

**Alaska Community Action on Toxics • Alaska Wilderness League • All About Adventure
• Audubon Alaska • Brooks Range Council • Center for Biological Diversity • Defenders
of Wildlife • Earthworks • National Parks Conservation Association • Northern Alaska
Environmental Center • Sierra Club • The Wilderness Society¹**

Via E-mail

January 31, 2018

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BLM_AK_AKSO_AmblerRoad_Comments@blm.gov

**Re: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed
Ambler Road Project**

Dear Mr. LaMarr:

Thank you for the opportunity to provide comments on the Bureau of Land Management's (BLM) notice of intent to prepare an Environmental Impact Statement (EIS) for the proposed Ambler Road.²

Our organizations are deeply concerned about the direct, indirect, and cumulative effects of the proposed road, development of the Ambler mining district, and the lack of information available on the project. Building this road will cause a large, wild area to experience heavy truck traffic that will create noise pollution and dust, impair wilderness recreation, disturb wildlife, destroy wetlands and permanently alter rural lifestyles dependent on traditional food resources like fish and caribou. BLM should consider the widespread public opposition to this project based on its negative economic and environmental impacts, and include a broad range of mitigation measures. As the lead agency, BLM must ensure this process complies with NEPA, the Federal Land Policy and Management Act (FLPMA), and the permitting requirements of its cooperating agencies.

The Alaska Industrial Development & Export Authority (AIDEA) is proposing to build a 211-mile industrial access road stretching from the mining district northeast of Ambler to the Dalton Highway.³ The road would begin on BLM-managed lands within the Dalton Highway Utility Corridor and extend across state land and lands privately owned by Doyon, an Alaska

¹ Comments prepared by Trustees for Alaska.

² 82 Fed. Reg. 12119 (Feb. 28, 2017).

³ DOWL, SF299 Revised Permit Application for Ambler Mining District Industrial Access sec.2, at 1 (June 2016), [hereinafter Revised Permit Application].

Native corporation, and isolated BLM-managed parcels. Currently, the road corridor would cross 2,900 streams, 1,794 acres of wetlands, and 11 major rivers, including the Kobuk Wild and Scenic River. The road would also cross Gates of the Arctic National Park and would run near several communities, including Bettles, Evansville, Shungnak, Kobuk, and Ambler.⁴

AIDEA claims that road construction would occur in three phases over 4 to 6 years. A Phase I pioneer road would be built first, but would only be usable from August through April, with use in the spring/summer months restricted due to the shallow embankment construction and spring break up conditions.⁵ Phase II would construct a single-lane, gravel-surfaced roadway with year-round access, but would likely be operated in one direction at a time with guided conveyors.⁶ At its final stage, the road would be a two-lane, gravel-surfaced roadway, typically 32 feet wide.⁷ The road would require gravel mines roughly every 10 miles to provide the material needed to build the road — some of which may contain asbestos, a carcinogen — as well as numerous maintenance stations and camps.

Several communities and groups directly impacted by the project have passed resolutions opposing the proposed road: Native Villages of Huslia and Koyukuk, and the Kobuk Traditional Council, Allakaket, Ruby and Evansville Tribal Councils, Galena, Evansville Inc., Bettles City Council, and Tanana Chiefs Conference. Other local groups and communities have spoken out in opposition to the road: Native Villages of Nulato, Kaltag, Alatna, and the Western Interior and Northwest Arctic Subsistence Regional Advisory Councils. Despite widespread opposition to the project, AIDEA has continued to plow ahead and ignore the wishes of the communities and individuals most likely to be impacted by this ill-conceived project.

As detailed below, AIDEA's permit application for the Ambler Road is woefully inadequate and fails to provide sufficient information for the public and the reviewing agencies to meaningfully evaluate the project and its potential impacts. The direct, indirect, and cumulative effects of the proposed road are likely to be far-reaching and dramatic. The construction, maintenance and use of the road and its river crossings will negatively impact subsistence, wildlife, vegetation, permafrost, and water resources in an area already under stress from climate change. As the lead agency, BLM must rigorously analyze the wide range of potential impacts and provide sufficient information for the public and other agencies to meaningfully review this project.

I. BLM must properly define the scope of the EIS

The purpose of scoping under the National Environmental Policy Act (NEPA) is to determine the scope of the proposed project and the significant issues that will require in-depth analysis in the EIS.⁸ BLM should identify reasonable alternatives and fully evaluate a No Action Alternative, obtain missing information critical to define the scope of the EIS, and take an

⁴ *Id.* at 16 tbl.8.

⁵ *Id.* at 2–3.

⁶ *Id.* at 3.

⁷ *Id.*

⁸ 40 C.F.R. § 1501.7(a)(2).

adequate amount of time to fully consider the impacts of this project. This section evaluates each of these scoping obligations in turn.

A) BLM must evaluate reasonable alternatives, including a No Action alternative.

The EIS must “[r]igorously explore and objectively evaluate all reasonable alternatives[.]”⁹ This alternatives requirement is “the heart” of the EIS.¹⁰ To satisfy the alternatives requirement, the EIS must consider all reasonable alternatives to a given project, and it must rigorously explore and objectively evaluate those alternatives.¹¹ Descriptions must be given for any alternatives eliminated from detailed study.¹²

The EIS must also include a discussion of the environmental consequences of the proposed action and alternatives, including the environmental impacts of each alternative, any adverse environmental effects that cannot be avoided if the proposal is implemented, and any irreversible and irretrievable commitments of resources.¹³

The Revised Permit Application lists several alternative routes that were considered, but eliminated by AIDEA.¹⁴ There is a brief discussion of air and water options, which were both excluded without a complete analysis.¹⁵ The EIS should fully explore the eight different route alternatives, rail options, air options, and water transport options if barging is reasonable. For any alternatives considered in detail, AIDEA should provide a wetlands delineation using the Cowardin Classification of Wetlands and Deepwater Habitats. BLM should consider an alternative which eliminates AIDEA’s phased approach, and requires AIDEA to build the Phase III road at the outset. BLM should consult with local communities to determine a route which will have the least impact on subsistence in the region. BLM is not limited to the routes considered and eliminated by AIDEA, and is legally obligated to explore and evaluate reasonable alternatives in its EIS.

BLM must rigorously consider the benefits of a No Action alternative. As stated above, the BLM should not issue a ROW that fails to “protect the environment” as required by FLPMA. BLM must analyze the impacts to environmental resource values outside the immediate ROW corridor. This includes nearby communities, wildlife and habitat values, and downstream impacts, among other impacts described in more detail below.

Many groups and communities which may be impacted by development of the proposed road have spoken out in opposition to its construction, citing impacts to subsistence resources and wildlife in the area. AIDEA’s application provides a biased view of economic benefits to the state and local communities. The road will not connect with any communities, making claims by

⁹ *Id.* § 1502.14.

¹⁰ *Id.* § 1502.14.

¹¹ *Id.* § 1502.14(a).

¹² *Id.* § 1502.14(a).

¹³ *Id.* § 1502.16.

¹⁴ Revised Permit Application, *supra*, sec.2, at 10 (Table 4: Criterion and Scoring for DOT&PF Initial Corridor Alternatives).

¹⁵ *Id.* at 8.

AIDEA that they will reap benefits of easier access and cheaper fuel and commodities patently false. BLM should evaluate the findings in the recent study done by National Parks Service. When comparing households in villages within the Ambler project area to those along the existing road system in Alaska, subsistence harvest was greater in villages located off the existing road system.¹⁶ If subsistence harvest of those villages near the proposed road changed to mirror those villages on the current road system, it was estimated that the cost to replace those subsistence resources would be roughly equivalent to 33% of the average annual income in these villages.¹⁷ BLM must consider the economic benefits of the No Action alternatives to both local communities and state taxpayers.

Pursuant to the Federal Lands Policy Management Act, if BLM is unable to grant a ROW that does “no unnecessary damage to the environment,” then it must select the No Action alternative. Therefore, BLM should closely analyze this alternative in the draft EIS, and not merely pay it lip service.

B) AIDEA’s application lacks information critical to the scoping process.

Federal agencies “must use scoping to engage State, local and tribal governments and the public in the early identification of concerns, potential impacts, relevant effects of past actions and possible alternative actions.”¹⁸ The lack of a detailed project description presented a serious challenge to providing constructive scoping comments on this proposed development. For the purpose of evaluating significant impacts in the EIS, if there is incomplete information relevant to reasonably foreseeable significant adverse impacts 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.¹⁹ The impacts we have identified for purposes of scoping are based on AIDEA’s application, however, BLM must obtain substantially more data about the region, and information on the project design, to properly conduct its NEPA analysis.

There is a substantial amount of baseline data missing from AIDEA’s application that must be gathered before BLM can meaningfully evaluate and the public can fully understand the potential impacts from the project. AIDEA has provided almost no information about the aquatic resources in the region and how a project of this scale is likely to change nearby hydrology and habitat. Further studies are needed on the aquatic resources in the region and the potential impacts of the road and mines. BLM needs to do further studies to understand the negative impacts this project will have on caribou migration and wildlife. BLM should conduct a comprehensive study in *each* of the impacted communities to fully assess the subsistence, socioeconomic, cultural, recreational, and other negative impacts of this project. BLM cannot meaningfully evaluate the potential impacts and necessary mitigation measures without all of this information.

¹⁶ U.S. DOI NATIONAL PARKS SERVICE, EVALUATING DIFFERENCES IN HOUSEHOLD SUBSISTENCE HARVEST PATTERNS BETWEEN THE AMBLER PROJECT AND NON-PROJECT ZONES (August 2016) p. 39.

¹⁷ *Id.* at p. 41.

¹⁸ 43 C.F.R. § 46.235(a).

¹⁹ 40 C.F.R. § 1502.22(a).

Despite the fact that this would be a massive infrastructure project, AIDEA provided scant information in its permit application about the project design. It provides only high-level statements that this will be a one-lane pioneer road that will ultimately become a 2-lane gravel road, but no indication of the timeline or material sources for this buildout. Changes to the road size and size of maintenance of culverts could significantly degrade the environment and have severe adverse impacts to the hydrology of the region. BLM must analyze the impacts of all 41 gravel mines, ice roads, and impacts from ongoing construction efforts during the gradual “build-out” contemplated.²⁰

AIDEA states that an additional 2 inches of gravel will be added over the entire road length annually for the 50-year life of the road. This is an enormous amount of gravel, but continued gravel mining operations are barely mentioned in AIDEA’s application. Continual gravel mining and road maintenance means long-term disturbance, as blasting will need to occur every year, and involve the use of heavy equipment traversing the road to lay and grade the gravel. This will continue for the entire road length for the 50 year life of the road. Road removal is not discussed in AIDEA’s application, but will necessitate more equipment and disturbance, and cause permanent damage to the landscape. BLM must analyze the impacts of this ongoing disturbance, and the impacts from eventual road removal.

To properly evaluate environmental and social impacts, BLM must know anticipated levels of traffic on the road, as well the new airstrips being contemplated. Aircraft may have negative impacts on wildlife and subsistence in a broad geographic area, depending upon flight patterns, and this information is critical to determining impacts.

The lack of substantive information in AIDEA’s permit application and supporting documents raises serious questions about AIDEA’s ability to move forward with this massive project in an environmentally responsible manner.

C) The EIS process should be given an appropriate amount of time and study.

BLM and the other agencies need to fully analyze this massive project and should not truncate either their analysis or the timeframe necessary for the analysis and public outreach. Recently issued Executive Order 13807 and Department of Interior Secretarial Order 3355 seek to speed up and slim down NEPA documents and NEPA processes. Such limits are inappropriate for many projects in Alaska, where impacted communities are geographically dispersed, and projects and their environmental impacts are often complex.

The Secretarial Order imposes limitations for EISs on all DOI projects, including a page limit of 150 pages, with the exception of a 300-page maximum for “unusually complex projects.” Approval from high-level agency officials is required prior to going over these limits. These arbitrary page limits are unrealistic, as the majority of EISs are well over 300 pages in length. The purpose of an EIS is to “provide full and fair discussion of significant environmental impacts and [to] inform decisionmakers and the public of the reasonable alternatives which

²⁰ Revised Permit Application, *supra*, sec.2, at 4.

would avoid or minimize adverse impacts or enhance the quality of the human environment.”²¹ This particular project has a huge scope, as BLM must consider both a 211-mile gravel road in an undeveloped area, and a large mining development project. Adhering to arbitrary limits will lead to less transparency in the document, more mistakes, and missing key data. It would be inappropriate for BLM to adhere to these limits when it comes to a project of this scale.

Further, the Secretarial Order adds a target to complete all final EISs within one year. The Council on Environmental Quality recognizes that “universal time limits for the entire NEPA process are too inflexible” and agencies should base timing for NEPA analyses as “appropriate to individual actions.”²² The proposed project must consider input from a variety of federal, state and local agencies as well as tribes, and impacts many local communities. We are very concerned that under this timeline there will not be sufficient time for consultation with affected tribal entities or input from remote communities in the region that will be directly impacted. Further, BLM will not have adequate time to do new studies or even fully consider existing data. This overly strict timeline limits the chance for multiple-year surveys that have yet to be conducted, but are needed to understand impacts to wildlife populations and habitat, recreational use trends, economic impacts, adverse health impacts on local communities, and subsistence impacts inherent in this proposed project. AIDEA has also not provided sufficient data and information in its application for the agencies to comply with any strict timeframes.

II. BLM must consider a wide range of direct and indirect effects of the proposed road, and mitigation measures.

An EIS must include discussions of the direct, indirect, and cumulative effects of the proposed project on the human environment, as well as means to mitigate adverse environmental impacts.²³ The effects and impacts to be analyzed include ecological, aesthetic, historical, cultural, economic, social, and health impacts.²⁴ Direct effects are those that are caused by the project and that occur in the same time and place.²⁵ Indirect effects are those that are somewhat removed in time or distance from the project, but nonetheless reasonably foreseeable.²⁶

BLM may not rely solely on the one-sided information and conclusions contained in AIDEA’s permit application. As the lead agency responsible for developing the EIS, BLM is obligated to obtain appropriate baseline data for the project area and do a thorough analysis of potential impacts from the proposed project and its connected actions.

A) This project will have negative social impacts to communities in the region and state.

a. Subsistence Resources:

²¹ 40 C.F.R. § 1502.1.

²² *Id.* § 1501.8.

²³ *Id.* §§ 1502.16, 1508.25(c).

²⁴ *Id.* § 1508.8.

²⁵ *Id.* § 1508.8(a).

²⁶ *Id.* § 1508.8(b).

Many of the communities along the proposed route rely heavily on wild fish, animal, and plant consumption to meet their nutrition requirements. Given the high cost of food in these remote communities and the already significant concerns about food scarcity, any impact to subsistence resources would have a disproportionate impact on the quality of life in affected rural communities. These communities rely heavily on the areas that would be impacted by the proposed road.

The proposed road may impact subsistence by impacting user access across the road and potential avoidance of traditional subsistence use areas. Noise, traffic, and infrastructure associated with the project could affect the availability of key resources such as caribou, waterfowl, and furbearers including wolf and wolverine. Spills to water resources or that reach water resources, such as fish-bearing streams, could spread and thus have a wider potential impact area, such as an entire watershed. A new gravel road could complicate access to traditional hunting areas, if construction results in the road being too steep and high to cross on a snowmachine or four-wheeler. Subsistence harvesters often avoid areas of development due to concerns about contamination and because of residents' discomfort about hunting near human or industrial activity. As a result, avoidance areas will extend far beyond the immediate footprint of the road, causing the loss of subsistence use areas across a broad area. BLM must also fully assess potential negative impacts of aircraft traffic on subsistence resources and hunters in the area resulting from the new airstrips. During winter, it's possible that wildlife in the region may utilize the road, making the wildlife more accessible to subsistence hunters. While this may be helpful to subsistence hunters in the short-term, it may result in depletion of wildlife populations over the long-term.

For purposes of analysis, BLM should assume the public will be able to access the road, as AIDEA has provided no information on how they will restrict public access. Unrestricted access and illegal road use may lead to increased hunting pressure. Further, poaching by construction workers should be considered. Though Trilogy Metals stated that hunting by employees during work hours will be prohibited, it's unclear how they or any other future mining company will restrict hunting by its employees during their leisure time. Even if road use is limited to industrial access and poaching is limited, the estimated 400 trucks per day on a long industrial road has the potential to greatly impact subsistence hunting and harvesting success.

Subsistence hunting and harvesting activities are central to the cultural identity and social cohesion of the communities in the region. BLM needs to do a full study in each of the impacted communities to fully assess the subsistence, socioeconomic, cultural, and other impacts to the region.

b. Sociocultural impacts:

As discussed above, several communities or entities that would be impacted by the proposed road have passed resolutions opposing its construction. Disruption of subsistence activities may affect social and kinship ties, many of which are based on the harvesting,

distribution, and consumption of subsistence resources. BLM must also analyze adverse effects to cultural systems beyond those related directly to subsistence. This project has a long history in the region, and these affected communities have had to engage in many meetings and review a variety of documents during different permitting processes. BLM should consider the stress the permitting process will have on local communities.

The road to Ambler has the potential to increase social and political tensions between different population sectors and community institutions that either support or oppose aspects of development. Doyon, the Alaska Native Corporation for the region, considers itself a major shareholder for this project, due to the fact that 11 miles of the proposed road crosses Doyon lands. Although AIDEA is attempting to permit a road that would cross Doyon lands, it is not clear at this point whether they even have the permission or approval of Doyon to do so. Evansville, Inc. also owns significant portions of land between Gates of the Arctic National Park and Kanuti Wildlife Refuge. AIDEA originally proposed a route for the road that crossed Evansville, Inc. land, but was forced to reroute the project after Evansville, Inc. vehemently opposed the road.

Under the National Historic Preservation Act, BLM will be required to conduct Section 106 Review on all lands affected by the proposed action. The project's Area of Potential Affect (APE) should be defined to include all locations that have the potential to be impacted by the construction of the proposed road and any ancillary features (i.e. gas and utility, bridges, culverts, spur roads, etc.), and areas downstream of river crossings. The scope of the report needs to be the entire project regardless of land status. The report needs to clearly indicate where an archaeological inventory has been conducted and where inventory data is lacking within the APE. Community outreach is critical to identifying potential sites.

c. Economic impacts:

Any impacts to subsistence resources will have disproportionate impacts to the local economy because store-bought food is expensive. Those impacts must not be dismissed by claiming that these communities will reap the benefits of wage employment and thus, that any effects from the project will be low. The road will not connect directly to any communities in the region, making it illogical to assume that any community will benefit from lower costs for food, fuel, or other local needs, or experience increased employment.

Road costs and financing must be considered as these will have important, negative impacts on the state economy. It is not clear that the revenue from this project will break even with the cost of development or risk to the environment. AIDEA's cost estimate for construction of the full build-out of the two-lane access road is \$350 million-plus; operations and maintenance costs are expected to range from \$8 to \$10 million per year. AIDEA claims the total cost of construction, operation, and maintenance, and the cost of funds for AIDEA, would be between \$844.9 and \$906.0 million over a 30-year life of the Ambler Road.²⁷ Reclamation costs have not

²⁷ CARDNO, AMBLER MINING REGION ECONOMIC IMPACT ANALYSIS 7-11 (Jan. 2015) (prepared for AIDEA), available at <ftp://ftp.ambleraccess.org/Benefits/CARDNOAmblerEconomicImpactAnalysis.pdf>

been quantified. AIDEA, as a development finance authority, would develop the access route as a Public-Private Partnership, meaning that bonds would be used in conjunction with private capital for the construction and operation of the Ambler Road. The roadway corridor is expected to operate for up to 50 years.

AIDEA claims that funds and bonds would be for the construction and operation of the Ambler Road, which would later become a toll road. To date, the state has spent more than \$22 million of public funds on this proposed road. Despite opposition from villages in the region, the governor authorized AIDEA to spend \$3.6 million to initiate this EIS process. Notably, the mining industry beneficiaries at the end of the road could walk away from the project tomorrow.

BLM must account for the construction, operations, maintenance, financing and unknown reclamation costs of the project, and should not rely exclusively on AIDEA's cost projections which may vastly underestimate the project costs. BLM should consider costs for similar road projects, and earlier projected costs for the Ambler road, which have inexplicably decreased in AIDEA's most recent economic assessment. As has been done for the Knik Arm Bridge and Juneau Access, there should be an independent analysis of road costs prior to proceeding with this project.

For purposes of comparison, the proposed Ambler road is similar to the cancelled road to Nome project in terms of remoteness and probable costs per mile.²⁸ The projected costs for the Nome road – not including Stage 1 where a primitive road existed – was roughly \$1.66 million per mile. That included a 20% contingency, and the cost of major bridges, in 2011.

Notably, in an earlier 2011 report for Alaska Department of Transportation for this very project, DOWL HKM included a higher cost per mile for the Ambler road than the one presented in AIDEA's most recent report.²⁹ In this 2011 report, the cost for a 216-mile Ambler road route (with a 20% contingency cost) would be \$1.5 million per mile, or \$324 million, without water crossings.

In its most recent 2015 Economic Impact report for this project, AIDEA estimates a cost of \$1.36 million per mile for a total cost of \$286.7 million, including a 20% contingency. This is 18% lower than the projected cost of the cancelled Nome road, and does not include the cost of large and medium bridges, including the crossing of the Koyukuk and the Alatna rivers, which will be very expensive.³⁰ It's also lower than the cost estimated for the same project by Alaska

²⁸ DOWL HKM, WESTERN ALASKA ACCESS PLANNING STUDY CORRIDOR STAGING AND ALTERNATIVES REPORT 25 (Sept. 2011), *available at* http://dot.alaska.gov/nreg/westernaccess/documents/corridor_staging_alternatives_report.pdf (prepared for State of Alaska Dep't of Transp.).

²⁹ DOWL HKM, Ambler Mining District Access Baseline Cost Memorandum 5 & app.A (Sept. 2011), *available at* ftp://ftp.ambleraccess.org/Reports/DOT&PF_Studies/baseline_cost_memo_red.pdf (prepared for State of Alaska Dep't of Transp.).

³⁰ CARDNO, *supra*, 6-4 tbl.6-1.

DOT a few years earlier. These numbers must be reconciled for BLM to rely on them in its EIS analysis.

The cost per mile differences need to be explained and reconciled, and the total cost should be updated for 2018. Any shortfalls in toll revenues to pay for construction, operation, maintenance, and debt servicing will likely be paid by the state. This will have a large negative impact on Alaska's already-struggling economy. The assumptions behind projected toll revenues need to be made public by AIDEA and included in the Draft EIS, as well as any commitments by mine operators to pay those costs.

d. Public Health:

There are a number of issues related to public health BLM should consider in the EIS. Impacts to public health could result through changes in diet and nutrition, exposures to contaminants from construction and mining, safety, acculturative stress, and economic impacts. BLM must closely analyze the impacts from traffic, construction, gravel mining, and any mining activities on air quality in the local communities. Moreover, public health in much of Alaska is already under stress from climate change, with health implications such as the introduction of new diseases; damaged water and sanitation infrastructure; an increase in anxiety and depression; and increasingly dangerous hunting and harvesting conditions limiting subsistence activity.³¹ BLM should consider the health impacts of this project in the context of the changing climate.

Importantly, there is naturally occurring asbestos in the bedrock along portions of the proposed route and near the Ambler Mining District.³² If asbestos-laden gravel is used in the road construction there is tremendous potential for adverse health impacts to anyone involved in road construction, traveling along the proposed gravel road, or in nearby communities. AIDEA intends to use 42.23 million cubic yards of gravel for construction and maintenance. Given the size of this project and the high occurrence of asbestos-laden soil in the region, it will be difficult, if not impossible, for AIDEA to locate sufficient asbestos-free gravel sources for construction of this project. AIDEA plans to add more gravel annually to the road, which will lead to ongoing gravel mining and construction for the life of the project, increasing the opportunity for exposure to asbestos. AIDEA has provided no indication how it will test for or ensure that no asbestos-laden gravel is used in the construction of this project.

It is also deeply troubling that the State of Alaska has a waiver in state law related to tort liability for use of asbestos-laden soil.³³ There is a serious concern with this project that AIDEA will attempt to cut corners or save on costs by using contaminated soil since there is the potential

³¹ See STATE OF ALASKA, DEP'T OF HEALTH & SOCIAL SERVS., ASSESSMENT OF THE POTENTIAL HEALTH IMPACTS OF CLIMATE CHANGE IN ALASKA VI-VII (2018).

³² See U.S. DEP'T OF HEALTH & HUMAN SERVS., HEALTH CONSULTATION EXPOSURE INVESTIGATION FINAL REPORT AMBLER GRAVEL PIT AMBLER, ALASKA 2 (2007) (findings)

³³ See Alaska Stat. § 09.65.245 (2014)

for the state and others to avoid liability for exposing individuals to this health hazard. AIDEA may not summarily deny that it will use asbestos-laden gravel, and BLM cannot avoid analyzing the significant adverse health impacts to road users and local communities based on AIDEA's bare assertions. BLM needs to fully analyze the potential impacts and risks associated with the use of contaminated gravel.

BLM should require a full Health Impact Assessment be completed for this project. Because the State (i.e., AIDEA) is the applicant for the project, BLM should require that an independent contractor rather than the State complete the Health Impact Assessment.

e. Wilderness Recreation and Tourism:

Approximately 26 miles of the proposed road would cross the preserve portion of Gates of the Arctic National Preserve, as well as the designated Kobuk Wild River. Visitors from around the globe are drawn to this region for its outstanding wilderness recreation in an intact arctic ecosystem. ANILCA directs the Secretary of the Interior to authorize the road through the Preserve but does not address other public lands. The National Park Service, in accordance with ANILCA section 201(4)(d), is developing a separate environmental and economic analysis solely for the purpose of determining the most desirable route for the portion of the proposed road that would cross Gates of the Arctic. While NPS is mandated to allow a road through Gates of the Arctic, BLM has broad discretion to refuse the ROW grant, which it should exercise to protect vital resources in the Southern Brooks Range.

Development of the road is likely to put pressure on and alter the wilderness character of Gates of the Arctic, Noatak National Preserve, and Kanuti National Wildlife Refuge via increased exposure and development. Popular activities include river rafting, backpacking, rock climbing, dog mushing, fishing and sport hunting. Wilderness lodges and guiding businesses depend on this remote landscape for their livelihoods.

Importantly, the route for the Ambler Road crosses the Kobuk Wild River. Under ANILCA Section 1107, a system approved pursuant to ANILCA that "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." The ANILCA section related to the Ambler Road crossing of Gates of the Arctic in no way limits BLM's obligation to consider and ensure the stream flow of the Kobuk River is in no way interfered with or impeded. BLM must consider impacts to the river's stream flow and use for recreational, subsistence, and other purposes.

The agencies should also consider the consistency of such a road crossing with the Wild and Scenic Rivers Act. The policy for designated Wild Rivers provides that these rivers "shall be preserved in free-flowing condition, and that they and their immediate environments shall be

protected for the benefit and enjoyment of present and future generations.”³⁴ Free flowing is defined as “existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway.”³⁵ AIDEA intends to use riprap within rivers at bridge crossings,³⁶ which is directly inconsistent with WSA requirements. BLM and the National Park Service must consider the effects of a road crossing these wild areas and any negative impact to these Wild Rivers, and associated wilderness recreation. AIDEA’s has not gathered sufficient information about the hydrology of these or any rivers in the project corridor (e.g., historical flood levels, etc.).³⁷ This information is necessary to ensure that any crossing does not impede, divert, or modify the waterway and that BLM is able to take into consideration such information to ensure that any mitigation measures are effective.

B) BLM must fully analyze negative impacts to the biological environment.

a. Wildlife and Habitat:

BLM must take a hard look at the potential impacts to fish, wildlife, and habitat from this massive project. Developing a 211-mile road in the middle of one of the most remote and wild areas of Alaska that may be used by as many as 400 vehicles per day will have a significant impact on the habitat and wildlife in the area. In its permit application, AIDEA provides only a handful of conclusory statements asserting that impacts to wildlife and plant life will be limited.³⁸ This is unacceptable. BLM cannot rely on the unsupported notion that there are unlikely to be significant impacts because this is a vast area and the project only directly impacts a small percentage of that area, as AIDEA defines it.

Roads and aircraft have direct and indirect impacts on wildlife that need to be considered in the EIS. Direct impacts can be broadly classified as disturbance (behavioral change) or displacement (avoidance of a previously used area). Indirect impacts include habitat alteration or changes in food abundance.³⁹ Roads have at least six major ecological impacts in Alaska’s arctic that BLM will need to consider in depth: “habitat avoidance and displacement, altering movement, vehicle-related disturbance, geophysical changes and dust fallout, hydrological changes, and introduction of pollutants.”⁴⁰ BLM must fully analyze the potential for such impacts from this 211-mile long road. This region is already affected by climate change, and habitat fragmentation due to the road may further increase the vulnerability of fish and wildlife in the area. As discussed further below (Wetlands and Fish Impacts), given the size of the

³⁴ 16 U.S.C. § 1271 (1968).

³⁵ *Id.* § 1286.

³⁶ Revised Permit Application, *supra*, sec.5, at 8.

³⁷ *Id.*, sec. 2, at 28 (“Detailed hydrologic calculations necessary to predict peak flood flows to ensure adequate hydraulic capacity at river and stream crossings have not yet been completed.”)

³⁸ *Id.*, sec.2, at 42–43 (providing unsupported conclusory statements that the proposed project will have minimal and limited effects).

³⁹ BENJAMIN SULLENDER, AUDUBON ALASKA, ECOLOGICAL IMPACTS OF ROAD- AND AIRCRAFT-BASED ACCESS TO OIL INFRASTRUCTURE 3 (July 2017), *available at* http://ak.audubon.org/sites/g/files/amh551/f/road_aircraft_access_report_final_0.pdf.

⁴⁰ *Id.* at 16.

project and the number of water crossings, BLM should also consider the potential for the proposed road to impede water flow and negatively impact fish habitat.

b. Western Arctic Caribou Herd:

BLM needs to consider the full range of potentially serious impacts a project of this scale could have on the migratory behavior, habitat, and health of the Western Arctic Caribou Herd. The proposed road would cut east to west through a significant portion of the migratory range of the Western Arctic Caribou Herd, one of North America's largest existing wild caribou herds. Risks to caribou from roads include impeding migration routes, habitat fragmentation, and possibly local extinctions. Increased noise levels from road and air traffic in the region may lead to caribou avoidance of the road and displacement from their historical range. Roads create ambient stress in caribou, which results in less energy available for feeding, mating, and calving. Further, caribou may suffer direct mortality by traffic collisions, increased pressure from recreational hunting, and increased predation risk by wolves due to clear cutting in the road corridor and more efficient travel routes into caribou range.

Migration and movement of the Western Arctic Caribou Herd in relation to the Red Dog Mine access road have been studied over a number of years. Only a small portion of the Western Arctic Caribou Herd migrates near that road, so there is no evidence of herd-level alteration of its fall migration.⁴¹ Still, in some years, caribou are considerably delayed in crossing that road: for individuals that came within nine miles of the road, roughly 30% of collared caribou changed their usual rates of travel and took about ten times longer to cross it.⁴² Though a seemingly small behavioral change, these delays in crossings are detrimental to migrating caribou in terms of energy costs.⁴³ BLM should carefully study the potential impacts on caribou migration of an east-west road structure and fully assess the potential negative impacts to the Western Arctic Caribou Herd and, relatedly, the potential impacts to subsistence.

c. Wilderness Values:

BLM needs to analyze the potential adverse impacts to wilderness values in the region. The proposed road route would cross through Gates of the Arctic National Preserve. Gates of the Arctic's 7-million-acre wilderness covers vast terrain, including the jagged peaks of the Brooks Mountain Range, glacier-carved valleys, boreal forest, Wild and Scenic Rivers, and stretches of polar desert without roads, trails or formal campgrounds. AIDEA's proposed route runs adjacent to — and at times within yards of — the designated Wilderness boundary of Gates of the Arctic National Park. This National Park and Preserve is this nation's "premier wilderness" and was created specifically to preserve the vast intact landscape that is unbroken by roads or trails. Although the Preserve is not designated as Wilderness, it is an intact arctic landscape that possesses many of the intrinsic values and qualities of wilderness.

⁴¹ *Id.* at 22.

⁴² *Id.* (internal citations omitted).

⁴³ *Id.*

AIDEA's preferred route would be within sight and sound of many areas that are treasured for their wilderness qualities and used by visitors, such as campers and canoeists on Walker Lake, river rafters on the Kobuk Wild River, and guests at Iniakuk Lake Wilderness Lodge. Industrial activities, including noise and dust from industrial trucks passing nearby, may displace visitors and substantially reduce the wilderness values of the region, and may have economic impacts as well.

C) BLM must analyze negative impacts to the Physical Environment.

a. Wetlands and Fish Impacts:

The proposed road is likely to have significant adverse impacts on the existing hydrology of the region. The proposed road would cross 2,900 streams, 1,907 acres of wetlands, and 11 major rivers. This will impact countless acres of wetlands that provide habitat for salmon, whitefish, sheefish and other species of extreme importance to the ecosystem and local communities. Roads across wetlands can disrupt fish habitat by restricting or changing the flow of surface water, introducing contaminants, and changing the temperature regime. Improperly installed or poorly maintained culverts, as well as the road itself (which will act like a dam) can prevent fish movement necessary for finding food and cover, and for spawning.

Roads constructed through streams significantly impede or may altogether block fish movements. If properly sized, installed, monitored, and maintained, culverts can potentially mitigate the impacts of roads on stream crossings. But, due to the site-specific nature of fish populations in the Arctic, just one ineffective culvert can restrict access to key seasonal habitat and thus impact a whole fish population.⁴⁴ Culvert and bridge failure on the North Slope is not uncommon, and this negatively impacts waterways and fish habitat. Moreover, the physical barrier imposed can significantly alter hydrology and intercepts natural water flow, which is a driver of connectivity for fish.⁴⁵ BLM should ensure that any culverts are designed in a way that ensures adequate conditions for fish passage.

According to AIDEA, the first phase of construction would result in a seasonal road, with restricted access during spring break-up to minimize roadway damage.⁴⁶ Use of the Phase I pioneer road will be restricted from April through August, "due to the shallow embankment construction and spring break up conditions."⁴⁷ It is concerning that AIDEA does not intend to construct a road which can withstand typical seasonal conditions, and which does not have the structural integrity to support vehicles each spring. As stated above, it's not clear how AIDEA intends to restrict road access, and unauthorized use could lead to significant road and environmental damage. Even if access is restricted, water flooding over the road would likely lead to increased contamination and sedimentation, increased hydrological impacts with the road acting as a dam, and decreased road integrity over time. During summer months when

⁴⁴ *Id.* at 25 (internal citations omitted).

⁴⁵ *Id.* at 25 (internal citations omitted).

⁴⁶ Revised Permit Application, *supra*, sec.2, at 3-4.

⁴⁷ *Id.* at 5.

permafrost is most vulnerable, the road will likely remain unstable. AIDEA's plan to build this shoddy Phase I road poses a significant risk that it will degrade the hydrology and other conditions across a massive region and will ultimately pose a serious hazard to public safety and the environment. BLM must evaluate all aspects of AIDEA's plan related to the "seasonal" use of a year-round gravel road in a wetland area, and evaluate these significant adverse environmental and safety impacts.

b. Water Quality, Quantity, and other Hydrologic Impacts:

As noted above, this project will bisect and fill thousands of acres of wetlands and involves thousands of stream and waterbody crossings. The EIS must analyze impacts to surface seasonal water flow, including quality and quantity from construction and operation of the road, potential changes to hydrology of rivers and streams at crossings, scouring, erosion, and other impacts to geomorphology in the project area. It is particularly troubling that AIDEA has yet to complete detailed hydrological studies and work to even understand the existing hydrological conditions in the region, including potential peak flow levels. This raises serious doubts and questions about AIDEA's unfounded assertions that the project will have only minimal impacts on the existing hydrological conditions. There is no information on how the culverts in the road will be added or upgraded during different phases of construction.⁴⁸ Removing and replacing culverts would have serious adverse effects on these waterbodies. The impacts of any changes to these or other structures during the various phases of the project must be carefully analyzed in the EIS.

BLM must also consider the impacts from contamination on the road related to both construction and operation. Roads may introduce heavy metals, salts, organic molecules, and ozone into waterways, and will increase the risk of oil spills due to vehicle traffic fuels.⁴⁹ This road is also likely to contain asbestos due to the composition of nearby gravel sources. Given the anticipated flooding over every spring and summer during Phase I of the project, these impacts will be exacerbated. Such flooding has the potential to further disperse any contaminants from the road into nearby waterbodies and soils. Further, bridge maintenance may contribute lead, rust, and the chemicals from paint, solvents, and abrasives and cleaners into local waterways. This will have negative impacts on water resources in the area the road traverses that BLM must fully analyze.

AIDEA does not provide any information about ice or snow roads in its application, which will be needed for gravel mining and road construction. Ice roads have impacts that persist into other seasons and can severely alter hydrology and the natural thermal regime, and can have

⁴⁸ *Id.* at 27 ("Addition of overflow culverts or upsizing structures would be evaluated on a case-by-case basis during future design phases of the project, considering riverine characteristics in the immediate vicinity of the proposed crossing. Overflow culverts could also be added following Phase I construction as need arises based on observations and maintenance demands during operation of the pioneer road.")

⁴⁹ SULLENDER, *supra*, at 16.

a wide variety of ecological aspects.⁵⁰ BLM must evaluate the impact of these ice roads to local hydrology and vegetation.

c. Invasive Plants:

Alaska is unique among the 49 other states in that the native vegetation is largely intact. In recent years however, Alaska has developed a problem throughout the state with non-native plants that are adept at outcompeting our native Alaskan flora. Some of these non-native plants are invasive and harmful to natural ecosystems. Species that live in and alongside streams are particularly problematic as they spread quickly via waterways and are difficult to contain. Invasive species may clog waterways and lower the quality of habitat for wildlife, fish, and the insects on which fish depend. Road construction and vehicles are common ways that non-native species are spread. BLM must analyze impacts to local vegetation and wildlife from use of this road, and implement effective mitigation measures to preclude the spread of invasive species.

d. Geophysical Impacts:

BLM needs to fully assess the potential impacts to permafrost, as well as the mitigation measures necessary to prevent permafrost degradation from the project. AIDEA has failed to provide adequate information about existing permafrost conditions in the project area or actions that will be taken to stabilize permafrost overlain by the road. In its application, AIDEA states that “[c]urrent permafrost mapping is highly generalized and the extent and depth to permafrost is widely unknown.”⁵¹ Surface vegetation insulates permafrost, and disturbance of this vegetation by laying gravel can speed permafrost melt and result in subsidence. Geophysical changes associated with road construction of the Ambler road will extend far beyond its gravel footprint. Due to flooding and thermokarst, the extent of road-related impacts are usually more than double the actual surface area of the gravel footprint.⁵² Long-term impacts resulting from fugitive dust from the road may contribute to an increased rate of permafrost degradation, which may adversely affect the stability of the gravel road over time. The decrease in albedo may cause higher temperatures and increase thaw rates along the road. This problem would be further exacerbated by climate change. BLM should closely examine not only existing permafrost conditions and how to mitigate against degradation of those conditions, but should also take into consideration the potential impacts of climate change and any additional measures that are necessary to account for rapidly changing conditions in the region.

AIDEA’s application provides no information on its dust palliative application plan. It refers generally to the fact that there are a number of possible dust palliatives that might be applied and says it would consult with the University of Alaska Fairbanks once a corridor is approved. Dust-related issues and contaminants associated with dust palliatives are a serious concern that BLM needs to fully analyze in the EIS. Dust palliatives can contain dangerous contaminants that have the potential to pollute surface and groundwater resources. Dust fallout

⁵⁰ *Id.* at 17.

⁵¹ Revised Permit Application, *supra*, sec.2, at 37.

⁵² SULLENDER, *supra*, at 19 (internal citations omitted).

can extend and affect up to 0.6 miles on either side of a road, which can impact the vegetation community within 656 feet, and cause faster snow melt up to 328 feet of the road.⁵³ Without information on the measures AIDEA will adopt to control dust, BLM will be unable to determine the extent of adverse effects to permafrost, water, fish, and wildlife resources in the region, as well as the need for and effectiveness of potential mitigation measures. BLM should not allow AIDEA to rely on a future promise to identify these measures; such measures need to be part of its application and fully analyzed as part of the EIS.

BLM should also evaluate the potential for sediment contribution and particulate matter from the ore trucks using the road, as well as any necessary mitigation measures to prevent contamination and other issues from those and other vehicles using the road. Trilogy has indicated at public meetings that it may employ so-called “state of the art” ore containers that minimize the potential for particulate fallout from trucks. However, there is no guarantee that they or other entities will ultimately use such measures. BLM should evaluate a full range of potential impacts from the ore trucks and should examine the potential for fallout in light of a range of potential mitigation measures.

D) BLM should analyze impacts due to reclamation of the road and impacts due to the road remaining in place.

BLM should analyze scenarios for each affected resource wherein the road is removed and reclaimed, and where the road remains permanently. AIDEA alleges that this road will be permitted as a temporary road, and will be reclaimed at the end of the project life; however, historically many gravel roads are left in place due to continued use, cost, and the negative environmental effects of removal.

Abandonment and reclamation of project facilities would involve reclaiming mine sites, and removing gravel roads, facility pads, bridges, culverts, and airstrips. Revegetation of abandoned facilities could be accomplished by seeding with native vegetation or by allowing natural colonization, but there is a low likelihood that the area would be restored to its original condition. Road abandonment and reclamation would impact a broad range of resources, particularly soils, permafrost, vegetation, wetlands, and hydrology. There would also be impacts to subsistence resources, hunting and access from removal.

Cumulatively, maintenance of the road could lead to synergistic increases in development in the surrounding regions, and longer-term impacts in the Ambler Mining District because the road could continue to be used for future development.

E) BLM must consider all reasonable mitigation measures.

BLM should consider measures to avoid or minimize environmental impacts pursuant to both NEPA and FLPMA and work closely with USACE during this process. Any measures must account for all three phases of development, as the mitigation needed for a seasonal pioneer road

⁵³ *Id.* at 21 (internal citations omitted).

will differ from that needed for a massive industrial road. BLM needs to fully assess the potential scope of industrial activities and related impacts for all three phases of the project in order to meaningfully assess the need for and effectiveness of various mitigation measures for each project phase. Mitigation measures should be implemented at the earliest possible stage in construction and road development to minimize damage to the environment.

BLM must fully assess how mitigation measures will be adopted and implemented over time, and ensure that continued funding is available for monitoring to assess the effectiveness of project designs and any mitigation measures in protecting resources. We listed several necessary baseline studies in Section I.B. to determine impacts from the project — these studies are not mitigation measures, but are necessary to ensure mitigation measures are effective. BLM should work with the other cooperating agencies and impacted communities to identify necessary studies to monitor fish and wildlife populations, habitat, and ecosystem processes and functions that will be potentially impacted by development; ensure public involvement and transparency in the use of the best available science for evaluating the effectiveness of mitigation measures; and maintain a high standard of oversight for any industry-funded scientific studies related directly to the proposed road project. BLM should use adaptive management strategies and evaluate the effectiveness of management actions and mitigation measures at least every 5 years and provide clear mechanisms and processes for implementing any necessary corrective measures. This is critical considering the long-term to indefinite life of the proposed road.

The limited information and conclusory statements about minimal negative impacts in AIDEA's application made it difficult to suggest meaningful mitigation measures. Nonetheless, there are a wide range of potential mitigation measures BLM should fully examine in the EIS. Some of the mitigation measures BLM should consider include:

- Dust control measures;
- Road speed limits of 15 miles per hour when caribou are within 0.5 mile of the road and overall speed limits of 30 miles per hour to ensure safety;
- Contracts with the local communities for use of the road;
- Requirement of natural gas vehicles;
- Implementation of a roadkill monitoring system;
- Use of a protective road cover to prevent asbestos contamination;
- Bridges in the area should be built to withstand a 500-year flood event;
- Control noxious weeds and invasive species using methods which do not negatively impact waterways and wildlife; and
- Establishment of a time period during peak caribou hunting season when aircraft use will be suspended.

BLM should work closely with the local communities to determine other mitigation measures they feel would be appropriate to minimize impacts to their subsistence lifestyle. We also urge BLM to consider mitigation measures that were adopted for similar road projects in the Arctic, such as the DMTS.

F) BLM must analyze the effects of the project on climate change, and the implications of climate change on the affected environment and project infrastructure.

NEPA requires agencies to assess the climate effects of direct greenhouse gas emissions from a project, such as emissions from construction activities, the indirect environmental impacts, such as degraded air quality, and the long-term cumulative impacts caused by the project's development and continued activity. Here, BLM must analyze and quantify the direct, indirect, and cumulative impacts of emissions produced from road construction, maintenance and operation. This requires information on vehicle and aircraft traffic, operations at maintenance stations, and emissions from gravel mining and mining operations at the Ambler Mining District. BLM must also consider the greenhouse gas emissions which will result from future mines in its cumulative effects analysis.

The affected environment sets the "baseline" for the impacts analysis and comparison of alternatives. Excluding climate change effects from the environmental baseline ignores the reality that the impacts of proposed actions must be evaluated based on the already deteriorating, climate-impacted state of the resources, ecosystems, human communities, and structures that will be affected. This EIS must include comprehensive baseline data to characterize the existing environment, including seasonal and climatic changes over multiple years. Effects from climate change are already occurring and are expected to increase, resulting in shrinking or altered water resources, increased precipitation, extreme flooding and other weather events, invasion of more combustible non-native plant species, soil erosion, changes in season length, loss of wildlife habitat, and changes to migratory and other biological patterns.

As noted above, BLM also needs to take into account the potential risks of permafrost degradation and other climate-related impacts on the project. Any infrastructure and mitigation measures must be designed in a way that accounts for these changing conditions and adequately addresses potential impacts that could cause the degradation of that infrastructure and the environment over time. Thawing permafrost and temperature changes can lead to settlement or subsidence of infrastructure, frost heaving of structures and pilings, and the failure of foundations and pilings. Given the number of river and stream crossings with this project, there are also significant concerns related to accelerated erosion and other changes to riverbanks that could undermine the integrity and effectiveness of any bridges and culverts, and could significantly degrade water quality. BLM must consider all of these risks to the siting, design, and construction of any infrastructure. Site-specific information about existing permafrost conditions will be key to agencies' ability to analyze the need for and potential effectiveness of any measures. It is deeply troubling that AIDEA has yet to obtain the necessary information about permafrost conditions in the region.

BLM also needs to fully quantify the contribution of the mine and mining activities to climate change. Mine operations increase the loss of permafrost and rate of permafrost melting via greenhouse gas emissions and permafrost disturbance, similar to that described for the gravel road above. The risk of melting permafrost leads to a higher potential for mine instability and tailings dam failures. The impacts of stormwater releases, spills, and tailings failures are further

increased due to increased frequency and rate of large storm events due to climate change. Designing such facilities for a 24-hour/100-year storm event is no longer sufficient.

As described in more detail above, many resources which BLM must consider in its analysis are already vulnerable to the effects of climate change and project infrastructure will exacerbate these problems. Climate change impacts are and will continue to be part of the new normal, and BLM's NEPA analysis for this project must account for this reality.

III. BLM's purpose and need statement is too narrow.

BLM should not limit its consideration of alternatives based on an arbitrarily set purpose and need statement. The EIS must provide a description of the underlying need and purpose to which the agency is responding in proposing the alternatives and the proposed action.⁵⁴ The Revised Permit Application states that “[t]he purpose of this project is to provide transportation access to the Ambler Mining District to support and encourage mineral exploration and development in this highly mineralized area.”⁵⁵ However, at the scoping meeting presentation, BLM stated that the purpose of the BLM action is to provide AIDEA with: (1) technically and *economically practical* and feasible surface transportation access across BLM-managed lands for mining exploration and development in the Ambler Mining District, and (2) authorization to construct, operate, and maintain associated facilities for that access.

It is alarming that BLM added “economically practical” as a requirement for its decision. There is no requirement under NEPA or FLPMA that a federal action to issue of a right-of-way expressly consider economic practicability. The requirements for BLM under FLPMA are clear: BLM must not issue a ROW that will do unnecessary damage to the environment.⁵⁶ CEQ states that “[r]easonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.”⁵⁷ While economics are a consideration in alternatives analysis, it should not be the main driver behind the BLM's purpose and need statement. By having a purpose and need that is so focused toward economic factors, BLM may reject reasonable alternatives that are more protective of the environment because they are less economically desirable to the applicant. BLM should recraft its purpose and need statement to more closely reflect the requirements under FLPMA and NEPA, and to ensure that it does not rule out potential alternatives or important mitigation measures based on an overly restrictive purpose and need statement.

IV. The EIS must fully evaluate impacts from connected actions.

⁵⁴ 40 C.F.R. § 1502.13.

⁵⁵ Revised Permit Application, *supra*, sec.2, at 15.

⁵⁶ See generally 43 U.S.C. § 1764 (1996).

⁵⁷ Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (Mar. 23, 1981).

The EIS must consider actions that are connected with, or closely related to, the project in question.⁵⁸ NEPA requires that “connected actions” and “cumulative actions” be considered together in a single EIS.⁵⁹ “Connected actions” are defined as actions that: automatically trigger other actions which may require environmental impact statements; cannot or will not proceed unless other actions are taken previously or simultaneously; or are interdependent parts of a larger action and depend on the larger action for their justification.⁶⁰

There are a number of connected and cumulative actions that need to be fully analyzed in the EIS. As discussed in more detail below, the EIS must fully analyze the exploration, mine development, and mine operations at the Ambler Mining District as connected actions. The EIS must also examine the full range of other infrastructure and activities associated with the project, including those associated with the gravel mining sites necessary to build the road.

A) BLM must analyze the full range of foreseeable impacts from mining in the Ambler Mining District.

a. Mining-related activities are connected actions that BLM is required to fully consider in the EIS.

Mining-related activities in the Ambler Mining District need to be considered as connected actions in the EIS. AIDEA has repeatedly stated that this road is intended to serve as a gateway for development to the District. The purpose and need for the project itself only further reinforces the fact that the mining-related activities need to be considered as connected actions. The Revised Permit Application states that “[t]he purpose of this project is to provide transportation access to the Ambler Mining District to support and encourage mineral exploration and development in this highly mineralized area.”⁶¹ Several of the Ambler Mining District’s hardrock deposits are being actively explored without road access. The clear purpose of this industrial road is to build a road for mine development.

The Revised Permit Application also states that “[t]he road would provide surface transportation access to the mining district to allow for expanded exploration, mine development, and mine operations at mineral prospects throughout the District.”⁶² There are several known large mining prospects whose development depends on the proposed road, including Arctic, Bornite, Sun, and Smucker. Exploration in the area has taken place without roads for decades, making it clear that this is meant to be a road for development and large-scale mining operations, not merely a one-lane pioneer road for exploration. The State acknowledges in its application that mining in the Ambler district cannot or will not proceed unless this road is built. Development of these mineral resources will not proceed unless the road is permitted, making it abundantly clear that this road and future mining are connected actions. As Rick Van Nieuwenhuysse, chief executive of Trilogy Metals, succinctly stated, “You build a road, you’ve

⁵⁸ 40 C.F.R. § 1508.25(a)(1).

⁵⁹ *Id.* § 1508.25.

⁶⁰ *Id.* § 1508.25(a)(1).

⁶¹ Revised Permit Application, *supra*, sec.2, at 15.

⁶² *Id.* sec.2, at 1.

got a mine.”⁶³ BLM is required to fully consider the impacts and infrastructure associated with development of the Ambler mining district as part of its EIS.

b. Mining will have negative environmental impacts in the Ambler District.

There is a wide range of mining-related infrastructure, activities, and potential impacts that BLM needs to consider in the EIS. Trilogy Metals Inc. (Trilogy), formerly known as NovaCopper, is conducting mineral exploration activities in the Ambler mineral belt. Trilogy is focusing primarily on two areas within the Ambler Mining District, the Arctic and Bornite deposits. The Arctic deposit includes an estimated 3.1 billion pounds of resources and the Bornite deposit has an estimated 5.7 billion pounds of resources, comprised of copper, zinc, lead, gold, and silver. A preliminary economic assessment released in April 2011 estimated total “payable metal production” over the 25 year life of the mine at 1.7 billion pounds of copper, 2.0 billion pounds of zinc, 291 million pounds of lead, 266,000 ounces of gold, and 22 million ounces of silver. While no other investors have expressed an interest in developing minerals in the Ambler Mining District to date, it is reasonably foreseeable that once a road is operational, more mining activity will take place beyond operations by Trilogy.

The proposed mine site for the Arctic Deposit is spread over a distance of approximately 6 kilometers within the upper reaches of the Sub-Arctic Creek Valley. The proposed development consists of the following major infrastructure: roads and an airstrip; mill buildings and related services facilities including maintenance, truck shops, and assay lab; water supply and distribution; waste management; fuel storage; on site explosive storage; power supply; tailings storage facility and water management; water treatment plant; construction and permanent camp accommodation; waste rock storage facilities; and communications infrastructure.⁶⁴

Impacts from expanded exploration, mine development, and mine operations at these prospects must be fully analyzed in the EIS. This includes impacts from processing facilities, particularly tailings disposal facilities, gaslines or other energy sources, ore transport and export facilities (including the impacts of fugitive dust), airstrips, and more. There will be a direct loss of habitat from the mine footprint, access road, power lines, and all associated mine activities that must be considered, as well as impacts beyond the mine footprint due to noise, blasting, and lights.

Mines create a host of water quality concerns, including runoff issues, effects on groundwater, and impacts to the watershed as a whole that BLM needs to consider. Trilogy is focusing primarily on two areas within the Ambler mining district, the Arctic and Bornite deposits. The rocks within the main deposit of the mining district — the Arctic Deposit near the village of Kobuk — have among the highest risk of Acid Mine Drainage, or AMD, of any type of ore. Mining massive sulfide deposits, such as that found in the Ambler Mining District,

⁶³ Yereth Rosen, *The Environmental Review Process Is Beginning for a Controversial New Road in Alaska’s Arctic*, ARCTIC NOW, Dec. 6, 2017.

⁶⁴ TETRA TECH, PRELIMINARY ECONOMIC ASSESSMENT REPORT ON THE ARCTIC PROJECT, AMBLER MINING DISTRICT, NORTHWEST ALASKA, Tetra Tech Report to NovaCopper Inc. 18-1 (Sept. 2013) (prepared for NovaCopper Inc.).

creates a risk of acid rock drainage and mobilization of metals, particularly copper which has numerous negative impacts on fish. Open-pit mining, which would be facilitated by the proposed road, would expose the Kobuk River and its tributaries to AMD and other potentially serious contamination issues. Risks associated with tailings facilities include, but are not limited to, water quality issues, water treatment in perpetuity, catastrophic failure events, and releases of contaminated water. BLM must consider the probability of fuel, chemical, ore, mine process water, concentrate, and other toxic or hazardous materials spills at the mines. Spills of these materials must also be considered along the transportation route as well, since they would likely need to be transported via truck. Changes to water quantity and hydrology are inherent in open pit mining, such as water use for milling, dust suppression, and groundwater pumping to dewater pits or underground tunnels. BLM must analyze adverse impacts to fish and fish habitat resulting from sediment, increased stream temperatures, toxic releases, loss of habitat through fill, changes to stream hydrology, and loss of flows.

BLM must also consider impacts from infrastructure needs that are inherent in the creation of a massive industrial district in a previously undeveloped area. There will be impacts from human activity and infrastructure like housing for workers, airstrips, and power generation. Depending on the energy source used there could be air and water quality impacts from a power plant, or impacts from a natural gas line, and associated climate change impacts. BLM must evaluate the impacts of all of these mining activities on wildlife and subsistence resources, and the cumulative effects from multiple mines.

B) BLM must consider direct and indirect impacts from gravel mining.

BLM must also consider the impacts of gravel mining as a connected action. AIDEA has provided little information on gravel mining beyond the number of material sites they anticipate needing for construction and maintenance of the road. They anticipate 42.23 million cubic yards of gravel will be needed for the project for construction and maintenance.⁶⁵ It is seemingly impossible to check the veracity of this number, as AIDEA's application does not provide incremental gravel needs for various elements of the project (e.g., turnouts, airstrips) or for the various phases of the road. AIDEA needs to provide far more information about the potential gravel resources necessary for the project for BLM to fully analyze the potential impacts.

Gravel extraction is generally done in large, open pit mines typically located away from major streams and lakes. Although direct stream impacts may be mostly mitigated, open pit mines require extensive overburden removal — for example, over 50 feet of vegetation and soil needed to be excavated to reach suitable gravel in the mines created for Kuparuk.⁶⁶ The resulting overburden stockpile disturbs tundra, and the gravel pit itself causes permanent changes to the area's thermal regime due to "thaw bulbs" forming in the permafrost around the unfrozen water during flooding.⁶⁷ Indirect effects such as these have led some researchers to approximate that a one acre (0.4 ha) gravel pit may impact as much as 25 acres surrounding the site.⁶⁸

⁶⁵ Revised Permit Application, *supra*, sec.2, at 4.

⁶⁶ SULLENDER, *supra*, at 19 (internal citations omitted).

⁶⁷ *Id.* (internal citations omitted).

⁶⁸ *Id.* (internal citations omitted).

AIDEA has not indicated ownership of its list of 41 potential material sites. Any sites located on BLM-managed lands are subject to regulations governing contracts and permits for mineral materials (*see* 43 C.F.R. Subparts 3601-3604).

C) BLM must consider impacts from ore export across a broad geographic scope.

BLM must also consider the direct impacts on the Dalton Highway, other Alaska roads and residents and wildlife potentially affected by ore export. Because ore leaving the Ambler Mining District will travel down the Dalton Highway and other roads via truck, there will be impacts on those roads and nearby residents and wildlife that must be assessed. These impacts include the cost to the state of road damages through additional use, particulate and gaseous emissions' effects on nearby areas, the adverse effects of ore and mining-related chemical spills, and the impacts of additional road noise on nearby residents and wildlife.

V. BLM must fully consider the cumulative effects of the road and mines.

“Cumulative actions” are those “which when viewed with other proposed actions have cumulatively significant impacts.”⁶⁹ “Cumulative impact” is defined as “the impact on the environment which results from the incremental impact of the action 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.”⁷⁰ Such impacts can result from individually minor but collectively significant actions taking place over a period of time.⁷¹ As discussed below and elsewhere throughout these comments, BLM must identify and fully consider all potential cumulative effects of this road as part of the NEPA process.

A) The cumulative effects section must analyze impacts from increased development.

BLM is required to consider the full range of cumulative impacts from increased access to the area. Even if BLM improperly refuses to analyze mining in Ambler as a connected action, all impacts from the mines need to be fully reviewed in the EIS since they are “reasonably foreseeable.” Moreover, road access will increase development in the area. As proposed, the ROW does not stretch the full distance to the Ambler Mining District, but instead ends south of the anticipated development areas. It is reasonably foreseeable that mining companies will seek to build additional roads to connect individual mining sites to the proposed road, and some may be as long as 50 miles. It is also reasonably foreseeable that the road will result in the development of additional mines, beyond those currently being considered by Trilogy. Besides reviewing the “direct and indirect impacts” from the gravel mines, the EIS needs to review the cumulative impacts of the gravel mines from such increased development, as well. BLM should evaluate these potential cumulative impacts from the road.

BLM must identify and consider a broad range of reasonable foreseeable future actions and fully evaluate them in this EIS. There are a number of other developments in the region that could further exacerbate the cumulative impacts from the project and that BLM should consider

⁶⁹ 40 C.F.R. § 1508.25(a)(2).

⁷⁰ *Id.* § 1508.7.

⁷¹ *Id.*

in the EIS. For example, there may be a renewed push to expand the DeLong Mountain Transportation System Port for the exportation of not only ore, but also the immense coal resources of the western Arctic. The Ambler Road may also increase economic pressure to build roads to the north into other mineral zones and coal deposits currently closed to development in the National Petroleum Reserve in Alaska and elsewhere in Alaska. BLM should analyze the cumulative impacts of other potential development in the region in tandem with this development to fully assess impacts to subsistence use, wildlife and hydrology in the region.

BLM must analyze all past, present, and reasonably foreseeable future actions in a broad geographic area, including all watersheds that the proposed corridor crosses. Past military developments in the Arctic have led to many contaminated sites, so BLM should evaluate how further asbestos contamination from gravel in the area will cause additive or synergistic impacts. Cumulative impacts of community development and expansion in the area may also lead to increased subsistence hunting pressure, habitat fragmentation, and disturbance to wildlife. BLM should look at impacts on the eastern end of the road, such as the proposed road to Umiat, which would likewise put pressure on caribou herds in the area. To the west, roads and pipelines from Chukchi Sea Outer Continental Shelf oil and gas production may also connect through this region, as shown in maps from the former Minerals Management Service. BLM should consider how all of these developments are likely to exacerbate the cumulative impacts to the region.

B) BLM must consider cumulative impacts from public use of the road.

BLM needs to assess the potential cumulative impacts of the road being opened for public use. AIDEA has claimed that the road will stay closed to the public and will only be used as an industrial access road. However, it has provided no indication how it plans to keep the road private, particularly over the long term. The Dalton Highway was initially private and was eventually opened to the public. It is reasonably foreseeable that the Ambler Road could ultimately be open to the public. This will lead to even greater impacts to wildlife, and lead to potential conflicts between urban and traditional subsistence hunters. BLM should assess the full range of impacts, including socioeconomic and subsistence impacts that could stem from the road being open to the public.

Even if the road remains closed, it is also reasonably foreseeable that individuals will use the road illegally to reach this currently inaccessible area by private vehicles and recreational equipment. The cumulative effects of public use of the road must be fully evaluated in the EIS.

VI. BLM must comply with FLPMA in issuing its Right-of-Way (ROW) permit.

BLM must adhere to the requirements of FLPMA governing issuance of ROW permits in addition to being the lead federal agency for the NEPA process. FLPMA provides that rights-of-way “shall be granted, issued or renewed ... consistent with ... any other applicable laws.”⁷²

⁷² 43 U.S.C. § 1764(c) (1996).

BLM must require AIDEA to submit ROW or other special use permit authorizations and require that all mandates of FLPMA Title V and its implementing regulations are adhered to.⁷³

A) AIDEA must submit a complete ROW application under FLPMA.

Many of the informational requirements needed for a ROW are missing or exceedingly vague in AIDEA's application. BLM must require more information. A right-of-way that "may have significant impact on the environment" requires submission of a plan of construction, operation, and rehabilitation of the right-of-way.⁷⁴ There is no question that this ROW will have significant impacts, thus BLM should hold AIDEA to the requirements for a plan of construction, operation, and rehabilitation.

BLM's regulation at 43 CFR § 2804.12(a) provides that a completed application *must* include the following: (1) A description of the project and the scope of the facilities; (2) The estimated schedule for constructing, operating, maintaining, and terminating the project; (3) The estimated life of the project and the proposed construction and reclamation techniques; ... (5) A statement of your financial and technical capability to construct, operate, maintain, and terminate the project... Each of these requirements are dealt with in turn below.

(1) A description of the project and the scope of the facilities;

AIDEA has not provided a complete description of either the project or the full range of anticipated facilities needed for the proposed road. For example, the 250-foot ROW width does not specify whether that will be the operational (i.e., post-construction) width of the road itself, or the width for construction purposes, and vaguely states that "in a few areas, with bridge crossings and steep terrain, the ROW width may need to be up to 400 feet wide."⁷⁵ Information such as where this steep terrain occurs and which areas of the ROW will need to be wider, is not included anywhere in AIDEA's application. There is no description of equipment that will be needed to construct and maintain the road or associated gravel mines. It is not clear that AIDEA has requested a ROW from BLM for any necessary ice or snow roads for the project. The description of the ROW itself is completely lacking the information necessary to understand where these activities might occur and the potential impacts.

As to the scope of the facilities, the application states that "the project would require the construction of numerous support structures including: bridges, culverts, maintenance stations, turnouts, material sites, material site access roads, maintenance stations [sic], and airstrips"⁷⁶ Aside from projected locations of bridges and culverts, little else is described for these structures. This vague information is insufficient to provide BLM or the public with adequate information about the facilities that will be associated with this project. There is no information on bridge construction methods (e.g., how pile driving will be done or how AIDEA plans to

⁷³ See 43 C.F.R. pt. 2800 (BLM FLPMA grant regulations).

⁷⁴ 43 U.S.C. § 1764(d) (1996).

⁷⁵ *Id.* § 1764(c).

⁷⁶ Revised Permit Application, *supra*, sec.6, at 3.

construct span bridges). There is no information on culvert installation, maintenance, or replacement, or details on airstrip construction and use. It is unclear whether the material site access roads will be entirely ice roads, or whether permanent gravel roads will be needed. The extent of infrastructure at the maintenance stations must be spelled out in the application. This should include information on infrastructure size, number of staff, means of year-round access, and power generation requirements.

- (2) The estimated schedule for constructing, operating, maintaining, and terminating the project;

AIDEA provides no meaningful information about the schedule of its project. All statements in its application are tied to the level of industry interest at any given time, making the timeframe for every aspect of the project from construction through reclamation completely unclear. AIDEA's use of a 3-phase approach to construction is particularly problematic. There is almost no information on AIDEA's plan to use this 3-phase approach to construction and the timing of each phase. AIDEA states that its proposed transition from one phase of the road to another would "occur over time and would only proceed as needed based on activity levels in the district and the number of mines in production or being developed, which determines the demand for transportation capacity."⁷⁷

There is no intelligible time frame on when or how the road will be reclaimed. Reclamation "would be expected to occur 50 years after road construction is completed, *or* when mineral exploration and development activities in the District conclude."⁷⁸ Given how little is known about the amount of mineral resources in the Ambler Mining District, this statement about the timing of reclamation is meaningless. BLM should set a time limitation on the life of the "seasonal" Phase I road to ensure that if mineral development does not take place in the District in a reasonable time frame, that the environmentally damaging road is not simply abandoned in place. As noted earlier, AIDEA's proposed Phase I road is not even anticipated to be a year-round road and could present a serious hazard to the public, wildlife, and the environment if left in place. To comply with FLPMA, BLM must have a schedule for terminating the project, which is lacking in the present application.

- (3) The estimated life of the project and the proposed construction and reclamation techniques;

AIDEA provides almost zero information about the plans for reclamation of this project, despite the fact that AIDEA is only permitting this project as a "temporary" road. AIDEA's application does not discuss basic information on how this road will be constructed, let alone any information on how it will be reclaimed. AIDEA states that it "may procure road design, construction, maintenance and operation services through third-parties,"⁷⁹ but this type of catch-all statement is legally insufficient. AIDEA is responsible for providing this information to

⁷⁷ *Id.* sec.2, at 6.

⁷⁸ *Id.* sec.2, at 7 (emphasis added).

⁷⁹ *Id.* sec.2, at 1.

obtain a FLPMA ROW grant, and cannot evade this requirement by assigning these responsibilities to an unidentified future contractor.

Specific shortcomings include statements that merely acknowledge the need for, and state vague locations of, material sites. AIDEA anticipates 42.23 million cubic yards of gravel will be needed for the project for construction and maintenance.⁸⁰ By way of comparison, about 24 million cubic yards of gravel was used to construct the Dalton Highway paralleling the Alaska pipeline.⁸¹ There is no information on blasting, how much gravel will be taken from each site, the excavation process, necessary machinery, or gravel mine reclamation. As stated above, important information on bridge and culvert construction and maintenance is absent from the application, as well as any information on AIDEA's reclamation plan. Different reclamation techniques would be needed depending upon which "Phase" of the road is eventually built and subsequently reclaimed. Presumably, AIDEA must use ice roads to transport materials, however, a description of these activities and ice road construction and maintenance is wholly absent from the application. AIDEA has not met the requirement to provide information on the estimated life of the project or construction and reclamation techniques.

(5) A statement of AIDEA's financial and technical capability to construct, operate, maintain, and terminate the project;

In its application to BLM, AIDEA provides the following response to this requirement: "AIDEA's capability to construct, operate, maintain and terminate the project is evidenced by the successful Delong Mountain Transportation System (DMTS) at Red Dog Mine."⁸² This response is unacceptable, and AIDEA must be held to a higher standard than a single conclusory sentence.

BLM must analyze AIDEA's assertion with close scrutiny. The DMTS is a 52-mile haul road connecting the Red Dog Mine — the world's largest zinc mine — to a port along the Chukchi Sea. Ambler would foremost be a copper mine, producing a small quantity of high-quality copper ore. While this copper is economically valuable, it might annually produce less than ½ of 1% of global supply. Ambler would secondly be a zinc mine, projected to produce around ¼ as much zinc per year as Red Dog, for a lifetime ¼ as long. Whereas Red Dog is one of the world's most important sources of zinc (it is currently the #2 global source) and produces a noticeable fraction (5% - 10%) of global zinc, Ambler would produce closer to 1%-2% of the annual world supply.

Further, Red Dog Mine, whose road was financed by AIDEA, receives payments from the mine's operator (Teck Alaska) for its use. In that project, there was a proven applicant who was part of the permitting process, unlike the present case, involving a company with a dubious track record in both Alaska and elsewhere. NovaGold, led by Trilogy's current CEO, Rick Van Nieuwenhuyse, operated the Rock Creek Mine outside of Nome for only a few months before

⁸⁰ *Id.* sec. 2, at 4.

⁸¹ U.S. DOI BUREAU OF LAND MANAGEMENT, UTILITY CORRIDOR PLANNING AREA RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT 3-24 (Aug. 1987).

⁸² Revised Permit Application, *supra*, sec.2, at 7.

shutting down. The company was also subject to a class action lawsuit involving allegations that NovaGold misled investors about the economic feasibility of the Galore Creek Mine in British Columbia and settled that case for \$28 million Canadian dollars—the largest securities settlement at the time under Canada’s class action laws.

In addition to the disreputable project proponent, the current road has a much higher cost for AIDEA. Construction of the DMTS cost \$180 million and then an additional \$85 million for improvements, for a total cost of \$265 million.⁸³ The potential \$844.9 and \$906.0 million cost in AIDEA’s permit application for the 30-year life of the Ambler road is already considerably higher, and does not include the cost to eventually reclaim the road, as AIDEA is obligated to do for its current proposed project. We also note that AIDEA repeatedly claims the road will have a 50 year life, so this is likely not an accurate cost assessment.

Moreover, the DMTS ends at a tidewater export location, in contrast to the Ambler Road ending at the Dalton Highway. The transportation cost via road for Ambler Mining District ore would be much greater than for Red Dog mine ore as the latter can reach a ship by travelling a much shorter distance.

Trilogy, formerly known as NovaCopper — is conducting mineral exploration activities in the Ambler mineral belt. Trilogy is focusing primarily on two areas within the Ambler mining district, the Arctic and Bornite deposits. AIDEA stated at the Anchorage scoping meeting that to date, no other investors have expressed an interest in developing minerals in the Ambler mining district. Trilogy metals is still in its preliminary phases of exploration. Potential large mining sites are still labeled as “inferred material resources” rather than “indicated material resources”. Inferred mineral resources are those for which there are estimates of the amount or quality of the resource based on limited sampling, but there is not enough information for technical and economic parameters or to support mine planning.⁸⁴ AIDEA cannot both tout the economic security and viability of this project while seeking to have BLM and other agencies avoid analyzing impacts of mine development.

Compared to the DMTS, the proposed road is longer, to a more uncertain mineral deposit, with a significantly higher price tag. Development of the Ambler mining district and this proposed road have no long term funding, no investors, and no plan. This road project should proceed only with a clear commitment by mine operators to repay the state all the construction, operations, maintenance, financing and the reclamation costs of the project. A vague statement about a toll road and bonding is not a statement of financial capability and does not meet FLPMA’s requirement.

Finally, BLM must carefully consider AIDEA’s financial ability to reclaim the road. AIDEA’s ability to finance the construction and maintenance costs for this project is already questionable; their ability to finance any sort of reclamation, let alone one that would adequately restore the project area to an appropriate condition, is in serious doubt.

⁸³ AIDEA AMBLER ACCESS, <http://www.ambleraccess.com/funding.html> (last visited Jan. 11, 2018).

⁸⁴ Katherine A. McCafferty, Memorandum for Record, Subject: POA-2013-396 Kobuk River, Evaluation of Completeness Under 33 CFR 325.1(d)(2) (Jan. 2016).

B) BLM must ensure the ROW adheres to FLPMA’s substantive requirements.

Important substantive requirements flow from FLPMA’s ROW provisions. First, BLM must honor the requirement that the right-of-way grant “do no unnecessary damage to the environment”⁸⁵ A right-of-way that “may have significant impact on the environment” requires submission of a plan of construction, operation, and rehabilitation of the right-of-way.⁸⁶ The ROW permit “shall contain terms and conditions which will . . . minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment.”⁸⁷

BLM is obligated to carefully consider the requirements in FLPMA and include terms and conditions for the Ambler Road ROW that: protect federal property and economic interests; efficiently manage the ROW and lands adjacent to it; protect the interests of people living in the area who rely on fish, wildlife, and biotic resources for their subsistence lifestyle; locate the ROW along the least environmentally damaging route; and otherwise protect the public interest in lands traversed by the ROW or adjacent thereto.⁸⁸ Important substantive requirements flow from the FLPMA’s ROW provisions, and these apply with equal force to the local communities and habitat beyond the road corridor itself.

According to AIDEA’s ROW application, the first phase of construction would result in a seasonal road, with restricted access during spring break-up to “minimize roadway damage.”⁸⁹ Use of the Phase I pioneer road will be restricted from April through August, “due to the shallow embankment construction and spring break up conditions.”⁹⁰ It is deeply troubling that the Phase I road will be used seasonally and not be built to withstand typical North Slope spring conditions. This could have significant adverse environmental impacts, as well as present safety hazards for road travelers. AIDEA must construct a road which can withstand typical seasonal conditions, and has the structural integrity to support vehicles each spring and summer. As designed, any use could lead to significant road and environmental damage. Even if access is restricted, water flooding over the road would likely lead to increased contamination from asbestos, increased hydrological impacts with the road acting as a dam, and decreased road integrity over time. During summer months when permafrost is most vulnerable, the road will likely remain unstable. Permitting such haphazard and careless construction would be an outright failure to protect property, economic interests, and other users of lands adjacent to the ROW.

BLM must “protect the interests of individuals living in the general area traversed by the right-of-way who rely on the fish, wildlife, and other biotic resources of the area for subsistence purposes” and incorporate terms and conditions or mitigation measures to adhere to this requirement.⁹¹ BLM must consider widespread community opposition to this project, primarily

⁸⁵ 43 U.S.C. § 1764(a) (1996).

⁸⁶ *Id.* § 1764(d).

⁸⁷ *Id.* § 1765(a)(ii).

⁸⁸ *Id.* § 1765(b).

⁸⁹ Revised Permit Application, *supra*, sec.2, at 3–4.

⁹⁰ *Id.* sec. 2, at 5.

⁹¹ 43 U.S.C. § 1765(b)(iv).

due to negative impacts on subsistence. The road would run near several communities, including Bettles, Evansville, Shungnak, Kobuk, and Ambler. For any ROW granted, BLM must consult with communities to determine terms and conditions which will alleviate negative impacts to subsistence. For example, speed limits, dust maintenance, and proper water crossing designs must be incorporated. As described above, local communities are concerned about public access and increased hunting in the area will put further pressure on communities that already face issues with food scarcity.

BLM must “require location of the right-of-way along a route that will cause least damage to the environment, taking into consideration feasibility and other relevant factors.” As discussed further above, it is important that BLM consider a broad range of alternative routes under NEPA. While NEPA does not require that BLM select a particular alternative, FLPMA contains a higher standard that requires selection of the least environmentally damaging alternative. Thus, BLM may consider feasibility “and other relevant factors,” but must not simply defer to the project applicant’s desire to build a road at the lowest possible cost and should take into consideration this obligation.

The requirement that BLM “protect the public interest in the lands traversed by the right-of way or adjacent thereto” makes it clear that BLM is responsible for protecting environmental resources beyond the road corridor. Impacts to subsistence in nearby communities, negative impacts to wetlands in the region, and downstream hydrological impacts from water crossings must be fully analyzed and taken into account in determining whether granting a ROW for the road to Ambler Mining District is in the public interest. We strongly encourage BLM to work with other permitting agencies and surrounding landowners to ensure any mitigation measures adopted for the project are applied consistently for the length of the road.

VII. BLM must ensure that its EIS fulfills the legal requirements of the Clean Water Act Section 404 and the Rivers and Harbors Act.

The U.S. Army Corps of Engineers (USACE) and the U.S. Coast Guard (USCG) are cooperating agencies helping to prepare the EIS and will issue permits for the project, using the EIS as a basis for their respective permit decisions. The USACE will evaluate the application under Section 10 of the Rivers and Harbors Act, and Section 404 of the Clean Water Act (CWA). The USCG has authority for permitting bridges over navigable waters. Subsistence resources will be evaluated by BLM in accordance with ANILCA Section 810, and cultural and historic resources will be evaluated under the National Historic Preservation Act.

The benefits of cooperating agency participation in the preparation of NEPA analyses include disclosing relevant information early in the process, applying available technical support, avoiding duplication of efforts, and addressing intergovernmental issues. BLM should ensure the EIS contains necessary information for its cooperating agencies to fully analyze the project pursuant to their individual permitting requirements and statutory mandates.

A) USACE must carefully analyze the least environmentally damaging practicable alternative and whether the proposed road will cause significant degradation.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for infrastructure development (such as roads and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States. The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded.⁹²

BLM must work closely with USACE to ensure they have sufficient information to make these important determinations. In January 2016, USACE notified AIDEA of several critical deficiencies in its application. As detailed above in our NEPA and FLPMA discussions, there are still many essential pieces of information regarding gravel mining, bridge and culvert construction and maintenance, ice roads, project components, and hydrological impacts which AIDEA has not addressed. These deficiencies must be addressed and the missing information contained and analyzed in the draft EIS for the USACE to consider in its 404 permit application.

USACE must carefully consider whether the nation's waters may be significantly degraded by the proposed project. Direct and indirect impacts to jurisdictional wetlands and waters of the United States will be inevitable from this project. As stated above, this road would cross 2,900 streams, 1,794 acres of wetlands, and 11 major rivers. These water crossings alone have the potential to significantly degrade waters in the area. Gravel roads, facility and maintenance pads, and airstrips placed on the tundra surface would smother the vegetation and permanently alter the natural soil horizon by compression. The seasonal nature of the pioneer road, and annually flooding it, will have major impacts to hydrological systems in the area, as will adding two inches of gravel to the road for annual maintenance. The USACE must consider the impacts of the road beyond just construction, as the ongoing flooding and maintenance have the potential to significantly degrade the environment.

Excavation at the necessary gravel mine sites would result in loss of the existing vegetation and wetlands within the gravel mine footprint, and given the location of this project, have the potential to release asbestos into the environment. Further, dewatering these mines onto the tundra surface or into a natural drainage could permanently alter the hydrologic regime through vegetation destruction and surface soil erosion. This could have widespread geographic impacts considering the number of gravel mines proposed for this project. The scale of this industrial road, coupled with development of open pit mines in the Ambler Mining District, means USACE should consider the potential for significant degradation, and the basis for this analysis should be contained in the draft EIS.

USACE's regulations state that "[a]ll activities which the applicant plans to undertake which are reasonably related to the same project and for which a [Department of the Army] permit would be required should be included in the same permit application."⁹³ As described

⁹² See 33 U.S.C. § 1344 (2011); 40 C.F.R. § 230.10.

⁹³ 33 C.F.R. § 325.1(d)(2).

above, the EIS must consider impacts from the development of mines in the Ambler district because the purpose of the road is to provide industrial transport for mining companies. The same applies to USACE's permit. USACE must consider future actions in the Ambler Mining District, such as large and small mining operations, and the development of a port or terminal for ore transport, which would also need permits from USACE. Mining activity is clearly "reasonably related" to the proposed road project, and will require a USACE permit. Thus the EIS should contain sufficient information for USACE to evaluate the impacts from mine development.

Given the prevalence of jurisdictional wetlands throughout the project area, USACE will have broad oversight and authority to require mitigation. AIDEA predicts this project will impact approximately 1,899 acres of wetlands and 7 acres of other Waters of the U.S.⁹⁴ USACE should require a full wetlands delineation for the entire length of the road, as well as alternative routes under consideration during the NEPA process. Desktop wetlands delineations are not always a reliable indication of where wetlands or protected resources may occur. Information is often outdated and in some cases inaccurate when compared with results from field surveys. Also, the desktop review does not account for common variables in the data, which could include seasonal changes in vegetation, climate, and land use change. Therefore, at a minimum, a wetland delineation should be performed for the entire road length, areas that will host project facilities (ie, airstrips, camps, gravel mines) and that will be disturbed during construction.

According to USACE regulations, when there is a proposed discharge, all appropriate and practicable steps must first be taken to avoid and minimize impacts to aquatic resources. For unavoidable impacts, compensatory mitigation is required to replace the loss of wetland, stream, and/or other aquatic resource functions.⁹⁵ USACE should not merely rely on the proposed avoidance and design criteria contained in AIDEA's application, many of which are simply requirements of other permitting agencies, and not actual mitigation measures. USACE should independently consider what additional measures are needed for the length of the industrial gravel road to minimize and avoid impacts to wetlands. We also encourage a robust and transparent analysis of needed compensatory mitigation, and close coordination with other federal agencies like the Environmental Protection Agency and U.S. Fish and Wildlife Service in determining the appropriate calculation for impacted aquatic resources and associated mitigation credits.

B) The USCG permit is lacking critical information related to bridge crossings.

Any entity planning to construct or modify a bridge or causeway across a navigable waterway of the United States must apply for a USCG bridge permit.⁹⁶ The information provided by AIDEA is woefully inadequate for USCG to do the analysis legally required by their agency.

⁹⁴ Revised Permit Application, *supra*, Sec. 5, at 14.

⁹⁵ See 33 C.F.R. pts. 325 and 332.

⁹⁶ See 33 C.F.R. pt. 115.

The USCG requires information on direction and strength of currents,⁹⁷ the heights of the high and low water marks,⁹⁸ and may impose necessary conditions relating to the construction, maintenance, and operation of these bridges in the interest of public navigation.⁹⁹

Regarding bridge construction, AIDEA simply states: “Bridges would be constructed from pre-cast concrete bulb-tee girders with an approximate maximum span length of 140 feet. Bridge spans larger than 140 feet would require the placement of in waterway concrete piers. Bridges would be constructed from each bank following the completion of the approach embankments.”¹⁰⁰ There is not nearly enough information here for USCG to impose conditions relating to the construction, maintenance of operations of these bridges, or make any determination relating to AIDEA’s ability to operate these bridges in a manner that protects the public interest. Given the volatility of seasonal river heights in this region, it is critical that bridges be well-designed and follow sound construction techniques.

Further, there is no information on bridge clearances over navigable waters, and AIDEA merely provides a typical bridge design where the high water mark for any hypothetical waterway is stated as “variable.”¹⁰¹ There is no discussion of stream flow or direction of currents, bridge construction or reclamation techniques. The bridges that will need piers driven into waterway are not identified. This lack of important information is unacceptable. As described in more detail above, several navigable rivers that will require USCG-permitted bridges are important for recreation, and include two congressionally designated Wild Rivers. Moreover, these waterways are critical transportation systems for subsistence hunters. The conclusory statements and generalized drawings provided by AIDEA raise serious doubts about its ability to design, construct and maintain bridges that protect public navigation and the environment.

Finally, AIDEA has chosen to utilize lower-cost culverts rather than bridges in some instances. Both BLM and the USCG need to review and analyze those decisions to see if they are appropriate to minimize environmental impacts.

VIII. Conclusion

Overall, this project is likely to have far-reaching, negative impacts to subsistence, wildlife, vegetation, permafrost conditions, and water resources across a vast region. Despite this, AIDEA has not provided sufficient information for BLM and other agencies, as well as the public, to fully assess and understand the proposed project. This is unacceptable. AIDEA has continually promised communities and the public more broadly that this process would answer questions and provide a broad range of information about this project to the public. Instead, AIDEA has provided only a bare-bones application that in many instances raises more questions than it answers. BLM should ensure that AIDEA provides the information necessary for the

⁹⁷ *Id.* § 115.50(h)(2)

⁹⁸ *Id.* § 115.50(h)(3)

⁹⁹ U.S. Coast Guard, Bridge Permitting Guide 3 (2016).

¹⁰⁰ Revised Permit Application, *supra*, sec.6, at 6.

¹⁰¹ *Id.* at app.6C, figs. 4–6.

public and agencies to meaningfully review and understand the full range of potential impacts from this project. BLM should use this scoping process as an opportunity to truly listen to concerns from individuals, tribes, and local and community groups and to protect the fish, wildlife, and special places of the Southern Brooks Range from this short-sighted development project.

Thank you for your consideration of these comments.

Sincerely,

Pamela Miller
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Alaska Community Action on Toxics

Patrick Lavin
Senior Alaska Representative
Defenders of Wildlife

Andy Moderow
Alaska State Director
Alaska Wilderness League

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