



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

*National Marine Fisheries Service
P.O. Box 21668
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May 10, 2010

EL-18159

Mr. David Navecky
Surface Transportation Board
395 E Street, S.W.
Washington, DC 20423-0001
ATTN: Section of Environmental Analysis
STB Docket No. 35095

Re: Alaska Railroad Port MacKenzie Rail Line Extension:

Dear Mr. Navecky:

The National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Statement (DEIS) submitted by Surface Transportation Board (STB) and the Alaska Railroad Corporation (ARRC). The ARRC proposes to construct and operate approximately 30 to 45 miles of new rail line and associated support infrastructure. Currently, eight different rail alignment combinations are proposed to link Port MacKenzie at the terminus to existing rail lines to the North.

Under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), federal agencies are required to consult with the Secretary of Commerce on any action that may adversely affect Essential Fish Habitat (EFH). EFH has been designated in the project area for anadromous salmon. EFH for salmon consists of the aquatic habitat necessary to allow salmon production needed to support a long-term sustainable salmon fishery and salmon contributions to healthy ecosystems.

General Concerns

The potential impacts to EFH and anadromous species vary considerably amongst the alternatives for this project. Any of the proposed alignments will significantly impact hydro-geomorphic processes, connectivity and function of wetlands, stream and rivers, associated aquatic species and anadromous fish populations these watersheds support.

Improperly designed and constructed stream and river crossings are well documented to have long term negative impacts to EFH and anadromous populations. Although the DEIS describes the numerous negative impacts poorly placed rail crossings will have on wetlands, hydro-geologic functions and associated EFH and anadromous species, there is little in this DEIS to indicate these impacts will be avoided and minimized.

Specific Concerns:

The following list highlights our specific concerns. The enclosure provides our rationale for these concerns.

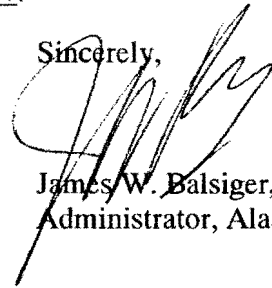


- 1) The DEIS alludes to NMFS involvement and approval of mitigation measures for EFH designated waters, yet we have not been consulted to date.
- 2) Although the STB-ARRC cite the Anadromous Salmonid Passage Facility Design (NMFS 2008), as providing guidance to the design and construction of rail crossings, those recommendations are not reflected in the proposed crossing structures.
- 3) The level of detail and information in the Draft EIS is insufficient to identify appropriate measures to avoid, minimize and mitigate impacts to EFH and anadromous species.

NMFS would be less concerned with the specific rail alignment selected for this project if the stream crossings were designed to incorporate measures and recommendations referred to in the Anadromous Salmonid Passage Facility Design (NMFS 2008), to avoid and minimize long term impacts and subsequent loss of EFH and anadromous species. Whichever alignment is selected as the preferred alternative, it should allocate funding early in the project planning phase, rather than in the final permitting phase, in order to implement appropriate mitigation measures.

Should you have any questions regarding the issues we have identified, please contact Doug Limpinsel at 907-271-6379 or Doug.Limpinsel@noaa.gov.

Sincerely,



James W. Balsiger, Ph.D.
Administrator, Alaska Region

Enclosure

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ENCLOSURE: NATIONAL MARINE FISHERIES SERVICE COMMENTS
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE
PORT MACKENZIE RAIL LINE EXTENSION

EFH Consultation:

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act requires federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions that may adversely affect EFH. NMFS is required to make EFH Conservation Recommendations, which may include measures to avoid, minimize, mitigate or otherwise offset adverse effects. NMFS will provide EFH Conservation Recommendations once a preferred alternative has been selected for the project. In the interim, NMFS offers the following information and comments.

NMFS met with representatives of the STB-ARRC on March 11, 2008 to discuss the potential impacts of rail alignments on ecosystem processes that support anadromous species and EFH, and identified ecological considerations including suggestions for measures to avoid and minimize impacts to anadromous species and EFH. NMFS also suggested the STB-ARRC and project consultants (E-mail 2009), follow design guidance for constructing stream and river crossing structures, such as conveyance structures, bridges, and culverts, as described in the Anadromous Salmonids Passage Facility Design (NMFS 2008), and/or follow the Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings (USFS 2008).

The level of detail in the DEIS regarding the proposed rail alignments is insufficient to identify appropriate measures to avoid, minimize and mitigate for adverse effects to living marine resources including EFH. Additionally, the mitigation measures proposed in this DEIS are inadequate to offset the adverse effects of the project on salmon and their habitat. We recommend that STB-ARRC initiate and maintain further dialog with all stakeholders and resource agencies to develop measures that reduce impacts of the final alignments. The preferred rail alignment in the final EIS should incorporate the resource agencies' specific recommended mitigation measures, such as refined alignments and crossing designs to avoid and minimize adverse effects to salmon and EFH.

NMFS Concerns Regarding EFH:

Of greatest concern for NMFS regarding this project are the currently proposed dimensions of culverts and bridges and the lack of information regarding hydrology and anadromous fish presence in streams and rivers to be crossed. NMFS has the following recommendations regarding the design of stream and river crossings and fisheries, hydrologic and wetland surveys.

1) Design of Stream and River Crossings:

Part 1 Section 19.2 (page 19.3, VM-10), and again in Part 2 Section Appendix G.4 (G.4.1, page G-29) of the DEIS, the STB-ARRC references the Anadromous Salmonid Passage Facility Design (NMFS 2008).

"Applicant voluntarily proposed the following measures for mitigating potential project related impacts to water resources".

"For all project-related crossings of fish-bearing waters that incorporate bridges or culverts, the Applicant shall design, construct, and maintain the conveyance structures in accordance with the National Marine Fisheries Service 2008 publication, "Anadromous Salmonid Passage Facility Design (NMFS 2008), or equivalent and reasonable requirements".

However, the above referenced design and construction recommendations were not incorporated in the stream and river crossings proposed for this project in the DEIS. A specific example is listed in Section G (Table G.5, pg G.15) entitled Essential Fish Habitat. Crossing point C1-2.6 is identified in the ADFG Anadromous Catalogue as ADFG 247-41-10100-2080, with upper reaches (0010, 0020, and 3002). These reaches are identified as having coho salmon adults and smolt present and rearing habitat. Thus, coho salmon maybe present spawning farther upstream indicating a need for a crossing structure that would accommodate this species at all life stages. The STB-ARRC describes this water body as 27 feet in width, but proposes a "72 inch culvert (6 feet wide)", "buried up to approximately 40 percent of its diameter where possible", and concludes that it would result in "fragmenting coho rearing habitat".

Review of the tables (G.5, pages G 14-16) indicate none of the suggested crossings of any known anadromous waters will use any method or design criteria referenced by the STB-ARRC in the voluntary mitigation measures described in Anadromous Salmonid Passage Facility Design (NMFS 2008). NMFS questions how these specifications represent "Voluntary Mitigation Measures" stated in this DEIS.

Recommendations within the Anadromous Salmonid Passage Facility Design clearly advise that to maintain anadromous passage, minimum hydrological connectivity and instream flow after the rail line is operational, and that the conveyance structure needs to incorporate the following:

"...the minimum culvert bed width must be greater than the bankfull channel width" (section 7.3.2.1-pg 69), or if a stream is not fully entrenched, "the minimum culvert bed width should be at least 1.3 times the bankfull channel width." (section 7.4.2 .1-pg 70).

We have similar concerns regarding fish passage structures listed in section 5.4 (Table 5.4-3, pgs 5.4-10, and Table 5.4-5, pgs 5.4-14 through 5.4-16). Several conveyance structures are listed in these tables for both anadromous and resident fish species and they do not meet the minimal measures prescribed in the Anadromous Salmonid Passage Facility Design (NMFS 2008) or in the Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings (USFS 2008).

Of further concern to the NMFS is language in Section 5.4.2 (pg 5.4-1) and G.3.1 (pg G-8).

"SEA determined that it would not be reasonable to use the potential impacts that would be anticipated for these undersized structures to distinguish between alternatives because the hydrologic review and the Applicant-proposed conveyance structures are preliminary, and the final conveyance structure types and sizes would be determined during the final permitting and design. ARRC would base final conveyance structure designs on reasonable terms, conditions, and design criteria that would result from the ADF&G Fish Habitat permit that would likely ensure a conveyance structure size similar to the channel width to maintain flow conditions suitable for fish passage."

NMFS recommends that the final EIS include much more detailed plans and specifications for the proposed stream crossing locations (bank full width, depth, seasonal instream flows, presence or absence of fish, instream flow contribution of non-anadromous water to anadromous waters), and associated conveyance structures, including allocation of sufficient funding to cover construction costs. As seen in other projects of this kind, funding for conveyance structures that minimize impacts to fisheries and wetlands may not be available in the final permitting phase of the project unless funds are appropriated in the early planning phase.

2) Fisheries and Hydrology Surveys:

To accurately assess and properly plan for the installation of culverts or bridges an appropriate level of hydrologic and fisheries data needs to be collected at each of the proposed crossings. Streams and rivers transected by the proposed rail alignments, while not currently listed in the ADF&G anadromous catalog, may contain and/or support anadromous populations, or water sources essential in supporting EFH or anadromous populations. If a tributary has been determined not be an anadromous water body, but contributes water to a stream or river that is confirmed anadromous, the impact from the loss of that discharge needs to be considered.

The DEIS (Table 4.2-2, pg 4.2-7), as well as additional data submitted to NMFS (Noel, 2010) indicate that STB-ARRC contractors conducted limited fisheries and hydrology surveys in August of 2008 (8/12-8/16). Surveys conducted for one week in mid August of any year at any proposed crossing do not represent the various seasonal life cycle stages of all anadromous species, nor would these studies represent the complexity of seasonal high flows, typical of April and May during spring snow melt, draining wetlands, or streams and rivers.

Survey design, sampling methods and efforts need to be conducted in a manner that generates defensible results that assist in the design of conveyance structures that avoid and minimize impacts to EFH and anadromous species.

3) Wetlands:

In sections 4.5.3 and C.3 of the DEIS, the STB-ARRC provide an accurate description regarding the important role wetlands play in providing water quality to EFH and anadromous species. However, in reviewing methods employed to determine wetland type and function, NMFS concludes the amount of wetlands impacted may be significantly underestimated and not accurately characterized using rapid assessment and aerial surveys methods. Wetland surveys and functional assessments need to be conducted in a manner that generates defensible results and would dictate conveyance structure design and dimensions to further avoid and minimize impacts to EFH.

The DEIS does not include suggestions for full span bridges or to elevate portions of track and alignments to maintain wetland function and aquatic connectivity. If these measures are technically unavailable, the STB-ARRC should justify that rationale. Back filling wetlands and realigning 2,460 feet of known anadromous waters (Cheri Creek, Section G.3.4.8, page G.4) to construct rail alignments through the wetlands does not avoid and minimize impacts to the stream and adjacent wetlands.

NMFS recommends a finer level of resolution in identifying and delineating critical and high-value wetlands that support EFH and anadromous species and avoiding especially valuable areas altogether if possible.

Conclusion:

As discussed in the Anadromous Salmonid Passage Facility Design (NMFS 2008), all crossing designs should be based on site-specific information, such as anadromy, seasonal instream flows and peak discharge, and flood plain regime (50-year to 100-year flood events). This information should be included in the final EIS. Crossings that transect EFH and anadromous waters within wetlands should incorporate bridge or elevated tracks to provide long-term water supply.

The DEIS identifies potential adverse effects and environmental impacts that rail line construction and operation could have on wetlands, hydro-geologic functions and associated EFH and anadromous species. However, the DEIS lacks the level of site specific analysis and information required to identify appropriate mitigation efforts that would avoid and minimize long term impacts to anadromous species of Cook Inlet.

In summary NMFS offer the following recommendations:

- 1) Conduct wetland delineations of final alignments to refine the detail and description of site specific wetland function and hydrologic contribution of transected streams and rivers.
- 2) Conduct fisheries surveys of all tributaries to be crossed that are not currently listed in the ADF&G Anadromous Catalogue.
 - a. Conduct surveys that would represent all anadromous species at all life stages in all waters crossed within each alignment.
- 3) Conduct hydrologic surveys of all tributaries to be crossed that are not currently listed in the ADF&G Anadromous Catalogue.
 - a. Conduct surveys to target seasonal snow melt periods from April and May, when instream flows are of highest magnitude.
- 4) Design conveyance structures, using suggestions (NMFS 2008, USFS 2008) to accommodate peak instream flows of all life stages of anadromous species in tributaries identified as anadromous.

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