



December 22, 2023

Stacie McIntosh  
Ambler Road SEIS Project Manager  
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222 West 7th Avenue  
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Submitted via email at: [s05mcint@blm.gov](mailto:s05mcint@blm.gov) and on the BLM e-planning site

**Re: Ambler Road Draft Supplemental Environmental Impact Statement**

Dear Ms. McIntosh:

The State of Alaska (State) has reviewed the Bureau of Land Management's (BLM) Ambler Road Draft Supplemental Environmental Impact Statement (SEIS)<sup>1</sup>. The State, as indicated in the scoping comments<sup>2</sup>, believes that this SEIS is redundant and a robust analysis of the project has already taken place in accordance with the National Environmental Policy Act (NEPA), and BLM has presented no new information or circumstances that justify the preparation of a SEIS.<sup>3</sup> BLM appears to be engaging in an unlawful NEPA process to halt the Ambler Road Project. This violates the intent of Congress<sup>4</sup> and the requirements for the development of transportation systems under the Alaska National Interest Lands Conservation Act (ANILCA).<sup>5</sup> This said, BLM has chosen to proceed with an unjustified SEIS, and the State has no choice but to commit to and participate in the Cooperating Agency process, providing comments at every opportunity. As such the State is currently providing the following additional comments on the Draft SEIS (DSEIS) during the public review period. All previous comments related to this issue/process should be incorporated into the record as part of this comment. The State continues to support Alternative A as originally approved in the 2020 Joint Record of Decision, and without withdrawing objections to the SEIS process, continues to support the Applicant proposed route as reflected in Alternative A of the DSEIS. The State opposes any re-routing alternative as unsupported by either need or the material in the DSEIS and opposes conditions that substantively restrict the Alternative A route.

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<sup>1</sup> <https://eplanning.blm.gov/eplanning-ui/project/57323/570>

<sup>2</sup> [Ambler Road\\_SEIS Scoping\\_SOA Comments\\_November\\_3\\_2022.pdf](#)

<sup>3</sup> See 40 C.F.R. § 1502.9 (setting forth the circumstances under which an SEIS is required); BLM, NEPA HANDBOOK (H-1790-1) §§ 5.1 (determination of the adequacy of an existing NEPA document), 5.3 (setting forth the requirements for supplementing an existing EIS) (Jan. 2008).

<sup>4</sup> 16 U.S.C. § 410hh(4)(b) (identifying and authorizing the Ambler Road).

<sup>5</sup> 16 U.S.C. §§ 3161-3168; see also 43 C.F.R. pt. 36 (BLM regulations governing applications for transportation and utility systems across conservation system lands in Alaska).

The State believes the Ambler Road can be constructed and operated in an environmentally responsible manner and in such a way that preserves subsistence activities and means. The State's permitting and regulatory mechanisms are more than adequate to ensure that both construction and operation of the road is done consistent with state and federal environmental standards. The State's fish and wildlife management is sufficient to protect subsistence uses and practices. In short, this road can be built and operated in a responsible manner fulfilling the intent of Congress and the requirements for the development of transportation systems under the Alaska National Interest Lands Conservation Act.

In preparing the attached technical comments, the Office of Project Management and Permitting (OPMP) coordinated with the Alaska Departments of Natural Resources (DNR), Environmental Conservation (DEC), and Fish and Game (DFG), each of which possesses jurisdiction under Alaska law on a number of activities associated with the Ambler Road Project. For example, authorizations are required for the parts of the Ambler Road Project that are proposed to cross land managed by DNR. State agencies also regulate air and water quality, water use, and manage fish and wildlife resources on other lands, including federal lands otherwise managed by the federal government. The State's comments are based on the collective technical and regulatory expertise of the DNR, DEC, and DFG regulatory agencies. Please also refer to the Technical Comments Matrix (enclosed and incorporated).

#### **A. Background on the Ambler Road Project and Federal Law Mandating the Process for its Approval.**

When it enacted ANILCA, in recognition of the mineral potential and thus providing a specific guarantee of access for mineral development, Congress determined that "there is a demonstrable need for some form of improved surface access to the Ambler mineral district,"<sup>6</sup> and authorized a transportation corridor across federal lands to connect the Ambler Mining District to the existing North Slope haul road (the Dalton Highway).<sup>7</sup> This goal was clearly expressed in ANILCA Section 201(4)(b), which provides:

Congress finds that there is a need for access for surface transportation purposes across the Western (Kobuk River) unit of the Gates of the Arctic National Preserve (from the Ambler Mining District to the Alaska Pipeline Haul Road) and the [Interior] Secretary shall permit such access in accordance with the provisions of this subsection.<sup>8</sup>

The Ambler Road Project is necessary to fulfill the vision of ANILCA and the intent of Congress.

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<sup>6</sup> H.R. Rep. No. 96-97, pt. 1, at 156 (1979).

<sup>7</sup> S. Rep. No. 96-413, at 147.

<sup>8</sup> 16 U.S.C. § 410hh(4)(b) (emphasis added); see also NPS\_0009717-19 (describing the need for Ambler Road and explaining that Congress guaranteed access from the mining district to Dalton Highway in ANILCA). Citations in this format are to the Administrative Record filed in the litigation challenging the project: *Alatna Village Council v. Heinlein*, No. 3:20-cv-00253 (D. Alaska), and *N. Alaska Env'tl. Council v. Haaland*, No. 3:20-cv-00187 (D. Alaska). The Secretary of the Interior, various BLM officials, and the BLM itself are parties to this litigation and therefore are aware of and have access to the federal agency documents that are contained in the administrative record.

Congress enacted specific requirements for approval of the Ambler Road, including the type of environmental analysis needed to approve a route through the Gates of the Arctic National Park and Preserve (GAAR).<sup>9</sup> In Title XI of ANILCA, Congress created a streamlined process that generally applies to approving transportation and utility systems that cross—in whole or in part—conservation system units in Alaska, including expedited environmental review and approval of right-of-way applications.<sup>10</sup> Congress directed that these streamlined procedures apply to the approval of Ambler Road, except to the extent they are superseded by the requirements specific to that project.<sup>11</sup>

In 2015, AIDEA began the process of effectuating the intent of Congress by filing an application to build a 211-mile road from the Dalton Highway to the Ambler Mining District pursuant to ANILCA Section 201(4)(a).<sup>12</sup> AIDEA's application triggered a robust NEPA process that took four years to complete – well beyond the presumptive deadlines in ANILCA and the BLM's regulations.<sup>13</sup> This environmental review process involved extensive public engagement, including numerous public meetings throughout Alaska and government-to-government consultation meetings with Alaska Native villages and tribal councils conducted pursuant to Section 106 of the National Historic Preservation Act (NHPA).<sup>14</sup>

The Final EIS for the Ambler Road Project was ultimately issued in March 2020. It is over 1,000 pages and provides a comprehensive and detailed analysis of the likely effects of the Ambler Road Project, including its effects on subsistence uses and cultural resources, and requirements to mitigate those effects.<sup>15</sup> In July 2020, the federal agencies issued a Joint Record of Decision (JROD), which approved the Ambler Road route and authorized rights-of-way and associated temporary use permits for road construction and operation over lands managed by the BLM and the National Park Service (NPS), subject to numerous terms, conditions, environmental protection measures, and mitigation measures.<sup>16</sup> The JROD included the final ANILCA 810 Evaluation<sup>17</sup> and three other appendices that include mandatory mitigation measures to avoid, minimize, and

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<sup>9</sup> 16 U.S.C. § 410hh(4)(c)-(e).

<sup>10</sup> ANILCA § 1107, codified as 16 U.S.C. §§ 3161-67; *see also* 43 C.F.R. pt. 36 (BLM regulations governing applications for transportation and utility systems in and across conservation units in Alaska, implementing ANILCA).

<sup>11</sup> 16 U.S.C. § 410hh(4)(d)-(e).

<sup>12</sup> *See, e.g.*, BLM\_0015406-08 (background and overview of the project).

<sup>13</sup> ANILCA § 1104, codified as 16 U.S.C. § 3164(e)-(g); 43 C.F.R. §§ 36.6, 36.7(a). A draft EIS should be issued nine months after the date on which the right-of-way application for the TUS is filed, the final EIS should be issued three months later, and the final decision to approve the right-of-way should be made four months after the notice of availability of the final EIS has been issued. Thus, the approval process should take about 14 months.

<sup>14</sup> *See* BLM\_00160004-16 (Appendix I: Collaboration and Consultation).

<sup>15</sup> *See, e.g.*, BLM\_0015578-99 (subsistence uses and resources); BLM\_0015599-604 (cultural resources); BLM\_0016018-105 (Section 106 Programmatic Agreement); BLM\_0016188-411 (Subsistence Technical Report); BLM\_0016412-41 (ANILCA Section 810 Final Evaluation).

<sup>16</sup> *See* BLM\_0016710-49 (main body of JROD and Appendix A (maps of route)). The JROD also included the decision of the Army Corps of Engineers to issue a permit authorizing the discharge of fill material in connection with constructing the road.

<sup>17</sup> BLM\_0016809-41.

mitigate impacts to subsistence resources and uses.<sup>18</sup> In early January 2021, the BLM and NPS issued right-of-way permits to AIDEA.<sup>19</sup>

Lawsuits challenging the Ambler Road Project's federal approvals were filed in August and October 2020. In the midst of briefing on dispositive motions, in February 2022, the Department of Interior requested a voluntary remand, stating that additional legal analysis had revealed deficiencies in the BLM's analysis of subsistence impacts under ANILCA Section 810 and consultation with Alaskan Tribes pursuant to Section 106 of the NHPA.<sup>20</sup> The Court granted the request in May 2022, returning the matter to the BLM to address the purported deficiencies. BLM issued a Notice of Intent to prepare a SEIS on September 20, 2022. As noted above, throughout this process the State has lodged and noted objections to the basis and substance of these actions. On April 20, 2023, the BLM and the State entered into a collaborative agreement for the preparation of the SEIS – without the state withdrawing or ceding these prior objections.

The State agencies, coordinated by OPMP, participated in the development of the SEIS throughout the federal NEPA process, and provided comments at every opportunity. The State provides the following additional comments on the DSEIS during the public review period, as the SEIS inadequately considers the insight provided by State regulatory agencies, who not only have extensive experience regulating similar activities, but who also have respective responsibilities to consider and address potential impacts to the human and natural environment. The State requests that BLM carefully consider the State's comments, which were, once again, generated by local subject matter experts.

The State anticipates and looks forward to working closely with BLM during the final stages of the EIS development and beyond to ensure the congressional direction in ANILCA is fulfilled.

## **B. Ignoring Congressional Direction**

BLM should recognize ANILCA's grant to the State and private landowners of rights as may be necessary to ensure adequate and feasible access for economic and other purposes. Where there are State and private owners of lands, including subsurface rights, valid mining claims, and other valid occupancies that are within or "effectively surrounded by" one or more conservation system units, BLM must give the State and private owners of such lands "such rights as may be necessary to assure adequate and feasible access for economic and other purposes to State owned and privately owned land,"<sup>21</sup> to fully comply with ANILCA.

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<sup>18</sup> BLM\_0016723.

<sup>19</sup> See BLM\_0102514-53. Less than 25 percent of the selected route of Ambler Road crosses federal land. Federal involvement or control is limited over the remaining 75 percent of the route to authorization of bridges and road crossings impacting navigable rivers and waters of the United States. The BLM and, more broadly, the Department of Interior, have no regulatory authority over those activities.

<sup>20</sup> The State opposed the BLM's request for remand, arguing that the EIS and ROD sufficiently analyzed the Proposed Ambler Road, and that no additional analyses were required. See State of Alaska's Opposition to Defendants' Motion for Voluntary Remand, Case No. 3:20-cv-0187-SLG (Marc 21, 2022).

<sup>21</sup> ANILCA § 1110(b). See 16 U.S.C. § 3170.

The DSEIS also fails to recognize Congressional direction, in ANILCA Section 201(4)(b), that *there is need for access for surface transportation purposes ... (from the Ambler Mining District to the Alaska Pipeline Haul Road)*”and that the *Secretary of the Interior (Secretary) shall* [emphasis added] *approve such access*. Congress also tasked the Secretary and the Secretary of Transportation, in Section 201(4)(d) with *determining the most desirable route for the right-of-way and the terms and conditions which may be required for the issuance of that right of way*.

Despite the clear Congressional direction to approve surface transportation access, BLM inappropriately states on page M-3 that Section 810 provides a federal agency with the jurisdiction to “prohibit the action.” We assume this language is from BLM Instruction Memorandum (IM) Alaska (AK) 2011-008. To our knowledge, IM AK 2011-008, has been replaced by Permanent-IM No. AK-2021-13, and BLM has provided no explanation for its reliance on an outdated policy document. Federal agencies are required to acknowledge such policy changes and provide a reasoned explanation for the change. Either way, BLM does not have the authority to “prohibit” authorization for the Ambler Road (or any other project) through the Evaluation by effectively blocking needed access across some BLM lands. To do so would render section 201(4)(b) meaningless and violate clear statutory intent in ANILCA. Furthermore, Title XI of ANILCA applies to rights of way that, in part, cross conservation system units. This means that BLM must acknowledge the requirements and limitations imposed by Title XI for the entire route and delete the language indicating that BLM can prohibit the action.

The State also asserts that BLM should allow exploratory field work along the proposed Ambler Road alignment to move forward, as soon as possible, using the best management practices and mitigation measures that have been successfully developed and implemented in other parts of the State, including on other federally managed lands. The authority to allow temporary, exploratory survey or other work on conservation system units and several other public lands is granted to the Interior Secretary under the Alaska National Interest Lands Conservation Act (ANILCA section 1111, 16 U.S.C. section 3171).

### **C. Unwarranted Assumption of Public Access**

While the currently proposed road is an industrial access only road, the DSEIS assumes that the road will become public at some point in the future, emphasizing that an eventual public use road is inevitable or could easily be accomplished. There is no basis for this assumption. AIDEA is seeking federal and state authorizations for a private, industrial use road. Any future change in the proposed use of the road would require additional federal and state review, including public process, and approval. That has not been proposed by any party to the project, and only authorizations for a private road are being sought. Speculative information about future public use that ignores the public process inherent in such use, and over-emphasis of information on public road impacts that are not based on actual, anticipated activities, should be removed.

Comparisons have been made between the proposed Ambler Road and both the Pogo Road and the Dalton Highway, and neither are appropriate comparisons. The Pogo Road includes both a public and private easement, where DNR retained the authority to issue third party access permits

for extractive activities (forestry and small-scale mining). The Dalton Highway became public due to a number of complex factors that do not apply to the proposed Ambler Road.

### **E. Traditional Knowledge**

Although the State does not have concerns with Traditional Knowledge being used as a method in the analysis, the State requests that BLM clearly state the definition of “Traditional Knowledge,” (and either differentiate it from “Indigenous Knowledge” and “Local Knowledge,” or use one phrase consistently). BLM should also plainly explain the various diverse knowledge types that BLM identifies as providing substantive information for the Ambler Road Project, the standard and method for acquiring and evaluating the information, and how the information is actualized in practice. Traditional Knowledge is often defined as place-based knowledge that is accumulated and transmitted across generations within specific cultural contexts<sup>22</sup>.

It is unclear by inclusion of certain statements, whether BLM has adhered to this definition. For example, in Volume 1, page 3-127 BLM includes the following statement, “At least 1 local resident reports a drastic change in caribou abundance near Bornite since mineral exploration began in the District.” It is unclear whether the recent observation of one resident is consistent with the accepted definition of Traditional Knowledge, and what weight is given to this statement in BLM’s analysis. In BLM’s haste to address the consultation “deficiency”, it appears to have overcompensated in the opposite direction.

Additionally, the State believes that the format in the SEIS of including direct quotes collected from individuals during government-to-government consultations and Federal Subsistence Resource Advisory Council (RAC) meetings is unprecedented. It is unclear why these quotes were included and how they will be used as they do not necessarily add new information to the SEIS and often offer conflicting evidence. There are many examples throughout the SEIS. For instance, stating that “*They never did catch a salmon in those silt water places.*” (p3-217) ignores the fact that Alaskans harvest salmon from the turbid waters of the mainstem Yukon, Tanana, Kuskokwim, Kenai, and Copper rivers every year. Reporting “*...dead salmon on the [river] sides after spawning*” (3-223) could be from several factors including natural salmon life history. And understanding what “*At least 1 local resident reports a drastic change in caribou abundance near Bornite since mineral exploration began in the District*” (3-127) means without regard to correlation or causation is unreasonable. Individual experiences may be important to capture; however, their bias cannot be overstated, they cannot be assumed to be representative, and they should not be included in the technical NEPA analysis.

Further, the terms “Traditional Knowledge” and “Indigenous Knowledge” should be defined and related to ANILCA Sections 801(5) and 805, which require the establishment of an administrative structure to include rural residents “who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and subsistence uses on the public lands in Alaska.” Clear descriptive definitions will avoid potentially misleading

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<sup>22</sup> Jessen, T. D., N. C. Ban, N. X. Claxton, and C. T. Darimont. 2022. Contributions of Indigenous Knowledge to ecological and evolutionary understanding. *Frontiers in Ecology and the Environment* **20**: 93–101.

ambiguity and should clarify how BLM is considering traditional knowledge and indigenous knowledge, along with other sciences.

Earlier this year BLM released a nationwide proposed rule titled “Conservation and Landscape Health” that provided additional direction on the use of and a definition of “indigenous knowledge.” This SEIS appears to incorporate elements of that proposed rule, which to date has not been finalized; in our comments on the proposed rule we requested BLM recognize that ANILCA is the controlling statute, including for fish and wildlife management in Alaska. The final SEIS needs to comply with ANILCA and clarify how the use of indigenous knowledge and traditional knowledge intersect and interact with ANILCA’s local knowledge mandate.

ANILCA created RACs to ensure the consideration of local knowledge in federal management actions related to subsistence uses of fish and wildlife. Section 805 sets a standard that local knowledge should be supported by “substantial evidence.” The SEIS should document that all information used in making management decisions regarding the project’s impacts is supported by substantial evidence. The State is concerned about how BLM is using comments made by individuals during government-to-government consultations and during Subsistence RAC meetings. Currently, these comments are presented as unsubstantiated comments without any links to supporting data or analysis. The final SEIS should only include substantiated comments or should clearly identify the purpose of including the comments within the SEIS. By clearly basing decisions on information supported by substantial evidence, BLM can incorporate multiple types of knowledge within the SEIS to better address management strategies for the Ambler Road.

#### **F. ANILCA 810 Evaluation**

Currently, the Evaluation provides detailed, separate analyses of the effects to abundance, availability, access interference, as well as references to competition between users for each alternative as well as for the cumulative case. ANILCA carries no requirement for an evaluation of the cumulative case. Thus, please delete section B. 5 of the Evaluation.

The Evaluation lacks a concise statement of the overall determination for each alternative and for the project as a whole regarding whether the proposed action significantly restricts subsistence users. The inclusion of four separate determinations under each “Findings” heading is confusing to the reader as to the BLM’s overall finding for each alternative and for the cumulative case. We recommend the Evaluation in the final SEIS plainly state the findings required by Section 810.

#### *Causes of substantial reductions in subsistence use*

The Evaluation states: “Substantial reductions are generally caused by large reductions in resource abundance, a major redistribution of resources, extensive interference with access, or major increases in the use of those resources by non-subsistence users.”

We object to the identification of increases in use by non-subsistence users as a cause of substantial reductions in subsistence use. We recognize it may be necessary to analyze the effects of non-subsistence harvest on the abundance of subsistence resources; however, both subsistence and non-subsistence harvest must be considered to determine the sustainability of the populations. Also,

rural residents can and do harvest wildlife under general hunting regulations. We also recognize that conflicts between user groups can occur, BLM's pre-decisional determination that "non-subsistence users" are the sole source of user impacts to subsistence resources is unsupported and inaccurate. ANILCA Section 804 "Preference for Subsistence Uses" recognizes this in the list of criteria it includes for implementing the subsistence priority.

We request the following revisions on page M-3.

Substantial reductions are generally caused by large reductions in resource abundance, a major redistribution of resources, or extensive interference with access (including conflicts between different user groups), ~~or major increases in the use of those resources by non-subsistence users~~

### Public Hearings

In the Evaluation, BLM determined that all alternatives except the No Action alternative may significantly restrict subsistence uses. Appropriately, the BLM has scheduled public hearings in the communities in the vicinity of the proposed Ambler Road project.

### Reasonable Steps to Minimize Adverse Effects on Subsistence Use and Resources

We anticipate that after considering public comments and hearing testimony, the final EIS will include a Section 810(a)(3) determination, addressing the following:

- such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the use of public lands,
- the proposed activity will involve the minimal amount of public land necessary to accomplish the purpose of the use, occupancy, or other disposition, and
- reasonable steps to be taken to minimize adverse effects on subsistence uses and resources resulting from such actions.

The final Evaluation should clearly identify the conditions and stipulations being taken to mitigate the Ambler Road's effects to subsistence uses and resources, including reference to Appendix N, as appropriate. These conditions and stipulations can be considered "reasonable steps ... to minimize adverse effects on subsistence uses and resources..." under Section 810(a)(3)(C).

Examples, not to include all, found in the SEIS but not listed in the Evaluation include:

- Installation of crossing ramps for local subsistence users at certain junctures of the road to reduce impacts to local residents' access to subsistence resources. (Identified in Appendix L, on page L-188 but not in Appendix M. ADF&G as well as local subsistence committees and fish and game advisory boards should be involved in determining the crossing locations.)
- Implementation of the federal subsistence priority by the Federal Subsistence Board to protect the continued viability of fish or wildlife populations, or to continue such uses, when justified in accordance with ANILCA Section 804.
- Management actions taken by ADF&G to ensure sustainable fish and wildlife populations. (Page M-38)

### Mitigation

Mitigation is not required under ANILCA, however, compensatory mitigation will be required to meet the Clean Water Act Section 404/10 requirements. We encourage BLM to consider the value any compensatory mitigation projects may have in simultaneously meeting the requirements of Section 810(a)(3)(C). Since the duration of project impacts is unforeseeable, long-term or permanent mitigation should be considered along with short-term mitigation.

### **G. Access to Domestic Critical Minerals Supplies**

The expansion of electrical networks, requiring grid infrastructure and electrification, means that copper demand would be expected to double multiple times over by 2040.<sup>23</sup> To reduce reliance on foreign sources, the U.S. should support the Ambler Road Project and responsible domestic production in the Ambler Mining District. It includes extensive deposits of copper and other mineral deposits, and development stands to make significant contributions to America's technology-focused economy, the transition to renewable energy usage, and national security. The U.S. cannot depend on China and Russia for the materials and manufacturing necessary to power our nation.

The purpose of the Ambler Road Project is to provide access to one of the world's most prospective mineral exploration areas and increase mineral development. The U.S. needs more mines to ensure secure supply chains for abundant and affordable energy, electric vehicles, and the American-sourced materials necessary for U.S. manufacturing, electrification, and infrastructure. The Ambler Mining District can play a vital role in meeting these needs, through enablement of exploration and development of domestic critical minerals supplies, and with world-leading environmental, safety, and labor standards.

Alaska is a leader and example of responsible, dependable, and sustainable development of minerals, oil and gas, and other natural resources. The State's location at an international geographical crossroads, connecting the U.S. to both the Arctic region and the Pacific Rim, has also made sustainable development of resources for export to all these markets a cornerstone of Alaska since statehood. In fact, the impetus to increase local control of natural resource use and development so that local impacts and understanding could be applied to protect the environment and the resources were a driving force behind Alaska's statehood.

Alaska's skilled workforce, established standards, experienced communities and local governments, and coordinated State and Federal regulators are required and poised to support a secure, reliable U.S. supply chain and satisfy our nation's demand for critical minerals. But only if the Federal government can recognize and support these capacities, such as by authorizing the Ambler Road Project, consistent with the intent of Congress. Currently, the international

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<sup>23</sup> International Energy Agency (IEA), "The Role of Critical World Energy Outlook Special Report Minerals in Clean Energy Transitions," May 2021, <https://miningpress.com/pdfs/web/viewer.php?file=/public/archivos/up57gCD9OcRiwjBKVXtnrLfk83aYEIjJfCpK3RT.pdf&title=IEA%3A+THE+ROLE+OF+CRITICAL+MINERALS+IN+CLEAN+ENERGY+TRANSITIONS>.

alternatives do not come close to comparing in terms of capacity and commitment to protect the environment.

Please add language reflecting that the Ambler Road Project can enable responsible domestic production of mineral deposits, including copper, reducing reliance on foreign sources, and supporting our nations transition to renewable energy usage, new technology, and security. These are foundational purposes for the project.

## **H. Supporting Environmental Justice (EJ) Priorities**

Mines in the Ambler Mining District could extend long-term employment opportunities and potentially expand them to areas that continue to be some of the most economically underprivileged in the U.S., supporting EJ priorities, and maintaining rural schools and culture, including traditional ways of life. The planned fiber optic access associated with the project could also bring educational, medical, and other benefits.

Since Statehood, Alaska's economy has depended on responsible mining, oil and gas development, fisheries, and other natural resource use, to provide family-supporting, high-skilled jobs, including for rural Alaskans with limited opportunities for other employment.<sup>24</sup> Many mines provide employment with transferable skills and offer on-the-job training that sets workers up for lifetime careers, boosting professional and economic legacies built upon the good jobs for community members, while providing resources that can be used to minimize the effects of climate change on indigenous ways of life.

In addition to jobs, Alaska's mines bring significant revenues to state and local governments, and Alaska Native Corporations (ANCs).<sup>25</sup> Specifically, in 2022, 11,400 total direct and indirect jobs were attributable to mining with wages of one billion dollars statewide, \$131 million in revenue was paid to Alaska for use for public services like education, highways, and airports, and \$55 million in local tax revenue was paid to support services like libraries, road repairs, schools, and public safety. \$266 million in royalty payments were paid to ANCs.<sup>26</sup>

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<sup>24</sup> In 2020, 77 percent of new hires and 55 percent of total employees at Red Dog (located in Northwest Alaska, and one of the world's largest producers of zinc) were NANA Regional Corporation shareholders. Teck, "Supporting Leadership Development of Indigenous Employees at Red Dog Operations," Available at: <https://www.teck.com/news/stories/2022/supporting-leadership-development-of-indigenous-employees-at-red-dog-operations#:~:text=The%201982%20Development%20and%20Operating,Red%20Dog%20were%20NANA%20shareholders>.

<sup>25</sup> Alaska has unique land ownership by ANCs created by the U.S. Congress in the Alaska Native Claims Settlement Act, accounting for over 44 million acres or nearly 11 percent of Alaska's total land area. (Energy Information Administration (EIA) "Alaska Profile Analysis," last updated March 16, 2023, citing Native American Science Curriculum, "Alaska Native Land Claims & Tribal Sovereignty Issues," accessed June 3, 2023, <http://www.nativeamericanscience.org/alaska/alaska-native-land-claims>.) ANCs were established by Congress to provide benefits to their Alaska Native shareholders, including business services, jobs to Alaska Native people, and monetary dividends. Shares in and ownership of ANCs are subject to restrictions in federal law limiting them to Alaska Natives and their descendants, and these shares cannot be generally traded or sold.

<sup>26</sup> McKinley Research Group 2022 update to their report, "The Economic Benefits of Alaska's Mining Industry," March 2023, [http://www.alaskaminers.org/\\_files/ugd/beae26\\_b627cbfb0c804717a79d768f80010b30.pdf](http://www.alaskaminers.org/_files/ugd/beae26_b627cbfb0c804717a79d768f80010b30.pdf). Alaska's oil and gas industry remains its single most important economic engine (McDowell Group, "The Role of the Oil and

Mines, once proposed and advanced for permitting in the future, will involve multiple opportunities for public input and participation, and oversight and enforcement using stringent regulations that effectively protect environment, wildlife, and human health.

Alaska has regulations that protect the environment through comprehensive development and production standards, disturbance setbacks, ground water protection measures, financial assurance requirements, spill reporting, and reclamation requirements. These emphasize planning, consultation, preparedness, and mitigation, and ensure that from start to finish, environmental impacts are scrutinized, regulated, and mitigated to the greatest extent practicable. Additionally, Alaska adheres to workplace safety, labor laws, and numerous regulations that ensure natural resource industries perform to the highest standards.

Please add language stating that the Ambler Road Project can support EJ priorities, bringing jobs and revenues to rural Alaskans with limited opportunities for other employment, being some of the most economically underprivileged in the U.S., and that the Ambler Road Project can maintain rural schools and culture, including traditional ways of life, and facilitate other essential services such as education and medicine.

## **Conclusion**

Alaska has demonstrated over decades that mineral exploration, development, and production can occur safely and responsibly with the appropriate regulatory controls and environmental protections. Alaska's economy and the national economy and its security needs can be better supported with a lasting commitment to development of critical mineral resources in Alaska. Alaska also stands ready to enable the growing U.S. economy and national security needs for renewable energy networks, new technology, and infrastructure. Alaska encourages support for the Ambler Road Project and responsible domestic production in the Ambler Mining District, to advantage the development of Alaska's minerals in a manner consistent with ANILCA, as well as Alaska's and our nation's needs.

In conclusion, while the State believes the EIS was adequate and disagrees with BLM's undertaking of the SEIS, the opportunity to review and provide comments is appreciated. Please contact Kate Harper, at (907)269-5533 or [kate.harper@alaska.gov](mailto:kate.harper@alaska.gov) if you have any questions or would like to discuss these comments in more detail.

Sincerely,



John C. Boyle III

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Gas Industry in Alaska's Economy," January 2020, <https://www.aoga.org/wp-content/uploads/2021/01/Reports-2020.1.23-Economic-Impact-Report-McDowell-Group-CORRECTED-2020.12.3.pdf>, and essential to Alaska's and the U.S.'s post-pandemic recovery, as it brings cleaner energy, strengthened national security, and amplified energy affordability.

Commissioner, Alaska Department of Natural Resources



Doug Vincent-Lang  
Commissioner, Alaska Department of Fish and Game



Emma Pokon  
Commissioner- designee, Alaska Department of Environmental Conservation

Cc: Jerry Moses, GOV Director State and Federal Relations

Enc: State of Alaska Ambler Road DSEIS Technical Comment Matrix

State of Alaska (SOA) Ambler Road Draft SEIS Technical Comments						
State Agency	Chapter/Appendix/Table	Section #	Page #	Table, Row, or Line #	Comment	Remarks / How Resolved
ADF&G	General				The state review team appreciated how the new/substantially revised section of the DSEIS were highlighted to call attention to those sections. This assisted with agency review and the State would encourage similar formatting in future NEPA reviews.	
ADF&G	General Comment				McKenna 2015 is a specific report to the Henshaw Creek, whereas Jallen et al. 2022 is the Stock Status of Yukon River salmon runs. All references to McKenna 2015 should say McKenna 2015; Jallen et al. 2022.	
ADF&G	General Comment				Spell Check - Manh Choh Mine is spelled incorrectly in a couple locations in this document	
ADF&G	General Comment				grayling should be changed to Arctic grayling throughout the document	
ADF&G	General Comment				ADF&G acknowledges that roads have the potential to impact the movement of migratory species such as caribou. Mitigation measures have been put in place in locations such as the DeLong Mountain Transportation System, however it is difficult to measure the effectiveness of such measures when caribou appear to delay their crossings of the road. Therefore, we appreciate the updates to the proposed BLM mitigation measures including the planned development and implementation of a <i>Comprehensive Wildlife Interaction and Avoidance Plan</i> (pN-30) which will be reviewed and updated every 5 years, allowing for adaptive management practices and the application of new and innovative solutions for wildlife crossing designs or structures.	
ADF&G	General Comment				Worst case scenarios are presented throughout the document with regards to toxins from road run off, spills, etc. (p3-94). However, it should be stated that very few of the proposed bridge crossings are located adjacent to known spawning areas and it is highly unlikely that road impacts will range miles downstream. Other roads are located adjacent to large Alaskan communities and cross rivers with salmon spawning populations (Yukon, Chena, Salcha, Copper, Gulkana, Kenai rivers, etc.).	
ADF&G	Chapter 2				ADF&G does not support Alternative C as this significantly longer route will have greater impacts upon the fish and wildlife resources through an undeveloped portion of the state; specifically, the Ray Mountain & Hodzana Hills caribou herds and over 200 additional river crossings.	
ADF&G	Chapter 3	3.2.5	3-42	34	sentence starting with <i>Alternatives A and B...spawning habitat and summer feeding areas</i> . Add text in bold.	
ADF&G	Chapter 3		3-45	last sentence	Delete extra s from "road users, s."	
ADF&G	Chapter 3		3-46	Fiber Optic Cable	<i>Potential development of fiber-optic cables in the Ambler Road vicinity or along the Ambler Road corridor could lead to permafrost thaw and disruptions to existing drainage patterns resulting from trenching for cable installation.</i> - awkward statement - suggest change development to deployment or installation	
ADF&G	Chapter 3		3-50	Noise Section	Awkward and unclear why Manh Choh Mine is referenced	
DEC	Chapter 3	3.2.7	3-53		Lines 6-7 contains several technical errors. The BLM has noted "For the previous 3 years (2019 through 2021) average concentrations of PM10 were 13.1 micrograms per cubic meter (µg/m3) compared to the standard of 150 µg/m3". Please note that air emissions are regulated by the federal Clean Air Act, as well as Alaska Statutes AS 46.03 and AS 46.014. These are then reflected in Alaska Ambient Air Quality Standards found in 18 AAC 50. The quoted sentence misrepresents the federal and Alaska ambient air quality standards. First, the PM10 National Ambient Air Quality Standard (NAAQS) of 150 µg/m3 is for the 24 hour standard, there currently is no annual standard for PM10. Second, to compare air quality measurements to the NAAQS, the 2nd highest 24 hour concentration measured in the year is used, not an average. Comparing an average concentration to the PM10 standard is misleading. Please correct and compare the proper values for PM10.	

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DEC	Chapter 3	3.2.7	3-61		Lines 30 – 32 contain a point that is poorly phrased “No activities that would require air quality permitting would be permitted if they would be likely to exceed the NAAQS or AAAQS. Therefore, these activities combined are unlikely to exceed regional air quality standards.” Since this paragraph specifically discusses fugitive dust, the sentence should address both permit restrictions and fugitive dust guidance. Since the Ambler SEIS is for a proposed road construction project, the air emissions from mobile sources such as heavy construction equipment and trucks hauling ore concentrate are under the regulatory authority of the Environmental Protection Agency. The air emission sources that fall under DEC’s regulatory authority could include rock crushers, as well as fugitive dust. Please note that 18 AAC 50.045(d) requires that a person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air. The department has created guidance and best management practices for other industrial roads in Alaska with similar characteristics. Please delete the cited sentence and replace it with the explanation provided. This should make it clear that if an activity is not deemed to need a permit to operate, they will still need to implement precautions to protect.	
ADF&G	Chapter 3	3.3	3-61	3.3 Biological Resources	Second sentence is incorrect: <i>This section addresses vegetation and wetlands, fish and aquatics, birds, and mammals. Together with humans, insects, fungi, and microscopic life forms, these make up the biodiversity of species on earth and the biodiversity of a specific region</i> - to be clear, amphibians, arachnids, crustaceans, reptiles, plus more taxonomic groups all contribute to the earth’s biodiversity. Rewrite first two sentences of this section.	
ADF&G	Chapter 3	3.3.1	3-62	3.3.1 Vegetation..	Latin names should only be provided the first time that they are mentioned. Or leave them out, use is inconsistent among mammal, fish & plant sections of the document.	
DMLW	Volume 1; Chapter 3	3.3.1	3-63	Wetlands, Paragraph 3	remove “is” at “wetlands. is Discontinuous”	
ADF&G	Chapter 3	Wildfire Ecology & Mgt	3-81		<i>The number of wildfires would increase due to more human-caused wildfires and more natural lightning-caused due to warmer temperatures and longer fires seasons. Wildfire suppression would be increased in areas surrounding the proposed action. The greater length of Alternative C could result in more frequent or more severe wildfires compared to Alternatives A and B</i> - it is unclear how the proposed road would result in more natural lightning -caused wildfires, or how Alternative C results in more severe wildfires that Alternatives A&B - suggest deletion.	
ADF&G	Chapter 3	3.3.2	3-82	3.3.2 Fish & Aquatics	The BLM has relied upon ADF&G’s annual Anadromous Waters Catalog (AWC) surveys, <b>Alaska Freshwater Fish Inventory (AFFI) surveys</b> , and G2G consultation as important sources of information on fish distribution in the study area. - add text in bold	
ADF&G	Chapter 3		3-85	Non-salmon Species	<i>Sheefish, the largest member of the whitefish family, require specialized spawning habitat limited by water temperature, substrate composition, and specific water quality characteristics influenced by geologic features (Alt 1994; Braem et al. 2015; Savereide and Huang 2016) (see Volume 4, Map 3- 18). They typically exhibit a high degree of spawning site fidelity, not only to spawning streams but to specific areas within a reach of stream (Savereide and Huang 201624). Sheefish and other whitefish broadcast spawn over mixed-sized gravels in swift flowing water in fall (Gerken 2009), eggs develop over winter, and larvae emerge in spring, with young dispersing downstream typically during spring floods. Spawning areas are used selectively, and large populations may target an area of ideal spawning grounds within a very short river reach (Underwood et al. 1998; Tanner 2008; Gerken 2009). Immature whitefish typically rear in a wide range of habitats for several years before migrating upstream to spawn (Brown 2009)</i> - similar statements can be made for Pacific salmon, it is unclear why the section on sheefish has so much more detail than the preceding section RE salmon species	
ADF&G	Chapter 3	3.3.2	3-85	20	Add (Stuby 2018) to citations	
ADF&G	Chapter 3	3.3.2	3-85	26	Add (Stuby 2018) to citations	
ADF&G	Chapter 3	3.3.2	3-85	28	last sentence in paragraph...(Brown 2009); <b>however, the mainstem of the Kobuk River downstream from Ambler is frequently used by adult sheefish for feeding.</b> Add text in bold.	
ADF&G	Chapter 3		3-87	Line 3	ADF&G also performed surveys in 2023 at over 200 sites in the proposed road corridor, these results will be presented in an ADF&G Technical Report in Spring 2024.	

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ADF&G	Chapter 3		3-91	bottom of page	Culverts would need to be cleared each year prior to spring breakup to avoid impeding fish movement, particularly for Arctic grayling and other species that migrate under the ice to reach spawning or other seasonal habitats. - Culverts should be inspected and cleaned regularly, not necessarily just in the spring. Suggest deleting second part of this sentence (particularly for Arctic grayling...).	
ADF&G	Chapter 3	3.3.2	3-95	30	First sentence in the last paragraph could cite ( <b>Stuby 2018</b> ). Add text in bold.	
ADF&G	Chapter 3		3-97	5th paragraph	Any work that requires water withdrawal <b>from fish bearing waterbodies</b> is governed by AS Title 16, which ensures protection of fish habitat for anadromous fish and fish passage for any fish species and would necessitate issuance of fish habitat permits from ADF&G. Add text in bold	
ADF&G	Chapter 3	3.3.2	3-99	22	sentence ending in downstream habitat...downstream habitat, <b>but just upstream from important summer feeding areas, as well as salmon migration corridors</b> . Add text in bold.	
ADF&G	Chapter 3		3-99	Line 32	This statement is inaccurate..... "As noted in Impacts Common to all Action Alternatives, ice roads can impact fish and aquatic organisms during withdrawal of water by decreasing available water volume (overwintering habitat) and reducing oxygen and nutrient levels." Water withdrawal does not necessarily mean nutrients levels are lowered. Anoxic condition can increase nutrient levels. Suggest clarifying this statement.	
ADF&G	Chapter 3	Mining, Access & Other ....Impacts	3-103	text excerpt in middle of page	The large text excerpt regarding historical mining activities does not appear to add much to the discussion, and the text itself supports that conclusion: <i>Despite the unavoidable disruption of stream substrate that occurs with placer mining operations, none are directly threatening known whitefish spawning habitats at this time. .... We know of no plans to extract gravel from any of the known whitefish spawning habitats, but these habitats should be considered when planning riverbed gravel extraction projects in the future.</i> - Suggest deletion	
ADF&G	Chapter 3		3-104	3rd paragraph	Ambler Metals (formerly Trilogy) has funded multi-year aquatic biomonitoring studies in streams located near the Arctic and Bornite prospects (Bradley 2017, 2018; Clawson <b>2019, 2020, 2022</b> and 2023; Trilogy 2018a). - add text in bold	
ADF&G	Chapter 3		3-104	3rd paragraph	ADF&G has indicated that the rapids are not necessarily a barrier, and chum salmon may occur farther upstream (Gieffer 2018). Incorrect statement, delete	
ADF&G	Chapter 3		3-104	3rd paragraph	Subarctic Creek is a Shungnak River tributary that supports multiple age classes and life stages of Dolly Varden ( <b>non anadromous</b> ), Arctic grayling, and sculpin (Bradley 2018; Clawson 2019) . - Add text in bold.	
ADF&G	Chapter 3		3-104 - 108		Without a final mine plan, many of these statements regarding mine impacts are speculative, and should not be considered within the limitations of this road sEIS document. Suggest deleting	
ADF&G	Chapter 3	3.3.2	3-108	43	sentence ending in...known spawning habitat in the Kobuk River ...could be cited. Carter et al. (2015) found the permafrost slump on the Selawik caused a change in the age structure (loss of a cohorts) due to siltation.	
ADF&G	Chapter 3		3-108		This statement is speculative and inaccurate..... " To accommodate this change, additional commercial flights could be added at lower costs, which may make recreation more inviting in this area. An increase in recreational fishing has the potential to affect subsistence harvest. While access aside from industrial use is not being considered, fishing pressure could impact the sheefish population and availability of this species for subsistence harvest if that were to change in the future" Improvements to the Dalton Highway - paving starting in the 90's, and did not result in increases in fishing effort. Also, harvest of all species would remain sustainable regardless of fishing pressure through the implementation of SOA sport fishing regulations. Moreover subsistence fisheries has a priority use determination, so subsistence harvests would not be impacted due to recreational fishing. Suggest deleting.	
ADF&G	Chapter 3	3.3.2	3-109	21	sentence beginning...Tanner (2008) ...could be additionally cited. Stuby found specific habitat requirements in a few sheefish spawning sites that are similar to spawning areas in other sheefish drainages. Add Citation: (Stuby 2018)	

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ADF&G	Chapter 3		3-111		There is a lot of discussion about the general affects of warmer temperatures related to climate driven changes. This is not related/linked to mining activities being proposed. There is no evidence provided that the proposed road and mining will exacerbate changes on landscape level. It is climate change, not mining. Suggest deleting entire page and related paragraphs.	
ADF&G	Chapter 3		3-112		This statement is inaccurate: " <i>Most impacts to fish from trespassers would come directly from fishing activity. Increased activity may directly impact spawning and rearing habitat by disrupting spawning gravels or changing local hydrology. These activities may also create unintended competition for resources between subsistence users and the public, creating additional strains on local fish populations.</i> " Fishing does not impact spawning gravels. The author fails to provide evidence or describe how fishing would impact survival of incubating eggs. Nor does it say how fishing would alter local hydrology. Setting a gill net in a back eddy does not alter the stream channel. Suggest deleting.	
ADF&G	Chapter 3	3.32	3-113	2	Sentence starting with The Chinook salmon...declining for decades for unknown reasons is not true. There are multiple studies that have shown negative impacts to Chinook salmon production. Perhaps cite Ohlberger et al. 2020; Neuswanger et al 2015; Mundy and Evenson 2011; Ruggerone et al. 2023 - just to name a few.	
ADF&G	Chapter 3		3-119	4th paragraph	...while light pollution can alter singing, nesting, and mating patterns (Da Silva et al. 2015). These behavioral changes could result in reduced foraging rates and decreased mating success. - It is unlikely that light pollution would impact summer bird behavior (singing/ nesting/mating) north of the Arctic Circle where there is almost continuous summer daylight - suggest deleting	
ADF&G	Chapter 3	3.3.4	3-127		Census update for the WAH 2023 estimate 152,000 animals down ~7.5% from 2022 (ADF&G wildlife biologist Hansen, pers comm)	
ADF&G	Chapter 3	3.3.4	3-131		Adult moose density estimates for the Upper Kobuk, the area in which the road and mining development is proposed, was 0.19 adult moose/mi2 in 2003, 0.16 in 2006, 0.13 in 2014, and 0.10 in 2019 (Saito 2014, Osburn in prep). Moose abundance within the Upper Kobuk survey area saw an annual decline of -2% per year between 2003 and 2019 (Saito 2014, Osburn in prep).	
ADF&G	Chapter 3	3.3.4	3-131 & 3-139		While Dall sheep are not expected to be near the road surface we suggest that BLM review this report, "NPS Arctic Network, Dall's sheep Resource Brief, Dec. 2020" for clarification of sheep presence in proposed development area.	
ADF&G	Chapter 3	3.3.4	3-133	last paragraph	WAH collars are purchased, deployed and managed by ADF&G and NPS only	
ADF&G	Chapter 3	3.3.4	3-141		"Bears and foxes may be attracted to human activity areas by real or perceived availability of food sources, such as trash. Use of disturbed areas by bears increases mortality rates (Berland et al. 2008). Bears and foxes may be killed in defense of life and property if they threaten people or become a nuisance. Measures to properly secure wildlife attractants and to discourage feeding of wildlife by AIDEA employees (see Appendix N, Section 3.3.5, Mammals) would be effective in reducing human-wildlife conflict, if implemented." - suggestion: expand statements to include all scavengers (fox, wolf, coyote, etc.) and the possibility of disease transmission when these scavengers congregate into a location because of improperly managed attractants.	
ADF&G	Chapter 3	3.3.4	3-144		Any additional road mileage would incrementally increase the risk of road-strike for ungulates (moose, caribou) and large carnivores that may use the road surface for travel. Risk for moose road strike would likely be higher in winter when snow depth may encourage use of the road for easier travel but limit their ability to move off the road surface quickly. As the mileage of alternatives B and C are longer, there would be additional risk of road strike, as well as increased harvest, and habitat degradation. This point is addressed in the RFA section but not specifically identified under alternatives B and C.	
ADF&G	Chapter 3	Mining, Access & Other ....Impacts	3-147		This section regarding RFAs with regards to caribou is a much better written section than what was provided in the fish section (pages 104-108).	
ADF&G	Chapter 3	3.3.4	3-147	1st paragraph	The WAH peaked in 2003 and has been in a declining trend since then (20 years).	
ADF&G	Chapter 3	3.3.4	3-151		While Dall sheep are not expected to be near the road surface we suggest that BLM review this report, "NPS Arctic Network, Dall's sheep Resource Brief, Dec. 2020" for clarification of sheep presence in proposed development area.	

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ANILCA Team	throughout, example in Vol 1, Chapter 3		example, page 3-153		<p>It is critical the SEIS accurately capture ADF&amp;G's management responsibility for fish and wildlife populations. ADF&amp;G manages fish and wildlife to maintain sustainable fish and wildlife populations for the maximum benefit of the people, taking actions to conserve populations when necessary.</p> <p>At times the SEIS states ADF&amp;G manages populations of all species for continued viability (e.g., page Volume 1, page 3-153). When referencing ADF&amp;G fish and wildlife management, please replace "viability" with "sustainability." Sustainability goes beyond viability and encompasses a broader perspective that takes into account the interconnectedness of the various natural systems.</p> <p>The term "viability" is correctly used regarding fish and wildlife population management when determining if it is necessary to restrict fish and wildlife takings under ANILCA Title VIII.</p>	
DMLW	Volume 1; Chapter 3	3.4.1	3-156	State Lands Section	Section titled State Lands – This section mentions the following state management plans: Northwest Area Plan and Yukon Tanana Area Plan. There is also the Ambler Road Site Specific Plan which should be included. It can be found at <a href="https://dnr.alaska.gov/mw/planning/siteplans/ambler-road/pdf/arssp-2022-complete.pdf">https://dnr.alaska.gov/mw/planning/siteplans/ambler-road/pdf/arssp-2022-complete.pdf</a> .	
ADF&G	Chapter 3		3-158	last line	<i>The Selawik National Wild River is 1 of 2 spawning areas for sheefish in northwest Alaska.</i> - incorrect statement, Sheefish spawn in the Selawik, Kobuk, Alatna rivers.	
ADF&G	Chapter 3		3-162	last paragraph	This is the only reference to the Roosevelt Project in the document. Should it be considered in the RFA section?	
DMLW	Volume 1; Chapter 3	3.4.3	3-178	2nd paragraph	The tone of this paragraph emphasizes that eventual public use of the road is inevitable or could be easily accomplished. That language should be corrected by emphasizing that there are significant hurdles to converting the road to a public road, including purchasing the improvements from the private owner (AIDEA or other), completing necessary upgrades, and agency authorizations that would require new analysis and review to include a public process.	
ADF&G	Chapter 3	3.4.7	3-212	last line	Update "declined" to "varied in abundance". Add Jallen et al. 2022 citation (McKenna 2015; Jallen et al. 2022).	
ADF&G	Chapter 3	3.4.7	3-212	Downstream Subsistence Uses of Fish' section	Add text: Within the Koyukuk River drainage, there is a relatively small harvest of fall chum (2011-2015 average 1,601 fish), coho (2011-2015 average 330 fish), and pink salmon (2006-2016 average less than 20 fish) by subsistence users in Hughes, Huslia, Allakaket, Alatna and Bettles (Padilla et al. 2021). Overall, Yukon River communities downstream of the Koyukuk River heavily rely on all Pacific salmon species (Padilla et al. 2021).	
ADF&G	Chapter 3	3.4.7	3-213	lines 1-3	Remove sentence: "This listing is likely to change to a "stock of management concern" or "stock of conservation concern" as the Chinook populations have continued to decline since publication of the Final EIS." REPLACE this sentence with: ADF&G and the Board of Fisheries review stock of concern designations on a three-year cycle, and the current stock status designation could change in the future depending on abundance and harvest trends.	
ADF&G	Chapter 3	3.4.7	3-213	lines 15-16	In the lower Yukon River basin, there was an increase in harvests of chum salmon due to restrictions on Chinook salmon harvests (see Section 3.3.2, Fish and Aquatics); however, in recent years, there have been restrictions on summer and fall chum salmon as run strengths have been <u>low</u> <del>declined</del> . Change 'declined' to low. Chum runs have been variable and not shown a consistent decline	
ADF&G	Chapter 3	Resource Abundance	3-215	3rd paragraph	<i>although key sheefish spawning areas in the Kobuk River drainage and whitefish spawning areas in the Alatna River could be particularly vulnerable</i> - this statement is misleading. A radio tagging study showed that sheefish spawn adjacent to the city of Fairbanks, in the Tanana River (Gryska 2018). This well populated area has been impacted by roads, mining, community discharges and fishing pressure; yet spawning populations of sheefish, Chinook and chum salmon; and many resident species (Arctic grayling, northern pike, whitefish) remain.	
ADF&G	Chapter 3		3-219	5th paragraph	<b>Winter</b> water withdrawals would be limited to 15 percent <b>under 7 feet of ice, in lakes containing</b> sensitive fish species such as Arctic <b>grayling</b> and whitefish. Add text in bold	
ADF&G	Chapter 3	3.3.4	3-230	3rd paragraph	Suggest deleting the numbers of communities in parentheses following each listed resource (ex/ caribou (9 communities)) since the migratory nature of several of the resources makes it difficult to quantify.	

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ADF&G	Chapter 3	3.4.7	3-231	36	<i>particularly affecting communities for which this resource is of high importance (Ambler, Kiana, Kobuk, and Noorvik) . Insert Shungnak</i>	
ADF&G	Chapter 3	3.4.7	3-232	3rd paragraph	Melozitna River is misspelled.	
ADF&G	Chapter 3		3-235	4th paragraph	It is not clear why the Manh Choh Mine (note spelling) is mentioned here or Air Force Lands as they are located far from the proposed Ambler Road.	
ADF&G	Chapter 3		3-236	2nd paragraph	The discussion of access and job competition between NANA and Doyon shareholders is speculative, unclear and imprecise ("chunks of time off") - suggest deletion or rewrite	
ADF&G	Chapter 3	3.3.4	3-239	second to last paragraph	As stated multiple times in the document...If the road is opened to the public, federal and state agencies may need to adjust hunting regulations to prevent overharvest of wildlife - although there is no basis to assert road will be open to the public.	
ADF&G	Chapter 3	3.4.7	3-240	Last sentence of 3rd paragraph	Citing Magdanz et al. 2016, the draft sEIS states that communities that <b>become</b> connected to the road system experience decreases in subsistence harvesting activity. This inaccurately assumes causation, when Magdanz et al. 2016 were describing a correlation between harvest levels and road connectedness. We do not know how building a new road would affect contemporary harvest practices and levels of subsistence harvest. It is difficult to say definitively that building a road to a community reduces its participation in subsistence activities. The communities on the road system have different subsistence patterns in part because they have access to cheaper foods and goods, but most road-connected communities in Alaska are also areas that have a higher proportion of non-Indigenous residents. Remove Magdanz et al. 2016 citation from this sentence. If the sentence remains as is, replace Magdanz et al. 2016 with an appropriate citation.	
OHA	3	4.8	3-241	Footnote 75	Bulletin 38 has not been revised. A draft has been circulated that may be adopted. Use of draft guidance in lieu of the existing approved guidance in the SEIS is problematic, especially as NPS has indicated that there will be another version of the draft distributed prior to moving to finalize updated guidance on Bulletin 38. Recommend either using the approved NRHP term "Traditional Cultural Properties" in the text of the SEIS or revising the footnote to acknowledge that the guidance has not been adopted but the SEIS will use the proposed term "Traditional Cultural Places," including an explanation for why it is appropriate to use draft language.	
ADF&G	Chapter 3	3.4.8	3-242	First sentence under "Ethnographic Overview"	Incorrect use of "Iñupiat". "Iñupiat" refers to three or more Iñupiaq people. When used as a modifier, the word "Iñupiaq" is correct. Change "Iñupiat peoples" to "Iñupiat".	
OHA	3	4.8	3-242	2nd yellow box	The introductory statement regarding place-names does not do enough to support the rest of the discussion. Recommend revising: There are innumerable indigenous place-names in the study area. Traditional ecological knowledge shows that ancestral populations made extensive use of the study area for millennia and had multiple travel corridors to carry out trade and resource acquisition. Rivers and adjacent shores were heavily used for transportation and that use continues into the present day. For example, the Kobuk and Koyukuk Rivers facilitated trade and travel between the coast and interior Alaska.	
OHA	3	4.8	3-250	Indirect and Cumulative Impacts	The communications discussion in Section 2.4 only includes fiber in the road embankment and towers in material sites or at maintenance stations. A reasonably foreseeable effect is use and development in the access road ROW by entities that are not affiliated with AIDEA or the Access Road Project, perhaps to provide service to a community or exploration/mining projects in the future. Recommend including discussing actions that occur in other ROWs as possible impacts to be considered or address why such use couldn't occur.	
ADF&G	Chapter 3		A-4	Figure 3-1	Could be updated with 2023 WAH population estimate	
ADF&G	Chapter 3		F-38	Table 30	Why is there no data for Fairbanks, Koyukuk, Nome or Shaktoolik? Those communities have been surveyed regularly by ADF&G, or harvest data is available.	
ADF&G	Chapter 3		F-39	Table 31	Why is there no data for Koyukuk, Pitkas Point & St Mary's? Those communities have been surveyed regularly by ADF&G.	
DMLW	Volume 1; Appendix C	Cultural Resources	C-24	Table 2; First row on pg. C-24	Please add a footnote stating that the higher number of sites and trails of Alternative A relative to B, and A & B relative to C is very likely due to greater cultural resource sampling effort conducted during preconstruction field work by AIDEA and its contractors for Alternative A. Without this footnote, it appears that Alternative C is the least impactful to cultural resources, when this conclusion may be erroneous since Alternative C has not received the same degree of survey effort.	

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ADF&G	Appendix C	1.5.13	C-13		As stated multiple times in the document...If the road is opened to the public, federal and state agencies may need to adjust hunting regulations to prevent overharvest of wildlife - although there is no basis to assert road will be open to the public.	
ADF&G	Appendix D	Attachment A	D-A-5		According to the analysis in Attachment A, the anticipated average noise free interval is $\leq$ 9.9 minutes based on a 6 truck/hr traffic volume over a 24 hr period. ADF&G experience with DMTS truck traffic at 4 trips per hour is that the influence of traffic including noise often delays caribou migration across the road (ADF&G wildlife biologist Hansen, pers comm).	
ADF&G	Appendix E	Table 15	E-13	Footnote "c"	update "declined" to "varied in abundance". Add Jallen et al. 2022 citation (McKenna 2015; Jallen et al. 2022)	
ADF&G	Appendix E	2. References for Tables in App E	E-26	new reference	McKenna 2015 is a specific report to the Henshaw Creek, whereas Jallen et al. 2022 is the Stock Status of Yukon River salmon runs. Add Jallen et al. 2022 citation	
OHA	Appendix F	1.8.1	F-50	Table 34	Smith and Kari 2023 doesn't appear in the references. Double check that sources are referenced.	
DMLW	Volume 2; Appendix H	2.2.2 Public and Non-Industrial Access	H-32	Last sentence in second to last paragraph regarding Pogo Mine Rd	Regarding Pogo Mine Road, BLM states: "However, miners of other land users who have a legitimate need to access can apply for a land use authorization from ADNR allowing them to utilize the road." This sentence is unclear given the context of previous sentences in the paragraph. If this sentence is referring to ADNR permitting uses of the Pogo ROW, then it is mischaracterizing DNR's authority to issue permits. In this case, DNR specifically reserved the ability to grant authorizations on the road: "The right-of-way permit will specifically reserve to the State the right to grant additional authorization to third parties for compatible uses (including other rights-of-way) on or adjacent to the land under the right-of-way" (Pogo Project Right-of-Way Final Decision, ADL 416809 & ADL 417066, section XI. Economic Benefits). There is no mention of permitting users with a "legitimate need." If fact, DNR permits on Pogo road are limited to extractive purposes such as mining and forestry uses. If this sentence is referring to ADNR permitting uses of the Ambler Road ROW, again it is mischaracterizing ADNR's authority to issue permits. AIDEA has applied to ADNR for a private exclusive easement, over which it would have exclusive permitting authority over any installed infrastructure. While ADNR has in the past reserved the ability to issue permits in right-of-way authorizations (e.g., Pogo), this is not guaranteed in an authorization to AIDEA. DNR is currently adjudicating the application but has not issued a Decision at this time. Assuming that ADNR will reserve the ability to issue permits to users with a "legitimate need" mischaracterizes the adjudication of the easement application and, unless a decision by the State of Alaska is issued that reserves such a use, is currently false.	
DMLW	Volume 2; Appendix H	2.2.2 Public and Non-Industrial Access	H-34	First bulleted list, third bullet	Regarding a reasonably foreseeable future scenario for the Ambler Road, BLM states: "Individuals with valid existing land use rights within the area (such as miners wanting to access their state or federal mining claims) may apply for road access." This sentence is unclear with regard to permitting authority.  Individuals may apply to use the road, but such applications would have to be submitted to ADIEA or the entity that owns the improvements. To issue State authorizations, ADNR would have to reserve this in the decision to issue a right-of-way, but the State is still adjudicating ADIEA's application and has not released that decision. To assume that the State will create such a reservation mischaracterizes possible access to the road. This should be clarified.	

State Agency	Chapter/Appendix/Table	Section #	Page #	Table, Row, or Line #	Comment	Remarks / How Resolved
ANILCA Team	Appendix L	Section 3, Subsistence Definition and Regulatory Setting			<p>In Appendix L, Section 3, BLM fails to capture that, as Congress recognized in ANILCA, subsistence uses are central to the customs and traditions of rural Alaskans as a whole, and particularly for indigenous peoples in Alaska.</p> <p>Section 801 of ANILCA clarifies Congressional intent regarding subsistence uses it sought to protect, stating: "the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-natives on public lands... is essential ..."</p> <p>Please revise the first sentence of Appendix L as follows:</p> <p>Subsistence uses are central to the customs and traditions of <u>many Alaskans, particularly rural and</u> indigenous peoples in Alaska. (Page L-6)</p>	
ANILCA Team	Appendix L	3	L-8		<p>We request the following additional revision on page L-8 to accurately describe federal and state wildlife management under ANILCA:</p> <p>The federal government <del>recognizes implements a</del> subsistence <del>priorities priority</del> for rural residents on federal public lands. <del>The priority is implemented, in accordance with Sections 802(2) and 804, whenever it is necessary to restrict the taking of populations of fish and wildlife on public lands for subsistence uses in order to protect the continued viability of such populations or to continue such uses. The priority is implemented through appropriate limitations based on the following criteria:</del></p> <p><u>(1) customary and direct dependence upon the populations as the mainstay of livelihood;</u> <u>(2) local residency; and</u> <u>(3) the availability of alternative resources.</u></p> <p><u>White The State of Alaska manages for sustainable fish and wildlife populations under the sustained yield principle mandated by the State Constitution. The intent is to provide all residents with the opportunity to utilize the State's fish and wildlife populations for hunting, and fishing among other uses.</u></p>	
ADF&G	Appendix L	5.4.2	L-104	Last sentence	<p>The text states, "Data on resource contribution are not available for the community of Nenana, for which there are no comprehensive (i.e., all resources) harvest studies." The department completed a comprehensive harvest survey in Nenana in 2015. Information from the technical report for that study, Brown and Kostick 2017, is included in Tables 29-33, and the study is included as a reference in Table 2 and in the References Section. Brown, C.L., and M.L. Kostick, editors. 2017. Harvest and Use of Subsistence Resources in 4 Communities in the Nenana Basin, 2015. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 429, Fairbanks. The quoted sentence should be modified or deleted accordingly.</p>	
ADF&G	Appendix L	5.5.1	L-121	Table 33	<p>According to Brown and Kostick 2017, 13.4% of Nenana households received marine mammals in 2015, so the value in that column ("N/A") is inaccurate. Compare Table 33 against Table 5-5 in Brown and Kostick 2017 for accuracy and correct as necessary.</p>	
ADF&G	Appendix L	4.1	L-14	Table 2	<p>Additional data source for Buckland available. Resources include all subsistence resource categories (Comprehensive): Elizabeth H. Mikow; Margaret Cunningham. 2020. Harvest and use of wild resources in Buckland, Alaska, 2018. ADF&amp;G Division of Subsistence, Technical Paper No. 472, Anchorage.</p>	
ADF&G	Appendix L	4.1	L-16	Table 2	<p>Additional data source available for Kiana. Resources include all subsistence resource categories (Comprehensive). Citation: Lamb, M., C.L. Brown, H. Cold, and L. Navarro. In prep. The Harvest and Use of Wild Resources in Kiana, Alaska, 2021. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 495, Anchorage.</p>	
ADF&G	Appendix L	6.4.1	L-162	Line 3 of first paragraph	<p>Analysis includes statement describing cultural importance of small land mammals harvests and their contribution to subsistence diets, but it fails to mention economic role of fur sales. Fur sales contribute to mixed cash-subsistence economies by providing cash, which is necessary to support other subsistence activities through gear, fuel, and other purchases. Insert: "However, fur sales contribute cash to the mixed subsistence-cash economies of these communities, which may be used to support other subsistence resource harvests." after the third line of the first paragraph on page L-162.</p>	

State Agency	Chapter/Appendix/Table	Section #	Page #	Table, Row, or Line #	Comment	Remarks / How Resolved
ADF&G	Appendix L	4.3	L-24, L-25	Last sentence that begins on L-24	The following statement is incorrect: "ADF&G data that can be used to quantitatively measure the cultural importance of subsistence resources include data related to participation (percent of households attempting harvests of each resource) and sharing (percent of households receiving each resource)." The use of quantitative measures of participation and sharing alone are inappropriate to fully describe the cultural importance of wild resources to the study communities. The EIS should report these metrics as they are, and should not try to link them to a complex theoretical concept like "cultural importance". Remove the framing of these three quantitative measures as indicative of cultural importance.	
ADF&G	Appendix L	5.1.1	L-26	last line of page	Number 2 inserted incorrectly before word "occurs": "Furbearer trapping 2occurs in an . . ."	
ADF&G	Appendix L	5.1.1	L-27	last line of paragraph 2	Additional data source available for Kiana. Replace last line of paragraph 2 with the following spatial data interpretation: Most contemporary Kiana use areas (Lamb et al. in prep) fall within the geographic boundaries described by Schroder et al., but also include an area along the Noatak River about 15 miles south of Noatak, as well as specific locations southwest of Hooper Bay on the Nuok spit and water bodies near Anchorage and the Kenai River.	
ADF&G	Appendix L	5.1.1	L-29	map legend	The "community type" labels for the legend for this map and subsequent resource harvest and use maps throughout Appendix L are not associated with any verbal description within the text. The reader may have a hard time understanding the meaning or significance of each community type. I assume they are references to the type of subsistence data available for each location, but it is unclear. Include a verbal description of each community type label within the legend in the narrative. Include reasoning for/significance of distinctions in narrative.	
ADF&G	Appendix L	5.1.2	L-39	Harvest data, last line of first paragraph	Author compares relative composition of harvest data to per capita harvest data in same section. Last sentence reads: "In addition, the community of Ambler shows a higher reliance on caribou than some other communities and a lower reliance on salmon, although recent fish-only studies show higher per capita harvests of salmon for Ambler." Because we cannot compare the per capita harvest of salmon in recent studies to per capita harvests of other resources for those timeframes, we cannot assume higher per capita harvests mean higher reliance. Remove the second half of the last sentence that reads "although recent fish-only studies show higher per capita harvests of salmon for Ambler" or reword sentence by including reference to per capita data for previous study years to facilitate comparison.	
ADF&G	Appendix L	5.1.3	L-44	Timing of Subsistence Activities,	Suggest revisiting wording/grammar in last sentence of third paragraph and first 2 sentences of fourth paragraph. Repetitive use of word "peaks" and repetitive narrative regarding seasonality and large land mammal harvests.	
ANILCA Team	Appendix L	3	L-8		The discussion on page L-8 also fails to accurately capture the Federal Subsistence Board's (FSB) authority, please revise as shown below:  The Federal Subsistence Board, under Title VIII of ANILCA and regulations at 36 Code of Federal Regulations (CFR) 242.1 and 50 CFR 100.1, <del>recognizes and regulates subsistence practices for residents on federal lands. implements the Federal Subsistence Management Program on public lands within the State of Alaska. Sections 36 CFR 242.3(a) and 50 CFR 100.3(a) state: "The regulations in this part implement the provisions of Title VIII of ANILCA relevant to the taking of fish and wildlife on public lands in the State of Alaska.</del>	
ADF&G	Appendix L	Multiple	Multiple	Tables 5, 7-12, 14-18, 20-29, 31-35, 37-42	In tables that include harvest and use data, there are instances where the value is reported as "N/A", where it should actually be zero. "Not applicable" is not the same as zero; "N/A" is to be used when there is no value for that metric (i.e., the question was not asked on the survey, or other methodological problem that resulted in no estimate), not when the value of that metric is zero. Change "N/A" values in the referenced tables to zero where the data source lists those values as zero.	
ADF&G	Appendix L	Multiple	Multiple	Figures 2, 3, 5, 6, 8, 9, 11, 12, 14, 15	The data are not showing a linear trend across x values, which are categories of resources. A column chart is more appropriate for these data.	
ANILCA Team	Appendix M				Appendix L sets the stage for the Evaluation found in Appendix M. References to supporting information in Appendix L, as well as to relevant mitigating measures in Appendix N that will be used to minimize impacts to subsistence, should be included in the final Evaluation.	

State Agency	Chapter/Appendix/Table	Section #	Page #	Table, Row, or Line #	Comment	Remarks / How Resolved
ANILCA Team	Appendix M	A.1 Subsistence Evaluation Factors	M-2		<p>BLM states: "Three factors are considered when determining if a significant restriction of subsistence uses and needs may result from the proposed action, alternatives, or in the cumulative case, as follows..."</p> <p>It is important to distinguish between the requirements of ANILCA Section 810 and those of BLM's instruction manual for ANILCA Section 810 compliance. In this sentence, the requirement was unclear or inadvertently suggests ANILCA requires consideration of these factors. Our suggested edit provides needed clarity.</p> <p>We request the following revisions (underline additions, strikethrough deletions): "<u>BLM's instruction manual for ANILCA Section 810 compliance requires that</u> <del>three</del> factors are considered when determining if a significant restriction of subsistence uses and needs may result from the proposed action, alternatives, or in the cumulative case, as follows..."</p>	
ANILCA Team	Appendix M	A.1 Subsistence Evaluation Factors	M-2		<p>BLM states: "ANILCA Section 810 also requires that cumulative impacts be analyzed."</p> <p>This statement is incorrect. ANILCA Section 810 is silent on the analysis of cumulative impacts. It is BLM's 2011 instruction manual for compliance with ANILCA Section 810 that requires cumulative impacts be analyzed as part of a Section 810 analysis.</p> <p>We suggest this sentence be deleted. If it is retained, we request the following revisions (underline additions, strikethrough deletions): "<u>BLM's instruction manual for ANILCA Section 810 compliance</u> also requires that cumulative impacts be analyzed."</p> <p>Additionally, we request that BLM confirm that the 2011 instruction manual is the guiding policy in this ANILCA Section 810 analysis rather than the 2021 instruction manual. We note that, if the 2021 instruction manual is the correct guiding policy, the analysis of cumulative impacts may not be required.</p>	
ANILCA Team	Appendix M	B. ANILCA Section 810(A) Evaluations and Findings for All Alternatives and the Cumulative Case	M-7		<p>BLM states: "These impacts were compared to the three subsistence impact categories according to Section 810 of ANILCA: resource abundance, resource availability and user access."</p> <p>This statement is incorrect. ANILCA Section 810 is silent on impact categories. It is BLM's 2011 and 2021 instruction manuals which define these three categories.</p> <p>We request the following revisions (underline additions, strikethrough deletions): "These impacts were compared to the three subsistence impact categories <del>according to Section 810 of ANILCA</del> <u>defined in BLM's instruction manual for ANILCA Section 810 compliance</u>: resource abundance, resource availability and user access."</p>	
DMLW	Volume 3; Appendix M	B.2.1 Evaluation of the Effect of Use, Occupancy or Disposition on Subsistence Use and Need	M-24 & M-25	Section: Subsistence User Access	<p>In this section, BLM discusses potential impacts to subsistence user access across the entire route of the proposed road (a more extensive area than that of the BLM ROW). ANILCA Section 810(a)(3) requires the BLM to consider whether "reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions." We note that, where the proposed road will require state authorizations, the State is working with the applicant to mitigate impacts to access, including for subsistence, on state lands.</p>	
ANILCA Team	Appendix M	E. References	M-43		<p>The BLM cites as its guiding document for the ANILCA Section 810 Analysis its <i>2011 Instruction and Policy for Compliance with Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). Instruction Memorandum No. AK-2011-008</i></p> <p>The State is aware of <i>Permanent Instruction Memorandum No. AK-2021-013 Compliance with Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA)</i>. The transmittal memo for this 2021 instruction memorandum states that it "replaces the ANILCA Section 810 compliance procedures outlined in BLM IM-AK-2011-008."</p> <p>Please explain why the BLM has chosen to follow the 2011 instruction memorandum rather than the 2021 instruction memorandum. We note that there are procedural differences between the two documents.</p>	

State Agency	Chapter/Appendix/Table	Section #	Page #	Table, Row, or Line #	Comment	Remarks / How Resolved
ADF&G	Appendix O				Add citation: Padilla, A. J., S. K. S. Decker, B. M. Borba, and T. Hamazaki. 2021. Subsistence and personal use salmon harvests in the Alaska portion of the Yukon River drainage, 2016. Alaska Department of Fish and Game, Fishery Data Series No. 21-06, Anchorage.	
ADF&G	Appendix O	References			Correct citation: Clawson, C.M. 2019. Aquatic Biomonitoring at the Arctic-Bornite Prospect, 2018. Technical Report No. 19-05 Alaska Department of Fish and Game. Fairbanks, Alaska.	
ADF&G	Appendix O	References			Add citation: Clawson, C.M. 2020. Aquatic Biomonitoring at the Arctic-Bornite Prospect, 2019. Technical Report No. 20-01 Alaska Department of Fish and Game. Fairbanks, Alaska.	
ADF&G	Appendix O	References			Add citation: Clawson, C.M. 2022. Aquatic Biomonitoring at the Arctic-Bornite Prospect, 2021. Technical Report No. 22-06 Alaska Department of Fish and Game. Fairbanks, Alaska.	
ADF&G	Appendix O	References			Add citation: Clawson, C.M. 2023. Aquatic Biomonitoring at the Arctic-Bornite Prospect, 2022. Technical Report No. 23-04 Alaska Department of Fish and Game. Fairbanks, Alaska.	
ADF&G	Appendix O	References			Add citation: Bear, C.E. 2022. Ambler Road Corridor (Mile (0-55) Fish Investigations in Koyukuk River Tributaries, 2021. Technical Report No. 22-05 Alaska Department of Fish and Game. Fairbanks, Alaska.	
ADF&G	Appendix O	References			Add citation: Carter, Bill, Ray Hander, and Randy Brown. "A Permafrost Thaw Slump and Its Effect on Selawik River Inconnu Recruitment in Northwest Alaska." 145th Annual Meeting of the American Fisheries Society. AFS, 2015.	
ADF&G	Appendix O	References			Add citation: Stuby, Lisa. "Contributions to the life history of Kuskokwim River inconnu." Transactions of the American Fisheries Society 147.5 (2018): 879-890.	
ADF&G	Appendix O	References			Add citation: Elizabeth H. Mikow; Margaret Cunningham. 2020. Harvest and use of wild resources in Buckland, Alaska, 2018. ADF&G Division of Subsistence, Technical Paper No. 472, Anchorage.	
ADF&G	Appendix O	References			Add citation: Lamb, M., C.L. Brown, H. Cold, and L. Navarro. In prep. The Harvest and Use of Wild Resources in Kiana, Alaska, 2021. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 495, Anchorage.	
ADF&G	Appendix O	References			Add citation: Osburn, C. In prep. Moose management report and plan, Game Management Unit 23: Report period 1 July 2015–30 June 2020, and plan period 1 July 2020–30 June 2025. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-20XX-XX, Juneau.	
ADF&G	Appendix O	References			Add citation: Gryska, A.D. 2018. Spawning Locations of Tanana River Summer Resident Sheefish 2010 and 2011. Alaska Department of Fish and Game, Fishery Data Series No. 18-36, Anchorage.	