STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
STATE PIPELINE COORDINATOR'S OFFICE

COMMISSIONER'S ANALYSIS AND PROPOSED DECISION

POLAR NATURAL GAS PIPELINE
RIGHT-OF-WAY LEASE, ADL 419237
Purpose of Analysis and Proposed Decision

The Right-of-Way Leasing Act (Alaska Statute 38.35) sets forth the procedures governing an application for an oil or gas pipeline right-of-way across State lands. Under this Act, the Commissioner of the Department of Natural Resources is granted all powers necessary to lease State lands for pipeline right-of-way purposes. In leasing land for pipeline right-of-way purposes, the Commissioner must make a written finding that the applicant is fit, willing and able to perform the transportation or other acts proposed in a manner that will be required by the present or future public interest. Additionally, prior to granting a right-of-way lease, the Commissioner is required to prepare an analysis of the application.

The following document is the Commissioner’s Analysis and Proposed Decision for the Amended Application for a right-of-way lease across State-owned and managed lands for the Polar Natural Gas Pipeline, which was submitted by Polar LNG, LLC, on April 10, 2012. The pipeline is proposed to cross State lands from the vicinity of Flow Station 1 to the Polar LNG, LLC, pad (formerly known as “Child’s Pad”) located within the Prudhoe Bay Unit. The public comment period for this Analysis and Proposed Decision is August 15, 2013 through 5:00 pm September 15, 2013. Written comments may be emailed to spco.records@alaska.gov, faxed to (907) 269-6880, or submitted by U.S. Mail or in person to:

Alaska Department of Natural Resources
State Pipeline Coordinator’s Office
411 West 4th Avenue, Suite 2
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I. Introduction

Nature of the Request
On April 10, 2012, Polar LNG, LLC (Polar), submitted to the Alaska Department of Natural Resources (DNR), State Pipeline Coordinator’s Office (SPCO) an amended application for a non-exclusive Alaska Statute (AS) 38.35 Right-of-Way Lease for the purpose of constructing and operating an approximately 3.5-mile long natural gas pipeline in Prudhoe Bay. The amended application modified the point of origin and route from the previously submitted application received on July 15, 2011. The proposed pipeline will be located on land entirely owned by the State of Alaska, except for Tract 8, ASLS 76-227, which is owned by the North Slope Borough (NSB). The segment of the pipeline to cross the NSB-owned parcel will be located entirely within a 50-foot section line easement managed by the DNR. The proposed pipeline begins near Flow Station 1 and terminates at the point of connection with the applicant’s proposed liquefied natural gas (LNG) facility located on the Polar LNG, LLC pad (formerly known as Child’s Pad).

The DNR Commissioner (Commissioner) is mandated, in accordance with AS 38.35.100, to determine whether Polar is fit, willing and able to perform the transportation or other acts proposed in a manner that will be required by the present or future public. Per AS 38.35.080, the Commissioner must analyze the proposed action and lease on State lands, including a review of the applicant’s technical and financial capabilities related to construction and operation of a gas pipeline and related facilities, as proposed in the project description and application.

The Commissioner has all powers necessary and proper to implement AS 38.35 and to grant leases of State lands for these purposes. With the exception of signing the right-of-way lease, the State Pipeline Coordinator administers these authorities on behalf of the Commissioner.

Applicant
Polar, a limited liability company, is a wholly-owned subsidiary of Pentex Alaska Natural Gas Co., LLC (Pentex). Polar was created specifically for the purposes of constructing and operating the proposed Polar Natural Gas Pipeline (PNGP). Section VII of this analysis describes the corporate structure and background in detail.

Project Description
Polar proposes to construct and operate a pipeline that would transport fuel gas to a proposed LNG facility, all located within the Prudhoe Bay Unit. The pipeline will originate at a proposed metering station located near Flow Station 1. The proposed pipeline will be located above ground and traverse approximately 3.5 miles of State owned and managed land. The pipeline will terminate at its connection with the proposed LNG facility located on the Polar LNG, LLC pad.
The LNG facility is located on an existing lease, ADL 417738, issued by the Northern Region Office of the DNR Division of Mining, Land and Water. The LNG facility is not included in the scope of this analysis and proposed decision. Gas transported by the PNGP will be processed and liquefied, loaded to tanks and transported by truck to Fairbanks to provide gas for interior Alaska.

Figure 1: Pipeline Location Map
Right-of-Way Location
The applicant requests a temporary 75-foot-wide right-of-way for construction, with five equally spaced ice pads, each 200 feet x 200 feet, for turnarounds and work areas. The final position of the turnaround and work areas will be determined during the detailed design and planning stage. The construction right-of-way on State owned and managed lands will comprise approximately 36.4 acres. A segment of the construction right-of-way crosses land owned by the NSB (Tract 8 of ASLS 76-227, within Sections 8 and 17, Township 10 North, Range 15 East, U.M). On this parcel, the construction right-of-way width will be limited to 50 feet and will be located entirely within a State managed 50-foot-wide section line easement.

The permanent operational right-of-way width will be reduced to 30 feet and comprise approximately 12.9 acres. An as-built survey will be required to determine the actual location and acreage of the operations right-of-way. Exhibit B of the attached draft right-of-way lease (Attachment A) contains the legal descriptions for the PNGP construction and operations right-of-way.

The proposed route for the PNGP is located in the following described state lands within the Umiat Meridian:

- Township 11 North, Range 14 East: Section 36;
- Township 11 North, Range 15 East: Section 31;
- Township 10 North, Range 14 East: Section 1; and
- Township 10 North, Range 15 East: Sections 6, 7, 8 & 17

General Natural Gas Pipeline Design
More details of pipeline design are contained in the design basis (Attachment B). The proposed PNGP will be a nominal 8-inch diameter pipe approximately 3.5 miles in length. The pipeline will be designed of carbon steel and the external coating will be fusion-bonded epoxy. The pipe will be covered in polyurethane foam insulation with a galvanized metal outer jacket at the supports, but the remainder will not be insulated. The pipeline is designed to conform to Federal regulation 49 CFR 195 and ASME B31.8. The pipe will be supported above ground by vertical support members (VSM) for the majority of the route, except for three road crossings and where the pipeline will enter the LNG pad.

The pipeline will originate at a tie-in to a Seawater Injection Plant (SIP) fuel gas line that is located southeast of the SIP. It will terminate at the Polar LNG, LLC pad, where a natural gas liquids production plant and loading facilities will be located. The facilities on the pad are not part of the proposed pipeline lease; however, pigging equipment on both ends of the pipeline is included.
The LNG facility has a control room, which will control the pipeline and receive reports from its instrumentation. Certain data will be reported to the BP Prudhoe control room; because Prudhoe Bay Unit fuel gas is being used, the gas supplier to the pipeline must monitor certain parameters, and the supplier and user must communicate to ensure safe operations.

II. Administrative Actions

State Pipeline Coordinator's Office
The SPCO was created by Administrative Order (AO) 121 in 1990 (superseded by AO 134 in 1993 and supplemented by AO 187 in 2001). The purpose for creating the SPCO was to have a DNR office dedicated to the work of issuing right-of-way leases under AS 38.35, the Right-of-Way Leasing Act, and coordinating the State's efforts related to other Federal right-of-way grant processes.

The SPCO is the lead State agency of the Joint Pipeline Office (JPO). This office, originally created for a major gas pipeline project, coordinates State and Federal activities associated with the Trans-Alaska Pipeline System (TAPS) right-of-way and other common carrier pipelines where State and Federal agencies share oversight responsibilities. Multiple State and Federal agencies participate in the JPO:

State Agencies
Department of Commerce, Community and Economic Development
Department of Environmental Conservation
Department of Fish & Game
Department of Health & Social Services
Department of Labor & Workforce Development
Department of Law
Department of Natural Resources
Department of Public Safety
Department of Revenue
Department of Transportation & Public Facilities
Division of Homeland Security & Emergency Management
Regulatory Commission of Alaska
Alaska Oil & Gas Conservation Commission

Federal Agencies
Department of Defense: Army Corps of Engineers
Department of Homeland Security: Coast Guard; Transportation Security Administration
Department of the Interior: Bureau of Land Management/Office of Pipeline Monitoring
Department of Transportation: Pipeline & Hazardous Materials Safety Administration
Environmental Protection Agency
AS 38.35 Right-of-Way Lease Development and Purpose

AS 38.35 right-of-way leases are complex technical and legal documents that grant a revocable interest in State lands for the purposes of constructing and operating a common carrier pipeline. As part of the effort in preparing this document, the SPCO worked closely with multiple agencies to ensure that the right-of-way lease fully represents both the protection and development of State resources.

AS 38.35 and Alaska Administrative Code (AAC) 11 AAC 80 govern SPCO right-of-way leases for common carrier pipelines. 11 AAC 80.005 contains the 59 questions required in applications for right-of-way leases. Upon receipt and confirmation by the SPCO that the application is complete, the SPCO issues a 60-day public notice of the application, per AS 38.35.070. At that time, the SPCO begins work on the Commissioner’s Analysis and Proposed Decision, which includes the “fit, willing, and able determination” required per AS 38.35.100. Included in this analysis is a detailed description of the applicant, project area, resources, potential impact of the proposed project and ways in which the SPCO has mitigated potential impacts (typically accomplished through terms of the individual right-of-way leases). AS 38.35.120 contains covenants for all right-of-way leases; remaining lease and stipulations terms are based upon the SPCO’s historical review of leases, along with detailed engineering and environmental analyses of the area and project.

The Commissioner’s Analysis and Proposed Decision provided for public review includes input from several State agencies and reflects the expertise of biologists, pipeline and civil engineers, attorneys and natural resource and environmental specialists.

If there are no major changes to the analysis or draft lease and stipulations, then the Commissioner can issue a final determination and offer the lease to the project proponent.

An AS 38.35 right-of-way lease is a stand-alone DNR land authorization for all pipeline activities (including construction, operations and maintenance) that take place within the leased lands. Many activities that would otherwise require a permit from DNR – such as ice roads or the development of staging areas for construction – are authorized by the SPCO as execution of the lease and stipulations. When such activities are anticipated, the applicant approaches the SPCO, which then coordinates with all of the necessary DNR divisions prior to issuing an approval.

Additionally, an AS 38.35 pipeline right-of-way lease includes specific protocols and processes for approval or acceptance of the required design basis, construction plan, operations plans, and stipulations, prior to certain activities taking place. The SPCO works closely with other agencies to ensure the SPCO’s authorization meets current policies, regulations and industry standards. The AS 38.35 right-of-way lease does not absolve the lessee from obtaining and keeping current non-DNR permits (including Federal and local authorizations) required for pipeline construction, operation, maintenance and termination activities.
Public Notice of Application (AS 38.35.070)
Coordinate state agencies, as defined by AS 38.35.230, were furnished copies of the amended Polar Natural Gas Pipeline Right-of-Way Lease Application. The application was posted on the SPCO website; hard copies were made available to the public. The Notice of Application was published on the State of Alaska and the DNR public notices websites. Public notices of the receipt of the application were provided for display in local post offices and libraries. Interested parties, including other State, Federal and local government agencies, towns, and Alaska Native Claims Settlement Act (ANCSA) regional and village corporations within the project vicinity, were notified as to the availability of the amended application for review. Public notices were published in the Anchorage Daily News (April 13, 2012), Fairbanks Daily News-Miner (April 13, 2012), and the Arctic Sounder (April 19, 2012).

Administrative Record
The amended Polar Natural Gas Pipeline Right-of-Way Lease Application (ADL 419237) and associated documents, including maps, figures and other information contained within the case file, constitute the administrative record used in this Commissioner’s Analysis and Proposed Decision.

Notice of Commissioner’s Analysis and Proposed Decision
Concurrent with issuing the Commissioner’s Analysis and Proposed Decision, SPCO will provide public notice of the availability of this analysis, including the draft right-of-way lease and exhibits, and of the opportunity to provide written comments on these documents. The Commissioner will consider written comments received within the comment period, August 15, 2013 to 5:00 p.m. on September 15, 2013.

III. Land Status of Proposed Leasehold

Title
The DNR Division of Mining, Land and Water, Realty Services Section, completed 13 title reports (RPT 2780, RPT 2781, RPT 2782, RPT 2784, RPT 2785, RPT 2786, RPT 2787, RPT 3614, RPT 3615, RPT 3616, RPT 3614, RPT 3615, and RPT 3616) for the lands encompassed by the proposed PNGP right-of-way lease. With the exception of the parcel owned by the NSB, which is discussed in more detail below, the title reports confirm the State of Alaska holds fee title to the land and mineral estate.

The State of Alaska received title to these lands via General Purpose Grant from the United States of America as part of the Alaska Statehood Act of 1958. Additionally, the State of Alaska holds title to all submerged lands acquired via the Submerged Lands Act Amendment of 1988, the Common Law Doctrine of Riparian Rights or by patent (patent numbers 50-74-0092 and 50-74-0093).
The State of Alaska retains management authority for a 50-foot section line easement that crosses a NSB-owned parcel, Tract 8 of ASLS 76-227. The segment of the proposed right-of-way lease will include the area located within that section line easement.

Classification
On March 28, 1969, DNR classified the state lands encompassed by portions of this application as Resource Management Land (Classification 618). Those portions of the proposed pipeline right-of-way outside of Alaska State Land Survey (ASLS) 76-227 classified as Resource Management Land are located within Sections 6-8, Township 10 North, Range 15 East, U.M.; Section 31, Township 11 North, Range 15 East, U.M.; Section 36, Township 11 North, Range 14 East, U.M.; and Section 1, Township 10 North, Range 14 East, U.M.

On January 30, 2006, DNR approved the Deadhorse Lease Tracts Site Specific Plan and Classification Order NC-04-003, designating certain tracts within the Survey of North Slope Lease Tracts, ASLS 76-227, as Settlement, Oil and Gas, or Water Resources. Tracts 27 and 53 of ASLS 76-227, including the NE4NE4 Section 18, Township 10 North, Range, 15 East, U.M., are classified as Settlement. Tracts 49, 50, and 54 of ASLS 76-227 are classified as Oil and Gas. The proposed right-of-way lease will cross each of these described parcels.

A land classification establishes the apparent best use of an area, but all other uses are presumed as compatible unless otherwise prohibited. According to 11 AAC 55.200, land classified as Resource Management is either land that might have a number of important resources, but for which a specific resource allocation decision is not possible at this time, or land that contains one or more resource values, none of which is of sufficiently high value to merit designation as a primary use. Land classified as Oil and Gas (11 AAC 55.135) is land where known oil and gas resources exist and where development is occurring or is reasonably likely to occur, or where there is reason to believe that commercial quantities of oil and gas exist. An upland area classified Settlement (11 AAC 55.202) is land that, by reason of its physical qualities and location, is suitable for year-round or seasonal residential or private recreational use or for commercial or industrial development. None of these classifications prohibits the proposed use of State lands in the subject area and the proposed use is compatible under these classifications.

As of March 5, 1970, all lands encompassed by this project are subject to ADL 50666, North Slope Area Special Use Lands, under 11 AAC 96.014. ADL 50666 designates all lands in the Umiat Meridian as “Special Use Lands.” This designation requires that, in addition to permitting requirements under 11 AAC 96.010, a permit is required for motorized vehicle use unless that use is for subsistence purposes or is on a graveled road. This requirement prohibits neither the development of lands within the Umiat Meridian nor the development of issued easements and rights-of-way.
The proposed pipeline project is located within the designated area for the Dalton Highway corridor (AS 19.40). Pursuant to AS 19.40.200(a), the State may not employ AS 38 to dispose of State land within five miles of the highway right-of-way; however, AS 19.40.200(b)(4) states the prohibition on the disposal of state land under (a) of this section does not apply to a disposal for lands necessary for exploration, development, production or transportation of oil or gas. Accordingly, this designation does not prohibit the proposed right-of-way.

Based on the above analysis, the proposed right-of-way for the construction and operation of a natural gas pipeline is consistent with the management intent of the area for Resource Management, Oil and Gas, and Settlement. There is nothing in the classifications, special use designation or the Dalton Highway corridor designation that prohibits the issuance of this right-of-way.

**Proposed Leasehold Location Order**
The lands designated as Resource Management in Section 36, Township 11 North, Range 14 East, U.M., and Section 1, Township 10 North, Range 14 East, U.M., have been closed to mineral entry by Mineral Closing Order (MCO) 67A01. The remaining lands within the proposed project area remain open to mineral entry.

Associated with the issuance of the right-of-way Lease, the State Pipeline Coordinator’s Office proposes the implementation of Leasehold Location Order No. 37 (LLO). The LLO will be issued in accordance with AS 38.05.185 and will allow the DNR to keep lands within the proposed pipeline right-of-way open to mining while retaining flexibility through the leasing process to ensure that the operations will not interfere with the location, construction and operation of the pipeline. Existing mining operations will not be affected by this order. Please see Attachment D for a complete description of the LLO.

**Third Party Interests**
The proposed PNGP will cross several areas of State land with existing easements or leases authorized by the DNR. Third party interests on lands affected by the proposed right-of-way are listed in Attachment E. The proposed route was chosen to minimize impacts to the operations and potential expansion of any of the existing gravel pads developed on several of the lease tracts. The SPCO contacted all third party interests to discuss whether the proposed pipeline project may impact prior authorizations from DNR. Letters of non-objection from Halliburton Energy Services, Inc., Crowley Marine Services, Inc. and DigitalGlobe Inc. were provided to Polar and were submitted to the SPCO. Additional letters of non-objection may be required by the SPCO prior to construction or operational activities.

The construction and operation of the proposed pipeline is considered a compatible use of State lands within the Deadhorse industrialized areas and does not conflict with these third party interests. The useable area of the existing lease tracts may be reduced by the authorization of the
pipeline right-of-way lease, possibly resulting in a change to the appraised rental amounts of the existing leases. To minimize any additional impacts to the use of the lease tracts, the pipeline right-of-way is located along the boundary or outside of the existing developed area of the tract.

All identified third party interests will be notified of this Commissioner’s Analysis and Proposed Decision.

Access
The proposed pipeline project is located in a developed area of Prudhoe Bay where there is a network of existing gravel roads. At Flow Station 1, a restricted-use gravel road along several field lines will provide access to the point of origin. Farther south along the route, the pipeline will cross another restricted-use gravel road that runs from Drill Site 12 to Drill Site 1. The pipeline will also cross a segment of Spine Road that is open for public use.

Polar will conduct normal surveillance activities along the pipeline route by foot, low ground-pressure vehicle and other approved means of off-road travel.

During the construction phase, Polar proposes to build a temporary ice road to provide access along the entire route of the pipeline and ice pads for staging and turning areas. No permanent roads are planned for construction. Authorizations must be obtained from the SPCO before the construction of any future ice or gravel road or pad. The Northern Region of the DNR Division of Mining, Land and Water determines the timing of tundra travel closures and openings.

Easements
The majority of the proposed Polar Natural Gas Pipeline will cross State land. A portion of the pipeline will be constructed within or across section line easements and across the platted road right-of-way for Spine Road. The pipeline will also cross two restricted-use pipeline access roads authorized by the BP Exploration Alaska (BPXA) Prudhoe Bay Unit lease operations. Roads within the Prudhoe Bay Unit are maintained by BPXA Roads and Pads; Polar will need to secure an agreement from BPXA to utilize any restricted-use roads for the proposed project.

Section line easements are public rights-of-way where the primary use is for the construction of highways over public lands that run along section lines of the rectangular survey system. These easements exist along all section lines within the proposed Polar project area. Lands acquired by the State of Alaska after March 26, 1951, such as those in the project area, are subject to a 100-foot section line easement (50 feet measured on either side of the section line) that remains in existence unless vacated by proper authority. Prior to survey, the State asserts the easements exist centered on the protracted section line; however, the easement must be surveyed before it can be used.
These easements do not prohibit the development of a pipeline right-of-way across the affected section lines. As a secondary use, DNR may authorize pipeline rights-of-way within section line easements. To minimize the impacts to future development of a road within the section line easement, the pipeline right-of-way will be located to the outer extent of the north and east 50-foot section line easements.

The State manages a section line easement crossing a NSB-owned tract. Through this decision, DNR is proposing to issue the AS 38.35 right-of-way lease for the lands within this section line easement; both the construction and operations rights-of-way will be confined to the 50-foot section line easement where it crosses the NSB-owned tract.

**Access to Navigable and Public Waters**
The State reserves a public access easement to and along all public or navigable water bodies that border on or are included in the State lands encompassed by the proposed right-of-way lease. No public access easement may be obstructed or otherwise rendered incapable of reasonable use for the purposes for which it was reserved without a written decision by the Commissioner.

A 25-foot pedestrian access easement, established by Alaska State Land Survey (ASLS) 76-227, exists along the water frontage of the lake locally called McDermott Lake. In order to maintain this access easement the location of the pipeline will maintain a distance of 25 feet from the lake where the pipeline runs parallel with the shoreline. The 7-foot nominal minimum height of the elevated pipeline will mitigate interference with access to and along any water body intersected by the pipeline.

**Navigable and Public Waters**
Per AS 38.05.127, the Commissioner shall require the applicant to provide continued free and safe access outside the construction area during construction, operation and maintenance of the pipeline. The 7-foot minimum height above ground level of the pipelines will prevent interference with access to and along navigable or public waters within or adjacent to the proposed rights-of-way; however, the Commissioner may find that temporarily regulating or limiting access to segments of affected waterways during pipeline construction may be necessary for safety or other beneficial or public uses.

**IV. Fish, Wildlife, and Biotic Resources**

AS 38.35.100 requires the Commissioner’s Analysis and Proposed Decision to consider specific aspects of the environment and resources within the proposed right-of-way area. Section IV of this document is an introduction to the existing fish, wildlife and biotic resources of the area, as well as their habitat. Within Section VIII, the analysis section, these resources are discussed in relation to the proposed PNGP.


Fish
There are no streams or fish-bearing lakes crossed by the proposed pipeline project, thus no recreational fish harvest occurs in the project area.

Wildlife
The proposed project area is within the Prudhoe Bay Closed Area, an area closed to the taking of big game. Thus, no harvest of large mammals occurs in the proposed project area.

The project area is within the summer range used by the Central Arctic Herd (CAH). Caribou use the North Slope coastal plain for calving from mid-May to mid-June and for insect relief from late June to early August. Caribou are most likely to occur in the project area during the insect season as they move between preferred feeding areas to the south and insect relief areas along the coast and in the Sagavanirktok River floodplain. In areas of human activity, caribou seek the shade of buildings, elevated pipelines, and parked vehicles. The CAH can move long distances along the coast for insect relief (Arthur and Del Vecchio 2009).

Grizzly (brown) bears are known to occur during summer in the Prudhoe Bay area, although their preferred habitat (along major river corridors) lies outside the project area. An estimated 269 brown bears are distributed in Unit 26B, the Alaska Department of Fish & Game (ADF&G) game unit that includes Prudhoe Bay. The bears are distributed throughout Unit 26B, with densities highest in the mountains of the Brooks Range and lowest on the coastal plain. Grizzly bears may occur along the coast wherever marine mammal carcasses wash ashore (Lenart 2009). Grizzly bears hibernate from September/October through April/May and should not be in the project area during construction.

Muskoxen occur infrequently in the Prudhoe Bay/Deadhorse area. During 2007-2010, the population of muskoxen in Unit 26B was estimated to be fewer than 200. Muskoxen were found primarily near Beechy Point, Deadhorse, and along the Sagavanirktok and Ivishak Rivers in Unit 26B during 2006-2010 (Lenart 2011). The low frequency of use is likely due to the absence of preferred riparian habitat. Muskoxen are more likely to occur in the major river drainages east and west of the project area and are not expected to occur in the actual project area.

Arctic and Red foxes can be encountered in the project area year-round. In late March and early April, foxes begin to den and have kits. Arctic foxes are attracted to areas of human activity and artificial food sources, particularly if waste management is poor or if humans actively feed them.

Polar bears are listed as threatened under the Endangered Species Act of 1973 (as amended) and are managed by the U.S. Fish and Wildlife Service (USFWS). Polar bears can occur in the project area at any time of the year, but most likely from August through April.
In December 2010, USFWS designated critical habitat for polar bear terrestrial denning habitat within eight kilometers (five miles) of the Beaufort Sea coast. The Polar project is located within the 5-mile buffer for polar bear terrestrial denning habitat (USFWS 2011). Consultation with the USFWS by the applicant will be required to determine if a polar bear interaction plan or a Letter of Authorization for incidental take (harassment) is required for the project.

**Birds**
Waterfowl, loons, shorebirds, raptors, ptarmigan, and passerines are likely to occur in or adjacent to the project area. The Federally-listed threatened spectacled eider and Steller’s eider and one candidate species, the yellow-billed loon, may occur in the project area (USFWS 2012; Willms 1992).

The USFWS, under the Migratory Bird Treaty Act of 1918 (16 USC 703-712), has regulatory authority for migratory birds and will review the project pursuant to this authority. In addition, the USFWS will review the project with respect to the Endangered Species Act of 1973 (as amended).

**Cover Types and Vegetation**
The Arctic Coastal Plain is characterized as an ecoregion that is poorly drained, treeless, and underlain by permafrost. Due to the poor soil drainage, wet graminoid herbaceous communities are the primary vegetation cover. The poor drainage also results in the creation of thaw lakes, which are abundant throughout the region (Gallant et al 1995). To date, no known Federally listed threatened or endangered plants have been identified on the Alaska Coastal Plain. All of the land encompassed by the Polar project is either tundra or wetlands.

**V. North Slope Borough**

**Introduction**
The proposed Polar Natural Gas Pipeline area is located entirely within the NSB. The NSB, formed in 1972 as a result of the passage of the Alaska Native Claims Settlement Act (ANCSA) and the discovery of oil, is the regional municipal government for northern Alaska. Encompassing the entire north coast of Alaska and bordered to the south by the Brooks Range, the NSB is the largest borough in Alaska. Although the NSB makes up more than 15% of the state, with an area of 88,817 square miles, fewer than 7,500 residents, mostly Inupiat Eskimos, live in the area (DCCED 2012a). The NSB government is largely funded by oil and property tax revenue, which enables it to provide communities with public services, infrastructure and employment.

The Polar project is located within the vicinity of Prudhoe Bay (Deadhorse). Prudhoe Bay is an industrial settlement located adjacent to the Beaufort Sea at the northern end of the Dalton Highway. Prudhoe Bay can be accessed by the Prudhoe Bay Airport or by the Dalton Highway,
which is subject to closure in winter months, and by the Prudhoe Bay Airport. Established to support oil and gas development, Prudhoe Bay is not a traditional community. Due to safety and security reasons, access to the oilfields is restricted to oilfield workers and visitors with special permits. According to the Alaska Department of Labor and Workforce Development, Prudhoe Bay had a population in 2011 of 2,174; however, as many as several thousand transient workers are there at any given time working in oil and gas development-related jobs (DCCED 2012a). The nearest other communities to the proposed project are Barrow (200 miles west), Nuiqsut (60 miles west), and Kaktovik (112 miles east). Prudhoe Bay is the only NSB community with road access; all other NSB communities are classified as rural and are accessible only by ice road, plane or boat.

**Subsistence**
Caribou are a significant subsistence resource for communities on the arctic coastal plain. Harvests in the region, not specifically the project area, occur predominantly in the summer and early fall (June–October), though caribou are harvested throughout the year (Braem et al 2011). The closest community that could potentially use the project area for subsistence purposes is Nuiqsut, approximately 60 miles to the west of the project area. Although Nuiqsut residents formerly used the area in and around Prudhoe Bay, current use excludes this area (SRB&A 2011). As noted in the community profile prepared for the North Slope Borough, “the locations of Nuiqsut residents’ subsistence harvest activities have shifted as petroleum development has grown around the community. Hunters are not using areas to the east of the village in the same manner and extent as in prior years” (URS 2005). Harvest of any game is prohibited within the project area.

**Recreation and Tourism**
Limited recreational activities exist near the project area, but several recreation facilities are provided for workers on the North Slope. Tourists can fly or drive to Prudhoe Bay/Deadhorse, but can only access the Prudhoe Bay Unit and adjacent unitized operating areas through approved tour operators. Public access is allowed on State lands that are not unitized operating areas. Tourism use in or near the proposed pipeline right-of-way is not a major contributor to the local economy.

**Sport Fishing and Hunting**
The proposed pipeline falls within State Game Management Unit (GMU) 26B, under which the area in and around Prudhoe Bay is closed to the taking of big game, with the remainder of the area open. The State restrictions must be verified prior to hunting; the animal and the time of year could establish whether a permit is required, if only bow and arrow hunting is allowed and if the area is open to both residents and nonresidents.
Cultural Resources
The DNR Office of History and Archaeology (OHA)/Alaska State Historic Preservation Office (SHPO) reviewed the project area for conflicts with cultural resources under Section 41.35.070 of the Alaska Historic Preservation Act. Based on its records, there are no known historic properties or cultural resources in the vicinity of the proposed pipeline.

AS 41.35.070 requires the department to locate, identify and preserve information regarding historic, prehistoric and archeological sites, locations and remains. A stipulation in the right-of-way lease will require that Polar take responsibility to protect any cultural, historic, prehistoric and archeological resources that may be impacted while conducting pipeline activities. The Alaska Historic Preservation Act prohibits the appropriation, excavation, removal, injury or destruction of any state-owned historic, prehistoric (paleontological) or archaeological site without a permit from the Commissioner. Polar must agree to require its employees, in addition to its agents, contractors, subcontractors and their employees, to comply with the Alaska Historic Preservation Act. Should any sites be discovered during the course of construction, maintenance, operation, or termination of the pipeline activities, Polar will cease the activity and immediately notify OHA/SHPO.

VI. Technical Capability of the Applicant

Reviewed Documents
2. Polar LNG Feed Gas Pipeline Mechanical/Structural Issue-for-Review Drawings, Rev. A, 21 November 2012. (These drawings are not final and will undergo minor changes prior to pipeline construction).

General
Fairbanks Natural Gas is planning to construct the Polar Natural Gas Pipeline to transport natural gas from the Prudhoe fuel gas system to a planned LNG liquefaction, processing and truck loading facility. The inlet is located at a tap on the fuel line supplying gas to the Seawater Injection Plant (SIP), next to Flow Station 1. The terminus of the pipeline is located at the planned LNG facility, on an existing gravel pad in the Deadhorse area.

Codes, Regulations and Standards
The design basis establishes minimum engineering requirements for a safe and environmentally sound pipeline installation on the AS 38.35 lease. The requirements reference codes, regulations, and standards under which the pipeline will be designed and operated. The most important requirements are listed below. For a full list, refer to the design basis (Attachment B).

1. Code of Federal Regulations, Title 49, Part 192, "Transportation of Natural and other Gas by Pipeline"
2. API 1163, "In-Line Inspection Systems Qualifications Standard"
3. API 5L, "Specification for Line Pipe"
4. API 6D, "Specifications for Pipeline Valves"
5. API 1104, "Welding Pipelines and Related Facilities"
6. ASCE 7, Minimum Design Loads for Buildings and Other Structures
7. ASME B31.8, "Gas Transmission and Distribution System"
8. ASME B 16.5, "Pipe Flanges and Flanged Fittings"
9. IBC, "International Building Code" as adopted as the "Alaska Building Code"
10. NFPA70, NEC, "National Electrical Code"

The PNGP will be regulated by local, State and Federal authorities. It will incorporate shut-off valves, emergency access to critical valves and communications. Additionally, it will be jurisdictional to the Code of Federal Regulations, Title 49, Part 192, which is the principal regulatory authority for natural gas pipelines in the United States and is implemented by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA).

**Transported Product (Fluid and Flow)**
The product transported by the PNGP will consist of only natural gas (primarily methane). The downstream LNG facility will process natural gas, liquefy it, and refrigerate it to cryogenic temperatures.

The physical properties of the components in the feed gas mixture are estimated to be within the following range:

<table>
<thead>
<tr>
<th>Components</th>
<th>Design Gas (Mole %)</th>
<th>Rich Gas (Mole %)</th>
<th>Lean Gas (Mole %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane, C1</td>
<td>30.10</td>
<td>80.60</td>
<td>79.40</td>
</tr>
<tr>
<td>Carbon Dioxide, CO2</td>
<td>12.05</td>
<td>12.40</td>
<td>11.80</td>
</tr>
<tr>
<td>Ethane, C2</td>
<td>5.25</td>
<td>5.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Propane, C3</td>
<td>1.65</td>
<td>1.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Nitrogen, N2</td>
<td>0.61</td>
<td>0.64</td>
<td>0.58</td>
</tr>
<tr>
<td>Butane, C4</td>
<td>0.28</td>
<td>0.35</td>
<td>0.26</td>
</tr>
<tr>
<td>Pentane, C5</td>
<td>0.04</td>
<td>0.05</td>
<td>0.04</td>
</tr>
<tr>
<td>Hexane</td>
<td>0.02</td>
<td>1.02</td>
<td>2.02</td>
</tr>
<tr>
<td>Hydrogen Sulfide, H2S</td>
<td>12 PPM</td>
<td>40 PPM</td>
<td>20 PPM</td>
</tr>
<tr>
<td>Water, H2O</td>
<td>3 PPM</td>
<td>6 PPM</td>
<td>3 PPM</td>
</tr>
</tbody>
</table>

The Prudhoe Bay Unit fuel gas is of lower quality than natural gas typically accepted for commercial, industrial and residential use, where methane content is more than 99%. Despite the quality, this fuel gas has been used within the Greater Prudhoe area and in Deadhorse for more than 35 years, and its corrosion rates and characteristics are well established. The incoming fuel gas is not processed to standards for distribution service, but is dehydrated to hydrocarbon and
moisture dew points in the range of -40°F to -60°F. This will avoid water accumulation in the pipeline, and reduce the potential for corrosion rates.

**Geotechnical**
The onshore area on which the PNGP will be built is underlain by "cold" permafrost. The pipeline route traverses arctic tundra, with an organic layer underlain by silts. The area is treeless. Sedges and grasses are the predominant vegetation. The area is considered a wetland. The route avoids placing VSMs in standing water where possible; however, seasonal ponds or shallow lakes can appear at breakup or with heavy rains.

The permafrost depth (the active layer thickness) under the undisturbed tundra surface in the Prudhoe Bay typically area is about three feet. Although no detailed geotechnical borings have been done along the route, the area encompassed by the lease is expected to be similar to that found in other locations in the developed oilfield areas of Prudhoe Bay.

Each VSM will be embedded in permafrost below the ground surface to minimize the likelihood of heave or settlement. During construction, bore holes will be monitored. During boring this depth will be extended in holes that encounter massive ice. This construction methodology is typical of North Slope pipelines. The soils and other geotechnical conditions in the Prudhoe Bay area where the facility are well understood because of the large numbers of projects completed in the area over the past 40 years.

**Hydrology and Road Crossings**
The terrain and vegetation along the route is typical of this area on the North Slope. The topography is flat, and the pipeline crosses no major land feature, rough terrain, or significant waterways. The pipeline crosses areas that have shallow standing water during summers and sheet flow during breakup, when the snow pack melts.

The route has three road crossings, which are in casings. The casing is a second pipe that surrounds and protects the pipeline. The design of the three road crossings follows North Slope practices that have been proven during the past four decades. The pipeline is electrically isolated from each casing to avoid the possibility of galvanic corrosion. The casings are thermally insulated from the subgrade, embedded in non-frost susceptible fill and oversized to allow for subsidence of the casing. The crossings will be designed and constructed according to API Recommended Practice 1102, Steel Pipelines Crossing Railroads and Highways. The design load will be the heaviest drilling rigs in use in the area, which are the Doyon 14, the Parker 272L, and the Parker 273L.

**Pipe Physical Characteristics**
The pipeline will be composed of low-temperature, high-yield steel pipe. It will be externally coated with two coating layers. The pipeline will be insulated for short distances at each anchor
support. This will enable the use of pipeline saddles and anchors that clamp around the insulation.

The pipeline is to be coated with two layers of fusion-bonded epoxy (FBE), totaling 40-50 mils thick. FBE is not ultraviolet (UV) resistant. The designers believe that the additional coating thickness will allow for the outer surface of the pipe to be sacrificial and block UV degradation of the underlying coating layer. Maintenance of the coating is a regulated requirement under 49 CFR 192 and regulated by PHMSA.

The entire length of pipe between pigging stations, including all straight sections and bends, will be accessible to inline inspection and maintenance tools (pigs). The pipeline will include a permanent pig launcher and a permanent pig receiver. Inline inspection and maintenance pigging are the best methods for meeting Federal integrity and pipeline inspection criteria.

The other major physical characteristics of the pipeline are:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meter Tie-in</th>
<th>Cross Country</th>
<th>Halliburton Pad to Polar LNG Pad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Fuel Gas</td>
<td>Fuel Gas</td>
<td>Fuel Gas</td>
</tr>
<tr>
<td>Location Class</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Code Design Factor (DF)</td>
<td>0.60</td>
<td>0.72</td>
<td>0.50</td>
</tr>
<tr>
<td>Nominal Pipe Diameter</td>
<td>8-inch</td>
<td>8-inch</td>
<td>8-inch</td>
</tr>
<tr>
<td>Wall Thickness</td>
<td>0.322 in.</td>
<td>0.322 in.</td>
<td>0.322 in.</td>
</tr>
<tr>
<td>Corrosion Allowance</td>
<td>0.0625 in.</td>
<td>0.0625 in.</td>
<td>0.0625 in.</td>
</tr>
<tr>
<td>Material Grade</td>
<td>API 5L X65</td>
<td>API 5L X65</td>
<td>API 5L X65</td>
</tr>
<tr>
<td>Specified Minimum Yield</td>
<td>65,000 psi</td>
<td>65,000 psi</td>
<td>65,000 psi</td>
</tr>
<tr>
<td>ASME B16.5 Rating</td>
<td>Class 600</td>
<td>Class 600</td>
<td>Class 600</td>
</tr>
<tr>
<td>Max. Allowable</td>
<td>1480 psig</td>
<td>1480 psig</td>
<td>1480 psig</td>
</tr>
</tbody>
</table>

**Design Life**

The design life of the pipeline is 30 years, which coincides with the length of the proposed lease. At the end of the lease, the pipeline would need to be evaluated for useful life, should the applicant want to renew the right-of-way lease.

A 30-year design life does not indicate that the pipeline and associated structures will be failure-prone and requiring replacement after 30 years of operations. Engineering design life is established from a combination of technical, regulatory, economic, and commercial considerations. There are various definitions of design life; however, for the purposes of this lease it can be defined as the period over which the systems, components, and structure are required to perform their primary functions with acceptable safety, regulatory, and environmental performance, and with an acceptable probability that they will not experience major failures, require extensive replacements, or need an excessive number of major repairs.
VII. Financial Capability of the Applicant

The total cost to construct the Polar Natural Gas Pipeline is estimated at $10 million. The cost to operate the pipeline on an annual basis is estimated at $1,043,750.

The applicant, Polar LNG, LLC, is a newly formed company created specifically for the purpose of constructing and operating the proposed PNGP. Polar is wholly owned by Pentex Alaska Natural Gas Company, LLC. Pentex also wholly owns Fairbanks Natural Gas, LLC (FNG) and the management team of FNG will operate the proposed Polar pipeline.

Pentex, which is financed through one of its majority parent companies, will be self-financing the pipeline construction and initial operation costs. Pentex is 85% owned by Harrington Partner, L.P. Harrington L.P., in its majority interest, will be providing 100% of the capital for the project.

Polar provided the following corporate structure map to the SPCO:

![Corporate Structure Diagram]

Figure 2: Corporate Structure Diagram

The Commissioner requested, via the AS 38.35 application, an annual financial statement and balance sheet for Harrington Partners, L.P., the financier and 85% owner of Pentex Alaska Natural Gas Company. Also requested were the financial statements of Fairbanks Natural Gas, LLC. Harrington and FNG have submitted to the Commissioner financial statements for the
years 2009, 2010 and 2011; these documents have been submitted confidentially to the SPCO under AS 38.05.035. The financial statements were prepared by a reputable independent firm, in accordance with generally accepted accounting and auditing principles. According to the documents, Polar has demonstrated that it has the financial capability to support the proposed construction, excluding contingency and the continued annual operational costs.

The financial capability of the applicant will be supplemented by not less than $30 million in liability insurance, with the State of Alaska listed as an additional insured, and an escrow account, described in Exhibit C of the Right-of-Way Lease, which can be used in the event the lessee does not perform in compliance with the lease or for dismantlement, removal and restoration (DR&R). Collectively, the insurance and the escrow account are referred to throughout the remainder of this Proposed Decision as the “Financial Assurance Package.”

VIII. Analysis of Application and Proposed Right-of-Way

Pursuant to the State of Alaska’s Right-of-Way Leasing Act, the Commissioner must evaluate the applicant’s technical and financial capabilities to perform the transportation, or other acts proposed, in a manner consistent with the present or future public interest.

Fit, Willing and Able Criteria

In accordance with AS 38.35.100, there are specific criteria that must be evaluated in the analysis of an application filed under AS 38.35.50. If the Commissioner makes a favorable determination, then a lease may be offered to the applicant. In making the determination, the Commissioner must consider the following criteria:

1. Will the proposed use of the right-of-way unreasonably conflict with existing uses of the land involving a superior public interest?

2. Does the applicant have the technical and financial capability to protect state and private property interests?

3. Does the applicant have the technical and financial capability to take action to the extent reasonably practical to:

   3A. prevent any significant adverse environmental impact, including but not limited to, erosion of the surface of the land and damage to fish, wildlife and their habitat?

   3B. undertake any necessary restoration or re-vegetation?
3C. protect the interests of individuals living in the general area of the right-of-way who rely on fish, wildlife and biotic resources of the area for subsistence purposes?

4. Does the applicant have the financial capability to pay reasonably foreseeable damages for which they may become liable or claims arising from the construction, operation, maintenance, or termination of the pipeline?

5. Does the applicant agree that in the construction and operation of a pipeline within the right-of-way it will comply with, and require contractors and their subcontractors to comply with, applicable and valid laws and regulations regarding the hiring of residents of the state currently in effect or that take effect subsequently?

Analysis

**Criterion 1. Will the proposed use of the right-of-way unreasonably conflict with existing uses of the land involving a superior public interest?**

Existing and biotic uses in the area were discussed in detail in Sections III, IV and V. The DNR has analyzed the project and potential impacts and determined that the proposed PNGP will not unreasonably conflict with these uses. Some short term impacts may be associated with the project; however the Draft Right-of-Way Lease, Stipulations, and applicant’s Design Basis (Attachments A and B) contain sufficient mitigation measures to protect the public’s interests. Such mitigation measures include:

- The proposed Polar LNG pipeline will be elevated to a minimum height of seven feet, excluding road crossings, to provide for the unobstructed passage of large mammals; accordingly, any impact, other than potential temporary access issues during construction and maintenance, should be minimal.
- While no known historic properties or cultural resources exist in the vicinity of the proposed pipeline, Stipulation 1.13 requires Polar to affirmatively protect cultural resources while undertaking all pipeline activities.
- LLO 37 would restrict mineral entry, location and mining activity within the leasehold boundaries.
- AS 38.35.120(a)(12) requires that a right-of-way lease may not unduly interfere with occupancy and use of the land within the lease by the state, its grantees, permittees, or other lessees of any part of the right-of-way not actually occupied or required by the pipeline, for necessary operations.
- Most construction and major maintenance activities will occur in the winter, when most wildlife is not in the project area.
• Stipulation 2.2 allows the State Pipeline Coordinator to require mitigation measures for additional protections of fish, wildlife and their habitats.
• During construction and installation of the road crossings, Polar must implement traffic control measures and signage to direct traffic. As required by Stipulation 1.10, any access restrictions along authorized rights-of-way require prior written approvals by the State Pipeline Coordinator. Additionally, Polar may be responsible for accommodating future upgrades to these rights-of-way in the future.

Summary
As an elevated pipeline, the pipeline right-of-way as proposed, and the activities that will occur within the right-of-way over the life of the pipeline should have minimal, if any, impact on existing and continued uses of the area.

Operation of the pipeline is not expected to result in any long term effects to fish or wildlife or change habitat use. Wildlife could be disturbed during pipeline construction and maintenance activities, but these impacts should be short-term, will occur in winter when most wildlife is not in the project area, and should not be significant.

The Draft Lease and Stipulations, in addition to other State, Federal and local requirements, contain substantial mitigation measures to protect existing uses of the land and to mitigate possible conflicts with existing and future uses. Prior to granting permission to construct, the State will review and accept numerous plans detailing how Polar will implement measures to protect cultural resources, fish and wildlife, and biotic resources. The Commissioner is satisfied that the proposed PNGP project will not result in an unreasonable conflict with existing uses of the land involving a superior public interest.

Criterion 2. Does the applicant have the technical and financial capability to protect state and private property interests?

The SPCO engineering staff reviewed the applicant’s basis of design and provided a technical analysis, contained in Section VI. This engineering analysis determined the Polar Natural Gas Pipeline has been designed to meet current safety standards to withstand the conditions to which it will be subjected, so long as it is maintained adequately. The project design incorporates measures to ensure pipe integrity and the plans for buried road crossings incorporate measures to maintain safe conditions for vehicle traffic.

The proposed construction techniques are designed specifically to minimize impacts to public and private lands and the environment. Work in sensitive habitat will be conducted to minimize or avoid damage to the underlying vegetation and inclusive wildlife. The design and construction measures are designed to prevent or repair any damages to vegetation in the project area.
Stipulation 1.2 requires Polar, prior to initiating any pipeline activities, to submit a pipeline activities plan for review and acceptance by the State Pipeline Coordinator. The pipeline activities plan will include all construction and operation schedules; spatial data depicting the boundaries of the construction zone and alignment of the pipeline; ground water control; erosion and sediment control; runoff or other potential impacts to vegetation; proposed stockpiles or disposal areas; hazardous substances control, cleanup and disposal; safety and hazard preventions; sanitation and waste disposal; public awareness and traffic management; fire prevention and response; emergency preparedness; site rehabilitation plans; and description of the hydrology. Finally, Stipulation 1.3 requires an approved quality management program.

The applicant has provided a financial assurance package that includes a review of the consolidated assets, liability insurance, and an escrow account to cover any performance issues or DR&R (see Section VII).

Summary
The measures and precautions pertaining to safeguarding the health and safety of the public will also protect property located adjacent to the project. The SPCO has scrutinized the proposed design of the Polar Natural Gas Pipeline and determined it to be acceptable. Additional protective measures are required in the lease through the above discussed programs, plans, and financial assurance package. The Commissioner is satisfied that Polar LNG, LLC, has the technical and financial capabilities to protect state and private property interests.

Criterion 3. Does the applicant have the technical and financial capability to take action to the extent reasonably practical to:

3A. prevent any significant adverse environmental impact, including but not limited to, erosion of the surface of the land and damage to fish, wildlife and their habitat?
Stipulation 1.3 requires Polar to have an approved quality management program in place during all pipeline activities. Prior to construction, Stipulation 1.2 requires Polar to submit a pipeline activities plan (described above), which will be used by the SPCO to develop a comprehensive construction oversight strategy. Finally, per Stipulations 1.6 and 3.2, prior to natural gas being transported through the pipeline, Polar must develop and submit surveillance and maintenance programs.

Other specific protections for surface erosion and damage to fish, wildlife and their habitat include:
- Construction and maintenance activities will generally be conducted in the winter from ice roads, ice pads, and frozen lakes. This will minimize adverse effects to fish and wildlife habitat and to fish, birds, and terrestrial mammals, most of which are not present in the project area in winter.
Winter water withdrawal limits and screened water intake requirements will be placed on Alaska Department of Fish and Game fish habitat permits issued to the project proponent to ensure protection of fish resources in any fish-bearing water body from which water is withdrawn.

- The elevated pipeline (a minimum of seven feet above the tundra surface) will facilitate passage of caribou and other wildlife.
- Proper storage and disposal of food and materials.

Summary
Construction and operation of the pipeline is not expected to result in any long term effects to fish, birds, or wildlife or change habitat use. Wildlife could be disturbed during pipeline construction and maintenance activities, but these impacts should be short-term; construction will occur in winter when most wildlife is not in the project area; and impacts should not be significant. The Commissioner, having considered the technical analysis of the design basis and provisions in the draft right-of-way lease and stipulations, concludes that the applicant has the technical capability to prevent significant environmental impact, including prevention of erosion and damage to fish and wildlife and their habitat.

3B. undertake any necessary restoration or re-vegetation?

Impacts that may require restoration or re-vegetation will be related to the construction and maintenance of the pipeline. An area as wide as 75 feet will be needed for construction activities, and the operational right-of-way will be 30 feet. The impacts to vegetation of the Polar Natural Gas Pipeline are anticipated to be minimal.

As discussed above, Stipulation 1.2 requires a pipeline activities plan, which will include site rehabilitation plans. Additionally, the SPCO will require detailed abandonment procedures addressing restoration and revegetation (among other things) prior to termination of pipeline operations.

The Commissioner is satisfied that Polar has the technical capabilities to restore and revegetate areas, as necessary.

3C. protect the interests of individuals living in the general area of the right-of-way who rely on fish, wildlife and biotic resources of the area for subsistence purposes?

Construction, operation and maintenance of the pipeline should not produce any short term or long-term impacts to subsistence users. As discussed in Section V, subsistence use in the immediate project area is of low occurrence. Future users may wish to utilize the project area for berry picking, small mammal or bird hunting or other subsistence activities.
Impacts from pipeline construction and termination activities would be short-term. The Polar Natural Gas Pipeline Project uses standard pipeline construction designs for an above-ground gas pipeline. The proposed design and construction techniques, other pipeline integrity issues, and current and future fish, wildlife and biotic resources were reviewed by the SPCO. The right-of-way lease contains mitigation measures to limit adverse impacts associated with the project; accordingly, the Commissioner is satisfied that the project will not affect subsistence resources in the area.

**Criterion 4. Does the Applicant have the financial capability to pay reasonably foreseeable damages for which they may become liable on claims arising from the construction, operation, maintenance or termination of the pipeline?**

AS 38.35.100 requires the applicant to have financial capability to protect state and private property interests and to take action to the extent possible to prevent any significant adverse environmental impact; to restore or re-vegetate disturbed areas; to protect the interests of individuals in the general area who rely on fish, wildlife, and biotic resources for subsistence purposes; and to pay reasonably foreseeable damages for which the applicant may become liable on claims arising from the construction, operation, maintenance, and termination of the pipeline.

Pursuant to AS 38.35.120(a)(14), if the Commissioner determines that the net assets of a pipeline right-of-way lessee are insufficient to protect the public from damage for which the lessee may be liable arising out the construction or operation of the pipeline, the Commissioner may require that the lessee obtain and furnish liability and property damage insurance from a company licensed to do business in the state or furnish other security or undertaking upon the terms and conditions the Commissioner considers necessary. After considering the financial capability of Polar LNG, LLC and evaluating risk associated with the proposed pipeline operations, the Commissioner has determined that Polar must obtain a liability and property damage insurance policy. Per Section 11 of the draft lease, Polar must procure and furnish liability insurance with a liability limit of not less than 30 million dollars with the State named as an additional insured.

Polar will also be required to provide additional security payments through establishing an escrow account, to cover the costs of performance any time the State has the right to perform under the lease, including dismantlement, removal and restoration (DR&R). Exhibit C of the draft lease will establish a funding schedule to meet the total obligation of the estimated DR&R cost (less salvage value) of $3,525,000. An initial deposit of $460,000 will be required in escrow prior to authorization to start construction of the pipeline. Annual payments will be added to the escrow account once the pipeline has been in service and will continue through the end of the funding period of 10 years. Per Exhibit C, the escrow account funding can be re-evaluated by either party every five years.
**Summary**

DNR has reviewed the assets and confidential financial records of the applicant and, with the assurance package in place, determined them to be acceptable. The Commissioner therefore finds that the applicant will have the financial resources sufficient for the construction, operation, maintenance and termination of the Polar Natural Gas Pipeline consistent with the terms of the lease and all applicable laws and regulations. The lease provides the Commissioner with the authority to review the lessee’s financial resources at any time during the term of the lease.

**Criterion 5. Does the applicant agree that in the construction and operation of a pipeline within the right-of-way that they will comply with, and require contractors and their subcontractors to comply with, applicable and valid laws and regulations regarding the hiring of residents of the state currently in effect or that take effect subsequently?**

As outlined in Section 10 of the draft lease, Polar must require its contractors to abide by the terms of the lease. With regard to hiring of residents of the state, Section 32 of the draft lease states, “The lessee shall, during pipeline activities, comply with, and require its contractors to comply with applicable and valid laws and regulations regarding the hiring of residents of the State then in effect or that take effect subsequently.”

In accepting and signing the lease, Polar agrees to be bound by the conditions in the lease and its attachments.

**Summary**

DNR has reviewed the proposed measures to require contractors and subcontractors to comply with laws and regulations and determined them to be acceptable. The Commissioner is therefore satisfied that Polar LNG, LLC, agrees to comply, and require contractors to comply, with applicable and valid laws and regulations regarding the hiring of residents of the state currently in effect or that take effect subsequently.
COMMISSIONER’S PROPOSED DECISION AND ACTION

Proposed Determination
Based on the foregoing analysis, the proposed Polar Natural Gas Pipeline should not result in significant degradation of the environment, resources or lands. Potential impacts from construction, maintenance and operation of the Polar Natural Gas Pipeline will be mitigated through the accepted design, which considered safety, the environment and pipeline integrity, and through the covenants, conditions and stipulations of the right-of-way lease.

Under AS 38.35, a right-of-way lease granted on State land shall contain specific terms and conditions that will apply to the construction, operation, surveillance and maintenance of the right-of-way, the pipeline and activities specifically associated with the right-of-way and pipeline. For a complete list of the proposed stipulations that will be contained within the lease, please see the draft right-of-way lease and stipulations (Attachment A).

Proposal of Action
The Commissioner of the Department of Natural Resources is charged under AS 38.35.100 with the duty to make the determination whether the applicant is fit, willing, and able to perform the transportation or other acts proposed in a manner that will be required by the present or future public interest.

After a careful review of the record developed for this project, I have determined that the applicant is fit, willing, and able to construct and operate this proposed pipeline. The draft Polar Natural Gas Pipeline right-of-way lease includes the required covenants per AS 38.35 and other measures necessary to protect the interests of the residents of the State of Alaska.

If I do not significantly alter this analysis following the period of public comment and if the applicant meets all of the conditions precedent, then this Commissioner’s Analysis and Proposed Decision shall constitute the Commissioner’s Final Decision and I will offer the applicant the right-of-way lease.

Joseph R. Balash, (Acting) Commissioner
Alaska Department of Natural Resources

Date: 8/14/13