

Page	Paragraph	Comment
1-2	n/a	Suggested changes to all EIS figures: (1) add "Port MacKenzie Dock" label; (2) add "Little Susitna River" label; (3) add "Talkeetna Mtns." label; (4) capitalize "K" in "W Point MacKenzie Rd."
1-9	5 & 6	recommend including USFWS regulatory authority regarding Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act
2-12	2	To be consistent in the document - add word "long" to end of bullets #5 and #8
2-5	last on pg	1st sentence. Construction COULD (not would) be completed in 24 months.
2-33	3	Increased dust associated with the project is properly identified as a temporary impact here – this contradicts the vegetation section conclusion where dust is incorrectly identified as a greater, long-term impact.
2-36	1	Spelling error - change "Su-Kink" to "Su-Knik"
3-14	5 & 6	The statement in paragraph 5 about the documentation of permafrost in the area needs a citation. All the statements in paragraph 6 need citations.
3-15	1	Statements in this paragraph need citations.
3-15	4 & 5	Statements in these paragraphs should have citations.
3-16	1	Statements in this paragraph should have citations.
4.2-20	3	Spelling error - change "Rodgers Creek" to "Rogers Creek"
4.2.24	3	The bridge on Houston south is next to an existing one. This is mis-constructed throughout the document and needs to be addressed generally.
4.3-1	2	Suggest removal of "...or Chugach mountains..." in the last sentence - the location of the Chugach mountains (east of Knik Arm) makes it highly unlikely that they contribute to the groundwater of the Susitna River Basin.
4.3-3	Table 4.3-1	To be consistent in the document – there is improper use of dashes on rows 6, 7, and 10; the rest of the table uses the term "through" instead of dashes – suggest minor change.
4.4-7	1	The conclusion statements "1 percent of the total floodplain" and "less than 1 percent of the total floodplain" (4.4-8, 4th paragraph) seem to contradict the term "substantial" used to describe floodplain impacts in vegetation section
4-4.9	last on pg	Bridge type for Little Susitan bridge is wrong. ARRC will match existing, not 28-foot spans.
4.5-17	Table 4.5-3	To be consistent in the document, fix this table's use of decimal points in the reported acreage calculations - some values show tenths, others do not.
4.5-9	3	"...use of rock salt and sand for increasing traction, which could damage or kill vegetation and aquatic life." - ARRC Uses sand, which has little or no effect on vegetation outside the ballast prism. This statement should be removed.
4.5-9	6	This paragraph properly refers to a low potential for fires and the unlikely changes to overall fire management - recommend that similar language be added to the wildfire discussion in the vegetation section
5.1-1	3	Second sentence is unclear, suggest a revision--possibly break into multiple sentences to clarify.
5.2-1	3	"When disturbed, mature forests could take up to 100 years to recover." - This statement contradicts several later statements that refer to "70 to 200 years to (forest) regeneration" (pg. 5.2-6). "...disrupting continuity and damaging the integrity of lake fringe areas that provide water and nutrient cycling functions and are important for wildlife use." - recommend clarifying how this disruption/damage is measured.
5.2-16	2	Second sentence - Change word "would" to "could" or "may".
5.2-17	2	Second sentence - Change word "would" to "could" or "may".
5.2-17	3	"... unique ecological features". - Define/clarify what features are being considered in this statement.
5.2-17	4	"... plant seeds would contribute..." - change "would" to "could" or "may".
5.2-17	5	"... alternatives would result infestations." - Error in sentence, unclear text.
5.2-17	4th under Veg Impacts	This paragraph is confusing. In addition to the missing words identified above, the "infestations" and the reasons for those "infestations" needs to be more clearly described. Moreover, there is no certainty that the Mac West-Conn 1-Willow and Mac East-Conn 3-Willow "would" result in such infestations. In addition, the sentence starting with "Of these two alternatives..." should be revised to "Of all the alternatives..." because the two alternatives previously discussed in the text did not include the Mac West-Conn 2-Bigh Lake alternative.
5.2-19	2	"... impact the greater amount of floodplains (37.0, 30.3, 37.0, and 30.3, respectively)" - add word "acres" after last listed 30.3.
5.2-19	3	"... potential impact would be to forested area, restoration..." - the word "area" should be plural.
5.2-19	3	"In addition, this alternative would impact a substantial acreage of floodplains..." - This statement contradicts conclusions made in the floodplain section of the Draft EIS. Impacts to one percent less of crossed stream floodplains would not be "substantial."
5.2-19	4	Use of the word "substantial" to address impacts to floodplains contradicts floodplain section of the Draft EIS. One percent or less of crossed stream floodplains would not be "substantial."
5.2-20	1	"... plant populations, which would contribute to a greater risk..." - change "would" to "could" or "may".
5.2-20	2	"... plant populations, which would contribute to a greater risk..." - change "would" to "could" or "may".

5.2-20	3	Use of the word "substantial" to address impacts to floodplains contradicts floodplains section of the Draft EIS. Impacts to one percent or less of crossed stream floodplains would not be "substantial."
5.2-21	2	"... plant populations, which would contribute to a greater risk..." - change "would" to "could" or "may".
5.2-21	2	Use of the word "substantial" to address impacts to floodplains - contradicts floodplains section of the Draft EIS. Impacts to one percent or less of crossed stream floodplains would not be "substantial."
5.2-21	3	"... plant populations, which would contribute to a greater risk..." - change "would" to "could" or "may".
5.2-21	4	Second to last sentence - This is an unnecessary statement that adds nothing to the environmental assessment. ARRC suggests deleting it.
5.2-5	3	"Interruption of natural wildland fire ecology." - Current land management practices have already interrupted the natural fire ecology (large portions of the project area are managed for fire suppression).
5.2-6	1	"Alteration of natural fire regimes." - Existing management, roads, and developments have already altered the natural fire regimes in most areas (large portions of the project area are managed for fire suppression).
5.2-6	2	ARRC suggests adding the following text to the end of the first sentence - "...in forested and shrub dominated cover types." - Plant composition would probably not be impacted in grass/sedge/low shrub/agriculture lands because clearing would not be needed.
5.2-7	3	There are already invasive species present throughout the project area, and it is highly unlikely that the project will spread them elsewhere - recommend changes to the paragraph to acknowledge this fact
5.2-7	5	"...severely impact or even eliminate these species." - There is no reason to speculate about what might happen to rare species, since there is no evidence that any are present.
5.2-9	1	This statement is noted to substantiate several other "natural wildland fire ecology/regimes" that are used throughout the vegetation section - active management has suppressed fires in much of the project area. Natural fire conditions are likely in an unnatural state currently.
5.2-9	Maintenance Clearing	Soil disturbance should not result from vegetation clearing for operational maintenance in the rail bed. This is a maintenance activity on the track only, not the embankment.
5.3-12	1	"Loss of forest communities would generally require 5 to 20 years or more to reestablish trees and shrub habitat for cover, perching, and nesting for most raptors and landbirds; 50 to 100 years for trees large enough..." - This statement contradicts several earlier statements that refer to "70 to 200 years to (forest) regeneration" (pg. 5.2-6).
5.3-13	2	Regarding oiled birds - There is no clear explanation as to how birds would get covered in oil (this statement appears to be out of context). This paragraph only implies the negative environmental consequences of oiled birds and is not clear how it relates to this project.
5.3-13	4	"... direct loss of between 450 to 600 acres of wildlife habitat." - Many affected areas would still be usable by wildlife, and therefore still provide "wildlife habitat"; recommend changing the phrase "direct loss" to "impact" or "change the habitat features."
5.3-13 - 5.3-2	impact to wildlife by segment section	Was expecting a direct comparison of the contrasting segments (e.g., Mac East to Mac West) but the text reads more as a comparison of the southern end segments to the northern end segments.
5.3-2	2	Forested and wetland habitats are not mutually exclusive - suggest a revision to sentence to clarify.
5.3-21	Table 5.3-7	Table needs footnote that data represents direct loss for entire 200' ROW, which is an overestimation (as discussed in comment letter).
5.3-4 & 5	bird intro	The introduction to the bird section is incomplete and inconsistent with the following text - suggest a revision that parallels the introduction to the mammals section.
5.3-7	1	Construction clearing would be done before or after the bird nesting period in compliance with the Migratory Bird Treaty Act, so active nests would not be destroyed as stated in this paragraph.
5.3-7	2	"Birds with eggs or young in nests in trees or on the ground would be destroyed during ROW clearing." - Change "would" to "could" or "may". Vegetation clearing may only occur outside of bird nesting windows.
5.3-7	3	Much of the project area currently is within a fire suppression area so this impact would not necessarily occur - may want to discuss as differential impact of segments/alignments.
5.3-7	6	"Train traffic on the rail would result in wildlife fatalities..." - Change "would" to "could" or "may".
5.3-7	6	"...small mammals and birds would be killed or injured..." - Change "would" to "could" or "may".
5.3-7	1st bullet	2nd to the last and last sentences: change "would" to "could".
5.3-8	3	Facilitation of predator movements - the text in this paragraph does not match the heading - suggest a revision to the heading and/or text.
5.4-10 thru 5.4-18	Tables 5.4-3, 5.4-4, 5.4-5, 5.4-6, 5.4-7	Tables need footnotes to describe the potential blockage. At first glance one could assume that the potential blockage applies the proposed culvert not upstream and downstream potential blockages. This also needs to be more clearly described in the text.
5.4-14 thru 5.4-16	Table 5.4-5	Footnote on Habitat columns should be "b" instead of "a". Footnote "b" on Potential Blockage column does not seem to fit. See comment above about adding a footnote for the Potential Blockage column.

5.4-19	2	"The Alaska Department of Fish and Game considers Cook Inlet radiation sticklebacks and Pacific lamprey Species of Conservation Concern." - ARRC is not aware of a species of fish called "radiation stickleback."
5.4-4	Table 5.4-1	Remove American Shad <i>Alosa sapidissima</i> - Shad is documented as an invasive species in Alaska but has little to no potential to be present in the project area
5.4-6	4	First sentence should read - During construction there could be direct mortality of fish (delete "when" - add "if") equipment (delete "was" - add "is") driven through a streambed.
5.4-6	3	Fourth sentence should read - Removal of riparian vegetation and disturbance for stream bank (delete "would" - add "could") result in increased erosion,....
5.4-7	1	Last sentence: Blocked spawning fish might attempt to use inadequate spawning areas, which (delete "would" - add "could") result in uncertain survival of eggs, larvae, and juvenile fish. The statement "and ultimately would likely result in reduced productivity" should be deleted on the basis that fish productivity levels can be attributed to a multitude of factors and interactions dependent upon flow conditions, food availability, water quality, natural fluctuations in population, marine survival and other conditions that may not necessarily be related to the proposed project
5.4-8	4	Second sentence should read - In stream bridge supports (add - "can") lead to upstream scour and
5.4-8	last on pg	The relevant water body in this case has a low debris load, and in any case, removal of debris is a standard maintenance practice. When debris is removed, it can be placed back in the stream on the downstream side of the drainage structure, which does not result in permanent loss of this habitat structure and minimizes the interruption in the downstream transport of large woody debris.
5.4-9	4th on pg	Management of vegetation within ROW is not likely to cause an increase of sediment and turbidity (see above and in comment letter).
9-1	3rd bullet	The FRA guidance document referred to was updated in 2005.
12-7-8	Table 12-2	Footnote b is misleading. It suggests only those structures types designated "Drainage Structure" would be determined by the Applicant during final design, and that a final determination as to structure type has been made for those locations having bridge or culvert already specified. This is not the case, as any of the culverts could be changed to a bridge during final design. Some of the waterbodies with culverts identified as the drainage type may become bridges if they are determined to be navigable, or larger culverts are needed for hydrology or fish passage. This is a problem in other portions of the document also (e.g., Appendix F). For example, Willow alignment crossing W-20.9 is 7.4 feet wide, anadromous, and possibly navigable. A 36" diameter culvert (see tables F-6 and 12-2) would not be adequate for this location, and the appropriate drainage structure for this location would be determined during final design.
12-8	Table 12-2	The tables are not consistent. For example - compare the channel widths for both HN 4.4 and HN 4.8. Also, compare the channel widths for W 16.9 (32 ft vs. 1-2 ft.) A thorough comparison of the tables is needed.
F-12-14	Table F-6	
13.1-3	4	Native Alaskans/native Alaskan Corporations - suggest defining the terminology, especially given the different description on pag. 13.1-6 "Alaska Native Corporations" and "Native Land (Native Allotments)"
13.1-3	4	Suggest naming the Alaska Native Corporations who own the land (e.g. Cook Inlet Regional Incorporated and Knikatu, Inc.) - this would be consistent with the other land owners
13.1-4	Table 13.1-1	
13.1-4	1	Suggest including names of the native corporation land owners.
13.1-6	2	Suggest listing the specific native corporations that own land. Recommend deleting sentence 3, which contradicts the subsistence section - there is no subsistence in this area. Suggest explaining the difference between the surface and subsurface rights of land ownership.
13.1-6	3	This is the first mention of Native Allotments. See comment relating to 13.1.4.1
13.1-7	3	Reference is made to zoning through special land use districts, but only one district is mentioned - the Port MacKenzie District. It may be appropriate to also include the Knik Sled Dog and Recreation special land use district and the Nancy Lakes State Recreation Area special land use district.
13.1-7	3	Suggest moving paragraph about Port MacKenzie District from Existing Land Use Plans section to this section.
13.1-7	4-Feb	Paragraphs for City of Houston, Port MacKenzie District, Point MacKenie Agricultural Area have no mention of zoning, but more about land uses.
16-11	1	Paragraph uses the term "Matanuska-Susitna area" which is a vast area that extends well beyond the area evaluated for the cumulative impacts related to this project - suggest a revision to terminology to clarify extent of evaluation.
16-11	3	The wetland mitigation bank is included as a negative cumulative impact to water resources. The bank is set aside to mitigate the cumulative impacts. Suggest a revision to discuss this project in separate paragraph.
16-12	1	The wetland mitigation bank is included as a negative cumulative impact to biological resources. The bank is set aside to mitigate the cumulative impacts. Suggest a revision to discuss this project in a separate paragraph.
16-12	1	Paragraph uses the term "Matanuska-Susitna area" which is a vast area that extends well beyond the area evaluated for the cumulative impacts related to this project, suggest a revision to terminology to clarify extent of evaluation.
19-1	Global	Suggest stating all of the agency acronyms at the beginning or editing the text to use the name only once and the acronym thereafter.
19-10	2	#25 - As described in the soil section of the Draft EIS, permafrost is rare, if not non-existent in the project area - suggest removing any permafrost related references and/or conditions.
19-10	1	#24 - This is not possible in locations where the project crosses streams and rivers, where crossing/drainage structures and appurtenances must be installed. Suggest replacing with, "Applicant shall disturb the smallest area practicable and minimize clearing within 100 feet of any water bodies or wetlands."

