB FEIS. Essential Fish Habitat consultation with the STB concluded with NMFS comments including conservation recommendations, dated May 10, 2010 on the DEIS. In a phone conversation between the Corps on May 3, 2012, the NMFS stated that they had no other comments or recommendations, at this time. Coordination with the NMFS and completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps responsibilities under the Magnuson-Stevens Fishery Conservation and Management Act.

8.6 National Environmental Policy Act of 1969 [42 U.S.C. 4321 - 4347]: Signature of this ROD by the authorizing official completes the Corps NEPA requirements and responsibilities.

8.7 National Historic Preservation Act of 1966 [16 U.S.C. 470 et seq.]: The revised Programmatic Agreement (PA) developed through the Section 106 process under the NHPA is found in Appendix J of the STB FEIS. Historic resources have been identified within the proposed project area. The Corps will adopt the PA by reference, for the purposes of complying with Section 106 once the PA is finalized and executed. The SHPO did not comment on the Public Notice for the Port MacKenzie Rail Extension project. Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps responsibilities under the NHPA.

8.8 Clean Water Act [33 U.S.C. 1251 et seq. Guidelines 40 CFR 230 Subpart B]: Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps 404(b)(1) requirements.

8.9 Clean Water Act [33 U.S.C. 1251 et seq.] Section 404 [33 U.S.C. 1344]: Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps CWA 404 requirements.

8.10 Rivers and Harbors Appropriation Act of 1899 [33 U.S.C. 401, 403, 407]: The project does not required authorization under Section 10 of the Rivers and Harbors Act.

8.11 Marine Mammal Protection Act of 1972 [16 U.S.C. 1361 et seq, 1401-1407, 1538, 4107]: Not applicable to this project.

8.12 Executive Order 13175 Consultation and Coordination with Indian Tribal Governments: The STB conducted government to government consultation as part of EIS (Appendix B in the STB FEIS Volume II). STB received completed questionnaires from Knikatnu, Incorporated and the Native Village of Eklutna. Both organizations asked to continue to receive project information by mail and to participate in the public involvement process. The Corps did not receive any comments during the public notice period. Consultation with Federally recognized Tribes and completion of the process and analysis contained within this ROD and signature by the authorizing official completes the DODs EO 13175 requirements.

8.13 Clean Air Act [42 U.S.C. 7401 - 7671 Section 176(c)]: The proposed project has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities analyzed in this ROD will not exceed *de minims* levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility and generally cannot be practicably controlled by the Corps. This project is not located within a non-attainment area. For these reasons a conformity determination is not required for this individual permit. Impacts to Climate and Air Quality are discussed in Chapter 8 of the STB FEIS.

8.14 Executive Order 12898 (Environmental Justice): Environmental Justice is discussed in Chapter 16 of STB FEIS. The STB found that no high and adverse impacts to human populations would occur due to the proposed project, and therefore, no

potential for Environmental Justice issues exists. The Corps concurs with the findings of in Chapter 16 of the STB FEIS. Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps EO 12898 requirements.

8.15 Executive Order 11988 (Flood Plain Management): In accordance with EO 11988 the district engineer should avoid authorizing floodplain developments whenever practical alternatives exist outside of the floodplain. There are no action alternatives that would avoid the floodplain.

8.16 Other State and/or Local Authorizations (if issued):

AK Department of Environmental Conservation – Section 401 Certification of Reasonable Assurance: A Section 401 Certificate of Reasonable Assurance was issued, with conditions, on March 12, 2012.

AK Department of Fish and Game – Fish Habitat Permits:
Fish Habitat (Title 16) Permits will be necessary from ADF&G for all aspects (temporary or permanent) of the described project that occur within the current (pre-project) limits of ordinary high water (OHW) of fish bearing waters. ADF&G reserves the right to condition any such permits independently of any conditions that may be developed as part of Corps authorization.

AK Office of History and Archaeology (AOHA): The revised Programmatic Agreement (PA) developed through the Section 106 process under the NHPA is found in Appendix J of the FEIS. The SHPO did not comment on the Public Notice for the proposed Port MacKenzie Rail Extension.

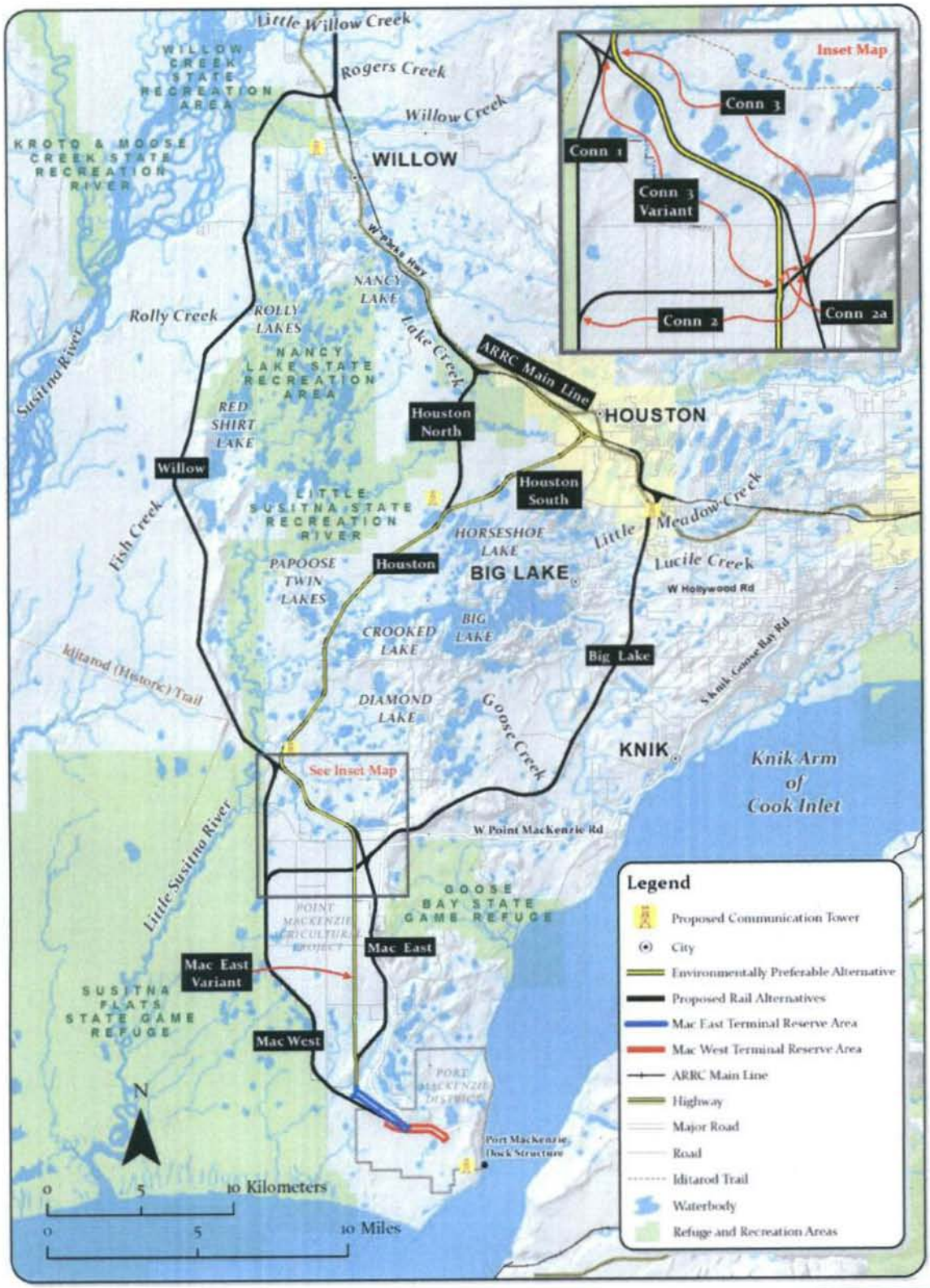
Matanuska-Susitna Borough (MSB): A flood hazard permit would be required from the MSB.

8.17 Significant National Issues [33 CFR 325.2(a)(6)]: The regulations state that if a district engineer makes a decision on a permit application which is contrary to state or local decisions, the district engineer will include in the decision document the significant national issues and explain how they are overriding in importance. This decision document and final decision is not contrary to state or local decisions.

9.0 Decision: I find that the issuance of the DA permit, as described by regulations published in 33 CFR § 320 through § 330, and 40 CFR § 230, is not contrary to the public interest with the special conditions described in this ROD.

10 SEP 2012

Christopher D. Lestochi
Colonel, Corps of Engineers
District Commander



OEA's Environmentally Preferable Alternative

Attachment 1
Rail Alternatives
Source: STB FEIS
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