

## **Appendix L**

### **ANILCA Section 810 Analysis of Subsistence Impacts**



## **Alaska Stand Alone Gas Pipeline**

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In 2010, the Alaska Legislature passed House Bill (HB) 269 that, in part, provided for establishing an intrastate natural gas pipeline system. With a shortfall of natural gas supply from the Cook Inlet area to meet current and future anticipated demands from Alaskans, the Alaska Stand Alone Gas Pipeline (ASAP) aims to provide a long-term, stable supply of natural gas and NGLs from North Slope gas fields to markets in the Fairbanks and Cook Inlet areas by 2016. To this end, the Alaska Gasline Development Corporation (AGDC) proposes to develop a 24-inch diameter, 737-mile long, high pressure natural gas pipeline from the North Slope to Cook Inlet.

Chapter 5.14 (Subsistence Affected Environment and Environmental Consequences) of the ASAP Preliminary Final Environmental Impact Statement (PFEIS) provides a detailed description of the affected environment of the planning area and the potential adverse effects of the various alternatives to subsistence. This analysis uses the detailed information presented in the PFEIS to evaluate the potential impacts to subsistence pursuant to Section 810 of the Alaska National Interest Land Conservation Act (ANILCA, P.L. 96-487).

#### ***A. Subsistence Evaluation Factors***

Section 810(a) of ANILCA requires that an evaluation of subsistence uses and needs be completed for any federal determination to “withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands.” Therefore, an evaluation of potential impacts to subsistence under ANILCA Sec. 810(a) must be completed for the ASAP. ANILCA requires that this evaluation include findings on three specific issues:

- The effect of use, occupancy, or disposition on subsistence uses and needs;
- The availability of other lands for the purpose sought to be achieved; and
- Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 USC Sec. 3120).

A finding that the proposed action may significantly restrict subsistence uses imposes additional requirements, including provisions for notices to the State of Alaska and appropriate regional and local subsistence committees, a hearing in the vicinity of the area involved, and the making of the following determinations, as required by Section 810(a)(3):

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

In order to determine if a significant restriction of subsistence uses and needs may result from any one of the alternatives discussed in the PDEIS, including its cumulative effects, the following three factors in particular are considered:

- The reduction in the availability of subsistence resources caused by a decline in the population or amount of harvestable resources. Forces that might cause a reduction include adverse impacts on habitat, direct impacts on the resource, increased harvest and increased competition from non-rural harvesters.;
- Reductions in the availability of resources used for subsistence purposes caused by alteration of their normal locations, migration, and distribution patterns; and
- Limitations on access to subsistence resources, including but not limited to increased competition for the resources.

A significant restriction to subsistence may occur in at least two instances: 1) when an action substantially reduces populations or their availability to subsistence users, and 2) when an action substantially limits access by subsistence users to resources. The information contained in Chapter 5 of the ASAP PDEIS is the primary data used in this analysis.

### ***B. ANILCA Sec. 810(a) Evaluations and Findings for All Alternatives and the Cumulative Case***

The following evaluations are based on information relating to the environmental and subsistence consequences of the proposed Alaska Stand Alone Gas Pipeline. The evaluation and findings focus on the potential impacts to the subsistence resources themselves, as well as access to resources, and economic and cultural issues that relate to subsistence use.

#### **1. Evaluation and Finding for Alternative A: No Action Alternative**

##### **a) Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs**

Under the No Action Alternative, the area would remain available to lawful and permitted activities pursuant to State and Federal regulations. All special areas and site-specific prohibitions would remain in effect.

The analysis of the No Action Alternative on subsistence considers the effects of not undertaking the proposed action. The analysis concludes that the activities would have no significant effects on subsistence species and on access to subsistence resources.

##### **b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved**

Other lands are available for the purpose sought to be achieved. Under the No Action Alternative, none will be affected. Therefore, there are no significant effects on subsistence species and on access to subsistence resources.

**c) Evaluation of Other Alternatives that Would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes**

No other alternatives are considered. Therefore, there are no significant effects on subsistence species and on access to subsistence resources.

**d) Findings**

The No Action Alternative would not significantly restrict subsistence uses and needs.

**2. Evaluation and Findings for Alternative B: the Proposed Action**

Under the Proposed Action, the AGDC proposes to construct, operate, and maintain approximately 737 miles of new 24 inch diameter intrastate natural gas transmission pipeline, approximately 34 miles of new 12 inch diameter pipeline lateral, one or two stand-alone compressor stations (CS), a gas conditioning facility (GCF), a straddle and off-take facility, the Cook Inlet Natural Gas Liquid Extraction Plant (NGLEP) Facility, three meter stations, 37 mainline valves, five pig launcher and/or receiver facilities, and other permanent facilities. The analysis of the proposed activity considers the effects of construction, operation, and of maintenance activities on subsistence uses and needs.

**a) Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs**

As mentioned in Section 5.5, the proposed action will impact wildlife resources via 1) habitat loss, alteration, and fragmentation, and 2) altered hunting mortality patterns due to increase in human access to previously inaccessible areas, among other things. During the construction phase, general disturbance of wildlife and their habitat could result in the unavailability of subsistence resources. Big game animals such as moose and caribou will likely temporarily avoid areas where human disturbance is occurring. Large machinery creates noise, vehicular traffic creates barriers, and the influx of construction workers increase human presence. With general disturbance, subsistence resources may be unavailable at the time and place that federal subsistence users are accustomed to finding them. During construction, the effect of resource displacement on subsistence uses due to disturbance is likely greatest for federal subsistence users in communities that lie directly along the proposed route (e.g. Minto, Nenana, Healy, Wiseman, Coldfoot, Anderson, McKinley Park, and Cantwell). For migratory resources such as caribou, communities that do not lie directly along the proposed route may be affected by the construction of the pipeline.

The effects of the proposed action on resource populations can vary. Here, we analyze these effects in distinct geographic regions.

**North Slope.** In recent years, caribou herds on the North Slope are relatively stable or have increased in population (Caikoski 2009, Lenart 2009, Parret 2009) while moose populations have fluctuated (Carroll 2008). However, larger ecosystem processes such as

climate, predation, and fire drive population dynamics rather than the pipeline construction.

One concern about the proposed action is competition from non-locals for fish and game that might otherwise be harvested for local subsistence. The construction of up to 60 new access roads to the pipeline will increase access to subsistence resources that are not readily accessible at the current time, potentially increasing competition for those resources.

Several factors may reduce the impacts of increased access by non-subsistence hunters due to the proposed action. Since the ASAP will be co-located with the TAPS on the North Slope, the amount of additional access that access roads provide to subsistence resources is limited because of their short length and the size and configuration of subsistence use areas. Moreover, if vehicular use of access roads will be restricted, then impacts to subsistence uses would be minimized. As part of the proposed action, employees of the ASAP are prohibited from camping, hunting, fishing, and trapping in the ROW. Restrictions on motorized vehicle use and on non-subsistence hunting with firearms within the ten-mile-wide Dalton Highway corridor further limits competition from non-locals. Disturbance of subsistence activities due to competition from non-local hunters is likely limited to the ROW with restrictions imposed on non-locals as discussed above. Therefore, there is no significant effect on subsistence uses and needs.

**Brooks Range to the Yukon River.** Of the villages potentially affected by the construction of the proposed pipeline, Anaktuvuk Pass has the greatest reported reliance on caribou. Due to annual variation in caribou migration, in some years, caribou may not migrate through Anaktuvuk Pass. Moose and caribou are sensitive to disturbance (Vistnes and Nellemann 2008, Bradshaw *et al.* 1998), although moose may be habituated to disturbance (Westworth *et al.* 1989). During construction, vehicular and human traffic is likely to increase. Traffic can be a physical barrier to caribou in transit (Wolfe *et al.* 2000). This may cause animals to be displaced or diverted. For example, disturbance that could alter the migration of caribou such that they are inaccessible by residents of Anaktuvuk Pass may affect their food security. Therefore, Anaktuvuk Pass will likely feel the greatest impact from displacement of migratory resources due to construction of the proposed pipeline. However, because most of the pipeline will be co-located with the Trans-Alaska Pipeline System (TAPS) ROW and the construction would be timed to occur in the winter, displacement of caribou due to the construction of the ASAP is likely short-term. Therefore, there is no significant effect on subsistence uses and needs.

One of the concerns about the proposed action is the location of the compressor station #1 approximately 10 miles north of the community of Wiseman. The area where the compressor station is to be located is within a subsistence use area of the community. Disturbance due to noise could affect the subsistence resources in the area.

**Yukon River to Cantwell.** In this section, there are few federal lands crossed by the proposed action. Therefore, the proposed action will not significantly affect subsistence uses and needs on federal lands. However, user access into the area is likely to increase with the proposed construction of five new roads that are longer than two miles in length.

This increased user access could affect subsistence uses by diverting federally qualified subsistence users in the area to other federal lands outside of the proposed area. Preventive measures in the proposed action will minimize the impacts of increased non-local access to subsistence use areas. Therefore, the proposed action would have no significant effect on subsistence uses and needs.

**Cantwell to end.** In this section, there are also few federal lands along the proposed pipeline route. Most of the proposed pipeline will be co-located with the Parks Highway ROW and construction is scheduled for the winter. Disruption of subsistence activities due to construction of the buried pipeline is likely short-term. After construction, if vehicular use of access roads will be restricted, then impacts to subsistence uses would be minimized. Therefore, there is no significant effect on subsistence uses and needs.

**Common to all segments.** The proposed pipeline crosses 516 streams throughout the proposed project area. Eighty-two of the stream crossing provide habitat for anadromous fish. Many others have not been studied for fish presence. The installation of the buried pipeline across fish-bearing streams is likely to have the greatest potential effect on fish resources from the project development. Stream crossings will be achieved via different techniques as to minimize impacts on subsistence fisheries. Section 2.2.3.2 describes the different methods of waterbody crossings. Depending on the type of crossing used, potential temporary impacts to fish resources during construction include in-stream habitat alteration and changes to the channel profile. During pipeline operations, ice dams could occur during the winter if the buried pipe temperature is colder than the ambient temperature. One mitigating measure to prevent this from happening is to maintain the temperature of the pipeline to the surrounding ambient temperature as much as practicable. Therefore, the proposed action would have no significant effect on subsistence uses and needs.

The proposed action would not significantly impact other harvestable resources such as berries, willows, and spruce roots. Most of the construction is within the Dalton and Parks highway ROW. Therefore, the amount of vegetation clearing necessary for the construction of the pipeline is minimized. Mitigating actions such as revegetation of disturbed areas could help lessen the impact on these resources.

The analysis concludes that the proposed action would have no significant effects on subsistence uses and needs, and on access to subsistence resources.

## **b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved**

Other lands are available for the purpose sought to be achieved. According to the applicant, the proposed pipeline route will minimize total pipeline length; reduce the amount of challenging terrain and geologic special design areas; avoid and/or minimize impacts to ROWs; and avoid parks, preserves, refuges, and wilderness areas, thereby reducing construction impacts. To the extent feasible, existing state infrastructure and ROWs, including state/borough highways and road systems and the ARRC railroad, will be used for pipeline installation to minimize project impact.

**c) Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes**

There are no other alternatives to this activity.

**d) Findings**

The proposed activity would not significantly restrict subsistence uses and needs.

**3. Evaluation and Finding for the Cumulative Case**

The goal of the cumulative analysis is to evaluate the incremental impact of the proposed action in conjunction with all past, present, and reasonably foreseeable future actions in or near the proposed ASAP system. The cumulative analysis considers in greatest detail activities that are more certain to happen, and activities that are identified as being of great concern during consultation. Chapter 5.20 discusses cumulative effects in greater detail. Actions included in the cumulative analysis include, but are not limited to, the following:

- Previous land use pattern in the proposed activity area
- Current land use activities in the proposed activity area
- Foreseeable future developments and land use activities in the proposed activity area

**a) Evaluation of the Effects of Use, Occupancy, or Disposition on Subsistence Uses and Needs**

The cumulative effects of the ASAP and other reasonably foreseeable projects is not likely to negatively affect population sizes of subsistence resources. Some of the actions that are considered as contributing to the cumulative impacts are already in place and have not led to population declines in key species. For example, some subsistence resource populations have actually increased since the existence of the TAPS (Lenart 2009).

Both the proposed action and other projects considered in section 5.20 of the EIS will likely impact local abundance, distribution, seasonal habitat use, movement patterns, and habitat integrity (relative to fragmentation, degradation, and conversion), making it more difficult to access by subsistence hunters. Analyzed individually, this impact from the ASAP system may not be significant. However when combined with impacts from other proposals such as the Foothills West Transportation Access road to Umiat, the proposed road to the Ambler Mining District, and the road to the Susitna-Watana Dam, the cumulative impact is likely to be considerably greater. Likewise, competition for resources due to increased access to remote areas is likely to be cumulatively greater than for the ASAP alone. Specific villages that lie in proximity to these proposed future roads will likely be the most affected by future competition for resources. Therefore, the cumulative case may have a significant effect on subsistence uses and needs.

**b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved**

Same as the proposed action.

**c) Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes**

The No Action Alternative would eliminate impacts due to the ASAP. However it would not alter impacts due to other projects considered in the cumulative impacts.

**d) Findings**

The cumulative impacts include the potential adverse impacts on the distribution of subsistence resources and the increased competition from sport hunters accessing game on federal lands via proposed roads and ROWs. Additionally, cumulative effects may include increased habitat loss, alteration, and fragmentation, as well as altered big game distribution and hunting mortality pattern on federal lands. Therefore, cumulative impacts associated with the proposed action may significantly affect subsistence uses and needs.

***C. Subsistence Determinations Under the ANILCA Sec. 810(a)(3)(A), (B), and (C)***

ANILCA Sec. 810(a) provides that no “withdrawal, reservation, lease, permit, or other use, occupancy or disposition of the public lands which would significantly restrict subsistence uses shall be affected” until the federal agency gives the required notice and holds a hearing in accordance with ANILCA Sec. 810(a)(1) and (2), and makes the three determinations required by the ANILCA Sec. 810 (a)(3)(A), (B), and (C). The three determinations that must be made are: 1) that such a significant restriction of subsistence use is necessary, consistent with sound management principles for the utilization of the public lands; 2) that the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other such disposition; and 3) that reasonable steps will be taken to minimize adverse impacts to subsistence uses and resources resulting from such action [16 U.S.C. Sec. 3120(a)(3)(A), (B), and (C)].

The BLM has found in this ANILCA 810 Evaluation that the cumulative impacts in this EIS may significantly restrict subsistence uses. Therefore, the BLM undertook the notice and hearing procedures required by the ANILCA Sec. 810 (a)(1) and (2) in conjunction with release of the Draft EIS in order to solicit public comment from the potentially affected communities and subsistence users.

The determinations below satisfy the requirements of ANILCA 810(a)(3)(A), (B), and (C).

**1. Significant Restriction of Subsistence Use is Necessary, Consistent with Sound Management Principles for the Utilization of Public Lands.**

This analysis concluded that the cumulative effects of the proposed action and other potential projects may significantly restrict subsistence uses because of potential adverse impacts on distribution of subsistence resources and because of increased competition from sport hunters using proposed roads and ROWs to access federal lands. However, to the extent the proposed action contributes to the cumulative case, the portion attributable to the ASAP is necessary.

**2. The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition**

The proposed activity evaluated here concerns the construction, operation, and maintenance of the ASAP and its associated facilities. Approximately 82% of the proposed project route would be co-located with or would closely parallel existing pipeline or highway ROWs. The construction ROW width along underground and aboveground portions of the proposed pipeline would be 100 feet for the proposed mainline. After construction, a permanent ROW width of up to 52 feet will be maintained by the pipeline owner and/or operator through the operational life of the pipeline. Therefore, the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of the proposed action.

**3. Reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.**

During the scoping for this EIS, the BLM and the public identified subsistence as one of the most important concerns to be evaluated in the NEPA process. As such, an ANILCA 810 hearing was conducted in potentially affected villages and rural communities. Considerable effort was made to examine subsistence concerns and evaluate subsistence impacts under all alternatives considered in the EIS.

One example is the Dalton Highway corridor where the proposed location of compressor station #1 may cause the displacement of wildlife due to noise disturbance in a location regularly used by subsistence hunters from the community of Wiseman. The location of this compressor station should be changed in order to reduce the effects on local subsistence uses and needs.

As noted in Section B, the greatest impacts to subsistence are likely to occur in the form of cumulative impacts. The greatest potential cumulative impacts are those related to wildlife distribution and hunter access under cumulative impacts with other future projects as part of Alaska's economic growth in the larger sense. These potential future projects will need to be analyzed and their potential effects will be evaluated during the environmental evaluation of these projects. However, for the proposed action, reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources. These steps are included in Mitigation Section (Section 5.23) in the EIS.

## **D. References**

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