

October 29, 2019

Via Email and Online Submission to:

Tina McMaster-Goering
Ambler Road EIS Project Manager
U.S. BUREAU OF LAND MANAGEMENT
222 West 7th Avenue #13
Anchorage, AK 99513
tmcmastergoering@blm.gov
BLM_AK_AKSO_AmblerRoad_Comments@blm.gov

Ambler Road DEIS Comments
U.S. BUREAU OF LAND MANAGEMENT
Fairbanks District Office
222 University Avenue
Fairbanks, AK 99709
<https://www.blm.gov/AmblerRoadEIS>

Greg Dudgeon, Superintendent
Gates of the Arctic National Park & Preserve
Fairbanks District Office
NATIONAL PARK SERVICE
4175 Geist Road
Fairbanks, AK 99709
Greg_Dudgeon@nps.gov
yuga_ambler_road@nps.gov

Ambler Road Draft EEA Comments
Gates of the Arctic National Park & Preserve
Fairbanks District Office
NATIONAL PARK SERVICE
4175 Geist Road
Fairbanks, AK 99709
<https://parkplanning.nps.gov/commentForm.cfm?documentID=98058>

Re: Comments on Draft EIS, Preliminary ANILCA Section 810 Evaluation, Health Impact Assessment, NHPA 106 Consultation, and Draft EEA for the Proposed Ambler Road Project; DOI-BLM-AK-F030-2016-0008-EIS; BLM/AK/PL-19/013+1610+F030

Dear Ms. McMaster-Goering, Mr. Dudgeon, and Other Officials:

Tanana Chiefs Conference (TCC) is the regional Tribal non-profit organization for Interior Alaska. TCC is strongly opposed to the Proposed Ambler Road Project (Project). Nevertheless, we are writing to provide our comments on the above-referenced materials and to point out numerous ways in which they are unlawful and inadequate.

The TCC region encompasses 37 federally-recognized Tribes and five Alaska Native associations. As such, TCC serves more than 13,000 Alaska Natives across 235,000 square-miles. TCC's mission is to preserve our indigenous way of life for future generations, and our strategic plan calls for strong leadership, communication, and advocacy. TCC and the Tribes in our region routinely consult with federal and state agencies with regard to proposals for planning and projects that may affect traditional homeland use areas. Indeed, three Tribal Councils within our region—Alatna Village Council, Allakaket Tribal Council, and Hughes Traditional Council—have been designated as cooperating agencies with respect to the Project. TCC provided scoping comments for the federal environmental review, and these should be considered as supplemental to these comments on the Draft EIS phase. Since the Notice of Intent was issued for the Project, TCC and member Tribes anticipated major impacts posed by the

Project. Some of the impacts posed by the Project are reiterated in the NEPA analysis, but they are not adequately addressed with commensurate mitigation measures.

TCC has a strong interest in the preservation of our land, cultures, and peoples. Since time immemorial, our people have subsisted in our region, and we have depended on healthy land, healthy water, and healthy fish and wildlife resources to support our traditional way of life. No relationship is more valuable to Alaska Natives than that with their natural environment and everything contained therein, including wildlife, fish, marine life, forests, plants, air, and water. Alaska Natives have an inherent human right to continue our hunting, fishing and gathering practices as well as our traditional way of life. We have been successful guardians of the natural and cultural resources in our traditional homelands for thousands of years. Our elders have taught us to learn from our past, to think beyond the present, measure effects into the future, and honor our responsibility to the generations that will follow us. TCC is therefore committed to protecting the integrity of all the watersheds in our indigenous territories, including those of the Koyukuk River, Alatna River, John River, and Henshaw River, which flow into the Yukon River and the Bering Sea.

We believe the Project and the mining projects it would enable will severely and unlawfully harm Alaska Native traditional culture; hunting, fishing, and gathering practices; and health, well-being, and wild food economic opportunities in Interior Alaska. As such, we respectfully urge the U.S. Bureau of Land Management to select the No Action alternative in the Record of Decision for the Project. The National Park Service, U.S. Army Corps of Engineers, and other federal agencies involved likewise should not authorize this Project. At a minimum, before making any decisions regarding the Project, the Draft EIS and other materials must be comprehensively revised and reissued for public comment as well as Tribal consultation.

TCC has posed some specific questions and requests responses to these from BLM. Please see Exhibit 76 submitted as part of these comments.

If you need more information or would like to discuss our comments in more detail, please feel free to contact us at 907-452-8251 or natasha.singh@tananachiefs.org.

Sincerely yours,



Victor Joseph
Chief/Chairman



Natasha Singh
General Counsel

Enclosures: Comments of Tanana Chiefs Conference
Exhibits 1 through 78



COMMENTS OF TANANA CHIEFS CONFERENCE

on the

Proposed Ambler Road Project

**U.S. Bureau of Land Management
Draft Environmental Impact Statement,
Preliminary ANILCA Section 810 Evaluation, and
Health Impact Assessment**

**U.S. Department of the Interior, National Park Service,
Draft Environmental and Economic Analysis**

October 29, 2019

CONTENTS

I.	INTRODUCTION	1
II.	SEVERE IMPACTS ON WILDLIFE, HABITAT, SUBSISTENCE & HEALTH	2
A.	CARIBOU	3
B.	FISH & WATER RESOURCES.....	4
C.	WETLANDS, VEGETATION, & ECOSYSTEM SERVICES	10
D.	SUBSISTENCE	12
E.	SOCIAL COHESION & HEALTH	14
III.	CONTRAVENTION OF LEGAL DUTIES	16
A.	VIOLATION OF ANILCA SUBSISTENCE PROVISIONS.....	17
B.	VIOLATION OF FLPMA PUBLIC LAND MANAGEMENT STANDARDS.....	18
C.	VIOLATION OF ANILCA GAAR PROVISIONS & NPS MANAGEMENT STANDARDS.....	19
D.	VIOLATION OF THE CLEAN WATER ACT, EPA 404(B)(1) GUIDELINES, & CORPS REGULATIONS	22
IV.	FAILURE TO DEMONSTRATE PROJECT PURPOSE, FEASIBILITY, & COST	25
V.	IMPROPER SEGMENTATION OF PROJECT	26
VI.	FAILURE TO CONSIDER A REASONABLE RANGE OF ALTERNATIVES	28
A.	LIFESPAN OF ROAD	31
B.	PHASED ROAD CONSTRUCTION.....	31
C.	ELECTRICITY SUPPLY	32
D.	WILDLIFE, HABITAT, & SUBSISTENCE PROTECTION FEATURES	33
E.	COMMUNITY INVOLVEMENT, BENEFIT, & PROTECTION FEATURES	34
VII.	INADEQUATE ANALYSIS OF IMPACTS	38
A.	MAJOR GAPS.....	39
1.	Public Road.....	39
2.	Water Withdrawals	42
B.	DEEPLY FLAWED ANALYSES	44
1.	Caribou Impacts	44
2.	Fish & Aquatic Impacts	46
3.	Subsistence, Social, & Health Impacts	49
4.	Wetlands & Vegetation Impacts	51
5.	Air Pollution & Greenhouse Gas Emissions	52
6.	Cultural Resource Impacts	52
7.	Visual Impacts	55

C.	IMPROPER TIERING & INCORPORATION BY REFERENCE	55
VIII.	INADEQUATE DISCUSSION OF MITIGATION	58
IX.	CONCLUSION.....	61
EXHIBITS 1 THROUGH 78		

I. INTRODUCTION

Alaska Native people have subsisted in the Northwest Alaska and Yukon-Koyukuk regions for millennia. They have depended on the integrity of their natural environment to sustain their traditional culture, as well as their spiritual, social, and physical well-being. Respect for the land and wild resources is deeply ingrained, as each generation teaches the next to learn from the past, plan for the future, and honor the generations to come. With these values at the core of their communities, and with wise and judicious guidance from elders and other leaders, Alaska Native people have successfully utilized and conserved their natural environment for many generations.

The Proposed Ambler Road Project (“Project”) and associated development of the Ambler Mining District (“District”) threaten the inherent human right of Alaska Native communities to continue traditional hunting, fishing, and gathering practices that serve as the foundation of their way of life. The impacts from the proposed industrial development would cause severe harm across the region to all the resources that Alaska Natives hold dear—including caribou, fish, water resources, wetlands, and vegetation—as well as to their opportunities for subsistence and the social cohesion, health, and well-being that depend on participation in subsistence harvesting and sharing networks. As such, numerous Tribal councils, villages, organizations, and boards have adopted formal resolutions and submitted correspondence expressing opposition to the Project.¹

The comments below discuss numerous ways that the Draft Environmental Impact Statement for the Project (“Draft EIS”) fails to comply with the National Environmental Policy Act (“NEPA”).² A problem at the core of the Draft EIS is the fact that the Project is in an early stage of development and is being considered before there has been any proposal for the mining development that it is meant to facilitate. This situation fundamentally impedes a meaningful analysis given that the Project is not fully understood. The NEPA violations that flow from the premature timing of the Draft EIS include failure to demonstrate a valid purpose, feasibility, and cost for the Project; improper segmentation; failure to consider a reasonable range of alternatives; inadequate analysis of impacts; improper tiering and incorporation by reference; and inadequate discussion of mitigation.

In addition, there are many federal laws with substantive standards protective of subsistence and the natural environment that are applicable to the proposal at hand and must be adhered to in governmental decision-making, including the Alaska National Interest Lands Conservation Act (“ANILCA”),³ Federal Land Management Policy Act (“FLPMA”),⁴ and Clean Water Act,⁵ as well as their implementing regulations. A decision by the U.S. Bureau of Land Management

¹ See Exhibits 58 - 75.

² 42 U.S.C. § 4321 *et seq.*

³ ANILCA, P.L. 96-487 (Dec. 2, 1980), codified at 16 U.S.C. §§ 410hh-3233 and 43 U.S.C. §§ 1602-1784.

⁴ 43 U.S.C. § 1701 *et seq.*

⁵ 33 U.S.C. § 1251 *et seq.*

("BLM"), National Park Service ("NPS"), U.S. Army Corps of Engineers ("Corps"), or any other federal agency to authorize the Project in its current form would violate some or all of these substantive standards.

Tanana Chiefs Conference ("TCC") respectfully urges BLM to require the Project proponent—Alaska Industrial Development and Export Authority ("AIDEA")—to withdraw its current proposal or to simply reject the proposal as it is now conceived. If AIDEA continues pursue the Project despite the widespread opposition to it, AIDEA must submit a more fully developed proposal for an industrial access road in conjunction with proposed mine development so that the overall proposals, impacts, and mitigation can be delineated and analyzed in a concrete and useful way. This approach would fill many of the gaps that undermine the existing analyses, and it would allow the combined impacts of the road and mining activity to be fully understood before any final decision is made. Additional baseline data is also needed for a meaningful NEPA review, and this approach would allow more time for such information to be acquired. In order to comply with NEPA, a Revised Draft EIS will need to be prepared and circulated for public comment, and consultation with affected Tribes and other entities will need to be reinitiated.

TCC has devoted substantial time and resources to these comments, but it has not been possible to cover every issue in depth in the time allowed.⁶ Accordingly, TCC hereby incorporates by reference the submissions of other commenters who are similarly opposed to the Project, including comments submitted by Tribes, Brooks Range Council, Alaska Native organizations, The Wilderness Society, The Wildlife Society-Alaska Chapter, and Trustees for Alaska (on behalf of multiple entities).

II. SEVERE IMPACTS ON WILDLIFE, HABITAT, SUBSISTENCE, & HEALTH

The Draft EIS is deeply flawed, as discussed below. Even so, it paints a bleak portrait for the Alaska Native communities in the region and the wildlife and habitat they depend on for their traditional culture, sustenance, and way of life.⁷

The fundamental purpose of the Project is not just to build a road, it is to "support mineral resource exploration and development in the District" and to "provide surface transportation access to the District and allow for expanded exploration, mine development, and mine operations at mineral prospects throughout the District."⁸ Under BLM's anticipated mining scenario, four large-scale mines would be developed for the extraction of copper, lead, zinc,

⁶ TCC has submitted requests to both BLM and NPS for the comment period to be extended until November 29, 2019, and it reiterates these requests here.

⁷ The Draft EEA similarly identifies many severe and widespread adverse impacts on wildlife, habitat, and subsistence, although its scope is limited to the portion of the Project traversing GAAR.

⁸ Draft EIS, at ES-2, 1-3.

silver, gold, cobalt, and molybdenum.⁹ In addition, the construction of the Project would make it more likely that hundreds of smaller claims will be developed throughout the region.¹⁰

The Draft EIS acknowledges that impacts on wildlife, habitat, subsistence, and health resulting from the Project and mining activity will be severe. A few examples are highlighted below. Moreover, the discussion of mitigation fails to demonstrate that such impacts to the human and natural environments will be reduced to acceptable levels.¹¹ Indeed, in many instances, the Draft EIS acknowledges the ineffectiveness of mitigation as currently proposed.

A. CARIBOU

The impacts of the Project, combined with impacts from mine development and secondary access roads, would have potentially devastating effects on caribou. To begin with, these activities would dramatically disturb and displace caribou:

Construction and use of the road would cause behavioral disturbance to and displacement of caribou ... Behavioral disturbance could result in an increase in energy expenditure due to higher stress levels and an increase in startle and flight responses. Behavioral changes could result in reduced foraging rates and decreased mating success. ... [S]tudies have identified ... displacement zones: up to 6 miles ... from various forms of disturbance ... [C]aribou avoidance of a highway occurred up to 3.1 miles ... during and after modifications to increase vehicle traffic. Disturbance during winter could result in reduced movement rates, constricted home range size, and less range fidelity ... Displacement from winter range could affect access to forage and subsequently reduce fitness at a time of year when forage may already be limited due to snow conditions ... Implementation of construction timing windows recommended by the BLM and other land managers would not eliminate, impacts to caribou ...¹²

Active mines include large vehicles, machinery, blasting, and humans on foot, all of which may disturb caribou and result in displacement. In Newfoundland, caribou avoided areas within 2.5 miles ... of an active mine ... Migrating caribou would encounter a network of active roads and industrial development that does not exist elsewhere in their range. ... Increasing road density in the Kuparuk field resulted in avoidance and changes in distribution of the Central Arctic Herd on the Arctic Coastal Plain. Areas of high road density resulted in up to 86 percent declines in caribou density in those areas ..., and subsequent crowding in other areas. There is concern that

⁹ See Draft EIS, at 1-1 to 1-2, H-2 to H-12, H-35, H-40, H-45, H-62.

¹⁰ See Draft EIS, at H-2, H-4, H-40, H-45.

¹¹ See Part VIII *infra*.

¹² Draft EIS, at 3-74.

multiple intersecting roads may create a corralling effect on caribou, which could delay their movement, increase stress levels, or prevent access to suitable habitat ...¹³

Furthermore, vast swaths of caribou habitat would be fragmented and degraded, and some areas could be contaminated as well, resulting in serious harm to caribou populations:

Each of the action alternatives would permanently remove winter, migratory, and peripheral range of the [Western Arctic Herd] caribou. ... Each action alternative would fragment the WAH caribou range. The effects of this fragmentation ... would be pronounced because the range is currently largely unaltered from a natural state. Fragmentation may result in reduced dispersion of individuals across the winter range and subsequent crowding in smaller habitat fragments ...¹⁴

The development of mines within the District and secondary access roads would result in habitat loss, alteration, and fragmentation of WAH caribou migratory and winter range. Habitat impact due to the anticipated mines is predicted to be thousands of acres, not including access roads ... Secondary access roads connecting communities could range from a few miles to over 100 miles in length ... The mines, mining roads, and secondary access roads would increase habitat fragmentation exponentially. The fragmentation of habitat would further remove usable habitat for caribou during migration and winter, which could force range shifts, increased competition for resources, or increased predation ...¹⁵

Contamination of local browse and waterbodies with hazardous mining waste, mining dust, or other contaminants due to spills, accidents, or non-point source leaks could occur, despite potential mitigation measures ... and would be harmful to caribou. ...¹⁶

B. FISH & WATER RESOURCES

The Proposed Ambler Road Project and associated mine development would wreak havoc on fish and their habitat as well. Construction of the Project would “lead to the development of large-scale hard rock mines near habitat that is essential for Chinook, chum, and coho salmon; sheefish, broad and humpback whitefish, Arctic grayling, and several other species that are integral to the subsistence practices throughout this region.”¹⁷ The hard rock mining enabled

¹³ Draft EIS, at H-51 (emphasis added). See Draft EIS, at H-52 (“... road networks would increase the magnitude of impacts on caribou, and mining activities would result in a greater intensity of disturbance and displacement.”).

¹⁴ Draft EIS, at 3-73 to 3-74.

¹⁵ Draft EIS, at H-51 (emphasis added). See Draft EIS, at H-52 (“Habitat loss and alteration due to the reasonably foreseeable development of the District could equal or exceed that from the road itself ... and increase fragmentation of migratory and winter range.”).

¹⁶ Draft EIS, at H-51. See Draft EIS, at H-53 and H-55 (describing similar contamination impacts on moose and small mammals).

¹⁷ Draft EIS, at H-48.

by the Project would involve massive soil and rock movement.¹⁸ This type of mining typically disrupts surface water and groundwater, reduces extensive amounts of aquatic habitat, degrades water quality, decreases water quantity, reduces biodiversity, fish production, and carrying capacity, and requires long-term or even perpetual treatment of toxic mine wastewater.¹⁹ Unfortunately, “[o]ften the most severe mining-related impacts to habitat occur in remote areas located near extremely productive fish habitat ...”²⁰ Inadequate fish passage and gravel mining in connection with the Project itself and secondary roads would also lead to widespread adverse impacts throughout the region. The Draft EIS thus admits that “[c]umulatively, the project has the potential ... to cause very substantial, long-term impacts to fish and aquatic life that could lead to very substantial impacts on subsistence use practices in the region, even with mitigation measures in place.”²¹

Dewatering, for instance, would lead to highly destructive impacts on fish and their habitat:

As a mine is excavated, pumps are used to remove mine water and allow access to the ore. Dewatering creates a cone of depression in the groundwater table, which can lower the water table well below natural stream or lake levels and considerably reduce flow into streams, the hyporheic zone, and wetlands ... The hyporheic zone is the region of sediment and porous space beneath and alongside a stream bed that provides the linkage between surface and groundwater systems and riparian and floodplain habitat. Intense biochemical activity in the hyporheic zone helps to maintain water quality and support aquatic life. The importance of the hyporheic zone to the health and survival of fish cannot be overstated. It is used for spawning and egg incubation for many fish species in the study area that are major targets of subsistence harvest. After eggs hatch, larvae may move both down and laterally into the hyporheic zone to absorb yolk sacs ... Depending on the location and scale of operation, dewatering has the potential to substantially reduce groundwater flows into important spawning, egg incubating, and wintering habitats relied upon by salmon, sheefish, whitefish, and other important subsistence species.²²

Additionally, extensive contamination of the region is expected from acid mine drainage releases (through tailings dam failure and leakage) as well as toxic chemical releases (through spills and dust dispersion). These impacts would be ruinous for fish and their habitat, especially in light of the bioaccumulation of toxins in fish tissue and the expansion of pathways for toxins to spread caused by mining-related changes to surface and groundwater hydrology:

¹⁸ See Draft EIS, at H-8 to H-13, H-45.

¹⁹ See Draft EIS, at H-45, H-48.

²⁰ Draft EIS, at H-45.

²¹ Draft EIS, at H-49 (emphasis added). See Draft EIS, at H-48 (“Agencies with jurisdiction would propose mitigation measures to avoid and minimize water quality impacts; however, that does not ensure that the measures would be fully effective. In addition, typical mitigation measures are dependent on continual monitoring, maintenance, and compliance, which can be difficult to enforce.”).

²² Draft EIS, at H-46 (emphasis added).

Spills and potential risk of spills as a result of the development and operation activities of mines ... are more predictable and serious than those discussed above as part of the proposed road project.²³

... [T]he risk of spills and impacts from spills [include those] associated with diesel fuel, LNG, mercury or cyanide used in ore processing, and mine tailings stored behind a tailings dam.²⁴

Acid mine drainage is toxic to fish, algae, zooplankton, and aquatic invertebrate populations ... Standard ... mitigation measures ... may not prevent impacts to water resources where acid generating materials are present ... The number of serious tailings dam failures have increased markedly since the 1960s; researchers report 72 tailings dam failures in the United States between 1960 and 2000 ... and 33 major mine tailings dam failures between 1960 and 2000 ...²⁵

Regardless [of permitting and remediation efforts], tailings dam failures occur and could have major adverse effects to water quality, fish and wildlife habitat, and fish and wildlife mortality, as well as human mortality.²⁶

Toxic metals that bioaccumulate in fish tissue can lead to fish mortality, increased susceptibility to disease, reduced growth rates, and pose health risks to human consumers ...²⁷

Toxic dust from open pits, roads, and processing facilities can result in the contamination of aquatic habitat and contribute to the bioaccumulation of toxins in fish tissue.²⁸

²³ Draft EIS, at H-36.

²⁴ Draft EIS, at H-36.

²⁵ Draft EIS, at H-46 (emphasis added). Several massive and catastrophic tailings dam failures have occurred in more recent years as well, including the Mount Polley copper and gold mine disaster in British Columbia, Canada in 2014, which contaminated miles of salmon streams and lakes with toxic metals, <https://www.cbc.ca/news/canada/british-columbia/mount-polley-mine-disaster-5-years-later-emotions-accountability-unresolved-1.5236160>; the Córrego do Feijão iron mine dam disaster in Brumadinho, Minas Gerais, Brazil in January 2019, which killed 248 people, <https://www.smithsonianmag.com/smart-news/brazilian-mine-disaster-kills-dozens-and-covers-town-mud-180971358/>; the Bento Rodrigues iron mine dam disaster in Mariana, Minas Gerais, Brazil in 2015, which killed 19 people, <http://webdoc.france24.com/brazil-dam-mining-disaster-mariana/>; and the Talvivaara nickel mine disaster in Sotkamo, Finland in 2012, which leaked toxic uranium and other metals, <https://londonminingnetwork.org/2012/11/finland-talvivaara-environmental-disaster-goes-on-an-on/>. The Kingston, Tennessee disaster resulting from the rupture of a dike at a coal ash pond in 2008 is another notable calamity involving the failure of a dam, <https://www.epa.gov/tn/epa-response-kingston-tva-coal-ash-spill>.

²⁶ Draft EIS, at H-36 to H-37 (emphasis added).

²⁷ Draft EIS, at H-45.

²⁸ Draft EIS, at H-47.

Studies show that even with the use of ... minimization measures, ore concentrates [dust] can be transported up to 2.5 miles ... and low levels much farther ... While mitigation measures help to minimize the severity of impacts, total avoidance of impacts to fish habitat from toxins generated during mining operations may not be possible. Of particular concern is the potential Bornite mine site's location within the Beaver Creek drainage, which flows directly into the Kobuk River sheefish spawning grounds.²⁹

Impacts to water quality include the increase of dust from mining operations, potential spills and containment of ore concentrates, chemicals used in processing ore, fuels, and process water in addition to wastewater from operations of facilities and camps.³⁰

Toxic metals that bioaccumulate in fish tissue can lead to fish mortality, increased susceptibility to disease, reduced growth rates, and pose health risks to human consumers ...³¹

Mine-induced alterations to the exchange patterns of surface and groundwater has the potential to create additional pathways for dispersal of potential contaminants.³²

A study of water quality compliance found that while all mines reviewed predicted compliance with water quality standards, 76 percent exceeded water quality pollution limits as a result of mining. Adverse impacts to water quality were found to be common at mine sites and most often caused by failed mitigation ...³³

Predictions made about surface and groundwater quality impacts without considering the effects of mitigation appear to be more accurate than those that take mitigation into account ...³⁴

Along with mine-related dewatering and contamination, the Project itself would involve the construction of “[t]housands of culverts,” which would “channel flowing water under the road and would affect natural flow patterns, erosion patterns, natural channel migration, ponding, and flooding patterns.”³⁵ Even with mitigation efforts, these culverts are expected to cause

²⁹ Draft EIS, at H-47 (emphasis added).

³⁰ Draft EIS, at H-38.

³¹ Draft EIS, at H-45.

³² Draft EIS, at H-46.

³³ Draft EIS, at H-37 (emphasis added). See Draft EIS, at H-46 (“... researchers reviewed several EISs for hard rock mines in the United States ... The study found that impacts to water quality were common at mine sites and most often caused by failed mitigation ... For the 25 modern mines in the United States ... 76 percent of mines exceeded water quality standards as a direct result of mining, and 64 percent of mines employed mitigation measures that failed to prevent water contamination ...”).

³⁴ Draft EIS, at H-46 (emphasis added).

³⁵ Draft EIS, at ES-5. See Draft EIS, at 3-25 to 3-26 (indicating Alternative A would involve 2,869 culverts, Alternative B would involve 3,155 culverts, and Alternative C would involve 4,076 culverts).

substantial blockages of streams and degradation of fish habitat over enormous geographic areas:

Construction of any of the action alternatives would reduce connectivity to and degrade the quality of habitat that is essential to salmon, sheefish, broad and humpback whitefish, burbot, Arctic grayling, pike, Alaska blackfish, and several other fish species as a result of modifying drainage patterns and installing conveyance structures in more than 1,000 streams across more than 200 miles of the project area.³⁶

Culverts often create changes to [] species composition and fish density both upstream and downstream. While physical habitat alteration within a given stream may be fairly localized, the project would affect more than 1,000 streams, so impacts would be widespread.³⁷

While AIDEA proposes to provide fish passage for all perennial and some well-defined ephemeral streams, the road would cut off and/or reduce access to important wetland and off-channel habitats that may support rearing and feeding fish.³⁸

The majority of crossing structures proposed by AIDEA would likely not be adequate to maintain fish passage. ... While mitigation measures would minimize potential impacts to fish and amphibians, the only effective mitigation is to avoid construction.³⁹

The Draft EIS further acknowledges that gravel mining in floodplains is harmful to fish and should generally be prohibited, but it merely identifies this as a “potential” mitigation measure as part of a menu of possibilities and fails to indicate any plan or commitment (on the part of BLM or other federal agencies relying on the EIS) to impose any such prohibition:

Gravel mining in floodplains would negatively affect aquatic habitat and may affect egg survival rates in nearby spawning habitats. ... [M]aterial sites should not be located in the active floodplain of any stream within these ACECs. ... [P]rohibiting location of material sites in active floodplains would minimize impacts to fish habitat from gravel mining and reduce the project’s cumulative impact to fish and aquatic life. The road and associated infrastructure has the potential to degrade habitat quality and may affect populations of salmon, whitefish, and other species in this region.⁴⁰

³⁶ Draft EIS, at H-47 (emphasis added).

³⁷ Draft EIS, at H-47.

³⁸ Draft EIS, at H-47.

³⁹ Draft EIS, at H-47 (emphasis added).

⁴⁰ Draft EIS, at H-48.

Potential BLM Mitigation Measure: Gravel and other construction materials would not be taken from streambeds, riverbeds, active floodplains, lakeshores, or outlet of lakes unless the taking is approved by the Authorized Officer.⁴¹

In light of the many harmful impacts from the Project and mining activities, the Draft EIS acknowledges the potential for serious impacts, including both population-level⁴² and watershed-wide impacts, on fish and fish habitat:

Direct and indirect chemical stressors such as mining-related pollution, acid mine drainage, and the release of toxic materials have the potential to impact the health and the survival of fish populations and other aquatic species ...⁴³

The introduction of metal and mineral-rich runoff, specifically from acid mine drainage, can impact the ecology of entire watersheds ...⁴⁴

All action alternatives may adversely affect fish species abundance and distribution. If culverts do not maintain hydrology and fish passage, adverse impacts to fish at the population level would result.⁴⁵

Mining and further road development could have population-level[] effects on certain fish species, particularly if mine activities result in contamination or impact to Kobuk River sheefish spawning grounds and Alatna River whitefish spawning grounds.⁴⁶

Given the proximity of the 4 most advanced mine projects to the Kobuk River sheefish spawning grounds and the large numbers of sheefish that spawn in this limited habitat, sheefish may be especially vulnerable to population-level effects. While only 11 sheefish spawning locations are documented in Alaska, 2 occur in the study area and would [] face potentially serious impact. The 4 advanced mine projects are located on tributary streams that drain directly into the world-famous Kobuk River sheefish spawning grounds. In Northwest Alaska, the entire sheefish population spawns in 1 of 2 locations, either in the Kobuk River spawning grounds or in the Selawik River drainage. The Kobuk River spawning grounds, located in the study area, support “the largest population of spawning sheefish in northwestern Alaska” ... The importance of this habitat for the Kobuk River sheefish population, and ultimately to the communities that depend on this species, cannot be overstated. Mining-related water quality impacts near sheefish spawning habitat have the potential to devastate and/or severely affect

⁴¹ Draft EIS, at N-7.

⁴² See Draft EIS, at 3-59 (“Population-level [e]ffects include impacts to most or all members of an age class, stock, or an entire population.”).

⁴³ Draft EIS, at H-45 (emphasis added).

⁴⁴ Draft EIS, at H-46 (emphasis added).

⁴⁵ Draft EIS, at H-48 (emphasis added).

⁴⁶ Draft EIS, at H-73 (emphasis added).

the Kobuk River sheefish population, particularly if any of these mines fail to meet mitigation measures to minimize potential impacts.⁴⁷

The road and reasonably foreseeable future development could also negatively affect the Alatna River whitefish spawning grounds, as well as several essential fish habitat streams.⁴⁸

The Alatna River is the most important spawning area for sheefish and other whitefish species in the upper Koyukuk River drainage ...⁴⁹

... [W]ater quality impacts have the potential to cause major changes in distribution and abundance [of] Pacific salmon and other important fish species in this region.⁵⁰

C. WETLANDS, VEGETATION & ECOSYSTEM SERVICES

Thousands of acres of wetlands and vegetation would be damaged by the Project and associated mining activities, and wetland functions and ecosystem services would decline.⁵¹ Accessory roads would add even greater impacts beyond these.⁵² Moreover, since there are actually *hundreds of thousands of acres* of mining claims in the “advanced mining scenario,” if the construction of the Project were to lead to the development of these claims, this would result in far more loss and alteration than initially predicted.⁵³

Fugitive toxic dust dispersed through the air and water could lead to some of the most widespread and long-lasting harm, including destruction of lichen, moss, and other vegetation types that provide important forage for caribou:

The development and operation of mines and AIDEA’s proposed action could result in contamination to surrounding environment due to fugitive dust from trucks hauling ore or spills from trucking accidents, leading to further loss or alteration of vegetation and wetlands.⁵⁴

⁴⁷ Draft EIS, at H-48 to H-49 (emphasis added).

⁴⁸ Draft EIS, at H-49 (emphasis added).

⁴⁹ Draft EIS, at H-45.

⁵⁰ Draft EIS, at H-45 to H-49 (emphasis added).

⁵¹ See Draft EIS, at E-12 to E-14, H-42. See Draft EIS at H-42 (“Alteration to wetlands and vegetation from fugitive dust, changes to soil characteristics, changes to hydrology, thawing of permafrost, and increases in [invasive species] to the area would result in widespread changes to wetlands and vegetation across the project area from these projects, which would be further compounded by the effects of climate change.”).

⁵² See Draft EIS, at H-40 (“... the potential magnitude of impact and alteration is anticipated to be in the thousands of acres, not including accessory roads”).

⁵³ See Draft EIS, at H-40.

⁵⁴ Draft EIS, at H-42.

Fugitive dust impacts would occur around the mine footprints, due to blasting, loading, ore stockpiles, crushing activities, waste piles and exposed mill tailings ... as well as along the entire truck haul route along the Dalton Highway to Fairbanks.⁵⁵

... [F]ugitive dust from heavy metals can travel thousands of feet to several kilometers ... This can result in increased or complete loss of lichen and moss ...⁵⁶

The loss or alteration of rare or high-value wetland types ... could degrade and reduce them from the area. These projects would also result in loss and alteration of tundra types, which are uncommon in the project area ... Some of these impacts to wetlands and vegetation would be permanent, forever changing the project area. As such, the impact on vegetation and wetlands ... is expected to have substantial cumulative and long-term impacts to wetlands and vegetation, including rare plants and ecosystems.⁵⁷

Heavy metal dust can persist in the soil for many decades ... resulting in adverse impacts to the surrounding vegetation and habitat.⁵⁸

In addition to damage from toxic dust, the Project and mining activities would harm wetlands, vegetation, and ecosystem services in many ways, such as by causing extensive changes to surface and groundwater resources,⁵⁹ altering natural vegetation types (e.g., destroying lichens, mosses, and tundra types, and replacing boreal forest with perennial grasses, such as blue-joint⁶⁰) and causing other forms of degradation. These changes would make the region vulnerable to increased wildlife frequency and severity and exacerbate climate change-related risks:

The number of wildfires would increase ... More severe wildfires ... could also impact riverine wetlands and aquatic habitats. Vegetation composition in the area is driven by wildfire and would be greatly impacted by the compounding effects of changes to the natural fire regime from developments and climate change. Tundra vegetation types, including Alpine and Arctic Tussock Tundra and Alpine Dwarf Shrub Tundra, are less common in the project area and as such may have the greatest impacts from cumulative effects of changes to wildfire ecology.

Mitigation measures ... would not eliminate wildfire changes ...⁶¹

⁵⁵ Draft EIS, at H-41. See Draft EIS, at H-40 (“... mining would result in ... fugitive dust from heavy metals and accessory roads”).

⁵⁶ Draft EIS, at H-41.

⁵⁷ Draft EIS, at H-40 to H-42 (emphasis added).

⁵⁸ Draft EIS, at H-41 (emphasis added).

⁵⁹ See Draft EIS, at H-40.

⁶⁰ See Draft EIS, at 3-40.

⁶¹ Draft EIS, at H-42 to H-44 (emphasis added).

D. SUBSISTENCE

As a result of the damage to wildlife and habitat described above, as well as other factors, the Project and associated mining activities would harm traditional Alaska Native subsistence culture in many communities. For generations, communities in the region have “remained stable and resilient through a mixed economy that revolves around subsistence hunting and harvesting.”⁶² The Project would “introduce a large industrial road corridor into an area that was previously undeveloped” and, under any of the alternatives, the subsistence resource areas of at least 12 communities would be adversely affected.⁶³ The impacts would include declines in resource abundance and availability, reduced access and harvesting opportunities, disruption of sharing networks, social cohesion, transmission of knowledge to future generations, and spiritual, cultural, and physical well-being.

The Draft EIS readily admits that resource abundance and availability will decline:

... [T]he construction and operation of the proposed road, together with the mining development that the road would support, is expected to result in a reduction in subsistence resource abundance and availability.⁶⁴

The Ambler Road would introduce impacts to resource abundance and resource availability for key resources such as sheefish, whitefish, salmon, and caribou ...⁶⁵

The Ambler Road will facilitate additional mining and other development throughout the study region, which will contribute to impacts on subsistence resource abundance, resource availability, ...⁶⁶

Similarly, the Draft EIS recognizes that the Project and mining activities will reduce traditional access and harvesting opportunities:

The cumulative impacts to subsistence ... could result in reduced harvesting opportunities for local residents and alterations in subsistence harvesting patterns.⁶⁷

The Ambler Road would ... reduc[e] ... access to traditional harvesting areas.⁶⁸

⁶² Draft EIS, at H-74.

⁶³ Draft EIS, at H-73.

⁶⁴ Draft EIS, at H-71 (emphasis added).

⁶⁵ Draft EIS, at H-73 (emphasis added).

⁶⁶ Draft EIS, at H-73.

⁶⁷ Draft EIS, at H-72. See Draft EIS, at H-75.

⁶⁸ Draft EIS, at H-73.

The Ambler Road will facilitate additional mining and other development throughout the study region, which will contribute to impacts on ... user access for subsistence users across the region.⁶⁹

Mining development will result in the physical removal of traditional subsistence hunting and harvesting areas ... in addition to decreased access to these areas ... The overall area available for subsistence use will likely shrink over time due to the increasing presence of infrastructure and human activity within traditional use areas.⁷⁰

[The Ambler Road] will likely alter subsistence harvesting patterns across the region and affect overall subsistence harvests for certain communities.⁷¹

Ultimately, it is clear that the impacts of the Project and mining activities on wildlife, habitat, and subsistence will undermine the basic pillars of Alaska Native community life in at least a dozen communities, including sharing networks, social cohesion, transmission of knowledge to future generations, spiritual, cultural, and physical well-being:

Over time ... decreased harvesting opportunities could result in an overall decrease in subsistence harvests among the study communities.⁷²

Decreased harvests among the study communities could have wide-ranging effects due to the potential impacts on sharing networks within the region in addition to networks that extend to other regions ... Sharing is a key value across the study region that is central to subsistence. Decreased harvests could disrupt existing sharing networks to other communities and regions if residents are unable to share as widely or frequently as they are accustomed.⁷³

There would also be fewer opportunities for residents to participate in the distribution and consumption of subsistence resources, ultimately affecting the social cohesion of the community.⁷⁴

Any changes to residents' ability to participate in subsistence activities, harvest subsistence resources in traditional places at the appropriate times, and consume subsistence foods could have long-term or permanent effects on the spiritual, cultural, and physical well-being of the study communities by diminishing social ties that are

⁶⁹ Draft EIS, at H-73.

⁷⁰ Draft EIS, at H-73 (emphasis added).

⁷¹ Draft EIS, at H-75 (emphasis added).

⁷² Draft EIS, at H-75 (emphasis added).

⁷³ Draft EIS, at H-75 (emphasis added).

⁷⁴ Draft EIS, at H-76 (emphasis added).

strengthened through harvesting, processing, and distributing subsistence resources, and by weakening overall community well-being.⁷⁵

When subsistence users' opportunities to engage in subsistence activities are limited, then their opportunities to transmit knowledge about those activities, which are learned through participation, are also limited. If residents stop using portions of the project area for subsistence purposes ... the opportunity to transmit traditional knowledge to younger generations about those traditional use areas would be diminished. ... [T]he loss of direct use of the land could lead to reduced knowledge among the younger generation of place names, stories, and traditional ecological knowledge associated with those areas.⁷⁶

... [D]isruptions to subsistence ties could come with high costs to social, cultural, and economic well-being, particularly to the more vulnerable low income, unconnected, and low-harvest households ...⁷⁷

... [P]otential adverse public health impacts ... such as a possible increase in the number of food-insecure households and increases in psychosocial stress at either a household or individual level, may be related to decreased access to subsistence resources.⁷⁸

E. SOCIAL COHESION & HEALTH

The Project and mining activity would have similarly destructive impacts on social cohesion and public health in local communities. "After more than 40 years of study in various locations, the potential social and health impacts arising from rapid natural resource development are widely recognized."⁷⁹ Experience with large extractive developments "clearly indicates" that local communities near the Project and mining activity "will likely experience one or more major boom and bust cycles over the course of mining development," and within these cycles, adverse impacts are "likely over short- and long-term timeframes."⁸⁰ Because of the subsistence impacts discussed above, the Project and mining activity are expected to lead to reduced food security, greater reliance on processed/commercial foods, and decreased access to as well as decreased quantity and quality of subsistence resources. These changes in subsistence can have "numerous cascading health effects on psychosocial wellbeing, community cohesion, and long-term non-communicable disease rates."⁸¹

⁷⁵ Draft EIS, at H-76 (emphasis added).

⁷⁶ Draft EIS, at H-75 to H-76 (emphasis added).

⁷⁷ Draft EIS, at H-75 (emphasis added).

⁷⁸ Draft EIS, at H-72.

⁷⁹ HIA, at 4.

⁸⁰ HIA, at 109.

⁸¹ HIA, at 3 (emphasis added).

The following are a few of the most severe consequences recognized in the HIA accompanying the Draft EIS. All are given high rankings for the level of impact with respect to road construction and/or mining:

Substance Abuse: “Boom and bust is typically associated with marked changes in substance abuse use ...”⁸² “Increases in substance abuse due to greater distribution of alcohol and tobacco products are a possibility and concern.”⁸³

Domestic Violence & Suicide: “Changes in intimate partner violence and suicide rates could worsen ...”⁸⁴

Psychosocial Stress: “Increases in psychosocial stress ... at either a household or individual level are possible.”⁸⁵ “Psychosocial effects can have consequences that persist well after road construction completion.”⁸⁶

Accidents & Injuries: “Additional interaction between community members and construction vehicles could result in additional accidents and injuries.”⁸⁷ “Experience with major extractive industry projects in generally remote rural settings indicates that a rise in [accidental injuries] should be anticipated.”⁸⁸

Exposure to Asbestos & Other Hazardous Materials: “Road construction could increase distribution and consequent exposure to [asbestos] materials. The experience with [asbestos] in the general Ambler area is well documented ...”⁸⁹ “Increases in accidental releases ... could impact land and water resources.”⁹⁰ “Community members believe that future mining activities ... will result in significant release of toxic metals to local soils and rivers, resulting in flora and fauna uptake with adverse health impacts. In recent major U.S. extractive industry projects ... there have been numerous issues raised regarding hazardous materials impacts and exposures ...”⁹¹

Diabetes, Cancer, Respiratory & Heart Disease: “Impacts on the overall quantity of subsistence harvesting can have cascading effects on long-term non-communicable disease rates, such as diabetes.”⁹² “Changes in diet ... in addition to impacts on per capita subsistence

⁸² HIA, at 3.

⁸³ HIA, at 4.

⁸⁴ HIA, at 4.

⁸⁵ HIA, at 4.

⁸⁶ HIA, at 107.

⁸⁷ HIA, at 107.

⁸⁸ HIA, at 109.

⁸⁹ HIA, at 3.

⁹⁰ HIA, at 3.

⁹¹ HIA, at 5.

⁹² HIA, at 5.

are associated with long-term increases in [disease] rates, particularly cardiovascular/stroke.”⁹³ The Project and mining activity are expected to result in an “[i]ncrease in cancer, respiratory, and cardiovascular” illness and death rates.⁹⁴

Other Diseases: Increases in sexually-transmitted infections, including gonorrhea, chlamydia, Hepatitis C, and HIV are often associated with the “boom and bust” cycle.⁹⁵ “Increases in vaccine preventable diseases are possible in association with large construction work camps.”⁹⁶

III. CONTRAVENTION OF LEGAL DUTIES

Under these circumstances, authorization from BLM, NPS, or other federal agencies for any of the Project alternatives would violate multiple federal laws that set protective substantive standards.

The Draft EIS is intended to serve as the basis for multiple federal agency authorizations, including BLM’s decision on whether to issue a right-of-way allowing the Proposed Ambler Road Project to cross BLM-managed lands.⁹⁷ The first two route alternatives would traverse about 25 miles of BLM lands, while the third alternative would traverse about 274 miles of BLM lands.⁹⁸ The BLM is not the only agency relying on the Draft EIS though. It is also meant to “serve[] as the basis for decisions that other federal agencies must make, such as issuance of a permit for fill in wetlands and waters of the United States by the U.S. Army Corps of Engineers (USACE), and issuance of bridge permits by the U.S. Coast Guard (USCG) for bridges over navigable waterways.”⁹⁹ NPS is not required to comply with NEPA in its decision-making, but the two alternatives it considered as part of the EEA process are identical to the first two alternatives described in the Draft EIS, and NPS has served as a “participating agency” in the BLM-led process.

Given the magnitude and extent of the harm that is expected to occur to wildlife, habitat, and subsistence as a result of the Project and mining activities, a federal decision authorizing any of the action alternatives described in the Draft EIS and Draft EEA will violate numerous federal laws, including but not limited to ANILCA, NPS management standards, FLPMA, and the Clean Water Act, as well as their implementing regulations. Such decisions would also be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” and “without

⁹³ HIA, at 5.

⁹⁴ HIA, at 104.

⁹⁵ HIA, at 5, 103, 114, 119, 127.

⁹⁶ HIA, at 5.

⁹⁷ See Draft EIS, at ES-1.

⁹⁸ See Draft EIS, at ES-2, 2-8.

⁹⁹ Draft EIS, at ES-1.

observance of procedure required by law” within the meaning of the Administrative Procedure Act.¹⁰⁰

A. VIOLATION OF ANILCA SUBSISTENCE PROVISIONS

Federal authorization of any of the current Project action alternatives would violate the federal agency’s fundamental duty to protect subsistence rights under ANILCA.¹⁰¹

In enacting ANILCA, Congress found that the “continuation of the opportunity for subsistence uses ... is essential to Native physical, economic, traditional, and cultural existence,” and that “the situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses.”¹⁰² Congress also found that “the national interest in the proper regulation, protection, and conservation of fish and wildlife on the public lands in Alaska and the continuation of the opportunity for a subsistence way of life ... require that an administrative structure be established for the purpose of enabling rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska.”¹⁰³

Accordingly, Congress invoked its constitutional authority to “protect and provide the opportunity for continued subsistence uses on the public lands.”¹⁰⁴ More specifically, Congress declared it to be federal policy that the “utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands” and “provide the opportunity for rural residents engaged in a subsistence way of life to do so.”¹⁰⁵ Toward that end, ANILCA establishes a mandatory subsistence priority by providing that “the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes.”¹⁰⁶

ANILCA also requires federal agencies to incorporate the subsistence priority into their land use planning and decision-making processes. When “determining whether to ... permit the use, occupancy, or disposition of public lands,” the relevant federal agency “shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence

¹⁰⁰ 5 U.S.C. § 706(2)(A),(D).

¹⁰¹ See 16 U.S.C. § 3101 *et seq.*

¹⁰² 16 U.S.C. § 3111(1)-(2).

¹⁰³ 16 U.S.C. § 3111(5).

¹⁰⁴ 16 U.S.C. § 3111(4).

¹⁰⁵ 16 U.S.C. § 3112(1). See *id.* § 3101(c).

¹⁰⁶ 16 U.S.C. § 3114. See *id.* § 3112(2).

purposes.”¹⁰⁷ In doing so, the agency must consider indirect and cumulative impacts. A federal agency is prohibited from making any decision to authorize a “use, occupancy, or disposition of public lands” that would “significantly restrict subsistence uses” unless and until it has given notice, held public hearings in affected communities, and determined that the proposed restriction on subsistence uses (1) “is necessary, consistent with sound management principles for the utilization of the public lands,” (2) “will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition,” and (3) “reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.”¹⁰⁸ Where the Secretary of the Interior, or his designee, is required to prepare an EIS, “he shall provide the notice and hearing and include the findings” listed above “as part of” the EIS.¹⁰⁹ Only after a federal agency makes these findings is it authorized to “manage or dispose of public lands” under its jurisdiction for other uses and purposes.¹¹⁰

In light of the grave consequences to wildlife, habitat, and subsistence described above, authorization of any of the current Project action alternatives would violate the federal government’s duty to give subsistence a priority over other uses. Furthermore, neither BLM nor the other agencies involved could legitimately make the ANILCA 810(a)(3) determinations listed above.¹¹¹ Achieving compliance with ANILCA’s subsistence protections would require a fundamental redesign of the alternatives,¹¹² as well as a detailed specification of the mitigation measures that will apply to the Project and a robust analysis of their effectiveness in effectuating the subsistence priority and satisfying the 810(a)(3) standards. These changes would, in turn, require the reinitiation of Tribal consultation and the issuance of a Revised Draft EIS for public comment. Even with these additional steps, it will likely be impossible to comply with ANILCA unless a mining plan and road project are considered in tandem, with sufficiently protective alternatives and mitigation measures put in place for both.¹¹³

B. VIOLATION OF FLPMA PUBLIC LAND MANAGEMENT STANDARDS

In addition to ANILCA, BLM decision-making must comply with the Federal Land Management Policy Act (“FLPMA”), which provides that the Secretary of the Interior, or his designee, “shall, in managing the public lands, take any action necessary to prevent unnecessary or undue degradation of the lands.”¹¹⁴ Given the colossal impacts on wildlife, habitat, and subsistence described above, BLM’s authorization of any of the three Project alternatives described in the

¹⁰⁷ 16 U.S.C. § 3120(a).

¹⁰⁸ 16 U.S.C. § 3120(a), (a)(1)-(3).

¹⁰⁹ 16 U.S.C. § 3120(b).

¹¹⁰ 16 U.S.C. § 3120(d).

¹¹¹ See 16 U.S.C. § 3120(a)(1)-(3).

¹¹² See Part VI *infra*.

¹¹³ See Part V *infra*.

¹¹⁴ 43 U.S.C. § 1732(b).

Draft EIS will allow “unnecessary” and “undue degradation” of public lands and will thus be unlawful. Achieving compliance with FLPMA’s public land management standards would require a fundamental redesign of the alternatives,¹¹⁵ as well as a detailed specification of the mitigation measures that will apply to the Project and a robust analysis of their effectiveness in effectuating the subsistence priority and satisfying the 810(a)(3) standards.¹¹⁶ These changes would, in turn, require the reinitiation of Tribal consultation and the issuance of a Revised Draft EIS for public comment. Even with these additional steps, it will likely be impossible to comply with FLPMA unless a mining plan and road project are considered in tandem, with sufficiently protective alternatives and mitigation measures put in place for both.¹¹⁷

C. VIOLATION OF ANILCA GAAR PROVISIONS & NPS MANAGEMENT STANDARDS

ANILCA and other statutes governing NPS decision-making establish basic management standards for NPS System units in Alaska, including GAAR. The fact that NPS is authorized to allow a surface transportation access route across GAAR does not preclude the applicability of such standards. NPS approval of the Project as currently proposed would violate these standards.

Congress enacted ANILCA to “preserve for the benefit, use, education and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values.”¹¹⁸ In doing so, Congress’s intent was to “preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.”¹¹⁹

In establishing GAAR and other NPS System units, Congress provided that they “shall be administered ... under the laws governing the administration of such lands,” as well as the provisions of ANILCA,¹²⁰ and that they “shall be managed” to “maintain the wild and undeveloped character of the area” and “protect habitat for and the populations of, fish and

¹¹⁵ See Part VI *infra*.

¹¹⁶ See Part VIII *infra*.

¹¹⁷ See Parts V, VI, and VIII *infra*.

¹¹⁸ 16 U.S.C. § 3101(a).

¹¹⁹ 16 U.S.C. § 3101(b).

¹²⁰ 16 U.S.C. § 410hh.

wildlife, including, but not limited to, caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds.”¹²¹ Congress also affirmed that “[s]ubsistence uses by local residents shall be permitted in the park, where such uses are traditional, in accordance with the provisions of title VIII.”¹²²

Congress authorized surface transportation access “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),” but mandated that the Secretary, or his designee, “shall permit such access in accordance with the provisions of this subsection,” i.e., complying with the management standards listed above.¹²³ Congress further specified that any such “right-of-way shall be issued in accordance with the provisions of section 1107 of this Act.”¹²⁴

Under Section 1107, the Secretary, or his designee, “shall include in any right-of-way issued pursuant to an application under this title, terms and conditions which shall include, but not be limited to—(1) requirements to insure that, to the maximum extent feasible the right-of-way is used in a manner compatible with the purposes for which the affected conservation system unit, national recreation area, or national conservation area was established or is managed; (2) requirements for restoration, revegetation, and curtailment of erosion of the surface of the land; (3) requirements to insure that activities in connection with the right-of-way will not violate applicable air and water quality standards and related facility siting standards established pursuant to law; (4) requirements, including the minimum necessary width, designed to control or prevent—(A) damage to the environment (including damage to fish and wildlife habitat); (B) damage to public or private property; and (C) hazards to public health and safety; (5) requirements to protect the interests of individuals living in the general area of the right-of-way who rely on the fish, wildlife and biotic resources of the area for subsistence purposes; and (6) requirements to employ measures to avoid or minimize adverse environmental, social or economic impacts.”¹²⁵ Additionally, any transportation or utility system which “occupies, uses, or traverses any area within the boundaries of a unit of the National Wild and Scenic Rivers System shall be subject to such conditions as may be necessary to assure that the stream flow of, and transportation on, such river are not interfered with or impeded, and that the transportation or utility system is located and constructed in an environmentally sound manner.”¹²⁶

Alongside ANILCA, NPS decision-making generally “shall promote and regulate the use of the National Park System by means and measures that conform to the fundamental purpose of the System units, which purpose is to conserve the scenery, natural and historic objects, and wild

¹²¹ 16 U.S.C. § 410hh(4)(a).

¹²² 16 U.S.C. § 410hh(4)(a).

¹²³ 16 U.S.C. § 410hh(4)(b) (emphasis added).

¹²⁴ 16 U.S.C. § 410hh(4)(e) (emphasis added).

¹²⁵ 16 U.S.C. § 3167(a).

¹²⁶ 16 U.S.C. § 3167(b).

life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”¹²⁷ Moreover, authorization of activities in NPS System units “shall be construed and the protection, management, and administration of the System units shall be conducted in light of the high public value and integrity of the System and shall not be exercised in derogation of the values and purposes for which the System units have been established, except as directly and specifically provided by Congress.”¹²⁸

The serious consequences to wildlife, habitat, and subsistence described above indicate NPS’s authorization of either of the two proposed alternatives traversing GAAR are likely to violate some or all of the standards listed above. The NPS EEA does include a more specific listing of terms, conditions, and mitigation measures, as compared to the Draft EIS. Nevertheless, these mitigation measures are expressed largely as “objectives” because the available information is inadequate to inform more specific terms and conditions. As a result, they rely heavily on future consultations and data-gathering by and between AIDEA, NPS, and the U.S. Department of Transportation. The granting of a right-of-way should be postponed until the project is more developed and impacts are better understood so that NPS will have a legitimate basis for determining that the above-listed standards can and will be met before a final decision is made. The NPS’s apparent approval-first-mitigate-later approach inherently incurs the risk that it will be approving a Project that cannot be mitigated sufficiently to ensure compliance with the applicable statutory and regulatory standards.

More generally, NPS decision-making is impeded by (1) its focus solely on the Proposed Ambler Road, (2) its decision not to consider mining-related impacts, secondary access roads, and other related activities, (3) its blindered analysis considering only project elements and impacts directly within the NPS boundaries (largely ignoring cross-boundary impacts on wildlife, habitat, water resources, subsistence, and other receptors from other segments of the Project and related mining activities), (4) the fact that the Project is in a very early stage of development and lacks specifics regarding project elements and designs, (5) the lack of information regarding key project parameters (e.g., water withdrawal, route alignment, location of support facilities), and (6) many enormous data gaps regarding the affected environment and consequences that pose significant impacts.

Under these circumstances, the issuance of a right-of-way through GAAR by NPS would violate statutory standards listed above. NPS should postpone issuing a right-of-way or other approval for surface transportation access until the Project advances to a design phase that provides more thorough data to evaluate the potential impacts in light of the NPS mission. Achieving compliance with ANILCA and other NPS managements standards would require a fundamental redesign of the alternatives,¹²⁹ as well as a more detailed specification of the mitigation

¹²⁷ 54 U.S.C. § 100101(a).

¹²⁸ 54 U.S.C. § 100101(b).

¹²⁹ See Part VI *infra*.

measures that will apply to the Project and a robust analysis of their effectiveness, including how they will be monitored and how adaptive management plans that include the people and communities most adversely affected will be incorporated.¹³⁰ Even with these additional steps, it will likely be impossible to comply with applicable standards unless a mining plan and road project are considered in tandem, with sufficiently protective alternatives and mitigation measures put in place for both.¹³¹

D. VIOLATION OF THE CLEAN WATER ACT, EPA 404(B)(1) GUIDELINES, & CORPS REGULATIONS

Corps permitting for the Project will be a massive undertaking in light of the thousands of stream and river crossings involved and the many thousands of acres of wetlands that will be destroyed.¹³² The Draft EIS is nowhere near sufficient to serve as the basis for any such decision. The Project is in the early stages of development, and the Draft EIS suffers from major data gaps and an overly generalized discussion of impacts.¹³³ Moreover, the Draft EIS recognizes that the Project and mining activity will lead to the severe and unmitigated impacts described above, which would violate applicable permitting standards, even if a robust monitoring program is implemented.

The Clean Water Act and implementing EPA and Corps regulations dictate the circumstances under which the Corps may permit discharges of dredged or fill material into wetlands or other waters.¹³⁴ Under EPA's Section 404(b)(1) Guidelines, a permit cannot be issued where "there is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem," known as the LEDPA requirement.¹³⁵ Where a project is not water-dependent (e.g., not a marina), "practicable alternatives that do not involve special aquatic sites are presumed to be available unless clearly demonstrated otherwise."¹³⁶ Moreover, where a discharge is proposed for a special aquatic site, "all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise."¹³⁷ "Special aquatic sites" include wetlands, along with mud flats, vegetated shallows, sanctuaries,

¹³⁰ See Part VIII *infra*.

¹³¹ See Part V *infra*.

¹³² See Draft EIS, at ES-5, 3-25 to 3-26, E-12 to E-14. See Draft EIS, at ES-1 ("The EIS also serves as the basis for decisions that other federal agencies must make, such as issuance of a permit for fill in wetlands and waters of the United States by the U.S. Army Corps of Engineers (USACE), and issuance of bridge permits by the U.S. Coast Guard (USCG) for bridges over navigable waterways. The USACE, USCG, and Environmental Protection Agency are federal cooperating agencies for the EIS.").

¹³³ See Part VII *infra*.

¹³⁴ See 33 U.S.C. §§ 1311(a), 1344; 40 C.F.R. part 230.

¹³⁵ 40 C.F.R. § 230.10(a).

¹³⁶ 40 C.F.R. § 230.10(a)(3).

¹³⁷ 40 C.F.R. § 230.10(a)(3).

refuges, and other areas.¹³⁸ NEPA documents supporting a 404 permitting decision must consider alternatives in “sufficient detail to respond to the requirements of these Guidelines.”¹³⁹

The Guidelines also prohibit issuance of a 404 permit where the discharge will (1) cause or contribute to the violation of any applicable State water quality standard; (2) violate any toxic effluent standard or prohibition under the Clean Water Act; or (3) cause or contribute to significant degradation of water or wetlands.¹⁴⁰ Effects contributing to “significant degradation” include effects that are significantly adverse, individually or collectively, on (1) human health or welfare, including effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites; (2) life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes; (3) aquatic ecosystem diversity, productivity, and stability, including loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; and (4) recreational, aesthetic, and economic values.¹⁴¹

Determining compliance with the Guidelines requires a series of detailed factual determinations and written findings concerning the short-term and long-term effects of each proposed discharge in relation to numerous topics, including physical substrate, water circulation, fluctuation, and salinity, suspended particulates/turbidity, contaminants, aquatic ecosystems and organisms, proposed disposal sites, cumulative effects on the aquatic ecosystem, and secondary effects on the aquatic ecosystem.¹⁴² “Cumulative effects” are “changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material.”¹⁴³ “Secondary effects” are those “associated with the discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.”¹⁴⁴ Some examples of the cumulative and secondary effects for which factual determinations must be made include: (1) elimination of streams and wetlands; (2) dewatering of streams and other aquatic resources; (3) fragmentation of aquatic resources; (4) degradation of downstream fish habitat due to streamflow alterations; (5) degradation of downstream fish habitat due to water quality impacts; (6) degradation of downstream fish habitat due to the loss of important inputs, such as nutrients and groundwater from upstream sources; and (7) degradation of aquatic resources due to dust deposition.

¹³⁸ 40 C.F.R. § 230.3(m) and subpart E.

¹³⁹ 40 C.F.R. § 230.10(a)(4).

¹⁴⁰ See 40 C.F.R. § 230.10(b)-(c); 33 U.S.C. § 1317 (standards for toxics).

¹⁴¹ See 40 C.F.R. § 230.10(c).

¹⁴² 40 C.F.R. §§ 230.11, 230.12.

¹⁴³ 40 C.F.R. § 230.11(g).

¹⁴⁴ 40 C.F.R. § 230.11(h)(1).

Corps permitting will also require complex determinations relating to mitigation. A 404 permit cannot be issued unless and until steps have been taken to “minimize potential adverse impacts of the discharge on the aquatic ecosystem.”¹⁴⁵ A three-step process guides mitigation decisions and determines the type and level of mitigation required:¹⁴⁶

Step 1. Avoidance - Adverse impacts to aquatic resources are to be avoided and no discharge shall be permitted if there is a practicable alternative with less adverse impact.

Step 2. Minimization - If impacts cannot be avoided, appropriate and practicable steps to minimize adverse impacts must be taken.

Step 3. Compensatory Mitigation - Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain. The amount and quality of compensatory mitigation may not substitute for avoiding and minimizing impacts.

When mitigation is required to offset unavoidable impacts, “the amount of required mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions.”¹⁴⁷

The Corps must also conduct a public interest review prior to any 404 permitting decision, which must be based on an “evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest” and a “a careful weighing of all those factors which become relevant in each particular case.”¹⁴⁸ Factors which may be relevant and, if so, must be considered, include “conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.”¹⁴⁹

The following criteria must also be considered: “(i) [t]he relative extent of the public and private need for the proposed structure or work; (ii) [w]here there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and (iii) [t]he extent and

¹⁴⁵ 40 C.F.R. § 230.10(d). See 40 C.F.R. subpart H.

¹⁴⁶ See EPA, Types of Mitigation Under CWA Section 404: Avoidance, Minimization, and Compensatory Mitigation, <https://www.epa.gov/cwa-404/cwa-section-404-mitigation>.

¹⁴⁷ 33 C.F.R. § 332.3(f)(1).

¹⁴⁸ 33 C.F.R. § 320.4, 320.4(a)(1).

¹⁴⁹ 33 C.F.R. § 320.4(a)(1). See generally 33 C.F.R. § 320.4.

permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited.”¹⁵⁰

The Draft EIS is insufficient to support a LEDPA determination or demonstrate compliance with the 404(b)(1) Guidelines. It also fails to provide a detailed specification of applicable mitigation, much less mitigation sufficient to comply with Clean Water Act requirements.¹⁵¹ The Draft EIS is likewise inadequate to serve as the basis for the required public interest review and determination as to whether the Project will be in the public interest. Based on the near universal opposition to the Project by affected communities, the public interest review needs to weigh heavily on the comments provided by those communities. For all these reasons, any Corps permitting decision relying on the Draft EIS would violate the Clean Water Act as well as EPA and Corps implementing regulations. Achieving compliance with Clean Water Act requirements would require a fundamental redesign of the alternatives, as well as a detailed specification of the mitigation measures that will apply to the Project and a thorough analysis of their effectiveness.¹⁵² These changes would, in turn, require the reinitiation of Tribal consultation and the issuance of a Revised Draft EIS for public comment. Even with these additional steps, it will likely be impossible to comply with the Clean Water Act unless a mining plan and road project are considered in tandem, with sufficiently protective alternatives and mitigation measures put in place for both.¹⁵³

IV. FAILURE TO DEMONSTRATE PROJECT PURPOSE, FEASIBILITY, & COST

The purpose and need, feasibility, and cost associated with the Project have not been demonstrated publicly to the degree necessary to justify the issuance of a right-of-way through federal lands or other agency approval.

AIDEA is estimating roughly \$500 million to \$1 billion for construction, plus \$10 to \$15 million annually for maintenance, and a roughly similar cost for remediation and reclamation. The true costs of a project of this scale in a remote roadless region with thousands of water crossings, permafrost and other complex terrestrial conditions, and long transportation distances for materials and labor are yet unknown. AIDEA has indicated that the Project will be financed through user fees levied on the mining companies, but it has yet to submit information demonstrating the feasibility of this approach publicly. AIDEA is relying on the DeLong Mountain Transportation System as a success story, but the Ambler Road Project would be far more costly and financially risky for many reasons, including its far greater length, more challenging terrain, remote inland location, number of water crossings, and lack of any mining company proposing to finance the road construction, operation, and maintenance costs. Although AIDEA contends its finances are entirely separate from general State funds, a major financial failure could still adversely affect the State, such as through lost investment

¹⁵⁰ 33 C.F.R. § 320.4(a)(2).

¹⁵¹ See Part VIII *infra*.

¹⁵² See Parts VI and VIII *infra*.

¹⁵³ See Part V *infra*.

opportunities and declining credit ratings. The potential of these scenarios, as well as the alternative of direct mining company financing for the Project, must be fully analyzed in a Revised Draft EIS.¹⁵⁴

Indeed, the federal review process for the Project begs for a broader understanding of a long-term mining outlook and feasibility in capital markets that would provide risk assessments on the success of the Project. Without a measure of whether the Ambler Mining District is capable of providing ore at a sufficient rate to fulfill the toll expectation that would pay for the road, the entire NEPA process for the Ambler Road is dubious. Given the lack of substantive data on the precious metal markets and long-term mining plan, the Draft EIS should include an evaluation of the scenario in which the Ambler Road is completed but there is no subsequent mining development to reimburse AIDEA.

It is TCC's understanding that the comments of The Wilderness Society and The Wildlife Society-Alaska Chapter, as well as the comments submitted by Trustees for Alaska (on behalf of multiple entities), address this issue in more detail. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations. TCC is also including as Exhibits comments written by the Great Lakes Indian Fish and Wildlife Commission raising similar issues in connection with another speculative, unjustified, and risky industrial haul road project.¹⁵⁵

V. IMPROPER SEGMENTATION OF PROJECT

BLM has improperly segmented the Project by considering the industrial access road as a stand-alone project, when its fundamental purpose is the development of the Ambler Mining District. In the absence of any mining development proposal, the Project does not have sufficient independent utility to justify the cost and impacts of construction, and its impacts must be evaluated in combination with mining development.

“[A]nalysis of cumulative impacts must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment. ... Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide.”¹⁵⁶ Furthermore, a cumulative impact analysis must provide a “useful analysis” that includes a detailed and quantified evaluation of cumulative impacts to allow for informed decision-making and public disclosure.¹⁵⁷ The NEPA requirement

¹⁵⁴ See 40 C.F.R. § 1508.8 (requiring an EIS to analyze the direct, indirect, and cumulative “economic” effects of a proposed action).

¹⁵⁵ See Exhibits 45 and 46.

¹⁵⁶ *Te-Moak Tribe v. U.S. Dept. Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (internal quotation omitted).

¹⁵⁷ *Kern v. U.S. Bureau Land Mgmt.*, 284 F.3d 1062, 1075 (9th Cir. 2002); *Ocean Advocs. v. U.S. Army Corps Eng's*, 361 F.3d 1108, 1128 (9th Cir. 2004).

to analyze cumulative impacts prevents agencies from undertaking a piecemeal review of environmental impacts.

An agency preparing an EIS “may not ‘segment’ its analysis so as to conceal the environmental significance of the project or projects.”¹⁵⁸ In determining the proper scope of an EIS, an agency is required to consider more than one action in a single EIS if they are “connected actions,” “cumulative actions,” or “similar actions.”¹⁵⁹ Actions are connected if they: (i) “[a]utomatically trigger other actions which may require environmental impact statements;” (ii) “[c]annot or will not proceed unless other actions are taken previously or simultaneously;” or (iii) “[a]re interdependent parts of a larger action and depend on the larger action for their justification.”¹⁶⁰ Cumulative actions are those which, “when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.”¹⁶¹ Similar actions are those which, “when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.”¹⁶²

A number of courts have found that an environmental analysis is flawed for failing to consider connected actions in a single EIS.¹⁶³ Courts generally apply an “independent utility” test to determine “whether multiple actions are so connected as to mandate consideration in a single EIS.”¹⁶⁴ The “crux of the test is whether each of the two projects would have taken place with or without the other and thus had independent utility.”¹⁶⁵ Segmentation of connected projects in order to circumvent or impede full NEPA review is unlawful.¹⁶⁶ Moreover, a finding of independent utility cannot be based on representations made by the project proponent alone. Instead, an “independent evaluation by the agency based on record evidence” is required.¹⁶⁷ Evidence of intent also informs the connected action analysis. Improper segmentation has been found when a project’s history showed that it “was never intended to stand alone.”¹⁶⁸ Similarly, when a proposed project is merely the first phase of broader plans, future phases are clearly connected actions.¹⁶⁹ Courts also require a single EIS where a project would be “irrational” or “unwise” without the development of subsequent phases due to the level of

¹⁵⁸ *Hammond v. Norton*, 370 F. Supp. 2d 226, 244 (D.D.C. 2005) (internal quotation omitted).

¹⁵⁹ 40 C.F.R. § 1508.25(a).

¹⁶⁰ 40 C.F.R. § 1508.25(a)(1).

¹⁶¹ 40 C.F.R. § 1508.25(a)(2).

¹⁶² 40 C.F.R. § 1508.25(a)(3).

¹⁶³ See, e.g., *Nat’l Wildlife Fed’n v. Nat’l Marine Fishs. Serv.*, 184 F. Supp. 3d 861, 939-44 (D. Or. 2016).

¹⁶⁴ *Sierra Club v. U.S. Bureau Land Mgmt.*, 786 F.3d 1219, 1226 (9th Cir. 2015).

¹⁶⁵ *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969 (9th Cir. 2006).

¹⁶⁶ *Hammond*, 370 F. Supp.2d at 243-44.

¹⁶⁷ *Florida Wildlife Fed’n v. U.S. Army Corps Eng’s*, 401 F. Supp.2d 1298, 1323 (S.D. Fla. 2005).

¹⁶⁸ *Florida Wildlife*, 401 F. Supp. 2d at 1318.

¹⁶⁹ See *Cady v. Morton*, 527 F.2d 786, 794-95 (9th Cir. 1975); *Bragg v. Robertson*, 54 F. Supp. 2d 635, 649-51 (S.D. W.V. 1999).

capital investment, contractual commitments, or other factors.¹⁷⁰ Another important factor is whether the proposed action will render a subsequent project a “*fait accompli*” or otherwise tie the agency’s hands.¹⁷¹

It is indisputable that the Proposed Ambler Road Project under consideration in the Draft EIS is deeply connected with the development of the Ambler Mining District. Indeed, the stated purposes of the Project are to “support mineral resource exploration and development in the District” and “provide surface transportation access to the District and allow for expanded exploration, mine development, and mine operations at mineral prospects throughout the District.”¹⁷² Furthermore, the Project involves such a significant dedication of resources and commitment of infrastructure that it virtually forces federal agencies to later approve mining projects. And in subsequent permitting processes for mining in the Ambler District, the proponents would assert the economic importance of allowing continued operations and development because of the major investment already made in constructing the industrial access road. The Project and the mining activity it would enable are therefore connected actions, cumulative actions, and/or similar actions under the legal standards set forth above. BLM must postpone its decision-making process until a viable mining plan, industrial access road, associated impacts, and mitigation measures can be evaluated together in a single Revised Draft EIS.

It is TCC’s understanding that the comments of The Wildlife Society-Alaska Chapter and the comments submitted by Trustees for Alaska (on behalf of multiple entities) address improper segmentation in more detail. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations.

VI. FAILURE TO CONSIDER A REASONABLE RANGE OF ALTERNATIVES

The three action alternatives considered in the Draft EIS only differ with respect to one variable—the route—and all of the variations in impacts flow from the differences in the route.¹⁷³ The three Project routing alternatives do not constitute a reasonable range of alternatives under NEPA, and it does not satisfy the alternative consideration requirements of ANILCA, the Clean Water Act, or the National Historic Preservation Act (“NHPA”).¹⁷⁴ BLM must prepare a Revised Draft EIS with alternatives that vary with respect to additional criteria. Additionally, as discussed during the scoping period, BLM must evaluate one or more

¹⁷⁰ *Cady*, 527 F.2d at 795.

¹⁷¹ *Bragg*, 54 F. Supp.2d at 649.

¹⁷² Draft EIS, at ES-2, 1-3.

¹⁷³ Alternative A is an east-west route from the Dalton Highway to the Ambler Mining District, with a northern path through GAAR. Alternative B is an east-west route from the Highway to the District, with a southern path through GAAR. Alternative C is a diagonal route starting from a more southerly position on the Highway and traveling in a northwesterly direction to the District. See Draft EIS, at 2-3 to 2-4.

¹⁷⁴ 54 U.S.C. § 300101 *et seq.*

transportation corridors west to the Bering Strait. TCC incorporates those comments by reference here. Further, the release of mine plans for the Ambler Mining District would offer substantive information on developing other action alternatives to the three detailed in the Draft EIS.

Under NEPA, an EIS must “[r]igorously explore and objectively evaluate all reasonable alternatives to a given project,”¹⁷⁵ and these must include “reasonable alternatives not within the jurisdiction of the lead agency.”¹⁷⁶ The alternatives requirement is “the heart” of the EIS.¹⁷⁷ The agency must set forth a sufficient range of alternatives to “permit a ‘reasoned choice.’”¹⁷⁸ In other words, the agency “must look at every reasonable alternative within the range dictated by the nature and scope of the proposal,” and the “existence of reasonable but unexamined alternatives renders an EIS inadequate.”¹⁷⁹ The “touchstone” of the inquiry is whether the range of alternatives “fosters informed decision-making and informed public participation.”¹⁸⁰ The Ninth Circuit has deemed EISs to be inadequate where the alternatives are too similar to each other.¹⁸¹ Alternatives “outside the legal jurisdiction of the lead agency” or “outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable.”¹⁸²

Other federal laws require robust evaluation of a sufficient range of alternatives as well. Under ANILCA’s subsistence provisions, a federal agency “shall evaluate the effect” of a proposed action on “subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes.”¹⁸³ The ANILCA provisions pertaining to GAAR require the federal agencies preparing the EEA to consider “[a]lternative routes ... which would result in fewer or less severe adverse impacts upon the preserve,” as well as “measures which should be instituted to avoid or minimize negative impacts and enhance positive impacts.”¹⁸⁴ A 404 permit for dredge-and-fill activities cannot be issued where “there is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem,” and there are strong presumptions in favor of alternatives that do not involve discharges to wetlands or other special aquatic sites.¹⁸⁵ Moreover, NEPA documents supporting a 404 permitting decision must “consider[] the

¹⁷⁵ 40 C.F.R. § 1502.14.

¹⁷⁶ 40 C.F.R. § 1502.14(d).

¹⁷⁷ *Ilioulaokalani Coalition v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006).

¹⁷⁸ *California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982) (internal citation omitted).

¹⁷⁹ *Ilioulaokalani*, 464 F.3d at 1095.

¹⁸⁰ *Block*, 690 F.2d at 767.

¹⁸¹ *See, e.g., Block*, 690 F.2d at 765-69.

¹⁸² CEQ, Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, at 4 (citing 40 CFR 1500.1(a), 1506.2(d)), <https://www.energy.gov/sites/prod/files/2018/06/f53/G-CEQ-40Questions.pdf>.

¹⁸³ 16 U.S.C. § 3120(a).

¹⁸⁴ 16 U.S.C. § 410hh(4)(d).

¹⁸⁵ 40 C.F.R. § 230.10(a), (a)(3).

alternatives in sufficient detail to respond to the requirements of [EPA’s 404(b)(1)] Guidelines.”¹⁸⁶ The NHPA 106 consultation process similarly requires federal agencies to “develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties.”¹⁸⁷

Contrary to these requirements, BLM has ignored the possibility of varying aspects of the Project other than the route in order to ensure that the agencies are considering all reasonable alternatives. During scoping, commenters urged BLM to consider reasonable alternatives based on variations of features other than the route,¹⁸⁸ but these suggestions did not lead to analysis of a wider range of alternatives in the Draft EIS. The core features of all three alternatives in the Draft EIS are the same, including the following:¹⁸⁹

Proposed Road (2-lane, 32-foot-wide, all-season gravel road);

Supporting Infrastructure (bridges, culverts, road maintenance stations every 50 to 75 miles, vehicle turnouts, material sites, water source access roads, and airstrips);

Road Access (industrial traffic transporting heavy equipment, ore, goods, and supplies in support of mining, along with potential commercial and emergency access; closed to the general public);

Vehicles (semi-trailer trucks hauling mining equipment, ore concentrate, fuel, and other supplies; other vehicles and equipment, such as pickup trucks, road graders, plows, and fuel delivery trucks);

Road Traffic Volumes (estimates ranging from 80 to 168 truck trips per day);

Right-of-Way (50-year term; 250 to 400 feet wide; used for road; road maintenance stations and access to them; material sites; equipment storage);

Construction Phasing (three-phase approach: (1) single-lane, gravel-surfaced pioneer road, 16 feet wide, shallow roadbed; (2) single-lane, gravel-surfaced roadway, 20-feet wide, full-depth embankment; (3) double-lane, all-season gravel road, 32 feet wide, design speed 50 miles per hour); and

Energy Generation (diesel generators and fuel tanks would be located at construction camps, communication sites, maintenance stations, and other facilities).

¹⁸⁶ 40 C.F.R. § 230.10(a)(4).

¹⁸⁷ 36 C.F.R. § 800.6(a). *See generally* 54 U.S.C. § 306108. *See infra* Part ___ regarding Cultural Resources and NHPA 106 consultation.

¹⁸⁸ *See, e.g.*, Draft EIS, appx. G, appx. A (suggesting variations to alternatives relating to culverts/fish passage, width of right-of-way, roadbed design, single-phase road construction rather than three phases, minimization of subsistence impacts, an integrated Tribal Alternative, mining scenarios, seasonal mining, etc.).

¹⁸⁹ *See* Draft EIS, at 2-4 to 2-7, 3-28, 3-34.

Other features that all three alternatives have in common include construction camps, construction staging areas, operations, maintenance, fuel and chemicals, material sites and maintenance facilities, airstrips, communications, and reclamation.¹⁹⁰

A. LIFESPAN OF ROAD

One of the most fundamental ways the alternatives are too similar is that they are all based on the assumption of a 50-year lifespan for the Project and associated mining activity.¹⁹¹ A shorter lifespan is clearly a reasonable and practicable way to reduce adverse impacts on wildlife, habitat, subsistence, and other receptors. Even if mining activity remained active enough at the end of such a period to warrant considering an extension of the timeframe for the road right-of-way, there would be enormous value in requiring new permit applications and associated data collection, environmental reviews, and mitigation improvements, and in obtaining public and cooperating agency input, before approving any such extension of time. BLM should have evaluated one or more Project alternatives or variants with a shorter lifespan, such as 20 or 30 years, and it should have considered a shorter timeframe as part of the mining development scenario and indirect and cumulative effects analyses. Its failure to do so violates NEPA and other federal laws.

B. PHASED ROAD CONSTRUCTION

The proposed three-phase road construction approach appears to serve as a means for AIDEA to hedge its bets, making smaller initial investments and then expanding the industrial access road after more is known about mining demand.¹⁹² AIDEA's interests are not the only ones at stake though. The three-phase approach would be far more destructive to wildlife, habitat, and subsistence than necessary to provide access to the Ambler Mining District. It would involve three separate two-year periods of noisy, destructive, and damaging construction activities, rather than just one construction period. In addition, the harm resulting from the transition between phases 2 and 3 would be especially egregious. The entire length of the road would need to be reconstructed, and thousands of culverts and bridges of inadequate width would need to be removed and replaced in order to expand the road from 20 to 32 feet wide.¹⁹³ The assumption of a three-phase road construction approach has made the three alternatives too similar and excessively harmful to the environment. BLM should have evaluated one or more

¹⁹⁰ See Draft EIS, at 2-6 to 2-8.

¹⁹¹ See Draft EIS, at 2-5, 2-7, 3-2, 3-13, H-5.

¹⁹² This underscores the unlawfulness of BLM's decision to consider a stand-alone industrial access road project in isolation when it would have no independent utility and the massive commitment of resources involved would be irrational in the absence of subsequent development. See Part V *supra*.

¹⁹³ See Draft EIS, at 2-5 ("Phase 1 would construct a single-lane, gravel-surfaced pioneer road, typically 16 feet wide ... Culverts placed in Phase 1 would be the length needed for Phase 2. ... Phase 2 would reconstruct the pioneer road to be a 1-lane, gravel-surfaced roadway, typically 20 feet wide ... Phase 3 would expand the road to 32 feet wide (2 full lanes) by widening the then-existing Phase 2 footprint and extending the culverts.") (emphasis added).

Project alternatives or variants with a single-phase approach to construction, and its failure to do so violates NEPA and other federal laws.

C. ELECTRICITY SUPPLY

The Draft EIS considers 100% fossil fuel-fired electricity generation as the only option for the camps and facilities associated with the Project (diesel-powered generation), as well as the power source for mine exploration, development, and operations (liquefied natural gas-powered generation), mining camps, and water treatment facilities, and other project components.¹⁹⁴ This assumption ignores the strides that have been made across the state in regards to combined solar- and wind-diesel battery hybrid systems that can greatly reduce dependence on imported diesel.

Renewable power is especially well-suited to remote sites because it does not require regular transportation of diesel fuel or other fuels into the area, which is exorbitantly expensive. Indeed, Alaska instituted the power cost equalization (PCE) program precisely because fossil fuel-fired power would otherwise be prohibitively expensive in remote communities. Northwest Arctic and Yukon-Koyukuk villages are already hard at work trying to reduce imported diesel usage and the associated high costs, emissions, and maintenance challenges common with rural diesel generators by implementing hybrid diesel-renewable systems, typically solar or wind. Renewable energy generation sources, such as solar and wind (either alone or in combination with fossil fuel-fired backup generation), would reduce many environmental threats, including: the number of truck trips, risk of oil spills and contamination, risk of fires and explosions (especially in the case of liquefied natural gas), risks to worker health and safety, fugitive emissions, air pollutant emissions,¹⁹⁵ and greenhouse gas emissions. It would thus reduce the overall level of harm to wildlife, habitat, subsistence, drinking water, human health, and other receptors.

In addition to its environmental benefits, renewable energy pricing tends to be far more stable and affordable than fossil fuel-fired generation because it eliminates the costs of fuel and fuel transportation and because it is not affected by global fluctuations in fuel prices. Tax incentives and subsidies can also make renewable energy generation more cost-effective than fossil fuel-fired generation. Solar power is more effective in cold, northern regions than one might expect because the snow reflects additional light toward the solar panels and the cold temperatures reduce electrical resistance, sometimes to the point of creating superconductors, and the long

¹⁹⁴ See, e.g., Draft EIS, at 2-7, 3-12, 3-34, 3-35, H-10, H-14, H-15, H-36, H-67, H-68.

¹⁹⁵ The air pollution emissions from diesel generators are substantial and specific to the individual diesel generators being used. Emissions calculators available on the EPA website can be used to supply ballpark estimates for emissions. See EPA, Diesel Emissions Quantifier, <https://19january2017snapshot.epa.gov/cleandiesel/diesel-emissions-quantifier-deq.html>.

daylight hours in the summer offset shorter days in the winter.¹⁹⁶ For all these reasons, many renewable energy projects have been successful in remote parts of Alaska.¹⁹⁷

The assumption regarding fossil fuel-fired power generation is another reason the three alternatives are too similar and more environmentally damaging than necessary. BLM should have evaluated one or more Project alternatives or variants with renewable energy generation, and it should have considered a renewable energy generation as part of the mining development scenario and indirect and cumulative effects analyses. Its failure to do so violates NEPA and other federal laws.

D. WILDLIFE, HABITAT, & SUBSISTENCE PROTECTION FEATURES

The three Project alternatives are also too alike because none of them incorporates enhanced protections to prevent harm to especially sensitive wildlife, habitat, and subsistence resources and activities, and because they all allow year-round activity for both the construction and operation of the industrial access road.¹⁹⁸ In the absence of such protections and seasonal limitations, the alternatives are too similar to each other in violation of NEPA. Additionally, the ANILCA GAAR provisions specifically require consideration of “measures which should be instituted to avoid or minimize negative impacts and enhance positive impacts” on wildlife, fish, and their habitat, and rural and traditional lifestyles including subsistence activities.”¹⁹⁹ BLM must issue a Revised Draft EIS with at least one of the alternatives or variants specifying that the BLM right-of-way and other federal approvals will include terms and conditions designed to protect wildlife, habitat, and subsistence, including the measures described below.

In other environmental review processes, BLM has included timing and area restrictions as part of the alternatives under consideration. Some examples include timing limitations (“TLs”), no-surface occupancy (“NSO”) restrictions, and controlled surface use (“CSU”) restrictions. In the context of oil and gas leasing, for instance, BLM has defined a TL as a type of constraint in which specified areas are “closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames.”²⁰⁰ In the same context, BLM has defined NSOs as the designation of an “area that is open for mineral leasing but does not allow the construction of surface oil and gas facilities in order to protect other resource values” and CSUs as a category of constraint that “allows some use and occupancy of public land, while protecting identified resources or values.”²⁰¹ BLM’s recent EIS for oil and gas leasing

¹⁹⁶ See Exhibit 54, at 7, 20, 53.

¹⁹⁷ See Exhibits 54, 55, 56, 57.

¹⁹⁸ See Draft EIS, at ES-2, 1-3, 2-3 to 2-5. The year-round assumption flows from an overly narrow and unjustified statement of purpose and need. See Part IV *supra*.

¹⁹⁹ 16 U.S.C. § 410hh(4)(d)(ii).

²⁰⁰ See BLM, Coastal Plain Oil and Gas Leasing Program, Final EIS, at Glossary-16 (Sept. 2019). This EIS is instructive for the present discussion because it incorporates TLs, NSOs, and CSUs as part of the alternatives. However, the Coastal Plain EIS is another deeply flawed EIS prepared by BLM, and TCC is not endorsing it.

²⁰¹ Coastal Plain Final EIS, at Glossary-4 and -11.

in the Coastal Plain of the Arctic National Wildlife Refuge includes alternatives with TLs designed to prohibit certain activities during specified months as a means to protect caribou and their summer habitat to varying degrees,²⁰² as well as alternatives incorporating NSOs and CSUs designed to provide varying levels of protection for wildlife, habitat, and subsistence resources.²⁰³

In the same vein, adverse impacts on wildlife, habitat, and subsistence in the Northwest Arctic and Yukon-Koyukuk regions could be substantially reduced through TLs prohibiting or limiting road construction, truck traffic, and mining activities during critical time periods, such as caribou migration, fish spawning, bird nesting, and peak subsistence harvesting. NSOs could be used to designate sensitive areas (e.g., certain streams, wetlands, riparian areas, tundra habitat, floodplains) in which specified types of structures or facilities would be prohibited or limited, such as gravel pads, gatehouses, camps, monitoring stations, telecommunications facilities, power generation facilities, and wastewater treatment facilities. CSUs could be used to designate sensitive areas in which specified types of activities would be prohibited or limited, such as gravel extraction, blasting, equipment staging, material and fuel storage, and solid waste disposal.

The fact that the three Project alternatives in the Draft EIS vary only with respect to the route means that the public and the agencies have been denied a meaningful opportunity to evaluate and compare alternatives reflecting a range of levels of protection for wildlife, habitat, and subsistence resources through the use of TLs, NSOs, CSUs, and/or other conservation mechanisms. Though the Project proponent is asking for year-round road access, BLM should assess reduced adverse effects by limiting access during some periods of a calendar year. BLM's failure to include alternatives with a spectrum of conservation-oriented provisions constitutes a violation of NEPA.

If the Draft EIS is revised and expanded to evaluate a proposed mining plan along with the proposed industrial access road,²⁰⁴ the Revised Draft EIS must likewise incorporate into the alternatives a range of provisions designed to reduce impacts from mining-related facilities and activities on wildlife, habitat, and subsistence.

E. COMMUNITY INVOLVEMENT, BENEFIT, & PROTECTION FEATURES

None of the three Project action alternatives incorporates specific provisions designed to minimize adverse effects and maximize benefits for local communities. BLM's failure to include such provisions renders the alternatives too similar to each other in violation of NEPA. Also, the ANILCA GAAR provisions specifically require evaluation of "measures which should be instituted to avoid or minimize negative impacts and enhance positive impacts" on rural and traditional

²⁰² See Coastal Plain Final EIS, at 2-1 to 2-3.

²⁰³ See Coastal Plain Final EIS, at 2-1 to 2-3.

²⁰⁴ See Part V *supra*.

lifestyles, including subsistence activities.²⁰⁵ BLM must issue a Revised Draft EIS with at least one of the alternatives or variants specifying that the BLM right-of-way and other federal approvals will include terms and conditions designed to maximize community benefits, including the elements described below. If one of the three proposed alternative routes is authorized and forced on potentially affected communities, the Record of Decision needs to include an adaptive management program that engages affected community members in monitoring the effects on the human and natural environments throughout the life of the Project.

Tribal Guardian Program: Local communities and Tribe members in the Northwest Arctic and Yukon-Koyukuk regions have extensive personal experience and traditional knowledge concerning wildlife, habitat, and subsistence. They also have strong cultural, spiritual, and social interests in minimizing ecological harm and maintaining their robust subsistence way of life. As such, even though the majority are opposed to the Project, if it is implemented, these are the people best situated to carry out data collection, monitoring, and enforcement functions throughout all phases of the Project, including its eventual reclamation and post-reclamation phases. These provisions should be detailed in a comprehensive adaptive management program that designates representation among all potentially affected communities.

Rural Alaska Native communities affected by the Project need to be engaged in monitoring the consequences of the Project through active management and through citizen advisory authority along with other governmental entities. Involvement of Tribes could be formalized as a Tribal Guardian Program modeled on Canada's Indigenous Guardians Program:²⁰⁶

Indigenous-led Guardians programs empower communities to manage ancestral lands according to traditional laws and values.

Guardians are employed as the “eyes on the ground” in Indigenous territories. They monitor ecological health, maintain cultural sites and protect sensitive areas and species. They play a vital role in creating land-use and marine-use plans. And they promote intergenerational sharing of Indigenous knowledge—helping train the next generation of educators, ministers and nation builders. The Indigenous Leadership Initiative [ILI] is proud to have partnered with Dechinta Bush University in developing the Guardians Pilot Program, a training opportunity focused on core skills guardians need to conduct land use planning and other management projects. ...

Over 40 Indigenous Nations and communities in Canada have launched Guardians programs, including these three:

²⁰⁵ 16 U.S.C. § 410hh(4)(d)(ii).

²⁰⁶ Exhibit 5.

Lutsel K'e: The Dene community of Lutsel K'e in the Northwest Territories launched the Ni Hat'ni Dene (Watching the Land) program in 2008. These guardians help care for millions of acres near Great Slave Lake, including where the community co-created and will co-manage the Thaidene Nene National Park Reserve. Researchers have found that the Ni Hat'ni Dene program is delivering significant cultural and conservation benefits.

Innu: In Labrador, since 1992, the Innu Nation Environmental Guardians manage all environmental programs on behalf of the Innu of Labrador, including: fisheries, forestry, caribou and mining, notably the Voisey's Bay Mine—one of the biggest nickel mines on the globe. The Innu Nation Guardians program has been a source of inspiration for other guardian programs in Canada.

Haida Gwaii: Off the coast of British Columbia, the Haida Gwaii Watchmen protect the lands and waters of their Nation according to traditional laws. They work on fisheries, forestry and parks, preserve culturally significant sites and share their knowledge with visitors. Their society inspired the Coastal Guardian Watchmen Network, connecting eight Indigenous coastal Nations doing similar work.

More information about Canada's Indigenous Guardians Program is attached to these comments.²⁰⁷ One difference is that, while the Canadian program is federally funded, TCC believes it would be more appropriate for a Tribal Guardian Program relating to the Ambler Road and Ambler Mining District to be funded through other means, such as through cost-sharing of tolls with the State of Alaska or through authorizing language in the BLM Record of Decision and the NPS right-of-way terms and conditions relating to access through GAAR.

The enforcement component of the Tribal Guardian Program could incorporate methods and strategies from Canada's Community Constable Program (formerly known as the Aboriginal Community Constable Program):²⁰⁸

A Community Constable (CC) is an armed, uniformed peace officer at the rank of Special Constable member. Their primary focus is engaging their communities in active crime prevention/reduction activities, and building positive relationships between their communities and the Royal Canadian Mounted Police (RCMP). CCs enhance (not replace) the work of general duty RCMP constables; they also have the capacity to provide tactical, enforcement and investigational support to other RCMP officers if required. Following training in Depot, CCs return to their communities to complement and support the work of general duty constables in their detachment. They do not have the mandate to take on all the duties of general duty constables (such as leading in-depth investigations).

²⁰⁷ See Exhibits 2, 5. See also Exhibit 8.

²⁰⁸ See Exhibit 13.

Community Constables bring a valuable knowledge of the geography, culture and language in the communities they serve, and remain in those communities for the duration for their time as a CC. ...

The program allows the RCMP to attract, develop and retain persons with specific linguistic, cultural and community skills that go beyond those taught at Depot, and enable the RCMP to tailor its policing services to specific, community-identified needs.

Objective: The CC Program addresses community issues that regular members may not be able to address immediately due to competing Operational duties. CC's provide regular members with local knowledge of the community in which they serve. Because they remain in the community throughout their career, the community benefits from a continuous service unaffected by transfers of regular members. CC's also act as role models for youth in their communities.

Outcomes: Positive feedback has been received to date from all the communities served by the CC Program. Given their cultural links to their communities, CCs are able to provide more effective crime prevention, community engagement and crime reduction, allowing police officers to focus on other frontline duties. ...

Resources: The CC Program did not require significant funding to put in place. A design team was created to develop curriculums for the program. The team included a curriculum designer, syllabus administrator, training analyst and several police subject matter experts.

TCC would be willing to serve as a point of contact and coordinator for a Tribal Guardian Program, and it has the extensive regional relationships, trust, experience, and capacity necessary to serve this function. For instance, over the past four years, TCC has successfully coordinated a community health aide training program for rural Alaska.²⁰⁹ TCC's expertise in data collection, monitoring, and surveying is also well-established, and it is currently developing a community-based monitoring program relating to natural and cultural resources.

Community Benefits: If the Project moves forward despite local opposition, community benefits could be greatly enhanced if one or more of the alternatives or variants incorporate clear commitments in this regard, including the following:

Power Generation: Local communities should be guaranteed the opportunity to purchase power (preferably from renewable generation sources) from those responsible for energy production associated with the road and/or mines at a price no greater than the cost of generation.

²⁰⁹ See Exhibit 15.

Telecommunications: Local communities should be guaranteed the opportunity to purchase telecommunication services from those responsible for installing and operating telecommunication facilities associated with the road and/or mines at a price no greater than the providers' out of pocket cost.

Timber Recovery: The Project will involve extensive tree-clearing.²¹⁰ As a result, there will be a supply of timber that needs to be removed from the area. Local communities should be provided with timely notice and guaranteed the opportunity to remove and utilize the excess timber.

Meat Recovery: The Project will involve significant wildlife mortality as a result of construction activities, truck traffic on the road, air traffic at the airstrips, and other endeavors.²¹¹ As a result, there will be caribou, moose, and other types of carcasses that need to be removed from the area. Local communities should be provided with rapid notice and guaranteed the opportunity to remove and utilize the road-killed meat.

VII. INADEQUATE ANALYSIS OF IMPACTS

An EIS must provide a “full and fair discussion of significant environmental impacts,”²¹² and it must “apprise decisionmakers of the disruptive environmental effects that may flow from their decisions at a time when they retain a maximum range of options.”²¹³ The comprehensive “hard look” required under NEPA “must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.”²¹⁴ NEPA “emphasizes the importance of coherent and comprehensive up-front environmental analysis” so that the “agency will not act on incomplete information, only to regret its decision after it is too late to correct.”²¹⁵

The EIS must consider the direct and indirect effects, as well as the cumulative impact of a proposed action.²¹⁶ “Direct effects” are “caused by the action and occur at the same time and place as the proposed project.”²¹⁷ “Indirect effects” are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”²¹⁸ “Cumulative impact” is the environmental impact which “results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of

²¹⁰ See Draft EIS, at 3-46.

²¹¹ See Draft EIS, at 3-65, 3-76, 3-77, 3-110, 3-111.

²¹² 40 C.F.R. § 1502.1.

²¹³ *Pit River Tribe v. U.S. Forest Service*, 469 F.3d 768, 785 (9th Cir. 2006) (internal quotation omitted).

²¹⁴ *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000).

²¹⁵ *Blue Mtns. Biodiversity Proj. v. Blackwood*, 161 F.3d 1208, 1216 (9th Cir. 1998) (quoting *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 371 (1989)).

²¹⁶ See 40 C.F.R. § 1502.16.

²¹⁷ 40 CFR § 1508.8(a).

²¹⁸ 40 CFR § 1508.8(b).

what agency (Federal or non-Federal) or person undertakes such other actions,” and cumulative impact can result from individually minor but collectively significant actions taking place over a period of time.”²¹⁹

The EIS analysis must encompass all types of impacts, including “effects on natural resources and on the components, structures, and functioning of affected ecosystems,” as well as “aesthetic, historic, cultural, economic, social or health” effects, and “[b]oth short- and long-term effects are relevant.”²²⁰

The information in an EIS must be of “high quality” because “[a]ccurate scientific analysis ... and public scrutiny are essential to implementing NEPA.”²²¹ Analysis contained in an EIS must also ensure “scientific integrity.”²²² If there is incomplete information and the information is “essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant,” the information must be included in the EIS.²²³

In light of these standards, the impact analysis in the Draft EIS is deeply flawed in many respects. Several overarching issues are largely responsible for the gaps and inadequate analyses, including the following: (1) the review is being conducted prematurely, before any concrete proposal has been made for an industrial access road or mining activity; (2) the review of the Project has been improperly segmented from the mining activity that is the fundamental purpose of the Project and inextricably connected with it; (3) BLM and the other agencies have not yet gathered sufficient data and information to support a meaningful analysis of impacts; (4) BLM and the other agencies have failed to adequately gather and take into account traditional knowledge; (5) the Draft EIS considers Project alternatives that vary only with respect to the route and not with respect to other important criteria; and (6) the mitigation measures are listed as mere options for BLM and the other agencies to consider, without any indication of what measures will in fact be applied to the Project or to mining activity; and (7) in the absence of adequate impact analyses and mitigation measures, the Draft EIS cannot and does not demonstrate compliance with substantive legal standards.

A. MAJOR GAPS

1. Public Road

BLM’s unwillingness to consider the potential for the Project to be converted from a private industrial access road into a public access road violates NEPA because it ignores a future action that is reasonably foreseeable and thus must be evaluated as part of the cumulative impact analysis. Comments were offered in nearly every public meeting that, even though the Dalton

²¹⁹ 40 CFR § 1508.7.

²²⁰ 40 C.F.R. §§ 1508.8, 1508.27(a).

²²¹ 40 C.F.R. § 1500.1(b).

²²² 40 C.F.R. § 1502.24.

²²³ 40 C.F.R. § 1502.22(a).

Highway was promised to be a private road, it was converted into a public highway following the construction of the Trans-Alaska Pipeline. Stakeholders universally commented that they expect the Project to also be converted to a public road.

As noted above, the Draft EIS must analyze the “cumulative impact” of the Project “when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”²²⁴ Reasonably foreseeable future actions include “federal and non-federal activities ... sufficiently likely to occur, that a Responsible Official of ordinary prudence would take such activities into account.”²²⁵

BLM has acknowledged that the “potential for increased access into the region was a key concern voiced by residents during both scoping and traditional knowledge studies ...”²²⁶ BLM is aware that many local residents do not believe the road will remain private and that some private industrial access roads have eventually opened to the general public in the past, such as the Dalton Highway.²²⁷ Individual comments on this subject were provided by members of potentially affected communities in the TCC region and can be referenced in the transcripts of public meetings in those communities. In one case, a commenter cited that a Fairbanks-based legislator has already issued public comments that the Project should become a public road given the investment being made by the State of Alaska.

BLM has firmly rejected this possibility with respect to the Project, however, pointing repeatedly to AIDEA’s proposal for an “industrial access road” and its own commitment to “require a new ROW application and authorization process” for any proposal to “modify[] the restricted access industrial road to one capable of supporting public access.”²²⁸ As such, it has restricted its analysis of the three alternatives based on the assumption that each would be a private industrial access road.²²⁹

Neither AIDEA’s application for a private road, nor BLM’s assurance that it would require further permitting before converting the Project into a public road, alter the fact that opening the road to public access is a reasonably foreseeable action that must be analyzed. All actions

²²⁴ 40 C.F.R. § 1508.7.

²²⁵ 43 C.F.R. § 46.30.

²²⁶ Draft EIS, at H-74. See Draft EIS, at 2-2 (“Scoping comments indicated many questions about public use of the road. The BLM considered this as part of defining the final alternatives to carry forward for analysis in this EIS.”), 3-115 (“potential for increased access by outside hunters is a primary concern that has been voiced by a number of subsistence study communities”), and G-39 (“Questions about potential public use of the road had been a substantial theme in scoping comments.”).

²²⁷ See Draft EIS, at H-74.

²²⁸ Draft EIS, at 1-2 n.2, 1-3, 2-2, 2-4, 3-89, G-39, H-23, H-27.

²²⁹ See Draft EIS, at H-23 (“Modifying a restricted access industrial road to one capable of supporting public access would require a new ROW application and authorization process. It would have a different purpose and need. No such application has been submitted. For these reasons, general public access is not reasonably foreseeable and thus a public access road is not considered to be a contributing factor to indirect or cumulative impacts.”).

must be considered in a cumulative impact analysis if they are reasonably foreseeable, regardless of whether they are federal, non-federal, or undertaken by any “person.” In federal law, the term “person,” is understood broadly to include the government, corporate entities, and individual persons, unless specified otherwise.

The opening of the Ambler Road to public access could occur in a number of ways. First, despite its current assurances, BLM could decide in a few years, or several decades from now, that opening the road to public access is categorically excluded or otherwise does not require full NEPA review because the changes required to allow public access would not surpass NEPA’s significance threshold. It is conceivable that the conversion of the road would only involve operational changes (e.g., vehicle types, speed limits, security measures) and/or limited physical upgrades (e.g., resurfacing, guard rails, pull-outs, passing lanes), which might be viewed as not affecting the environment enough to warrant full NEPA review.

Second, the portions of the road on State-owned, Native-owned, NPS-managed, or other non-BLM lands could be opened without BLM’s involvement or approval. Under Alternatives A and B, the vast majority of the road route would traverse State-owned lands,²³⁰ and Alaska DNR has said that it must “separately evaluate questions related to use of the road and restrictions on use and cannot commit at this time regarding” access restrictions on the road segments traversing State lands.²³¹ As stated above, one member of the state legislature is already contemplating legal means to convert the road to a public facility. Nothing in the ANILCA GAAR provisions limits transportation access to private industrial users either.²³² As noted above, if opening these road sections to public use would not involve a sufficient degree of impacts to waters or wetlands to trigger 404 permitting by the Corps and would not otherwise involve a federal action with impacts significant enough to trigger NEPA, there could very well be no further NEPA review by any other federal agency.

Third, Congress could enact legislation opening the road to the general public. In doing so, Congress would not necessarily require approval from BLM or any other federal agency, or any review under NEPA or other laws, before the road is opened. ANILCA’s authorization of a transportation route within GAAR is a good example. Congress explicitly exempted that decision from NEPA review and did not limit the route to private use.²³³

Federal legislation has played a role in other Alaska road systems as well. The Delong Mountain Transportation System (accessing the Red Dog Mine) was enabled by federal legislation amending ANCSA to effectuate a land exchange.²³⁴ The legislation bypassed the need for NPS

²³⁰ See Draft EIS, appx. G, at G-41 (fig. 5).

²³¹ Draft EIS, at 2-2, H-23.

²³² See 16 U.S.C. § 410hh(4).

²³³ See 16 U.S.C. § 410hh(4)(d).

²³⁴ See Exhibit 44.

to issue a right-of-way through the Cape Krusenstern National Monument, which would have involved an environmental review process.²³⁵

The Dalton Highway came into being because the federal Trans-Alaska Pipeline Authorization (“TAPA”) Act authorized the Secretary of the Interior to issue rights-of-way and permits relating to the oil pipeline system, including roads.²³⁶ The TAPA Act specified that such authorizations would be exempt from NEPA review and from judicial review.²³⁷ In 1974, BLM issued the State of Alaska a right-of-way pursuant to the TAPA Act, and the grant specified that it “shall be used for only the construction, operation, and maintenance by the state of a public road and related public facilities.”²³⁸ Despite this language, the State of Alaska managed the road as a private industrial road for two decades. Then, in 1994, the road was opened to the public after the Alaska Supreme Court determined that doing so did not violate Alaska law and was consistent with the “public road” language in the BLM grant pursuant to the TAPA Act.²³⁹

Federal legislation has also been proposed that would authorize a road through the Izembek National Wildlife Refuge through a land exchange.²⁴⁰ The legislation specifies that the construction of the road would automatically be considered consistent with ANCSA and would be deemed not to interfere with the purposes for which the Refuge was established.²⁴¹

For all these reasons, public road access is reasonably foreseeable, and BLM has failed to consider it, thereby violating NEPA.

2. Water Withdrawals

Another major gap in the Draft EIS is the absence of any meaningful discussion of the nature and extent of water withdrawals that will occur in connection with the Project and mining activity or the impacts of such withdrawals.

The Draft EIS acknowledges generally that the Project will require massive water withdrawals. Ice roads and ice pads, for instance, would be used during winter construction to “support gravel mine extraction activities, for staging equipment and supplies during construction, and for work platforms for bridge construction,” and [r]iver crossings and wetland area ice covers in some areas would likely be thickened to provide bearing capacity for heavy construction vehicles during initial pioneer road construction.”²⁴² The ice roads would require an estimated “1 million gallons of water for each mile of a 25-foot-wide ice road,” and the ice pads would

²³⁵ See Exhibit 43.

²³⁶ See *Turpin v. North Slope Borough*, 879 P.2d 1009, 1010 (Alaska 1994).

²³⁷ See 43 U.S.C. § 1652(d).

²³⁸ *Turpin*, 879 P.2d at 1010.

²³⁹ *Turpin*, 879 P.2d at 1012-13.

²⁴⁰ See Exhibits 47 and 48

²⁴¹ See Exhibits 47 and 48 (S. 1680 § 4(d) and H.R. 2801 § 4(d)).

²⁴² Draft EIS, at 3-21 to 3-22.

require about “250,000 gallons would be required per acre.”²⁴³ The water needed for the ice roads and ice pads “would be withdrawn from lakes or large rivers near the construction activities.”²⁴⁴ Water would also be withdrawn “from freshwater sources during construction and throughout operations, primarily for dust control.”²⁴⁵

BLM notes that State of Alaska permits would be required and describes the typical imitations that such permits impose.²⁴⁶ BLM also includes generic description of the types of impacts that water withdrawals can have on fish, streams, and wetlands.²⁴⁷ However, the Project is in such an early stage of development that it was impossible for BLM to conduct an meaningful analysis of the impacts of the water withdrawals. For instance, it is unknown the number of miles of ice roads, the number and total acreage of ice pads, or where along the route the all the water withdrawals will take place.²⁴⁸ There is also no discussion of which water bodies will be affected, what types of fish and aquatic life occupy them, whether these water bodies contain sufficient water to serve Project needs while complying with State of Alaska permitting limitations, or whether the affected water bodies and surrounding riparian areas, wetlands, and groundwater will have sufficient water left in them after the massive water withdrawals to continue supporting fish, aquatic life, and vegetation.

In the cumulative impact analysis, there is a similarly generic discussion of water withdrawal impacts relating to mining. The Draft EIS explains that the drawdown of the water table to access ore, as is typical during mining operations, could be very harmful to water resources, fish, and aquatic life.²⁴⁹ It also notes that fresh water would need to be withdrawn for domestic use and ore processing, but that these water needs would “vary by the size of the mining operations.”²⁵⁰ After summarizing the general types of impacts that would occur, BLM simply punts, stating that “[i]t is difficult to quantify the impact that future mines may have on fish and aquatic habitat, given that a specific mine proposal is not available.”²⁵¹

In other words, the Draft EIS is premature. Neither the Project nor the mining activity it is intended to enable are real, engineered, definitive projects that can be analyzed with any level of usefulness for the public or agency decisionmakers. BLM’s inability to analyze water withdrawal impacts arising from either the Project or mining is just one example of this problem, a problem repeated throughout the Draft EIS.

²⁴³ Draft EIS, at 3-21 to 3-22.

²⁴⁴ Draft EIS, at 3-23.

²⁴⁵ Draft EIS, at 3-43.

²⁴⁶ Draft EIS, at 3-23, 3-58 to 3-59.

²⁴⁷ Draft EIS, at 3-24, 3-42 to 3-43, 3-58 to 3-59.

²⁴⁸ See, e.g., Draft EIS, at 3-58 n. 39 (“While the water access points have been proposed within GAAR, they have not all been identified outside of GAAR.”).

²⁴⁹ See Draft EIS, at H-14, H-46.

²⁵⁰ Draft EIS, at H-14.

²⁵¹ Draft EIS, at H-46.

B. DEEPLY FLAWED ANALYSES

1. Caribou Impacts

In addition to the general problems described above, the discussion of caribou impacts in the Draft EIS is flawed and inadequate in numerous respects. BLM must revisit its entire caribou impacts analysis and issue a Revised Draft EIS incorporating a more robust set of data, including ADF&G range maps and use data,²⁵² more comprehensive studies,²⁵³ and the extensive traditional knowledge of local communities.²⁵⁴ TCC is including several exhibits with additional information to assist in this effort.²⁵⁵ The following are just a few examples of the shortcomings of the caribou impacts discussion:

Range: The Draft EIS describes the Western Arctic Herd seasonal range use based on two studies using just 206 individuals, and indirect information inferred from lichen-dominated vegetation types.²⁵⁶ Given that the WAH has a population of about 200,000 animals and forages on several different types of vegetation, data based on a small number of animals and one type of vegetation is not sufficient to inform BLM's land management decisions. BLM has also excluded the Teshekpuk and Central Arctic caribou herds entirely and underestimated the impacts on the Ray Mountains and Hodzana Hills caribou herds based on limited, inaccurate, and incomplete information about their ranges and the extent of subsistence use.²⁵⁷ BLM's contention that more information regarding caribou seasonal range is not available is not correct.²⁵⁸ BLM and the other agencies should take into account the materials TCC is providing in the Exhibits, as well as other readily available studies and traditional knowledge before making any land management decisions.

Habitat Degradation & Loss: The Draft EIS describes impacts to caribou by stating “[h]abitat lost from any of the action alternatives would represent no more than 0.005 percent of the 92.2-million-acre WAH total range.”²⁵⁹ This is a misleading sentence. Animals do not use the landscape randomly. Although the right-of-way footprint may only impact a small fraction of the total range, that portion of the range may be a vital resource for migration, predator avoidance, winter forage, and other activities. Moreover, the Project will have far-reaching adverse effects beyond the footprint. It will serve as a barrier to migration and normal movement, cause avoidance, lead caribou to shift to less viable habitat and migration routes, and serve as a vector for widespread toxic dust, water contamination, vegetation loss, erosion,

²⁵² See ADF&G, Subsistence Division, Harvest Information for Community, www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG=harvInfo.harvestCommSelComm.

²⁵³ See Exhibits 18-23.

²⁵⁴ See Exhibits 1-17.

²⁵⁵ See Exhibits 1-23.

²⁵⁶ See Draft EIS, at 3-73.

²⁵⁷ See Draft EIS, at 3-66 to 3-67.

²⁵⁸ See Draft EIS, at 3-67.

²⁵⁹ Draft EIS, at 3-73.

and other adverse impacts for miles in every direction surrounding the right-of-way footprint. Notably, caribou are highly sensitive to even minor amounts of dust on preferred vegetation. A study in Canada found that caribou avoided vegetation with just a minor coating of dust dozens of kilometers from a mine site.²⁶⁰ The misleading statement above and others like it should be removed and replaced with more biologically relevant information.

Disturbance & Displacement: BLM's analysis underestimates the disturbance and displacement effects of the Project on caribou. For instance, the Draft EIS cites the Nicholson 2012 study of caribou movement relating to the Central Arctic Herd in support of the theory that large permanent infrastructure does not significantly impact migratory patterns.²⁶¹ This study, however, was based on 54 individuals over just four years (2003-2007) and does not include data prior to the Dalton Highway construction. In the absence of pre-disturbance population data, there is little support for BLM's theory. Furthermore, the authors acknowledge that, although the Central Arctic Herd used winter and summer regions equally, the herd utilized certain migration routes every year. This underscores the need to protect common migration routes of the WAH and other caribou herds to ensure stable populations. If those routes traverse the Project route, substantial impacts should be expected on local caribou populations. It is also worth noting that the Nicholson study was partially funded by ConocoPhillips-Alaska, Inc., a major stakeholder in Dalton Highway construction and maintenance, and this calls into question the objectivity of the study overall. BLM and the other agencies should not rely on the weakly supported conclusions of the Nicholson 2012 study to support major land management decisions.

The Draft EIS also contends the DeLong Mountain Transportation System (DMTS) has had only minimal effects on the Western Arctic Herd based on the Wilson 2016 study.²⁶² However, the literature cited found that, among several modeling scenarios, the DMTS was the sole explanatory variable when describing why some individuals crossed slower than others. Additionally, although there was a seemingly minor difference in travel time between individuals who encountered the road relative to those that did not, a delay of just a few days can have drastic effects on reproductive success among individuals in a highly seasonal environment like the Arctic.²⁶³ Moreover, the Wilson study found an astounding 33-day delay among almost one-third of the population. In a highly seasonal environment like the Arctic, this can represent nearly half of the growing season.

Diverted individuals suffer harm due to greater energy expenditure, greater exposure to predators, and delayed arrival to spring calving grounds. Caribou migrations are also tightly coupled with plant resource abundance. If pregnant individuals do not arrive during peak plant productivity, calf survivability can be negatively impacted as maternal nutrition will not be

²⁶⁰ See Exhibit 20; Chen, W., et al., *Does Dust from Arctic Mines Affect Caribou Forage?*, 8 J. ENVTL. PROT. 258 (cited in Draft EIS, at O-7).

²⁶¹ See Draft EIS, at 3-75.

²⁶² See Draft EIS, at 3-75.

²⁶³ See Exhibit 18.

sufficient to support offspring health. This type of trophic mismatch can impact the entire population and result in overall population decline.²⁶⁴ The misalignment of foodweb resources will be further exacerbated by the ongoing effects of climate change that have resulted in the advancement of spring plant emergence.²⁶⁵

Furthermore, although the road may affect a small number of individuals, caribou are a highly social herd species and tend to act in response to one another, even if any one individual is not directly impacted by a disturbance. If the leaders of the migration avoid infrastructure, the remainder of the herd may follow suit and result in delayed arrival and extra energy expenditure during migration.²⁶⁶ Therefore, the disturbance or displacement of just a few individuals could ripple throughout the entire herd during migration.

Other factors that can disturb and displace caribou are also not addressed adequately in the Draft EIS, including dust covering on vegetation, noise from heavy construction equipment, generators, mining equipment, and other sources, barriers from snow berms created by plowing, and many other factors relating to both the Project and mining activity.²⁶⁷

2. Fish & Aquatic Impacts

Baseline Data: In numerous places, the Draft EIS readily admits that the available baseline data for streams, other water bodies, fish, and aquatic invertebrates is not adequate to fully understand the impacts of the Project or compare the alternatives. However, BLM contends that just a few published studies and discussions with subject matter experts were sufficient for them to complete their analysis. BLM also contends it would be cost-prohibitive to conduct any further baseline studies. When dealing with a region that relies heavily on the local rivers, streams, lakes, and ponds for sustenance, culture, cohesion, and spirituality, the degree of certainty for the baseline data underlying the analysis of harmful impacts should be much higher.

Salmon: The baseline data for salmon resources in the region is one major area of inadequacy. ADF&G's anadromous waters catalog is well-known to be grossly incomplete. Also, population shifting, climate change, and other factors affecting salmon abundance have not adequately been addressed in the Draft EIS.

Chum salmon illustrate population-shifting and its importance for overall salmon resilience. Chum salmon production in the Yukon River watershed can shift over time, with one stream producing relatively few chum salmon one year and ten years later contributing far more to the overall population. For instance, the Anvik River used to produce a lot more chum, but the production has shifted to a large extent to the Koyukuk River system, especially Henshaw

²⁶⁴ See Exhibits 19, 21, 22.

²⁶⁵ See Exhibit 22.

²⁶⁶ See Exhibit 12.

²⁶⁷ See, e.g., Draft EIS, at 3-34 (noting generators are expected to run all day every day).

Creek. Similarly, previous surveys show that the Hogatza River can support tens of thousands of chum salmon, but it is not currently monitored adequately and is believed to have far fewer now. It is reasonable to anticipate that the Hogatza River, Alatna River, and other rivers and streams could become larger producers in future years. If habitats are degraded and fish migration impeded by culverts, sedimentation, or other impacts from the Project and/or mining, this could inhibit chum salmon resilience and overall salmon populations in the region. This issue should be fully addressed in a Revised Draft EIS.

Climate change impacts on salmon are not adequately addressed in the Draft EIS. This past summer, warming water temperatures had devastating effects on salmon in the Koyukuk River, killing off thousands and likely tens of thousands before spawning. Salmon are already under considerable stress with increased competition in the ocean for resources (due to large-scale hatchery production), ocean warming, and now in-river warming. The Draft EIS focuses far too heavily on localized Project impacts and fails to adequately address the cumulative impact on salmon from the Project, mining activity, climate change, and other stressors throughout their life cycle. This is a dangerous omission. Even small additional stressors could have wide-ranging and population-level consequences.

The importance of aquatic invertebrates to salmon-rearing is also not adequately addressed in the Draft EIS. For instance, Chinook salmon need to reach a certain size to have a good chance of surviving their first winter at sea. The more that survive their first winter at sea, the more juvenile Chinook salmon there will be in the Bering Sea. This, in turn, creates a higher likelihood of strong returns of Chinook salmon to the Yukon River. While salmon put on a lot of body mass when they out-migrate and feed in the nearshore marine habitat, if they are already starting out at a smaller size due to a lack of prey resources in their rearing streams, then they are being set up for failure. Indeed, the relative abundance of juvenile Chinook salmon in the northern Bering Sea is the number one predictor of how many adult Chinook salmon will return in future years to the Yukon.²⁶⁸ This is another example of how the Draft EIS fails to adequately address the cumulative impact on salmon over their entire life cycle.

There is also a whole body of literature on the importance of salmon to the larger ecosystem that has not been addressed in the Draft EIS.²⁶⁹ Salmon are not only an important prey species for bears, other carnivores, and subsistence harvesters, the decomposition of their bodies provides massive quantities of nutrients that support vegetation throughout the landscape. Reduction in salmon populations can therefore have a catastrophic ripple effect all along the food chain and dramatically alter the entire terrain.

Sheefish & Whitefish: Sheefish and whitefish are very important subsistence resources for local communities. While the Draft EIS cites the few studies are out there, there are so few studies in existence that there is grossly inadequate baseline information about sheefish and whitefish the Yukon River watershed. Without additional baseline studies on these species, the

²⁶⁸ See Exhibits 32, 37.

²⁶⁹ See Exhibit 25.

Draft EIS cannot meaningfully analyze the impacts of the Project and mining activity on these species or the consequences of reducing their populations on the larger ecosystem and subsistence harvests. This information is absolutely essential to a reasoned choice among alternatives and must be gathered and incorporated into a Revised Draft EIS.

Culverts & Bridges: The sheer number of culverts required for the Project is alarming. Alternative A would involve 2,869 culverts; Alternative B would involve 3,155 culverts; and Alternative C would involve 4,076 culverts.²⁷⁰ The adverse consequences of introducing thousands of culverts into a pristine landscape permeated with thousands of streams and other water bodies will be staggering. Yet the Draft EIS does not adequately compile, analyze, quantify, or disclose:

Baseline data regarding water flow, fish populations, and other data before and after culvert installation;

The cost and feasibility of constructing, maintaining, inspecting, and repairing the proposed culverts, both regularly and after low-flow, high-low, storm, flooding, and seismic events;

The cost and feasibility of monitoring upstream and downstream impacts on spawning and rearing habitat (e.g., flow alteration, scouring events);

The wildlife, habitat, subsistence, ecosystem, and other consequences of culvert blockage, failure, and resulting flow alterations; or

The cost and feasibility of restoring, remediating, or replacing fish populations and habitat degraded or destroyed by failed culverts.

The importance of conducting this analysis cannot be overstated. Devastation from culverts is virtually assured because ADF&G standards for culverts are inadequate and outdated, and even the best-designed culverts are failing on a massive scale. Studies have shown, for instance, that 50% of the culverts on the Kenai Peninsula are inadequate for fish passage, and those were all permitted under current State law.²⁷¹ The Mat-Su Fish Habitat Partnership also spends an exorbitant amount of its time, energy, and money repairing culverts.²⁷²

Tribes in Washington recently won a landmark case relating to culverts. The Washington Supreme Court has required the State of Washington to replace hundreds of culverts in order to improve salmon habitat and passage based on treaty rights.²⁷³ The State had vigorously

²⁷⁰ Draft EIS, at 3-25 to 3-26.

²⁷¹ See Exhibit 34. See also Exhibit 24.

²⁷² See Exhibit 35.

²⁷³ See *United States v. Washington*, 853 F.3d 946 (9th Cir. 2016), *amended, reh'g denied, affirmed per curiam Washington v. United States*, Supreme Ct. No. 17-269 (2018) (slip op.). The Ninth Circuit opinion is attached as Exhibit 41.

fought against this obligation because of the colossal expense associated with replacing and repairing hundreds of culverts. The Project will create an even more calamitous and untenable situation because it will involve *thousands* of culverts.

Salmon and other fish are keystone species for Alaska Native traditional culture as well as the Alaskan way of life more broadly. Their continued survival is far too important to gamble with by approving the Project and enabling large-scale mining without a robust analysis and full disclosure of the consequences, along with a serious and enforceable plan to prevent, minimize, and mitigate such harm.²⁷⁴

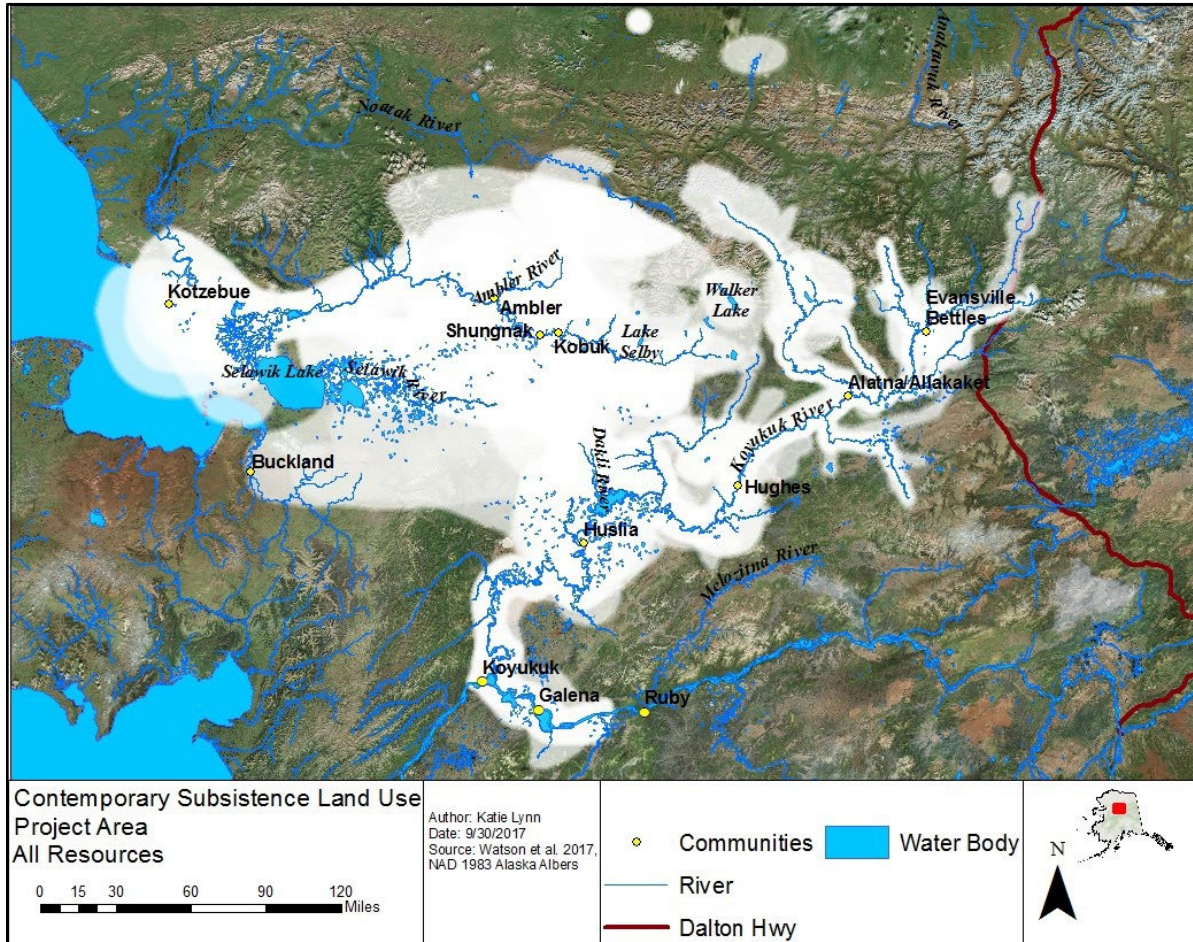
3. Subsistence, Social, & Health Impacts

With respect to subsistence impacts and related impacts on social cohesion and health, the Draft EIS mischaracterizes and draws inappropriate conclusions from the better studies available. It also relies on inaccurate, incomplete, and faulty data and fails to adequately take into account the comprehensive traditional knowledge available. As a result, the entire subsistence analysis and the related ANILCA 810 evaluation, Health Impact Assessment, and NHPA 106 consultation are erroneous must be reworked in a Revised Draft EIS. TCC is submitting several exhibits to assist with this effort.²⁷⁵

A key problem underlying all of BLM's analyses is that its descriptions and assumptions regarding the locations and areas where subsistence activities take place are not accurate. For instance, although BLM references research recently conducted by Annette Watson, Ph.D., for NPS, it has cherry-picked a few points out of context and mischaracterized the study's results and main conclusions. BLM's contention that certain areas are less important or peripheral for subsistence use are unfounded and contrary to the evidence in the record. The maps Watson has included clearly demonstrate that all of the proposed Project alternatives will cut through important lifetime subsistence use areas for the eight major villages along its proposed routes (i.e., Bettles/Evansville, Alatna, Allakaket, Hughes, Huslia, Kobuk, Shungnak, and Ambler). The following is just one example:

²⁷⁴ See Part VIII *infra*.

²⁷⁵ See Exhibits .



The Draft EIS also fails to adequately take into account ADF&G community subsistence information, which is largely consistent with Watson’s findings.²⁷⁶

BLM also contends that the Project will only cause minor shifts in the migration routes of caribou and will thus not have a significant impact on subsistence resources or their availability. The Watson study stands in sharp contradiction to this theory. It makes it clear that subsistence hunters in the region meticulously plan their hunting trips to coincide with migratory patterns, and that the disturbance and displacement of caribou resulting from industrial development will directly and substantially impact subsistence harvesting.

Another major problem with BLM’s subsistence analysis is that it has relied on faulty information regarding the extent of community reliance on subsistence resources. As just one example, BLM contends that only about 30 to 60% of the households in Stevens Village rely on

²⁷⁶ See ADF&G, Subsistence Division, Harvest Information for Community, www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG=harvInfo.harvestCommSelComm.

salmon, whitefish, sheefish, and moose.²⁷⁷ This is simply false. Every single household in Stevens Village relies on all of these resources. This was pointed out to BLM during public scoping by Natasha Singh, a Tribal member of Stevens Village and General Counsel for TCC,²⁷⁸ but the agency failed to correct its data and analysis. Stevens Village is just one example. BLM has relied on inaccurate data regarding subsistence use throughout the Draft EIS and associated reports, and it has failed to take seriously traditional knowledge in communities regarding their own subsistence use.

The discussion of social and health impacts in the Draft EIS are flawed as well. For instance, BLM has vastly overstated potential benefits associated with the Project and mining activity. BLM suggests there will be substantial employment opportunities for local communities, but this assumption is unfounded, unreasonable, and inaccurate. There are no agreements in place with private companies to promote or ensure local hire, and the government is not allowed to implement employment preferences. Moreover, some communities will be too far away for employment to be realistic and even those within a reasonable distance would first have to build connecting roads at their own expense, which is not economically or ecologically feasible for small villages. At best, there may be some employment opportunities arising from community-based monitoring opportunities in an adaptive management scheme that covers the entire Project area throughout the life of the Project, as proposed herein.

BLM's analysis of the adverse social and health impacts resulting from road access and large-scale industrial development also needs to be supplemented. There are many additional studies and reports documenting the extensive impacts of such projects on indigenous and rural communities. TCC is providing some of these studies as Exhibits for BLM to use in developing a Revised Draft EIS.²⁷⁹ Community comments on health impacts can be obtained in the transcripts of recent community meetings.

It is TCC's understanding that the comments submitted by Brooks Range Council address subsistence, social, and health issues in greater depth. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations.

4. Wetlands & Vegetation Impacts

BLM's discussions of wetlands and vegetation impacts are inadequate as well. For instance, the tables in Appendix E concerning alterations to wetlands and vegetation are limited to acreage.²⁸⁰ However, the acreage affected by industrial development only tells a small piece of

²⁷⁷ See Draft EIS, at L-133 (tbl. 35), L-138 (tbl.40).

²⁷⁸ See, e.g., Natasha Singh, Transcript of Scoping Meeting in Stevens Village, at 4 (Sept. 30, 2019) ("I would just want to ... clarify, for the record, that 100 percent of the households in Stevens Village rely on chum salmon, Chinook salmon, whitefish, moose, and sheefish.").

²⁷⁹ See Exhibits 1-17, 45-46, 49-53.

²⁸⁰ See Draft EIS, E-11 to E-14 (tbls. 10-15).

the story. There is no quantification of how the Project and mining would affect ecosystem services, such as nutrient cycling, permafrost retention, freshwater divergence, etc. BLM should fully address ecosystem services in a Revised Draft EIS.

It is TCC's understanding that the comments submitted by Trustees for Alaska (on behalf of multiple entities) address wetland and vegetation issues in more depth. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations.

5. Air Pollution & Greenhouse Gas Emissions

It is TCC's understanding that the comments submitted by Trustees for Alaska (on behalf of multiple entities) address air pollution and greenhouse gas emissions issue in-depth. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations.

6. Cultural Resource Impacts

The NHPA provides that, before expending any federal funds on or issuing any license for a proposed "undertaking," federal agencies "shall take into account the effect of the undertaking on any historic property" and "shall afford" the Advisory Council on Historic Preservation ("Council") a "reasonable opportunity to comment with regard to the undertaking."²⁸¹ The Council has been authorized to promulgate regulations governing the implementation of the NHPA consultation requirements,²⁸² and the Council's regulations are binding on all federal agencies. Also, the State Historic Preservation Officer ("SHPO") has a duty to "cooperate with the Secretary [of the Interior], the Council, other Federal and State agencies, local governments, and private organizations and individuals to ensure that historic property is taken into consideration at all levels of planning and development."²⁸³

As used in the NHPA, the term "historic property" includes "any prehistoric or historic ... site ... included on, or eligible for inclusion on" the National Register of Historic Places.²⁸⁴ Properties of "traditional religious and cultural importance to an Indian tribe ... may be determined to be eligible for inclusion in the National Register."²⁸⁵ The NHPA encompasses traditional cultural properties and cultural landscapes. The villages of Allakaket and Alatna have prepared a nomination of areas in their customary and traditional use areas that qualify as traditional cultural properties.

²⁸¹ 54 U.S.C. § 306108.

²⁸² 54 U.S.C. § 304108(a).

²⁸³ 54 U.S.C. § 302303(b) and (b)(6). The SHPO also has a duty to "consult with appropriate Federal agencies ... on—(A) Federal undertakings that may affect historic property; and (B) the content and sufficiency of any plans developed to protect, manage, or reduce or mitigate harm to that property." 54 U.S.C. § 302303(b) and (b)(9).

²⁸⁴ 54 U.S.C. § 300308.

²⁸⁵ 54 U.S.C. § 302706(a). See 36 C.F.R. § 800.16(l)(1)-(2).

In carrying out its consultation responsibilities, a federal agency “shall consult with any Indian tribe ... that attaches religious and cultural significance to property described in subsection (a).”²⁸⁶ BLM is developing a programmatic agreement regarding the cultural resources affected by the Project. In doing so, BLM must expand the consultation process across the domain of affected federally recognized Tribes. Tribes and Tribal members need to be consulted exhaustively before any construction begins that may affect historic properties in the broadest sense. Rerouting may be necessary to avoid harming significant cultural resources eligible for listing on the National Register of Historic Places. Documentation regarding cultural properties, cultural landscapes, and traditional cultural properties should include genuine consultation with affected Tribes and the mosaic of customary and traditional use areas important to Tribal members.

The term “undertaking” means “a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including— (1) those carried out by or on behalf of the Federal agency; (2) those carried out with Federal financial assistance; (3) those requiring a Federal permit, license, or approval; and (4) those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.”²⁸⁷

Regulations implementing the NHPA establish a detailed process for consultation relating to federal agency undertakings, which includes the following elements:

Determination of whether the proposed federal action is an “undertaking” and whether it has the “potential to cause effects on historic properties;”²⁸⁸

Coordination of the NHPA consultation process with other reviews, including those under NEPA;²⁸⁹

Consultation with the SHPO, or with the THPO in lieu of the SHPO (where the Tribe has assumed the responsibilities of the SHPO), or with both the SHPO and the Tribe on an equal footing (where the Tribe has not assumed the responsibilities of the SHPO);²⁹⁰

Public participation in the consultation process;²⁹¹

Identification and inclusion of Tribes and other consulting parties as required or appropriate;²⁹²

²⁸⁶ 54 U.S.C. § 302706(b).

²⁸⁷ 54 U.S.C. § 300320. *See* 36 C.F.R. § 800.16(y).

²⁸⁸ 36 C.F.R. § 800.3(a).

²⁸⁹ 36 C.F.R. § 800.3(b).

²⁹⁰ 36 C.F.R. § 800.3(c)(1), (d).

²⁹¹ 36 C.F.R. § 800.3(e).

²⁹² 36 C.F.R. § 800.3(f).

Delineation of the area of potential effects and identification of historic properties;²⁹³

Assessment of adverse effects on historic properties through the application of detailed criteria;²⁹⁴

Finding of “no adverse effect” or “adverse effect,” with further consultations, reviews, and resolution of disagreement as needed in order to resolve and eliminate any adverse effect;²⁹⁵

Documentation of findings and memorialization of commitments to resolve adverse effects in a memorandum of agreement or programmatic agreement;²⁹⁶ and

Post-consultation monitoring, reporting, discoveries, amendments, and other steps as appropriate.²⁹⁷

Where the area of potential effects from a federal undertaking encompasses historic properties that might be of “religious and cultural significance” to a Tribe, the federal agency has a heightened obligation to consult with the relevant Tribe,²⁹⁸ and the federal agency “shall acknowledge that Indian tribes ... possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them.”²⁹⁹

For purposes of this consultation process, the term “effect” means “alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register.”³⁰⁰ The term “area of potential effects” means “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties,” and it is “influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”³⁰¹ “Adverse effects” on historic properties include:

“Physical destruction of or damage to all or part of the property;”³⁰²

“Change of the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance;”³⁰³ and

²⁹³ 36 C.F.R. §§ 800.3, 800.4.

²⁹⁴ 36 C.F.R. § 800.5(a).

²⁹⁵ 36 C.F.R. §§ 800.5(b)-(d), 800.6.

²⁹⁶ 36 C.F.R. §§ 800.6, 800.14(b).

²⁹⁷ 36 C.F.R. § 800.6.

²⁹⁸ 36 C.F.R. §§ 800.3(b), (f)(2), 800.4(a)(4), (b), (c)(1)-(2), 800.5(a), (a)(2)(vi), (a)(iii), 800.6(c)(2)(ii).

²⁹⁹ 36 C.F.R. § 800.4(c)(1).

³⁰⁰ 36 C.F.R. § 800.16(i).

³⁰¹ 36 C.F.R. § 800.16(d).

³⁰² 36 C.F.R. § 800.5(a)(2)(ii).

“Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance.”³⁰⁴

The burden is on the federal agency to ensure the adequacy of NHPA consultation and elimination of adverse effects.

BLM’s efforts concerning the NHPA consultation process fall short of NHPA requirements, as well as its duties under NEPA, ANILCA, and other laws.³⁰⁵ All potentially affected Tribes in the TCC region are descendent communities in their traditional land domains and have ancestral ties to the land and resources in and around modern villages. Consequently, those communities possess rich oral histories about their traditional lands and their identity tied to cultural landscapes that the Project will traverse. Even though Tribes have been designated as consulting parties, the NHPA 106 consultation process and development of the Programmatic Agreement have included inadequate levels of Tribal consultation. The authorizing federal agencies must engage in more extensive consultation pursuant to NHPA and other associated federal historic preservation laws.

8. Visual Impacts

It is TCC’s understanding that the comments of the Brooks Range Council address visual impacts. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations.

C. IMPROPER TIERING & INCORPORATION BY REFERENCE

BLM has attempted to compensate for some of the major holes in the Draft EIS by referencing NEPA documents relating to other projects, future permitting processes, and materials that are not publicly available. These references do not remedy the problems with the Draft EIS.

An EIS is meant to “insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.”³⁰⁶ Federal agencies must therefore “[e]ncourage and facilitate public involvement in decisions which affect the quality of the human environment.”³⁰⁷ Toward that end, the EIS be presented in a way that “the public

³⁰³ 36 C.F.R. § 800.5(a)(2)(iv).

³⁰⁴ 36 C.F.R. § 800.5(a)(2)(vii).

³⁰⁵ See Draft EIS, at 1-5, I-5. See Draft EIS, appcs. I and J.

³⁰⁶ 40 C.F.R. § 1500.1(b).

³⁰⁷ 40 C.F.R. § 1500.2(d).

can readily understand,”³⁰⁸ and the EIS must be “supported by evidence that the agency has made the necessary environmental analyses.”³⁰⁹

The EIS itself is “where the [agency’s] defense of its position must be found.”³¹⁰ “[O]ther parts of an administrative record do not receive the same wide circulation and consequent comment comparable to that accorded an environmental impact statement.”³¹¹ As such, “[m]aterials in the administrative record, but not incorporated in any way into the EIS, cannot bring an otherwise defective EIS into compliance with NEPA.”³¹² Moreover, material cannot be incorporated by reference if it is not “reasonably available for inspection by potentially interested persons within the time allowed for comment,” and “[m]aterial based on proprietary data which is itself not available for review and comment shall not be incorporated by reference.”³¹³

An EIS may “tier” to another NEPA document in order to “eliminate repetitive discussions of the same issues.”³¹⁴ Tiering, however, is subject to strict limitations. It is only authorized when an EIS of lesser scope or site-specific nature relies on a prior EIS relating to a broad agency program, plan, or policy, or when an EIS at a later stage of a project (such as remediation) relies on the earlier EIS for the project itself.³¹⁵ In contrast, it is unlawful for a current EIS to rely on a future EIS that has not yet been prepared, publicly reviewed, or finalized.

Furthermore, an EIS may only tier to prior documents that have been subject to NEPA review. Tiering to a document that has not been subject to NEPA review is “not permitted, for it circumvents the purpose of NEPA.”³¹⁶ Where an attempt to tier to non-NEPA documents was deemed impermissible, the court emphasized that the adequacy of the EIS “depends on the

³⁰⁸ *Earth Island Inst. v. U.S. Forest Serv.*, 442 F.3d 1147, 1160 (9th Cir. 2006) (quoting 40 C.F.R. § 1502.8). See *Oregon Envtl. Council v. Kunzman*, 817 F.2d 484, 493 (9th Cir. 1987) (“An EIS must be organized and written so as to be readily understandable by governmental decisionmakers and by interested non-professional laypersons likely to be affected by actions taken under the EIS.”) (internal quotation omitted).

³⁰⁹ 40 C.F.R. § 1502.1.

³¹⁰ *Blue Mtns.*, 161 F.3d at 1214. See *Nat’l Wildlife Fed’n v. Marsh*, 568 F. Supp. 985, 997 (D.D.C. 1983) (“Congress mandated in section 102(2)(C) of NEPA that the pertinent information be contained wholly within the impact statement.”).

³¹¹ *Nat’l Wildlife Fed’n*, 568 F. Supp. at 997.

³¹² *Hammond*, 370 F. Supp. 2d at 252 n.17.

³¹³ 40 C.F.R. § 1502.21.

³¹⁴ 40 C.F.R. § 1502.20.

³¹⁵ 40 C.F.R. § 1508.28.

³¹⁶ *Kern*, 284 F.3d at 1073. See *Northcoast Envt’l Center v. Glickman*, 136 F.3d 660, 670 (9th Cir. 1998) (explaining that, “[a]lthough CEQ procedures allow agencies to incorporate by reference certain materials to cut down on the bulk of an EIS, they cannot ‘tier’ their site-specific EISs to the broader ... program where the program itself has not been subject to NEPA procedures”).

analysis contained in the EIS itself.”³¹⁷ In a case involving a proposal for a major gold mining project in Nevada, the Ninth Circuit rejected BLM’s argument that off-site air quality impacts arising from a separate processing facility need not be evaluated in the EIS because the facility would be operated pursuant to a state-issued Clean Air Act permit.³¹⁸ The court explained that “[a] non-NEPA document—let alone one prepared and adopted by a state government—cannot satisfy a federal agency’s obligations under NEPA.”³¹⁹

The Ninth Circuit has also emphasized that tiering is only permissible where the prior NEPA document actually discusses the “specific environmental impacts at issue.”³²⁰ The Ninth Circuit rejected the government’s attempt to tier to a prior EIS relating to a Forest Plan because that EIS failed to “account for the specific impacts” of the land exchange at issue and thus did not “remedy the Forest Service’s failure to account for the impacts” of the land exchange in the present EIS.³²¹

The Draft EIS relies heavily on the Donlin Gold Mine EIS in an attempt to address several large holes in the indirect and cumulative impact analyses. For instance, BLM admits that “[i]t is not possible to state with specificity the spill impacts from mining because no specific mining proposal has been made,” but states that “the risk of spills and impacts from spills would be anticipated to be similar to the risks addressed in BLM’s Donlin Gold EIS ...”³²² Likewise, in an attempt to fill the gap relating to air quality impacts, BLM points the reader to the Donlin Gold Mine EIS as a “recent conventional example of a mine reviewed for air quality impacts.”³²³ Further, BLM acknowledges that, “[b]ecause no specific mining proposal is under consideration, no specific mitigation is proposed for the indirect mining scenario.”³²⁴ In effort to fill this hole then points the reader to the Donlin Gold Mine EIS “[f]or a recent example of typical mitigation required for a mine in Alaska.”³²⁵

This approach does not comport with NEPA requirements. It does not constitute valid tiering because the Donlin Gold Mine is an entirely different project than the Ambler Road Project and

³¹⁷ *Kern*, 284 F.3d at 1073-74. Similarly, governmental attempts to tier to non-NEPA watershed analyses in connection with proposed timber sales have been deemed unlawful. See *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 998 (9th Cir. 2004); *League Wilderness Defs. v. U.S. Forest Serv.*, 549 F.3d 1211, 1219 (2008); *Oregon Nat. Res. Council v. BLM*, 470 F.3d 818, 823 (9th Cir. 2006).

³¹⁸ *South Fork Band Council W. Shoshone v. U.S. Dept. Interior*, 588 F.3d 718 (9th Cir. 2009).

³¹⁹ *South Fork*, 588 F.3d at 726 (citing *Klamath-Siskiyou*, 387 F.3d at 998).

³²⁰ *South Fork*, 588 F.3d at 726.

³²¹ *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 810 (9th Cir. 1999). See *Klamath-Siskiyou*, 287 F.3d at 997 (similarly rejecting the government’s attempt to tier to a prior planning-level EIS because it was lacking “any specific information” about cumulative effects and failed to evaluate the “incremental impact that can be expected ... as a result of each of these four successive timber sales”) (emphasis in original).

³²² Draft EIS, at 3-14, H-36.

³²³ Draft EIS, at 3-35, H-39.

³²⁴ Draft EIS, at 3-3.

³²⁵ Draft EIS, at 3-3.

associated mining, and thus the EIS does not address the “specific environmental impacts at issue” in connection with the Ambler Road Project. To the extent there may be relevant information in the Donlin EIS, BLM would have had to present it in the EIS in a clear and concise manner, and explain how it is relevant for the Ambler Project, just as with any other analysis, because the EIS itself is where the agency’s analysis “must be found.” Merely mentioning the Donlin EIS and including weblinks to it in the References sections is not sufficient.³²⁶

BLM also repeatedly refers to future federal and State permitting relating to the Project itself and mining activity. These references do not substitute for a meaningful analysis of impacts in the EIS itself. The fact that the information is not yet available reinforces the fact the preparation of the EIS is premature because the Project is not yet far enough along.

Finally, BLM relies heavily on subsistence data prepared by, or under the auspices of, Stephen R. Braund & Associates.³²⁷ Many of these are identified as unpublished works. Also, some undertaken in connection with the Alaska Liquefied Natural Gas project are entirely redacted with cover sheets indicating they are “Privileged and Confidential.”³²⁸ BLM must either not rely on it, or it must make this information available to the public and affected Tribes, allowing them to consider it during their consultation processes and to derive appropriate mitigation measures in light of this information.

In sum, BLM must prepare a Revised Draft EIS fully and substantively addressing all the gaps in its analyses, and it must do so without invalid tiering or improper incorporation by reference.

VIII. INADEQUATE DISCUSSION OF MITIGATION

In the absence of any specific mining proposal advanced to a design phase, or any broad-long-term mining plan for the entire Ambler Mining District, BLM acknowledges that the EIS “does not discuss avoidance, minimization, or mitigation for impacts related to the development and operations of potential future mines because details of that development are not sufficiently available at this time.”³²⁹ Moreover, BLM is merely assuming that standard mitigation would be applied.³³⁰ Yet there is no such thing as standard mitigation for a large, complex mining project, much less an entire mining district containing several major mines and potentially

³²⁶ See, e.g., Draft EIS, at H-82, O-25.

³²⁷ See, e.g., Draft EIS, at L-20 (“The ... Stephen R. Braund & Associates (SRB&A) subsistence studies have systematically collected community harvest and use data in Alaska since the 1980s. These data allow for the quantitative measurement of certain aspects of cultural and material importance of subsistence resources used in this analysis.”). See also Draft EIS, at 3-108, 3-114, 3-115, I-2, K (Cultural Resources Data Gap Analysis Report, cover, 1), L-vii, L-10, L-11, L-13, L-14, L-17, L-18, L-19, L-61, L-62, L-65, L-66, L-93, L-94, L-100, L-115, L-116, L-119, L-127, L-134, L-135, L-151, L-165, L-169, L-172, L-173, L-186, L-192, L-193, M-5, M-6, M-7, M-10, M-23, M-25, O-24, Map 3-32.

³²⁸ See Exhibits 77-78.

³²⁹ Draft EIS, at 3-3.

³³⁰ Draft EIS, at 3-3.

hundreds of smaller mines.³³¹ This underscores the premature nature of the Project EIS and the unlawful segmentation of the Project from the mining activity to which it is inextricably connected, as discussed above.

The discussion of mitigation in the Draft EIS relating to the Project itself is just as inadequate. Appendix N merely provides a menu of potential mitigation measures that BLM and other regulatory agencies could conceivably require. This is no more useful than cutting and pasting from each agency's regulations, guidance documents, and prior permitting decisions. It says nothing about what mitigation measures will actually be applied to the Project. It also says nothing about a host of other important issues, such as whether and to what extent the mitigation measures will reduce adverse impacts, what unavoidable impacts will remain after mitigation, whether the mitigation measures are feasible, cost-effective, concrete, and enforceable, which agency will require the measures, who will pay for them, and so on. This approach drives home the fact that the Draft EIS is premature, the Project has been unlawfully segmented from mining activity, and the Draft EIS is unlawfully relying on future permitting and associated analyses rather than meaningfully evaluating all potential impacts during this NEPA review.

The following is a summary of some key areas where robust, effective, and enforceable mitigation measures must be developed and applied to the Project, and then evaluated in a Revised Draft EIS with full public participation:

Subsistence Working Group: TCC generally supports the idea of a subsistence working group,³³² but the concept needs to be much better developed in consultation with the potentially affected Tribes. BLM should ensure that the formation and functioning of the group is based on meaningful input from Tribes and other local stakeholders. Representation in the group should be equitable. At a minimum, a representative position should be designated for each of the affected Tribes, villages, and communities. The group should also be given real decision-making authority, including timely notification, consultation, and an opportunity to reject unacceptable actions.

Social & Health Impacts: TCC and its members are very concerned about the adverse social and health impacts expected to arise from the Project and mining activity. The operators of the road and the mines should be required to adhere to a detailed and stringent code of conduct,³³³ including a strict prohibitions against (1) any use of alcohol or tobacco, (2) any illicit activity, including drugs and prostitution, and (3) hunting, fishing, or harvesting by anyone other than residents who are preexisting members of local communities. Training and awareness measures should be routine upon the hiring of employees or assigning them to this region. Consequences for violating the code of conduct (e.g., docking of pay, termination of employment) should be clearly spelled out and implemented. Commercial licenses for delivery

³³¹ Draft EIS, at 3-3.

³³² See Draft EIS, at N-28.

³³³ See Exhibits 1-14, 49-50.

of freight and goods should include similar terms and conditions prohibiting the delivery of alcohol, tobacco, drugs, and other similar items, as well as illicit activities and hunting, fishing, and harvesting by truck drivers or other employees. Community members also need to be integrated in monitoring the effects of the Project on the health and well-being of the community and its members.

Culverts: Culverts and other measures relating to fish passage must be far more effective than ADF&G standards and based on the most recent scientific literature.³³⁴ Routine monitoring and inspections should be frequent and mandatory, with regular reporting obligations to State agencies built in, even if they would not otherwise be required for State permitting. A funding mechanism (e.g., bonding or insurance) commensurate with the risks posed by thousands of culverts should be set up in advance to cover the cost of repairs and replacement. These mitigation measures should be applied in a mandatory manner through federally enforceable permit terms and conditions, above and beyond what ADF&G may require.

Gravel Extraction: Gravel extraction should be forbidden in floodplains, as well as in anadromous streams. In light of the inadequacy of existing fish and stream data, streams should be presumed anadromous unless proven otherwise. This mitigation measure should be applied in a mandatory manner through federally enforceable permit terms and conditions, above and beyond what ADF&G may require.

Blasting & Heavy Equipment: Blasting and heavy equipment should generally be forbidden in floodplains and anadromous streams with the same presumption stated above. The only exception would be for work directly connected to the installation or repair of culverts and bridges, and this work should be carried out well outside sensitive migration and spawning periods. This mitigation measure should be applied in a mandatory manner through federally enforceable permit terms and conditions, above and beyond what ADF&G may require.

Fish, Bird, Mammal, Habitat, & Subsistence Studies: The Project and mine developers and operators should be required to invest in and bear the cost of substantial data-gathering efforts before, during, and after the life of the Project to address the many gaps in baseline data and to monitor changes over time. The communities and Tribal members most affected by the Project should be engaged in an adaptive management program throughout the life of the Project. External contractors hired to perform such work should be overseen by ADF&G and/or federal land managers, with no involvement from the Project proponents or mine companies. To the maximum extent feasible, these studies should involve Tribal and community representatives and take into account traditional knowledge, demographic, economic, health, and social effects experienced by the communities. Residents from both Allakaket and Alatna, for example, have experience in conducting such studies with Western biologists. The Tribal Guardian Program described above would provide a useful framework for these efforts.

³³⁴ See Exhibits 24-42.

Monitoring & Enforcement: Most mitigation measures fail because there is inadequate monitoring, recordkeeping, reporting, and enforcement after project approval. Any BLM or other federal approval for the Project must include clear, mandatory, and federally enforceable provisions concerning these topics in each permit or other approval document. The Tribes and their Tribal members need to be integrated with community-based monitoring, adaptive management, and other metrics to ensure compliance with stipulations in the Project Record of Decision. Incorporating a form of the Tribal Guardian Program described above is essential to genuinely address impacts to the human and natural environments.

Reclamation & Remediation: Federal and State agencies have a poor track record of ensuring that road developers, mining companies, and other industries follow through with their reclamation and remediation obligations at the end of a project. Or, when the remediation and reclamation is not completed, local residents and communities suffer from toxic contaminant exposure and other harmful impacts for generations. Financial mechanisms, such as bonding or insurance, must be put in place ahead of time to ensure that this does not happen again. The bond, insurance, or other mechanism must provide financial assurance commensurate with a truly realistic forecast of the anticipated cost.

It is TCC's understanding that the comments of The Wilderness Society and The Wildlife Society-Alaska Chapter, as well as the comments submitted by Trustees for Alaska (on behalf of multiple entities), address mitigation issues in more detail. TCC hereby incorporates by reference these comments and any other similar comments submitted by Tribes, Alaska Native entities, and conservation organizations.

IX. CONCLUSION

For the foregoing reasons, TCC respectfully urges BLM to select the No Action alternative and deny authorization of the Project. The other federal agencies should likewise deny approval for the proposed industrial access road. If there is to be any further consideration of such a proposal, it will require a Revised Draft EIS with renewed public comment and consultation.

INDEX OF EXHIBITS

Subsistence & Traditional Ecological Knowledge

1. Craig Candler, *et al.*, Firelight Group Research Coop., Athabasca Chipewyan First Nation and Mikisew Cree First Nation, *As Long as the Rivers Flow: Athabasca River Knowledge, Use and Change* (Nov. 26, 2010)
2. Emily Gilpin, Canada's National Observer, *Indigenous Guardians Turn to Their Laws to Protect the Coast* (June 24, 2019)
3. Firelight Group Research Coop., Lake Babine Nation, Nak'azdli Whut'en, *Indigenous Communities and Industrial Camps: Promoting Healthy Communities in Settings of Industrial Change* (Feb. 2017)
4. Firelight Group Research Coop., CEMA-TKWG, CEMA Indig. Trad. Knowledge Framework Proj., *Indigenous Traditional Knowledge Framework: Principles for Inclusion of Indigenous Traditional Knowledge in Environmental Decision-Making for North East Alberta* (Oct. 8, 2015)
5. Indigenous Leadership Initiative, Indigenous Guardians Program
6. Arn Keeling and John Sandlos, *Introduction: Critical Perspectives on Extractive Industries in Northern Canada*, 3 *EXTRACTIVE INDUST. & SOC'Y* 265 (2016)
7. Arn Keeling and John Sandlos (eds.), *MINING AND COMMUNITIES IN NORTHERN CANADA: HISTORY, POLITICS, AND MEMORY* (2015)
8. Kobuk River Intertribal Watershed Council, Watershed Management Accord
9. Susan Leech, *et al.*, Firelight Group Research Coop., Doig River First Nation, *Madziih (Caribou) Tsáá? Ché Ne Dane: Traditional Knowledge and Restoration Study* (Dec. 2016)
10. Pat Marcel, Firelight Group Research Coop., Athabasca Chipewyan First Nation, *Nih Boghodi: We Are the Stewards of Our Land* (April 26, 2012)
11. Shady Grove Oliver, The Arctic Sounder, *Ambler Road Project May Significantly Impact Health in Region* (Oct. 25, 2019)
12. Elisabeth S. R. Padilla, Univ. Alaska Fairbanks, *Caribou Leadership: A Study of Traditional Knowledge, Animal Behavior, and Policy* (Aug. 2010) (thesis)
13. Public Safety Canada, *Community Constable Program* (synopsis)

14. John Sandlos and Arn Keeling, *Aboriginal Communities, Traditional Knowledge, and the Environmental Legacies of Extractive Development in Canada*, 3 *EXTRACTIVE INDUST. & SOC'Y* 278 (2016)
15. TCC, *The Council: A Report to the Member Tribes of Tanana Chiefs Conference*, vol. 44, no. 9 (Sept. 2019)
16. Annette Watson, et al., Nat'l Parks Serv., Tanana Chiefs Conference, Allakaket Tribal Council, Alatna Tribal Council, *Traditional Ecological Knowledge of Moose, Other Wildlife Species, and Climate Change in Allakaket/Alatna* (May 2014)
17. Annette Watson, Ph.D., Nat'l Park Serv., *Ethnographic Overview and Assessment of Gates of the Arctic National Park and Preserve: Subsistence Land Use Across the Kobuk Preserve*, Cultural Resource Report, NPS/GAAR/CRR-2018/001 (Oct. 2018)

Caribou & Habitat

18. David R. Klein, *Variation in Quality of Caribou and Reindeer Forage Plants Associated with Season, Plant Part, and Phenology*, 3 *RANGIFER* 123 (1990)
19. Eric Post, et al., *Warming, Plant Phenology and the Spatial Dimension of Trophic Mismatch for Large Herbivores*, 275 *PROC. R. SOC'Y B* 2005 (2008)
20. John Boulanger, et al., *Estimating the Zone of Influence of Industrial Developments on Wildlife: A Migratory Caribou *Rangifer tarandus groenlandicus* and Diamond Mine Case Study*, 18 *WILDL. BIOL.* 164 (2012)
21. Jeffrey T. Kerby and Eric Post, *Advancing Plant Phenology and Reduced Herbivore Production in a Terrestrial System Associated with Sea Ice Decline*, 4 *NAT. COMMS.* 2514 (Oct. 2013)
22. Gian-Reto Walther, et al., *Ecological Responses to Recent Climate Change*, 416 *NATURE* 389 (Mar. 2002)
23. Taejin Park, et al., *Changes in Growing Season Duration and Productivity of Northern Vegetation Inferred from Long-Term Remote Sensing Data*, 11 *ENV. RES. LETT.* 084001 (2016)

Fish & Culverts

24. ADF&G Div. Comm. Fisheries, *2019 NOAA Fisheries—ADF&G Southeast Alaska Pink Salmon Harvest Forecast*, News Release (Nov. 15, 2018)
25. C. Carothers, et al., *KEYSTONE NATIONS: INDIGENOUS PEOPLES AND SALMON ACROSS THE NORTH PACIFIC* (J.F. Brooks ed. 2012) (book excerpts)

26. Jan M. Conitz, *et al.*, ADF&G, *Escapement Goal Recommendations for Select Arctic Yukon-Kuskokwim Region Salmon Stocks 2013*, Fish. Manusc. Series No. 12-07 (Dec. 2012)
27. Daniel Fake, Univ. Waikato, *Remediating Small-Scale Migratory Fish Barriers with Floating Fish Ramps* (2018) (thesis)
28. Emily A. Fergusson, *et al.*, *Annual Survey of Juvenile Salmon, Ecologically-Related Species and Biophysical Factors in the Marine Waters of Southeastern Alaska, May-August 2017*, NPAFC Doc. 1847 rev. (April 2019)
29. Robert Feurich, *et al.*, *Spoiler Baffles in Circular Culverts*, 137 J. ENVTL. ENG. 854 (Sept. 2011)
30. Robert Feurich, *et al.*, *Improvement of Fish Passage in Culverts Using CFD*, 47 ECOL. ENG. 1 (2012)
31. Kathrine G. Howard, *et al.*, ADF&G, *ADF&G Statewide Rockfish Initiative: Strategic Plan 2017-2020*, Reg. Info. Report 5J19-05 (Oct. 2019)
32. Kathrine G. Howard, *et al.*, ADF&G, *Juvenile Chinook Salmon Abundance Index and Survey Feasibility Assessment in the Northern Bering Sea, 2014-2016* (Mar. 2019)
33. P.S. Kemp, *et al.*, *Seaward Migrating Subyearling Chinook Salmon Avoid Overhead Cover*, 67 J. FISH BIOL. 1381 (2005)
34. Kenai Watershed Forum, *Culvert Assessment*
35. Mat-Su Basin Salmon Habitat Partnership, *Projects*
36. Robert P. Mueller, *et al.*, *Juvenile Coho Salmon Leaping Ability and Behavior in an Experimental Culvert Test Bed*, 137 J. TRANS. AM. FISH'S SOC'Y 941 (2008) (abstract)
37. James M. Murphy, *et al.*, ADF&G, *2018 Pink Salmon Harvest Forecast Models from Southeast Alaska Coastal Monitoring Surveys*, NPAFC Doc. 1848 rev. (April 2019)
38. W.H. Pearson, *et al.*, *Research on the Upstream Passage of Juvenile Salmon Through Culverts: Retrofit Baffles*, Final Report, PNWD-3672 (April 2006) (prepared for Wash. State Dept. Transp.)
39. Amanda Reilly, E&E News, *Highways, Salmon Habitat Collide in Tribal Treaty Case* (April 17, 2018)
40. Essie M. Rodgers, *et al.*, *Substrate Roughening Improves Swimming Performance in Two Small-Bodied Riverine Fishes: Implications for Culvert Remediation and Design*, 5 CONS. PHYS. 1 (2017)

41. *United States v. Washington*, 853 F.3d 946 (9th Cir. 2016, as amended).
42. Andrew S. Vowles, *Upstream Movement of River Lamprey Through a Culvert Retrofitted with Spoiler Baffles Under Experimental Conditions*, 3 J. ECOHYDRAULICS 99 (2018) (abstract)

Haul Road Hazards & Other Issues

43. AIDEA, Arcadis, *DeLong Mountain Transportation System: Asset Management Review* (Dec. 2017) (exec. summary)
44. ANCSA Amendment, P.L. 99-96 (Sept. 25, 1985) (summary)
45. Esteban Chiriboga, GIS and Mining Specialist, Great Lakes Indian Fish & Wildlife Commission, Comment Letter to U.S. Environmental Protection Agency re Kennecott Eagle Haul Road (Sept. 4, 2012)
46. John Coleman, Great Lakes Indian Fish & Wildlife Commission, Comment Letter to U.S. Army Corps of Engineers and U.S. Environmental Protection Agency re Kennecott Eagle Haul Road (April 13, 2012)
47. Izembek H.R. 2801 (introduced June 20, 2007) (text)
48. Izembek S. 1680 (introduced June 21, 2007) (text)
49. R.J. Thompson, Western Aus. Sch. Mines, Curtin Univ., *Mine Haul Road Design and Management: A Current Practice Review* (2011)
50. Meng Zhang, *et al.*, *Investigation of Haul Truck-Related Fatal Accidents in Surface Mining Using Fault Tree Analysis*, 65 SAFETY SCI. 106 (2014)

Reclamation & Remediation

51. Caitlin Beckett & Arn Keeling, *Rethinking Remediation: Mine Reclamation, Environmental Justice, and Relations of Care*, 24 LOCAL ENV'T. 216 (2018)
52. Trevor Bell and Tanya Brown (chief eds.), *From Science to Policy in the Eastern Canadian Arctic: An Integrated Regional Impact Study of Climate Change and Modernization* (2018)
53. Ellen Power and Arn Keeling, *Cleaning Up Cosmos: Satellite Debris, Radioactive Risk, and the Politics of Knowledge in Operation Morning Light*, 48 NORTHERN REV. 81 (2018)

Renewable Energy

54. Art Nash and Chris Pike, ACEP, Univ. Alaska Fairbanks, *A Solar Design Manual for Alaska* (5th ed., rev. May 2018).

55. Erin Whitney and Christopher Pike, *An Alaska Case Study: Solar Photovoltaic Technology in Remote Microgrids*, 9 J. REN. & SUST. ENERGY 061704-1 (2017)
56. Elan Edgerly, Anchorage Daily News, *Renewable Energy Makes Financial Sense for Alaska* (Jan. 30, 2017)
57. U.S. Dept. Energy, Office Indian Energy Policy & Programs, *Can Solar Work in Alaska? Hughes Village Says Yes* (Feb. 6, 2019)

Resolutions Opposing Ambler Road Project

58. Allakaket Tribal Council, *A Resolution Opposing the Building of a Year-Round Road to Access the Ambler Mining District and Kobuk Mineral Belt Using the Brooks East Corridor Starting at Prospect Creek*, Res. 2013-43
59. Arctic Audubon Society, *Resolution to Oppose Ambler Road*
60. City of Ambler, *A Resolution to Oppose the Proposed Road to Ambler Mining District*, Res. 18-01
61. City of Bettles, *A Resolution Opposing the Building of a Year-Round Road Through Bettles, Alaska to Access the Ambler Mining District Using the Brooks East Corridor Starting at Prospect Creek*, Res. 2014-4
62. Evansville, Inc., Board of Directors, *A Resolution in Opposition to Any Portion of the Proposed Ambler Mining Road Being Constructed on Evansville, Incorporated Land*, Res. 2014-01
63. Evansville Tribal Council, *Opposing the Proposed Road to the Ambler Mining District*, Res. 2017-08-02
64. Gates of the Arctic Subsistence Resource Commission, *Comments Opposing Ambler Road*
65. Huslia Tribal Council, *Resolution in Opposition of the Proposed Ambler Mining Road*, Res. 17-02
66. Koyukuk Native Village, *A Resolution Opposing the Building of a Year-Round Road to Access the Ambler Mining District and Kobuk Mineral Belt Using the Brooks East Corridor Starting at Prospect Creek*, Res. 2017-24
67. Louden Tribal Council, *Opposing the Ambler Road*
68. Native Village of Kotzebue, *A Resolution Opposing the Ambler Road Project*, Res. 18-15

69. Northern Alaska Environmental Center, *A Resolution of the Northern Alaska Environmental Center Board of Directors and Issues Committee in Opposition to the Proposed Ambler Mining District Industrial Access Road*
70. Rampart Village Council, *A Resolution Opposing the Building of a Year-Round to Access the Ambler Mining District and Kobuk Mineral Belt Using the Brooks East Corridor Starting at Prospect Creek*, Res. 2014-18
71. Ruby Tribal Council, *Opposing the Proposed Road to the Ambler Mining District*, Res. 2018-01
72. Tanana Chiefs Conference, Full Board of Directors, *Opposing Ambler Road*, Res. No. 2014-54
73. Tanana Chiefs Conference, Full Board of Directors, *Oppose the Ambler Mining District Industrial Access Project / Road*, Res. No. 2018-09
74. Tribal Alliance, *Joint Resolution Concerning the Proposed Road to Ambler*, Res. 2014-6
75. Western Interior Alaska Subsistence Regional Advisory Council, Letter to U.S. Bureau of Land Management, RAC/WI 18001.ZS (Jan. 16, 2018)

Other

76. Tobi Jeans Maracle and Stephanie Quinn-Davidson, *Ambler Road, Draft EIS Analysis* (v. 1.0) (Sept. 15, 2019)
77. Alaska LNG Resource Reports, Report 5, Appx. C (Subsistence and Traditional Knowledge Draft Existing Data Compilation Report) (redacted)
78. Alaska LNG Resource Reports, Report 5, Appx. D (Final Subsistence and Traditional Knowledge Studies Report) (redacted)