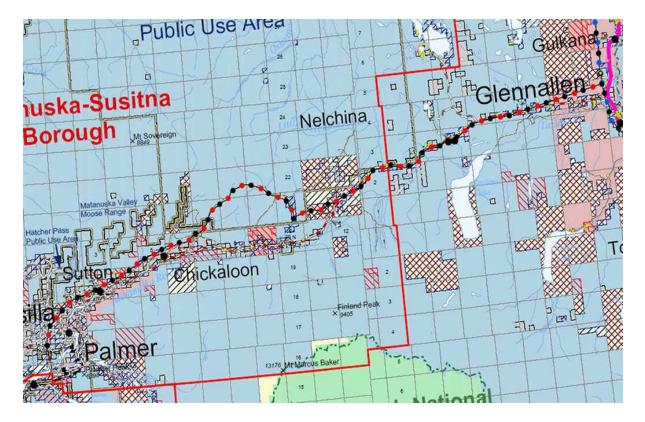
# ALASKA NATURAL GAS DEVELOPMENT AUTHORITY CONDITIONAL RIGHT-OF-WAY LEASE

# COMMISSIONER'S ANALYSIS, PROPOSED DECISION and ACTION

# ADL 229297



Alaska Department of Natural Resources State Pipeline Coordinator's Office Gas Pipeline Group 411 West 4<sup>th</sup> Avenue, Suite 2C Anchorage, Alaska 99501

February 24, 2006

#### PURPOSE OF ANALYSIS AND DECISION

The Right-of-Way Leasing Act (AS 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 land for pipeline right-of-way purposes. In processing an application, the Commissioner must make a written determination of 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. The statutes allow the Commissioner to offer the applicant a conditional lease, which must include each covenant and condition required by AS 38.35.120. The Commissioner may also require that the lessee agree to additional conditions that the Commissioner finds to be in the State's best interest. If, in the future, the Commissioner determines that the terms and conditions of the conditional lease have been met, the Commissioner may enter into a Right-of-Way Lease.

The following document is the Commissioner's Analysis, Proposed Decision and Action (Analysis and Proposed Decision) for the natural gas pipeline conditional lease application across State lands for the Glennallen to Palmer Pipeline submitted by the Alaska Natural Gas Development Authority on April 4, 2005. The public comment period for this Analysis and Proposed Decision ends at 5:00 p.m., April 21, 2006. Written comments may be faxed to (907) 646-5012 or submitted by US Mail or in person to:

State of Alaska, State Pipeline Coordinator's Office Gas Pipeline Group 411 West 4<sup>th</sup> Avenue, Suite 2C Anchorage, Alaska, 99501

Public hearings have been scheduled for the Commissioner's Analysis and Proposed Decision at the following locations. Comments will be accepted verbally and/or in writing at the hearings.

3/17/06 (Fri) Sutton – 6:00 p.m. – Chickaloon Village Traditional Council Meeting House – Glenn Hwy MP 61.5
3/20/06 (Mon) Glennallen –6:00 p.m. - Caribou Café Banquet Room, Glenn Hwy, MP 187

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- 3/21/06 (Tue) **Lake Louise** 12 noon Lake Louise Lodge Lake Louise Mp 16.1
- 3/21/06 (Tue) **Glacier View** 6:00 p.m. Glacier View K-12 School Gymnasium – Glenn Hwy MP 104
- 3/24/06 (Fri) **Palmer/Wasilla** -7:00 p.m. Mat Su College, Mile 2 Trunk Road – Fred & Sara Machetanz (FSM) Bldg., Room 204
- 3/25/06 (Sat) **Chickaloon -** 2:00 p.m. Chickaloon Community Council Building – Glenn Hwy MP 74
- 3/28/06 (Tue) **Anchorage** 7:00 p.m. ZJ Loussac Public Library 3600 Denali Street, 1<sup>st</sup> floor Conference Room

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#### NATURE OF THE REQUEST

On April 4, 2005, the Alaska Natural Gas Development Authority (ANGDA) filed an application for a conditional lease across State lands for a natural gas pipeline. The application was submitted pursuant to the Alaska Right-of-Way Leasing Act, AS 38.35, and the regulations promulgated thereunder. The proposed pipeline would commence near Glennallen on Ahtna, Inc. lands, at TransAlaska Pipeline System Milepost 689.5, and terminate south of Palmer near the Glenn Highway and Parks Highway interchange where it would connect to an existing distribution system.

On November 3, 2005, the ANGDA submitted an amendment to their application showing alternate routes for the pipeline. The major alternate routes are shown on Alignment Sheets 11 to 24 and are considered in this Analysis and Proposed Decision. The ANGDA proposes to utilize section line easements, Matanuska Electric Association transmission line easements and the Alaska Department of Transportation and Public Facilities (ADOTPF) easements whenever possible. Some of these changes could not be reflected on the alignment sheets due to the scale. Conditional Lease Exhibit A provides the legal description for the original and alternate routes being proposed. The public is asked to comment on all the routes.

On January 26, 2006, the ANGDA submitted proposed realignments in the vicinity Chitna Pass, Chickaloon and Moose Creek. These proposed realignments are shown on alignment sheets 15 to 19 and 22. These proposed realignments have been placed on the Joint Pipeline Office website and are titled: Moose Creek Realignment, Chickaloon Realignment, and Chitna Pass Realignment. The scale of these realignment maps are different from the original alignment sheets and may cover more than one alignment sheet. The proposed realignments extend off the existing alignments sheets; therefore we are showing the proposed alignments with an A after the alignment sheet number (i.e. 15A is Chitna Pass).

The timing of the construction of this ANGDA pipeline is dependent upon the availability of natural gas. At this time there are no producing gas reserves in the Glennallen area, and the current ANGDA proposal is therefore dependent on the construction of a pipeline carrying North Slope gas through the Glennallen area. Ongoing negotiations under the Stranded Gas

Development Act are currently focused on construction of a major gas pipeline from Prudhoe Bay to the Canadian border, a route that would not pass through Glennallen, and ANGDA has therefore begun study of an additional leg of this proposed pipeline to run from Glennallen to Delta Junction adjacent to the TransAlaska Pipeline right-of-way. ANGDA has submitted a report, available on the JPO website, which concludes that such a project is feasible.

The ANGDA has applied to the Commissioner for a conditional lease. A conditional lease does not transfer a real property interest in state lands, and is subject to conditions established by the Commissioner. Issuance of a conditional lease does not prevent the Commissioner from entering into alternative leases, permit or agreements involving all or part of the same lands with others.

# BACKGROUND

Natural gas is critical to the residents of Southcentral Alaska. The economy of Southcentral Alaska is dependent on natural gas for power generation, residential and industrial uses. The declining reserves in Cook Inlet mean higher electricity and gas prices for two-thirds of Alaska's population

The ANGDA is an independent public corporation and an instrumentality of the State within the Alaska Department of Revenue. The ANGDA was established via Ballot Measure #3 in 2002 and is operated by a Chief Executive Officer who reports to a Governor-appointed Board of Directors (AS 41.41).

The ANGDA initiated work on this gas pipeline project in 2004. As part of the project startup, the ANGDA prepared several reports documenting various aspects of their proposal, including:

• 24-Inch Spur Line from Glennallen to Palmer – Conceptual Alignment and Budget Level Cost Estimate (ANGDA 2004a) identifies a baseline route and alternate routes for the Spur Line. The baseline route was used for the original cost estimate.

- *Financial Plan for the Cook Inlet Spurline* (ANGDA 2004b) presents a financing plan for the construction of the pipeline.
- *Spurline Report on Utility Regulation* (ANGDA 2004c) defines the Regulatory Commission of Alaska (RCA) issues related to ANGDA's role as a gas transportation utility and supplier of gas to utilities serving intrastate users.
- *Right-of-Way and Permitting Issues* (ANGDA 2004d) addresses the right-ofway and permitting issues, environmental standards, mitigation, and best practice issues for the pipeline project.

The above referenced reports and other reports prepared for the ANGDA are available online at <u>http://www.allalaskalng.com</u>.

In applying for a conditional lease, ANGDA has, at this time, provided only a conceptual design for the pipeline. The detailed technical design of the pipeline system will be required to comply with United States Department of Transportation (USDOT) standards set in statute and regulation, and with State statutes and regulations in effect at the time of construction. ANGDA will be required to submit the detailed technical design addressing, among other things: pipe type, welding methods, pipe capacity, pipe coating, compressors and other components, and equipment that will be used during construction for the Commissioner's approval as a condition of conversion of the conditional lease into an unconditional lease. These design details and components may change as the design of the pipeline matures; however an initial design and every design revision to the initial approved design will require the approval of the Commissioner.

Some of the many technical standards that will apply to ANGDA's design, construction, operations, and maintenance of the pipeline include:

• ASME B31.8, as required by State Statute;

- Department of Transportation regulations in 49 CFR 192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards;"
- FERC conditional certificate of public convenience and necessity, if required;
- U.S. Army Corps of Engineers "wetlands" permits, issued under section 404 of the Clean Water Act;
- State of Alaska Right-of-Way Lease (ADL 229297); and
- API-5L standards for use of pipe in conveying gas.

# MAJOR COMPONENTS OF THE ANGDA PROJECT:

**Pipeline Location:** The ANGDA proposes to originate the pipeline approximately two miles north of Glennallen and west of the Trans-Alaska Pipeline System (TAPS) pipeline at TAPS milepost 689.5. The compressor or other conditioning facility and the first 11 miles of the buried pipeline are proposed to be located on lands owned by Ahtna, Inc. Approximately 11 miles from the origin, the alignment enters the Glenn Highway right-of-way for approximately 50 miles, then follows the Squaw and Caribou Creek drainages crossing Chitna Pass into the Boulder Creek drainage and entering the Chickaloon area. From Chickaloon to Palmer the route generally follows an existing Matanuska Electric Association easement that crosses State and private lands. The proposed terminus of the pipeline is southwest of the Glenn Highway and Parks Highway interchange, where it would connect to an existing 20-inch distribution pipeline on the west side of the Glenn Highway. The terminus of the pipeline would be in close proximity to the Alaska Railroad, the Glenn Highway and the Parks Highway; therefore propane and other products produced at the facility could be easily accessed for transport.

**Pipe:** A 24 inch pipe is proposed to be used for this project with a transportation capacity of 1,000 million standard cubic feet per day (MMSCFD). The pipe must meet the requirements of 49 CFR §192 and API-5L.

Valve locations are currently mandated in 49 CFR §192.179. Launchers and receivers for pipeline in-line inspection devices (pigs) will be installed at each end of the pipeline.

Although the pipeline will predominately be buried, it may be necessary for the pipeline to be above ground in some areas such as stream or river crossings or at fault crossings.

**Pipeline Corrosion**: The ANGDA will be required to comply with National Association of Corrosion Engineers (NACE) 0169, which addresses control of external corrosion on underground or submerged metallic piping systems. These standards set the CP criteria for achieving effective control of external corrosion on buried or submerged metallic pipeline systems and are also applicable to other buried metallic structures. The standard includes information on determining the need for corrosion control; piping system design; coatings, CP criteria and design; installation of CP systems; and control of interference currents. Monitoring of the CP system would be a requirement in the Right-of-Way Lease.

**Gas Composition**: Raw natural gas is composed of different hydrocarbons and fluids, depending on the location of the well. A rich gas composition will require processing of the gas to remove a portion of the non-methane compounds (e.g. ethane, propane, butane) to produce a utility grade gas prior to delivery to the existing distribution system near Palmer.

The pipeline design will address the need for heating and/or chilling the gas to avoid impacts to the environment, such as permafrost melt.

**Compressors/Gas Processing/Conditioning Facilities**: The pressure of the gas flowing through the pipeline will decrease as the gas flows down the pipe. The current components of the project include the pipeline and a compressor/generator/power plant at each end of the pipeline. The purpose of a compressor is to maintain the operating pressure of the pipeline. The ANGDA does not anticipate the need for additional compressors along the line. If, during design, the need for additional compressors is identified, the ANGDA will amend their proposal with the ADNR if the compressor is placed on State land.

The pipeline facility at the terminus of the pipeline was identified because of the location of an existing utility distribution system on the west side of the Glenn Highway. Additionally, the proposed facility is in close proximity to the Alaska Railroad, the Glenn Highway and the Parks Highway; thereby making propane and other products that may be produced at the facility easily accessed for transport.

The ANGDA predicts the compression/processing/power generation facilities will occupy approximately 55 acres. The actual acreage may change pending final facility design. These facilities are not proposed to be located on State land and are not a part of the right-of-way application or this Analysis and Proposed Decision. These facilities could include compressors, gas scrubber units, control and service functions, as well as utility and power generation equipment.

The ANGDA does not intend to have permanent living quarters at any of the facilities but may have emergency quarters for personnel. Personnel should be able to conduct the construction, operation and maintenance activities for these sites without the need to overnight on-site. These facilities will be located close to existing communities with hotels or permanent housing that can be utilized if the maintenance activities can not be accomplished in a day.

Standards for the design and construction of compressor sites, as well as safety factors, are listed in 49 CFR §192.163. Noise from the compressors can be a factor when located close to residences or communities. When this pipeline is designed, the best practicable techniques will be applied to minimize noise and vibrations.

**Natural Gas Liquid Facility:** The ANGDA has not applied to ADNR for a Natural Gas Liquid (NGL) facility. If a facility is constructed, it would be located on private lands and therefore is not a part of this Analysis and Proposed Decision or the conditional lease.

**Temporary Facilities:** Temporary facilities include those facilities required to support the construction phase activities, such as construction headquarters, use of existing airfields, use of existing access roads, and material sites and spoil disposal sites.

The ANGDA does not propose to have field construction camps on State land; rather the ANGDA envisions the construction contractor providing a portable maintenance camp with offices, kitchen, housing, maintenance building and a medical trailer that will be relocated several times during construction. The ANGDA is not proposing to use State land for these camps and the camps are not a part of the application or this Analysis and Proposed Decision.

The ANGDA anticipates that most construction personnel will be transported to the sites on shuttle buses. Commercial lodging or RV hook-ups along the route may be utilized for some project construction personnel.

The ANGDA intends to require their contractors to provide on-site health care to respond to minor medical needs. A portable first aid trailer specifically designated for this project would be located with the portable maintenance camp. Hospitals and other medical facilities already exist in Glennallen and Palmer.

Existing roads and trails will provide access to the proposed pipeline alignment. An additional four access roads may be required and the locations of these new temporary access roads will be identified as the project progresses. Access roads will be permitted under AS 38.05 and will not be included under the AS 38.35 Right-of-Way Lease.

**Materials and Staging Facilities:** Material and staging sites have not been identified by the ANGDA. These sites will be identified during the design phase of the project. Material sales are permitted under AS 38.05 and will not be included in the AS 38.35 Right-of-Way Lease.

The ANGDA is proposing to ship pipe and other materials through the Point MacKenzie port facility. Pipe and other materials may be staged at the Point MacKenzie port prior to trucking the materials to the construction site(s). Other staging or storage areas may be required depending on the segment under construction. The ANGDA will identify the temporary pipe storage areas in the final design. Authorizations for pipe storage areas on State land will be

issued under AS 38.05, which has a public review process and will not be included under the AS 38.35 Right-of-Way Lease.

Use of the highway system to transport pipe, equipment or materials must be approved by the ADOT&PF. A Highway Use Agreement and/or other documents determined by ADOT&PF to be relevant may be required prior to utilizing the state road system.

**Fault Crossings:** The ANGDA submitted a *Final Report on Engineering/Fault Zone Crossing Design – Glennallen to Palmer Spur Line* dated October 2005 prepared by URS. This report provides results of a geologic study and preliminary engineering design of five fault crossings along the proposed natural gas pipeline route.

Fault crossing methods will be addressed when the pipeline is designed. Information from the November 2002 Denali fault earthquake and the performance of the TAPS aboveground sliding support shoes will be some of the information reviewed when designing the fault crossings for this pipeline.

**General Land Use Information:** The pipeline alignment crosses state, borough, privately owned properties and federal lands that have been selected by the state for conveyance. Although the federal lands are on the State's conveyance priority list, a conveyance date has not been set.

Approximately 70 percent of the land in the Susitna area is State-owned or selected, with much of the accessible and developable land in private or native ownership. Native corporations own or have selected approximately 10 percent of the land. Most of the land west of the Matanuska Glacier has been transferred by patent or interim conveyance to native corporations.

Land uses in the area are residential, subsistence-related, commercial, native-owned, parks, refuges, sanctuaries, public trails and recreation. The highway right-of-way is a transportation corridor for vehicles, ATVs, snow machines and pedestrians.

# THE ANGDA'S PROPOSED CONSTRUCTION AND OPERATIONAL METHODS<sup>1</sup>

**General Pipeline Construction Procedures:** The actual construction corridor width may vary depending on the activities, topography, construction mode, and owner of the property. The construction right-of-way on State lands will be 300 feet wide, with some exceptions such as, the Glenn Highway right-of-way, Trunk Road right-of-way or other trails and easements. The actual disturbed area will generally be less than the 300 foot. Preparation of the right-of-way for construction can not be started before the conditional lease is converted to an unconditional Right-of-Way Lease issued under AS 38.35, and a Notice to Proceed is issued from the State. The notice(s) to proceed with preparation of the construction corridor will address, among other things, clearing, grubbing of vegetation and grading to ensure that normal surface drainage is maintained, and erosion controls is provided, and slope stability is controlled. The Notice to Proceed will address temporary workpads, their removal and restoration.

The ANGDA proposes to bury the majority of the pipeline. The construction would be accomplished in two segments: winter and summer. The designation of an area of work is dependent on the ability of the terrain to support construction equipment. Terrain that cannot support construction equipment during the summer is normally designated as winter construction.

MP 0 to MP 68.5 construction will occur during the winter due to the large concentration of ice rich soils, wetlands, and gently sloped terrain. Winter construction will utilize snow and ice workpads, which simplifies construction in normally wet areas and minimizes damage to the terrain.

MP 68.5 to MP 147.9 will be constructed during the summer. This section of the route includes terrain that is mountainous and contains more competent and rocky soils. A

<sup>&</sup>lt;sup>1</sup> The proposed project is subject to evaluation of final design criteria. The final design parameters may differ from those described in this Analysis and Proposed Decision.

considerable amount of grading will be required in some areas to accommodate the daily transport of equipment and personnel to the site.

Although the route has been segmented into winter and summer construction, there may be areas where the work can not be accomplished during the designated season. For example, a stream or river crossing may need to be constructed during the winter to minimize impacts to the fishery or environment even though the surrounding terrain requires summer construction.

Buried pipelines and valve locations are regulated by 49 CFR §192. The ANGDA is required to comply with this regulation. The use of horizontal directional drilling (HDD) or boring may be used in areas where open trenching is determined too intrusive ((e.g., sensitive wetlands, river and stream crossings, major road crossings) Pipelines must be hydrotested before commissioning in accordance with 49 CFR § 192.

Permits to avoid sedimentation and erosion are required to discharge the water used to test the pipe. The permits may require field observations, monitoring, sampling, and reporting of discharges to be done the same day of discharge. Discharges are monitored to limit damage, erosion, sedimentation, and/or floating debris. Discharge locations will be determined in conjunction with the Alaska Department of Environmental Conservation (ADEC) and the Office of Habitat Management and Permitting (OHMP).

To the extent feasible, existing roads will provide the main access for construction, operation and maintenance activities. Access points from the highway to the right-of-way will be identified prior to construction. Access roads will be authorized under AS 38.05 and are not a part of the AS 38.35 Right-of-Way Lease.

Prior to the start of construction, the ANGDA will finalize surveys, locate the centerline and construction workspace, and complete land or easement acquisition. The right-of-way will be staked, and existing utilities will be located and marked to prevent accidental damage during pipeline construction. The construction methods and equipment used will be defined during

the design phase of the project and addressed in a Notice to Proceed. The final design of the pipeline will comply with API 1104 and NACE 0169 and must be approved by the Commissioner.

**Specialized Pipeline Construction Procedures:** Crossing of major roads and railroads will be designed in accordance with the latest edition of API 1102, *Steel Pipelines Crossing Railroads and Highways.* An increase in the wall thickness of the pipe may be necessary under all major roads and railroads in accordance with the requirements of American Society of Mechanical Engineers (ASME) B31.8, which specifies different design factors in those locations. The minimum required depth of cover for roads is established by API 1102. Additionally, the ADOTPF has regulatory requirements under 17 AAC 15.211 and the ARRC follows the guidelines of the American Railway Engineering and Maintenance of Way Association (AREMA). The standard burial depth requirements, as defined by 49 CFR §192, will be applied to minor roads and driveway crossings unless the cover requirements provided in 17 AAC 15.211 are greater.

Drilling and blasting will be necessary in areas of hard rock, such as mountain passes. Decisions regarding the location and timing of blasting will take into consideration the activities of fish and wildlife that could be disturbed.

Special construction techniques may be required for stream crossings to minimize impacts to riparian and aquatic resources. HDD and boring methods of inserting the pipeline beneath river channels, as well as open cut, flume, or dam and pump techniques will be evaluated for crossings. Site specific crossing designs will be based on local environmental and geotechnical conditions, cost, logistics, and available technology.

Unless otherwise approved by the Commissioner, when construction occurs on natural grade, topsoil will be stockpiled to the side of the workpad prior to ditching to preserve the material for aiding revegetation.

**Other Permanent Facility Procedures:** New access roads, workpads, storage yards, and other permanent facilities are not anticipated by the ANGDA for the operation and maintenance of the pipeline system.

Maintaining permanent access along the pipeline is not necessary. Access to the pipeline for routine inspection and maintenance will involve travel on existing access roads or by the use of helicopters. Ice or snow roads may be constructed for winter access to perform routine work. In the event of an emergency situation where equipment would need to access an off-road area, specialized techniques would be used to reduce potential impacts. The ANGDA project involves gaseous hydrocarbons that would dissipate into the atmosphere if released and does not require a spill response plan

**Operation and Maintenance:** The pipeline will be operated in accordance with 49 CFR §192 and other State and Federal requirements. The right-of-way will be monitored and erosion or unstable conditions will be repaired. Pipe movement and the condition of the pipe will be monitored using various proven methods including, but not limited to, internal inspection devices (pigs), and mitigating action will be taken if necessary. The maintenance of vegetation and vegetation control will be addressed in the Right-of-Way Lease. Monitoring the CP system will be done during regular CP surveys.

**Safety:** The USDOT safety regulations for a natural gas pipeline require specific class locations for pipe wall thickness based on population density. Pipe wall thickness may also be increased during the final design as the chosen mechanism to provide control of ductile fracture and to accommodate pipe movement caused by frost heave or thaw settlement. All external pipe surfaces will be coated to help prevent corrosion or environmental cracking. Where additional weight is required for buoyancy control, site-specific evaluations will determine whether concrete coating, concrete weights, screw anchors, ground anchors or another type of weight will be used. Pipe designed to withstand vehicle traffic loads will be installed at the appropriate depth at road and railroad crossings.

**Pipeline System Lifetime and Decommissioning**: With proper maintenance, the life of the pipeline is indefinite. The Right-of-Way Lessee will be required to maintain the leasehold and the pipeline system in good repair and to promptly repair or remedy any damage to the leasehold, in addition to other mitigative, preventive and abatement activities. Additionally, the Lease will require the safe operation of the pipeline system to ensure the protection of the environment and the safety and integrity of the pipeline. Lease termination, removal of improvements and equipment, restoration of the land and abandonment of the pipeline will be addressed in the Right-of-Way lease. Decommissioning or abandonment of the pipeline will be done n accordance with State and federal laws and regulations.

# AUTHORITY

# Alaska Right-of-Way Leasing Act

The Commissioner is adjudicating the ANGDA application pursuant to the Alaska Right-of-Way Leasing Act, AS 38.35, and the regulations promulgated thereunder. The policy of Alaska's Right-of-Way Leasing Act, as set out in AS 38.35.010, is:

> that the development, use, and control of a pipeline transportation system be directed to make the maximum contribution to the development of the human resources of this State, the increase in the standard of living for all its residents, the advancement of existing and potential sectors of its economy, the strengthening of free competition in its private enterprise system, and the careful protection of its incomparable natural environment.

The Commissioner has been given all powers necessary and proper to implement this policy in leasing State land for pipeline rights-of-way to transport natural gas under conditions prescribed by AS 38.35.015 and the administrative regulations. Accordingly, AS 38.35 charges the Commissioner with determining whether an 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.

#### **Conditional Lease**

When determining whether an applicant is fit, willing and able to perform the acts required by a Right-of-Way Lease, the Commissioner has the discretion to grant a conditional lease. AS 38.35.100(b) provides:

If the Commissioner makes the determinations under (a)(1)-(5) of this section favorably to the applicant but determines that the applicant is not then fit, willing and able to perform under the application, the Commissioner may grant the applicant under a conditional lease subject to conditions established by the Commissioner that will ensure that the applicant will, within a prescribed period of time not exceeding 10 years, establish that the applicant is fit, willing and able, under (a) of this section, to perform the transportation or other acts that will be required by the present or future public interest. An applicant is not entitled to a notice or authorization to proceed to construction, or its equivalent, under a conditional lease until the Commissioner determines in writing that the applicant has satisfactorily established that the applicant is then fit, willing and able to perform under (a) of this section.

The conditional lease conveys no interest in land, property or resources of the State or any preference or priority rights to a particular right-of-way or alignment. Accordingly, the issuance of a conditional lease does not prevent the Commissioner from issuing other leases or authorizations for the same or similar right-of-way. Additionally, a conditional lease may be revoked by the Commissioner if it is determined that the Lessee is not willing or able to perform under the terms of the Right-of-Way Lease or is not determined to be fit, willing and able to perform under the Right-of-Way Lease.

A conditional lease allows the ANGDA the opportunity to obtain the necessary financing to proceed with the project, along with the opportunity to finalize the project specifics and final pipeline design. A conditional lease does not authorize any construction activities. Issuance of a conditional lease or a Right-of-Way Lease does not allow the ANGDA to initiate any field activity on state lands without approval from the ADNR. The approval may be in the form of a Notice to Proceed, would contain site specific terms and conditions the Commissioner finds necessary to protect the State's interest, and will only authorize the activities specific to that authorization. A Right-of-Way Lease does not grant exclusive rights

to the land; accordingly, the Commissioner may authorize other uses or leases within the right-of-way for the same or similar right-of-way route.

# **Other Authorities**

The project is subject to federal and state laws and regulations addressing design, construction, operation, maintenance, and termination. Project activities must be conducted in a manner consistent with the conditional lease conditions and stipulations, in addition to other State and local requirements. Additionally, the project must be undertaken in a manner consistent with conditions and stipulations included in various required federal permits and authorizations, including, but not limited to:

- Clean Water Act Section 404 (wetlands) permit U.S. Army Corps of Engineers;
- Clean Water Act Section 401 permit; and
- Coastal Zone Management Act and the State of Alaska Coastal Management Program Consistency Determination(s) in support of the Section 404 permits.

The project may also be subject to a Certificate of Public Convenience and Necessity from FERC and a Federal Grant of Right-of-Way across Federal lands from the Bureau of Land Management.

# ADMINISTRATIVE ACTIONS ON THE APPLICATION

The ADNR works in consultation with other State and Federal agencies on the proposed projects in accordance with their specific mandates. Some agencies have statutory and regulatory authorities that govern certain aspects of the proposed project. Such agencies retain their regulatory role over the applicable activities. The conditional lease will require the ANGDA to comply with all applicable State and Federal statutes and regulations. The following agencies will have a role in the project:

**The Alaska Department of Natural Resources (ADNR):** The ADNR is the entity charged with overseeing State land use activities. The State Pipeline Coordinator's Office (SPCO), Division of Oil & Gas (DO&G), Division of Mining, Land and Water (DMLW), Office of Habitat Management and Permitting (OHMP), State Historic Preservation Office (SHPO)

and the Office of Project Management and Permitting (OPMP) are located within ADNR and review, coordinate, condition, and approve activities on State land.

**Fish Habitat Management:** Title 41 gives OHMP permitting authority over activities affecting anadromous fish streams and for activities that could interfere with the efficient passage of resident or anadromous fish. A fish habitat permit must be obtained from OHMP prior to using, diverting, obstructing, polluting, or changing the natural flow or bed of an anadromous fish waterbody (AS 41.14.870). A fish habitat permit is also required for activities that may obstruct fish passage (AS 41.14.840). Additionally, under the ACMP, wetlands and tideflats must be managed to assure adequate water flow, nutrients, and oxygen levels, minimize adverse effects on natural drainage patterns, and the destruction of important habitat (6 AAC 80.130(c)(3)). Rivers, streams, and lakes must be managed to protect natural vegetation, water quality, important fish or wildlife habitat, and natural water flow (6 AAC 80.130(c)(7)). To further protect fish and wildlife habitat, 6 AAC 80.070(b) (3) requires that facilities be consolidated, to the extent feasible and prudent.

The OHMP and Department of Fish and Game (ADFG) have entered into a Memorandum of Understanding addressing biological issues and how the departments will work together.

Alaska Coastal Management Program (ACMP) Review: An ACMP review is required for that portion of the ANGDA proposal located within the Matanuska Susitna Coastal Management Area. The activities in this area are subject to the Matanuska Susitna Coastal Management Plan and the ACMP. If a project occurs within the coastal zone and requires a state or federal authorization, an ACMP review of the proposed activity will be conducted to determine whether the activity is consistent with the standards of the ACMP and any relevant enforceable district policies. During the review, each agency will determine whether any alternative measures (changes in the project description or scope) are required for approval. The public is provided the opportunity to participate in the ACMP consistency reviews. The ACMP public process goes through a 30 or 50-day review and, if approvals are needed by other agencies or divisions and offices within ADNR, the review is coordinated by OPMP within the Commissioner's office. This process provides for coordinated agency reviews, public input, and ensures consistency with the ACMP and the Matanuska Susitna Coastal Management Plan. **Pipeline Rights-of-Way Lease:** The ANGDA proposal must be authorized by ADNR under the Right-of-Way Leasing Act, AS 38.35. This Act gives the Commissioner broad authority to oversee and regulate the transportation of oil and gas by pipelines, which are in whole or in part located on State land, to ensure the State's interests are protected. The Right-of-Way Leasing Act is administered by the SPCO.

**Other Rights-of-Way:** Pursuant to AS 38.05.850, the ADNR may issue permits, rights-of-way, or easements on State land for roads, trails, ditches, field gathering lines or transmission and distribution pipelines not subject to AS 38.35, telephone or electric transmission and distribution lines, log storage, oil well drilling sites and production facilities for the purposes of recovering minerals from adjacent land under valid lease, and other similar uses or improvements, or revocable, nonexclusive permits for the personal or commercial use or removal of resources that the director has determined to be of limited value.

**Temporary Water Use Permit (TWUP):** A TWUP may be required under 11 AAC 93.210 – 220. TWUP permits are issued by both the SPCO and DMLW and may be required for construction and maintenance activities. An application for a temporary water use permit must be made if the amount of water to be used is a "significant" amount as defined by 11 AAC 93.970(14), the use continues for less than five consecutive years, and the water applied for is not otherwise appropriated. The permit may be extended one time for good cause for a period of time not exceeding five years. At the discretion of the Commissioner, a temporary water use permit will be subject to conditions, including suspension and termination in order to protect the water rights of other persons or the public interest.

**Permit and Certificate to Appropriate Water:** Industrial or commercial use of water requires a Permit to Appropriate Water (11 AAC 93.120). The permit is issued for a period of time (not to exceed five years for industrial or commercial uses) consistent with the public interest and adequate to finish construction and establish full use of water. The Commissioner will, in his discretion, issue a permit subject to conditions he considers necessary to protect the public interest. A Certificate of Appropriation (11 AAC 93.130) will be issued if: (1) the permit holder has shown that the means necessary for the taking of water have been developed; (2) the permit holder is beneficially using the amount of water to be certified; and (3) the permit holder has substantially complied with all permit conditions.

This certificate may be issued subject to conditions necessary to protect the public interest.

Land Use Permits: Land use permits are issued by the DMLW and the SPCO and may be required for a variety of activities. Land use permits can be granted for periods up to five years, depending on the activity (11 AAC 96.025). Generally allowed uses listed in 11 AAC 96.020 are subject to the following conditions: (1) activities employing wheeled or tracked vehicles must be conducted in a manner that minimizes surface damage; (2) vehicles must use existing roads and trails whenever possible; (3) activities must be conducted in a manner that minimizes (A) disturbance of vegetation, soil stability, or drainage systems; (B) changing the character of, polluting, or introducing silt and sediment into streams, lakes, ponds, water holes, seeps, and marshes; and (C) disturbance of fish and wildlife resources; (4) cuts, fills, and other activities causing a disturbance listed in (3)(A) - (C) of this section must be repaired immediately, and corrective action must be undertaken as may be required by the department; (5) trails and campsites must be kept clean; garbage and foreign debris must be removed; combustibles may be burned on site unless the department has closed the area to fires during the fire season; (6) survey monuments, witness corners, reference monuments, mining location posts, homestead entry corner posts, and bearing trees must be protected against destruction, obliteration, and damage; any damaged or obliterated markers must be reestablished as required by the department under AS 34.65.020 and AS 34.65.040; (7) every reasonable effort must be made to prevent, control, and suppress any fire in the operating area; uncontrolled fires must be immediately reported; (8) holes, pits, and excavations must be repaired as soon as possible; holes, pits, and excavations necessary to verify discovery on prospecting sites, mining claims, or mining leasehold locations may be left open but must be maintained in a manner that protects public safety; (9) on lands subject to a mineral or land estate property interest, entry by a person other than the holder of a property interest, or the holder's authorized representative, must be made in a manner that prevents unnecessary or unreasonable interference with the rights of the holder of the property interest.

**Material Sale Contract:** If the ANGDA proposes to use State-owned gravel or other substrate materials for construction of pads and roads, a material sale contract must include, if applicable: (1) a description of the sale area; (2) the volume of material to be removed; (3) the method of payment; (4) the method of removal of the material; (5) the bonds and deposits

required of the purchaser; (6) the purchaser's liability under the contract; (7) the improvements to and occupancy of the sale area required of the purchaser; (8) and the reservation of material within the sale area to the division; (9) the purchasers site-specific operation requirements including erosion control and protection of water; fire prevention and control; roads; sale area supervision; protection of fish, wildlife and recreational values; sale area access and public safety. A contract must state the date upon which the severance or extraction of material is to be completed.

The State Historic Preservation Office: The SHPO is responsible for the preservation and protection of the historic, prehistoric and archaeological resources of the State.

**The Alaska Department of Environmental Conservation:** The ADEC has statutory responsibility for preventing air, land, and water pollution. Written permits are typically required before an activity can begin. For example, before solid waste disposal, wastewater or air quality permits are issued two public notices and opportunities for public comment (and a public hearing, if requested) are required.

**Oil Discharge Prevention and Contingency Plan**: Oil Discharge Prevention and Contingency Plans are not required for natural gas pipelines (AS 46.04.010 - .900).

**Wastewater Disposal**: Domestic grey-water must be disposed of properly at the surface and a Wastewater Disposal Permit is required pursuant to 18 AAC 72. Typically, waste is processed through an on-site plant and disinfected before discharge. ADEC sets fluid volume limitations and threshold concentrations for biochemical oxygen demand (BOD), suspended solids, PH, oil and grease, fecal coliform and chlorine residual. Monitoring records must be available for inspection and a written report may be required upon completion of operations.

**Solid Waste Disposal Permit**: Solid waste storage, treatment, transportation and disposal are regulated under 18 AAC 60. For all solid waste disposal facilities, a comprehensive disposal plan is required, which must include engineering design criteria and drawings, specifications, calculations and a discussion demonstrating how the various design features (liners, berms, dikes) will ensure compliance with regulations. In accordance with 18 AAC 60.215, before approval, solid waste disposal permit applications are reviewed for

compliance with air and water quality standards, wastewater disposal and drinking water standards, as well as for their consistency with the Alaska Historic Preservation Act.

**Air Quality Control Permit to Operate**: The Federal Prevention of Significant Deterioration (PSD) program, which is administered by ADEC, establishes threshold amounts for the release of byproducts into the atmosphere. Oil and gas exploration and production operations with emissions below predetermined threshold amounts must still comply with State regulations designed to control emissions at these lower levels (18 AAC 50). Activities that exceed predetermined PSD threshold amounts are subject to a more rigorous application and review process. Such activities include the operation of turbines and gas flares. For oil and gas activities, these requirements translate into the requirement for a permit to flare gas during well testing (a safety measure) or when operating smoke-generating equipment such as diesel-powered generators.

**401 Certification**: Under 18 AAC 15.120, a person who conducts an operation that results in the disposal of wastewater into the water of the state need not apply for a permit from ADEC if the disposal is permitted under a National Pollution Discharge Elimination System (NPDES) permit. When a NPDES permit is issued under Section 401 (33 U.S.C. § 1341) of the Clean Water Act, ADEC does not require a separate permit, but participates by certifying that the discharge meets State and Federal water quality standards. When an application is made to EPA, a duplicate must be filed with the ADEC and public notice of the certification application is published jointly by EPA and ADEC (18 AAC 15.140 and 40 C.F.R. § 125.32). As a result, the State and Federal reviews run concurrently.

**Contaminated Site Cleanup**: For new releases of hazardous substances, AS 46.04.020(a) requires that a person causing or permitting a discharge of oil "immediately contain and clean up" the discharge. Similarly, AS 46.09.020(a) requires that a person causing a release of a hazardous substance other than oil make "reasonable efforts" to contain and clean up the hazardous substance after learning of the release. AS 45.09.020(b) requires DEC to develop guidelines prescribing general procedures and methods to be used in containment and cleanup of a hazardous substance. These procedures and methods have been established under 18 AAC 75. A responsible person is a person who is required under AS 46.04.020 or AS 46.09.020 to contain or perform a cleanup of a hazardous substance. **The Alaska Department of Fish and Game:** The ADFG evaluates the potential effect of

any activity on fish and wildlife, their habitat, and the users of those resources. ADFG requires permits for certain activities in State game refuges, sanctuaries and critical habitat areas. Special Area management plans provide guidelines for certain activities within many legislatively designated areas. By statute, these areas are jointly managed with ADNR. Permits are conditioned to mitigate impacts.

**ADFG Special Area Permit:** For activities in a legislatively designated area (such as a game refuge, a game sanctuary or critical habitat area), a Special Area Permit is required (AS 16.20 and 5 AAC 95).

The Alaska Department of Transportation and Public Facilities): The ADOTPF designs, constructs, operates, and maintains State transportation systems, buildings, and other facilities. The ADOTPF evaluates potential impacts on State transportation systems and facilities. The ADOTPF is also responsible for issuing permits for the portions of the project within the existing road rights-of-way that ADOTPF manages. Prior to any construction of the project, the ANGDA must enter into an agreement with ADOTPF to address: a highway indemnification agreement; alignment of portions of the pipeline within highway rights-of-way; construction scheduling; pipe haul permits; highway maintenance; state airports; and other issues necessary to protect the State's interests.

**The Alaska Department of Labor and Workforce Development (ADOLWD):** The ADOL reviews practices and procedures pertaining to occupational safety and health; mechanical, electrical and pressure systems; and wage and hour codes to protect employees. The ADOL has been apprised of the ANGDA proposal so they can evaluate the impacts relating to occupational safety and health for protection of employees.

The Alaska Office of Homeland Security (AOHS): The AOHS is the single, statewide focal point for coordinating the State's efforts to prevent terrorist attacks, reduce Alaska's vulnerability to terrorism, minimize the loss of life or damage to critical infrastructure, and recover from attacks if they occur. AOHS has streamlined many procedures in order to improve the flow of information throughout the government and to the private sector.

Alaska Department of Revenue (ADOR): The mission of the Department of Revenue is to collect and invest funds for public purposes.

The Regulatory Commission of Alaska (RCA): The RCA regulates public utilities by certifying qualified providers of the public utility and pipeline services; and ensuring that

they provide safe and adequate services and facilities at just and reasonable rates, terms and conditions.

**The Alaska Attorney General's Office (AGO):** The AGO is responsible for prosecuting violations of State laws and provides legal services to all executive agencies. The AGO reviewed the proposed lease document and provided legal advice related to this application. On the advice of the ADNR Commissioner, the AGO is responsible for seeking a prohibition or mandatory injunction from the superior court to remedy any violations or potential violations of the right-of-way lease or AS 38.35.

The U.S. Department of Transportation, Office of Pipeline Safety (USDOT/OPS): The U.S. Department of Transportation's (USDOT) Research and Special Programs Administration (RSPA), acting through the Office of Pipeline Safety (OPS), administers the Department's national pipeline safety regulatory program, pursuant to Chapter 601 of 49 USC to assure safe transportation of natural gas, petroleum and other hazardous materials by pipeline. RSPA has regulatory responsibility for pipeline safety, protecting high consequence areas (including environmental and public safety), pipeline security, pipeline integrity, pipeline spill planning and response. This responsibility includes setting and enforcing pipeline standards, researching causes, controlling problems and assisting states, local governments, recognized tribal governments and other Federal agencies. OPS develop regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance and emergency response of pipeline facilities.

# The U.S. Environmental Protection Agency (EPA)

National Pollution Discharge Elimination System (NPDES) Permits: The Federal Clean Water Act requires an NPDES permit to release pollutants into the waters and wetlands of the United States. The permitting system is designed to ensure that discharges do not violate State and Federal water quality standards by identifying control technologies, setting effluent limitations, and gathering information through reporting and inspection. Typically, approved discharges are covered by a general permit developed through a public review process after the specific location of a proposed discharge has been identified by the EPA in an Authorization to Discharge. When a general permit for a specific geographical area does not exist, proposed discharges are subject to an individual approval process and a NPDES permit. A

NPDES permit covers the discharge of drilling muds, cuttings and wash water, as well as deck drainage, sanitary and domestic wastes, desalination unit waste, blowout preventer fluids, boiler blowdown, fire control system test water, non-contact cooling water, uncontaminated ballast and bilge waters, excess cement slurry, water flooding discharges, produced waters, well treatment fluids and produced solids.

The U.S. Army Corps of Engineers (COE): The COE is a federal agency responsible for assessing impacts of the proposed activity on aquatic resources, endangered species, historic properties, water quality, environmental effects and other public interest factors. Compliance with section 404(b)(1) of the Clean Water Act as well as the measures they consider necessary for the protection of wildlife resources are reviewed. Under the Endangered Species Act of 1973, endangered species that frequent the area are identified and the effect the proposed activity might have on them or their habitat is considered. In some cases, an environmental assessment or environmental impact statement may be required by the National Environmental Policy Act.

Section 10 of Rivers and Harbors Act of 1899 (33 USC § 403): If work is anticipated on or in (or affects) navigable waters, a COE permit is required. A section 10 permit addresses activities that could obstruct navigation. Oil and gas activities requiring this type of permit would be exploration drilling from a backup drill rig, installation of a production platform, or construction of a causeway. The process and concerns are similar to those required for section 404 approval and, at times, both may be required.

**The U.S. Coast Guard (USCG)**: The USCG issues permits for structures over navigable waters and oversees vessels, marine oil spills, and terminal safety.

#### **PUBLIC PROCESS**

The ANGDA conditional lease application (ADL 229297) and the information contained within the case file constitute the ADNR administrative record used in this Commissioner's Analysis, Proposed Decision and Action. Coordinate State agencies, as defined in AS 38.35.230, were furnished copies of the ANGDA conditional lease application. Other state and local government agencies, towns, native corporations and tribal governments within the project's vicinity were notified of the locations the ANGDA conditional lease application

was available for review. Copies of the application were made available to the public, at cost, and were placed on the Joint Pipeline Office website at www.jpo.doi.gov.

Public notice of the application was sent to sixty-three (63) post offices around the state for posting. Additionally, public notice of the application was placed on the Joint Pipeline Office website and on the Department of Natural Resources Public Notice website.

Letters were sent to communities within the vicinity of the proposed pipeline route and to other communities that may be impacted by this project, such as Tok and Valdez. Private property owners adjacent to or impacted by the proposed right-of-way received individual notice. Other individuals, companies and organizations identified as being interested in this project were also notified by individual notice. Additionally, a bulk mailing was sent to all active postal boxes in Glennallen and to individuals between Eureka and Glennallen in an attempt to notify as many people as possible of the application. The bulk packet included a form to complete and return to the ADNR to be added to a database being maintained to contact individuals and groups of ADNR actions that take place on this application.

Public notice of the application was published in the Frontiersman on May 3, 2005; Anchorage Daily News, Fairbanks Daily News Miner, Peninsula Clarion, and Valdez Star on May 4, 2005; Mukluk News, Delta Wind, Seward Phoenix Log, and Cordova Times on May 5, 2005, and the Chickaloon News and Copper Valley Weekly on May 11, 2005.

The ADNR, OPMP will coordinate the Alaska Coastal Management review on the ANGDA pipeline project. A final consistency determination will be made for that portion of the project that falls within the coastal zone. The consistency review will be done in conjunction with the public review of this Analysis and Proposed Decision.

The Chickaloon Tribal Council and residents of the Sutton and Chickaloon areas requested the ADNR meet with them to explain the ADNR's process for this project. On June 8, 2005, representatives of the SPCO and the ANGDA attended a meeting in Chickaloon. The meeting was informal and a means of exchanging information. The agency representatives discussed the proposal, the ADNR process, the studies the ANGDA would be doing during the summer of 2005 and possible changes that could take place after the studies were completed, such as route modifications. There was also a discussion on the types of plans that would be required in the conditional lease. Various people expressed concern about the impacts this project could have on their community and the land, the opening of areas that are not currently accessible, the use of the right-of-way by recreational users on snow machines and all terrain vehicles (ATVs), impacts to the fish and game in the area used for subsistence, and the environmental impacts during the construction, operation and maintenance of the pipeline. The SPCO has continued to have contact with the Chickaloon Tribal Council and various individuals tracking the project.

The ANGDA and/or its contractors have also conducted public meetings in Chickaloon, Sutton, and Glacier View to inform local residents about the project, address social, environmental and technical aspects and answer questions related to the route. These meetings were informal and were not attended by ADNR staff.

# LAND ISSUES

# Land Status

**State Patented and Tentatively Approved Lands:** The Gas Pipeline Group reviewed land title information to confirm the state's title to the land encompassed by the proposed conditional lease application. A formal title report will be done on the lands managed by ADNR prior to issuance of the Right-of-Way Lease.

The State of Alaska has title to approximately 88 miles of the ANGDA route, including uplands and submerged lands. Lands owned by the University of Alaska, the Mental Health Trust, the Alaska Railroad Corporation and other private entities are not included in this right-of-way leasing process or this Analysis and Proposed Decision.

**State Selected Lands:** The State of Alaska selected four townships in the Eureka area from the Bureau of Land Management (BLM). If these lands are transferred to the State

prior to issuance of the conditional lease, the lands will be included in the lease. At this time the ANGDA has not applied to the BLM for the use of lands within these four townships.

**Municipal Lands:** In accordance with AS 29.25, the Matanuska Susitna Borough or other qualifying boroughs along the ANGDA route are eligible to select state land under the Municipal Entitlement Program. As a result, some state lands along the ANGDA route have been transferred to boroughs. The Matanuska Susitna Borough has municipal selections and deeded lands that are adjacent to the proposed ANGDA right-of-way. The borough does not hold an interest in lands under selection. If lands are transferred to the borough prior to issuance of the conditional lease, the approved conveyance or deed will exclude lands covered by the ANGDA conditional lease.

**Third Party Interests on State Lands:** Third party interests on state land are authorizations held by an entity or individual that may affect the right-0of-way lease. These authorizations may be issued for any of the following:

- 1. Rights-of-way for roads, trails or utilities, including RS 2477 routes;
- 2. Right-of-Way Lease for TAPS (ADL 63574);
- 3. Leases for commercial or municipal purposes;
- 4. Material Sales;
- 5. Oil and Gas Leases;
- 6. Mining Claims; and
- 7. Land sales for subdivisions, agriculture, homesteads, and remote parcels.

An attempt has been made to notify third parties affected by the project. Public notice has been and will be placed in newspapers of statewide circulation and in newspapers of general circulation in the vicinity of the proposed project.

**Relationship to Other Pipelines:** The proposed project begins at the Trans-Alaska Pipeline System (TAPS) right-of-way north of Glennallen on lands owned by Ahtna Corporation. This project must not interfere with the operations of TAPS, including the use of state land subject to the TAPS right-of-way, except as may be approved in writing by the Commissioner.

The ANGDA will be required to develop site-specific designs for those areas that may impact TAPS. The construction drawings may include such items as: insulation requirements, drainage and erosion controls, safety, access, daylighting, ditching, support of foreign pipeline, geometry and separation of pipelines, installation methods and backfill requirements, restoration, ground-water considerations, CP systems, and signage, as well as other items to ensure the safety and integrity of both pipeline systems.

Specific codes and other authorizations that regulate pipeline crossings include, but are not limited to:

- 18 CFR Conservation of Power and Water Resources;
- 49 CFR §193 Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards; and
- State of Alaska Right-of-Way Lease, ADL 229297.

The Yukon Pacific Corporation (YPC) holds a conditional lease (ADL 413342) for the Trans-Alaska Gas System (TAGS) that generally follows the TAPS route from Prudhoe Bay to Port Valdez. A conditional lease conveys no interest in land, property or resources of the state, or any preference or priority rights to a particular right-of-way or alignment. The issuance of the conditional lease to YPC does not prevent the Commissioner from issuing other leases or authorizations. Because the TAGS alignment has not been finalized, there is a possibility of alignment changes, which may or may not impact the ANGDA proposal.

# **State/ Federal Coordination**

The planning, design, construction, operation, maintenance and termination of the project will be subject to regulation and oversight by numerous state and federal agencies. The ADNR understands that close coordination is essential to avoid unnecessary duplication of efforts, and to provide for consistent and efficient state/federal oversight and monitoring of the pipeline system.

In order to facilitate the expeditious construction and initial operation of the pipeline system, the Commissioner will work, in consultation and cooperation with the ANGDA and relevant agencies, to ensure consistency between the terms and conditions of: the lease; the state's consistency determination for the right-of-way under the ACMP; the permit issued for the pipeline system by the COE under Section 404 of the Clean Water Act; and other state and federal regulations and policies that apply.

The Commissioner and ANGDA recognize that when commercial arrangements with respect to the project are sufficient to secure financing, the initial capacity of the pipeline and other components of the project, may change or need to be further optimized. To the extent that any part of the project is to be so modified, the ANGDA will provide to the Commissioner relevant applications and supporting materials. The ANGDA will not commence construction of any modified components of the project until after the Commissioner has reviewed and approved the modification request and issued, as appropriate: (i) any amendment to the lease necessitated by such proposed modification to the project; and/or (ii) any Notice to Proceed or amendment thereto necessitated by such proposed modification to the project.

# **Pipeline Location**

The selection of the right-of-way route can function as an important mitigation component in a variety of ways. The ANGDA used the following general criteria, to the extent reasonably practicable, in the selection of the pipeline route:

- Utilize existing transportation corridors;
- Utilize previously disturbed lands to the extent possible;
- Maximize use of existing facilities such as workpads, highways, access roads, airports, material sites, disposal and communication sites;
- Minimize crossing roads and highways;
- Minimize impacts to cross drainage;
- Reduce the use of thaw-unstable slopes as much as possible;
- Minimize traversing areas with frost susceptible soils;

- Avoid bracketing roads and highways between the natural gas pipeline right-of-way and existing rights-of-way;
- Minimize adverse impacts on the environment;
- Avoid sensitive areas;
- Minimize negative socioeconomic impacts to the communities in the pipeline corridor; and
- Maximize route cost effectiveness.

The construction right-of-way for the pipeline route on state lands subject to this Analysis and Proposed Decision is 300 feet. The width of the permanent right-of-way on state lands will be 50 feet, 25 feet each side of the pipeline centerline.

The route for the project falls within the Chitna and Palmer Recording Districts. The state lands along the route are generally described in Conditional Lease Exhibit A. The pipeline route passes through, or is proximate to, the following borough and communities (including unincorporated), and regional and village corporations:

- 1. Borough
  - a. Matanuska-Susitna Borough
- 2. Regional Corporations
  - a. Ahtna Corporation
  - b. Cook Inlet Region Inc.
- 3. Village Corporations
  - a. Chickaloon Village Traditional Council
  - b. Chickaloon Moose Creek Native Association, Inc.
  - c. Tazlina Inc.
- 4. Communities Incorporated and unincorporated
  - a. Glennallen
  - b. Lake Louise
  - b. Glacier View
  - c. Chickaloon
  - d. Sutton Alpine

e. Palmer f. Wasilla

The unincorporated community of Knik-Fairview will be impacted by this proposal if the pipe is off-loaded and stored at the Point MacKenzie port and trucked to the construction sites.

Land Ownership Line List: The proposed length for the project is approximately 148 miles, with approximately 88 miles of the pipeline crossing state land, which includes uplands and submerged lands. The state land total does not include University of Alaska, Mental Health Trust or Alaska Railroad Corporation lands. A legal description for the state lands crossed by the proposed right-of-way is provided in Conditional Lease Exhibit A. The state land list was created using the state land status plats, Land Administration System records, tentative approval and patent documents, specific case file documents, and the BLM land status plats. The land list is subject to refinement or change as the alignment changes, title is transferred or as new information is received by the ADNR.

Access to and Along Navigable and Public Waters: AS 38.05.127(a) specifies that before the sale lease, grant, or other disposal of any interest in State land adjacent to a body of water or waterway, the Commission shall:

- 1. determine if the body of water or waterway is navigable water, public water, or neither; and
- 2. upon finding that the body of water or waterway is navigable or public water, provide for the specific easements or rights-of-way necessary to ensure free access to and along the body of water, unless the Commissioner finds that regulating or limiting access is necessary for other beneficial uses or public purposes.

The identification and management of the beds of navigable waters is a priority of the state. In 1980, the state established a comprehensive navigability program to respond to federal land conveyances and land management activities under the Alaska Statehood Act, the Alaska Native Claims Settlement Act (ANCSA), and the Alaska National Interest Lands Conservation Act (ANILCA). Pursuant to the provisions of those acts, the federal government has issued navigability determinations for many of the lakes, rivers, and streams throughout the state in an effort to establish state or federal ownership of the submerged lands. Navigability determinations may be made prior to state land disposals to ensure that adequate public use easements are reserved.

The conditional lease for the project includes the streambeds of all navigable waters, as determined by the state, along the entire route.

# Land Classification

In order for ADNR to issue a conditional lease, the project must be compatible with land classification designations and applicable local planning and zoning ordinances. The proposed project traverses state lands subject to the following area or management plans prepared and approved by the ADNR:

Susitna Area Plan (SUAP adopted 1985, amended 1993);

Copper River Basin Area Plan (CBAP adopted 1986); and

Matanuska Valley Moose Range Management Plan (Moose Range established by legislation in 1984, plan adopted 1986).

A review of the above referenced plans shows that the proposed pipeline is consistent with the uses described in the plans approved by ADNR. The land use designations for the lease area are for coal development, forestry, timber resources, wildlife habitat, reserve use, settlement, public recreation, habitat protection, personal use timber harvest, sand and gravel, and geothermal.

**State Forest Plan:** The Division of Forestry (DOF) publishes a Five-Year Schedule of Timber Sales every two years which identifies planned timber sales areas. The Five-Year Schedule is meant to inform the public, timber industry, local governments, and other agencies of potential State timber sales and provides a basis for public comment and identification of issues. The Five Year Schedule of Timber Sales, 2005-2009, does not identify any lands involved in the right-of-way for the pipeline. The ADNR Timber Sales

schedule does not include timber sales by the University of Alaska or the Alaska Mental Health Land Trust, both of which manage the timber sales on their respective lands.

**State Wildfire Plan**: The DOF fire management planning, preparedness, suppression operations, prescribed fire, and related activities are coordinated on an interagency basis with the full involvement of state, federal and local government cooperators. The DOF, BLM, and the U.S. Forest Service fight fires within their protection areas on all land ownerships. None of the agencies in Alaska have the resources required to accomplish the fire protection job on their own; therefore cooperation reduces the duplication of facilities and services. The DOF has a cooperative agreement with the Departments of Agriculture and Interior and numerous local government and volunteer fire departments to help with fire suppression. The State and Federal agencies routinely utilize each other's personnel and resources to both manage and fight fires. This is efficient and cost effective for all the agencies.

In 1984, the State of Alaska adopted the National Interagency Incident Management System Incident Command System concept for managing its fire suppression program. The Incident Command System guiding principals are followed in all wildland fire management operations. All state departments adopted the Incident Command System in 1996 through a Governor's Administrative Order.

The ANGDA shall develop a Fire Control Plan that identifies methods that will be used to prevent and suppress fires near the right-of-way and related facilities. This plan will utilize approved measures, as described in the plan, to prevent and suppress fires on or near the right-of-way and its related facilities.

**Local Planning and Zoning**: The ANGDA must comply with all applicable local planning and zoning ordinances in all phases of the project, including pre-construction and design, construction, operations and maintenance and termination activities.

**Mineral Closing Order**: There are no known mineral closing orders that would impact this project, other than the previously discussed areas identified in the Susitna Area Plan or the Copper River Basin Area Plan.

Access to, Along and Across the ANGDA Project: The ANGDA proposes to access the right-of-way by utilizing existing access roads and trails. New access roads are not anticipated; however, if it is determined new access is required the ANGDA will apply for the access under AS 38.05. It is the policy of ADNR that access roads and the right-of-way, including workpads, if any, will be open for the use and enjoyment of the public unless one of the following situations apply:

- Upon the approval of the Commissioner, the ANGDA may restrict or prohibit public access over access roads being used for construction or termination activities;
- 2. Upon the approval of the Commissioner, the ANGDA may regulate or prohibit public access to areas of the Right-of-Way to facilitate operations or to protect the public, wildlife, or livestock from hazards associated with the operation of the pipeline; or
- 3. Upon approval of the Commissioner, the ANGDA may regulate or prohibit public access for reasons related to the security of the pipeline system.

After commissioning the pipeline and with the Commissioner's approval, the ANGDA intends to remove and revegetate any new roads that are not necessary for access to maintenance points, relief, valves, or for pipeline security.

Where the project crosses existing highways, roads and trails, the ANGDA will be required to design the pipeline to withstand the expected traffic. During construction of the pipeline, the ANGDA will be required to provide alternative access routes for existing roads and trails that cross the right-of-way, and restore existing roads and trails to their original or better condition and location. **Possible Use Conflicts**: Land use and existing use conflicts may occur during construction of the pipeline. These conflicts should be short term and diminish after the pipeline is in place.

The existing highway rights-of-way are used as transportation corridors. Since utilities, driveways and other ADOTPF authorized encroachments are currently located within the corridor, mitigative measures will be required to minimize the conflict with these uses during construction. Driveway access to homes, businesses, recreational areas and hunting and fishing areas may be temporarily interrupted or redirected during construction of the pipeline. Access will be restored to its previous or better condition.

# DESCRIPTION OF RESOURCES AND EXISTING USES ALONG THE ANGDA PROJECT ROUTE

#### **Mineral Resources**

The Susitna Area Plan addresses the subsurface use of the lands for each management unit. Each management unit has a statement as to whether the area is open/closed to location and available/unavailable for leasing. In management units that are open or available, mineral development is encouraged and accommodated consistent with state law, the area-wide land management policies set in the plan, the statements of management intent and the management guidelines. Primary surface designations will not be construed to prevent mineral development.

Historically, coal production ceased in the Matanuska Valley not because the resource was exhausted or difficult to mine but because the market evaporated; rather diesel engines replaced steam locomotives and the power plants at Fort Richardson Army and Elmendorf Air Force Bases converted from coal to natural gas. The local market for residential heating has not been large enough to sustain significant coal production in the Matanuska region since 1968.

Limestone and haydite sources are also known to be present in the Moose Range. (Haydite is used to make strong, yet lightweight, concrete.) Both are expected to be of a marketable type and amount. Placer deposits do exist, though in limited amounts.

The DGGS determined the oil and gas potential to be non-existent in areas north of the Castle Mountain fault and low potential to the south. It is unlikely marketable oil and gas resources exist within the Moose Range.

#### Vegetation

The project area supports upland spruce hardwood forests, moist tundra, low bush bog and muskeg and high brush. The lowland spruce-hardwood forests are dominated by black spruce with some balsam poplar, quaking aspen and paper birch. The under story is comprised of dense brush of green alder, thin-leaf alder, willows, prickly rose, Labrador tea, bunchberry, grasses, forbs and mosses are common on the forest floor. Trees and shrubs in the area have the potential to live 75 to 200 years but few areas escape the wildfires that occur about once every 100 years. The severe climate, repeated fires, discontinuous permafrost and braided drainage systems have resulted in complex vegetation patterns.

Common berries found in the Copper and Matanuska valleys are low bush cranberry, raspberry, rosehips, low bush blueberry, crowberries and currants.

#### Wildlife

**Amphibians and Reptiles:** The wood frog is the most widely distributed frog in Alaska and can be expected in the project area. They hibernate through the winter Wood frogs feed primarily on insects and small animals and, in turn, are preyed upon by birds and larger animals.

**Mammals:** A variety of terrestrial and aquatic mammals occur along the ANGDA corridor: shrews (common and dusty), voles, little brown bat, wolf, coyote, red fox, lynx, river otter, wolverine, marten, weasel (ermine), marten, mink, muskrat, bears (black and brown), moose, caribou, Dall sheep, mountain goat, squirrels (red and northern flying), beaver, muskrat, small rodents, porcupine, and snowshoe hares. Distributions of individual Commissioner's Analysis, Page 35 of 88 2/24/06 Proposed Decision and Action ADL 229297

species of mammals vary with respect to the ANGDA corridor, with some occurring along the length of the corridor and others occurring only in specific locations within the corridor. While the significance of larger herbivores, such as moose and caribou, and of their predators, such as wolves and bears, is apparent, many smaller species play important roles in tundra and taiga ecosystems. For example, herbivorous rodents can be very numerous and are important prey for many birds and mammals and thus play a key role in ecosystem function. Likewise, shrews feed on insects and other small invertebrates, helping check insect populations, and in turn are prey for a variety of mammalian and avian predators.

**Birds:** The project corridor provides habitat for more than 200 breeding bird species and serves as a major migration route for many bird species. Compared to the rest of Alaska, the diversity of land birds is high because the southern sections of the corridor are located within a major migration corridor and a number of species use this corridor to reach their northern range limit. However, extreme winter weather sends most birds traveling south, leaving only about 25 year-round resident species.

Songbirds that may occur in the area have been listed as Migratory Non-game Birds of Management Concern by the USFWS. Designated State of Alaska Species of Special Concern in the area includes the Olive-sided Flycatcher, Grey-cheeked Thrush, Townsend's Warbler, and Blackpoll Warbler as Species of Special Concern.

Birds that may be found along the ANGDA right-of-way include ducks, geese, swans grouse, ptarmigan, loons, grebes, hawks, eagles, owls, allies, sandpipers, plovers, gulls, terns, woodpeckers, chickadees, nuthatches, warbler, swallows, flycatchers, jays, magpies, crows, ravens, thrushes, kinglets, pipits, waxwings, shrikes, starlings, blackbirds, sparrows, buntings, finches, tanager, larks, jaegers, doves, hummingbirds, and kingfishers.

**Fish:** Fish species in the rivers and streams along the right-of-way corridor include chinook, coho, chum, sockeye and pink salmon. Salmonids in the rivers and streams and lakes include rainbow trout, Dolly Varden, lake trout, suckers, burbot, whitefish, sculpin and Arctic grayling. Northern Pike may be present. Nine-spine and three-spine stickleback are in the Matanuska Moose Range water bodies.

#### Subsistence Resources:

Subsistence fishing and hunting are important for the economies and cultures of many families and communities in Alaska. Subsistence exists alongside other important uses of fish and game in Alaska, including commercial fishing, sport fishing, personal use fishing, and general hunting.

The ADFG reports that 55 percent of households in rural areas participate in game harvest subsistence activities and 80 percent harvest fish. Subsistence along the project area is low in relation to Western and Interior Alaska.

The subsistence food harvest in rural areas represents about 2 percent of the fish and game harvested annually in Alaska. Although this is relatively small in the statewide picture, subsistence fishing and hunting provide a major part of the food supply for rural Alaska. The average wild food harvest for urban areas averages 22 pounds per person per year.

The larger rivers along the project corridor, such as the Matanuska, King, and Chickaloon Rivers, support subsistence fishing. In addition to use of fish and wildlife, subsistence users harvest wild edible plant products, such as berries along the project corridor.

## **Hunting:**

The proposed pipeline falls within State Game Management Units 13 and 14. State management boards, appointed by the governor, establish the regulations for wildlife resources and the ADFG oversees the management of the resources based on those regulations. The abundance of wildlife throughout the state has long kept Alaska a popular destination for resident and non-resident hunting activity. State revenues have increased since 1993 as a result of increased resident hunting and trapping license fees. The economic value of hunting in Alaska annually exceeds \$100 million, excluding the value of subsistence harvests.

More people hunt moose than any other of Alaska's big game species. Moose are very important to Alaska subsistence and non-subsistence hunters using areas traversed by the project corridor, as well as to guided nonresident hunters using areas away from the corridor. The Matanuska Valley Moose Range along the southern edge of the Talkeetna Mountains north of Palmer and Sutton, was created in 1984 to protect and enhance moose habitat while permitting other land uses. AS 16.20.340 designated management of the Moose Range "...to maintain, improve and enhance moose populations and habitat and other wildlife resources of the area and to perpetuate multiple use of the area, including...mineral and coal entry and development and other forms of public uses compatible with these purposes."

The Palmer Hay Flats State Game Refuge was established by the Legislature in 1975 and expanded in 1985. Its purpose is "to protect and preserve the natural habitat and game populations" (AS 16.20.032). Palmer Hay Flats is a 45 square mile complex of forest, wetlands, tidal sloughs, lakes and tideflats. Marsh and bog communities predominate. The area subsided in the 1964 earthquake, before which it supported a drier grassland habitat. Easy access and proximity to over half of Alaska's population has made the refuge one of the most important recreational areas in the State. It is one of the two most popular waterfowl hunting areas in Alaska. The refuge is located north of Anchorage at the head of the Knik Arm in Cook Inlet.

## **Fisheries:**

Fishing throughout the Copper River region is the primary use of the resources because of the wide variety of fish resources and the proximity to a large population center. The lakes and streams are fished by local anglers and those that travel from Anchorage and Fairbanks areas. Grayling and lake trout are the primary species caught during the open water season and burbot are harvested during the winter.

The Lake Louise-Susitna Lake system, Crosswind Lake, Matanuska, King and Chickaloon Rivers are popular fishing rivers. There is no commercial fishery on these rivers. Salmon are fished in the larger rivers.

Each year fishermen spend over 15,000 angler days on Cottonwood Creek and Wasilla Creek/Rabbit Slough fishing for coho and sockeye salmon within the Palmer Hay Flats State Game Refuge. The 28,000 acre refuge encompasses the mouths of the Knik and Matanuska rivers.

## Socioeconomics and Land Use:

The project area was settled and developed for its fisheries, gas, timber, tourism, agriculture, wildlife, and minerals. Residents generally enjoy a strong economy based on resource development, tourism, subsistence use, and recreation.

The area along the Glenn Highway has abundant resources including scenery, mineral and energy resources development. The pipeline will not minimize recreation opportunities or diminish visual or habitat values. Publicly owned land along the highway, Caribou Creek and corridors along the Chickaloon and Nelchina Trails will be retained in public ownership to protect habitat, provide personal use timber, and ensure existing access to recreational opportunities, subsistence uses and sport hunting and fishing. Impacts to undeveloped land will be minimal.

Land uses in the area are residential, subsistence related, commercial, native-owned, parks, refuges, sanctuaries, public trails and recreation. The road right-of-way is a transportation corridor for vehicles, ATVs, snow machine use, and pedestrians.

The Kings River area, where the Chickaloon Trail begins, contains forested land and has recreation access for skiing, snow-machining, and fishing in the area. The Matanuska River is popular with commercial and private river runners from approximately the Chickaloon River to the Kings River. The Palmer Hay Flats State Game Refuge, Matanuska Valley Moose Range and Bonnie Lake are popular hunting, fishing, hiking and fishing areas. These areas have high scenic and public recreation values and part of the area is accessible by road. The Purinton Creek and Cascade Creek areas also provide opportunities for public recreation and personal timber use, offering winter recreation activities, including snow machine use and cross-country skiing. A sheep mineral lick is in the area and a branch of the Chickaloon

Trail runs through the area. All public lands are open to oil and gas development. Finally, the Coal Creek area, across from the Chickaloon and Kings River area, has potential for settlement, coal development, recreation opportunities and personal use forestry.

## **Recreation and Tourism:**

The majority of land along the proposed project area is undeveloped and recreation remains a major land use. Common recreational activities include hiking, sightseeing, car-camping, backpacking, hunting, trapping, sport fishing, river floating, kayaking, canoeing, power boating, nature photography, wildlife viewing, berry picking, plant collecting, dog mushing, snow machining, skiing and mountain biking.

Scenic views are an important resource in Alaska; sightseeing and car camping are primary activities along the state's highways. The Glenn Highway National Scenic Byway from Anchorage to the Little Nelchina River (138.5 miles) follows a path carved by ancient glaciers. The highway follows the braided Matanuska River for over half its length and winds through some of the most impressive terrain on earth. Winters present a splendid sky show when the Northern Lights dance among the snow-capped mountains, while summers bring endless days to roam in fields of wildflowers and ancient forests.

The basis for much of Alaska's tourism industry is its natural resources. Natural resource based tourism includes visits to national and State parks, viewing wildlife and scenery, back country travel, rafting and boating, skiing and winter sports, ship cruises, photography, fishing and hunting. In addition, Alaska's cultural diversity and history help make it a major tourist attraction.

The number of total arrivals (visitors and residents combined) for October 1, 2002 through September 30, 2003 was approximately 2,531,700 people. Domestic air was the dominant mode of arrival for full-year visitor arrivals, accounting for approximately 51 percent of all visitor arrivals. Cruise ship arrivals were the second largest category, accounting for 40 percent. Highway visitor arrivals accounted for 6 percent, international air for 2 percent and ferry arrivals for 1 percent of all 2003 full-year visitor arrivals. Approximately 84 percent of visitor arrivals for 2003 took place during the summer season – May 1 through September 30.

In 2002, Travel and Tourism Sales (the total spending by and on behalf of travelers) totaled \$2.4 million in the State while the Core Industry (the direct impact of end-providers of goods and services to travelers) generated \$851 million in local value or 3.0 percent of Alaska's Gross State Product. Using the Core Industry definition, travel and tourism is the third largest private sector employer and the fourth overall in the State with 25,996 direct full-time equivalency jobs.

# **Cultural Resources:**

The Alaska State Historic Preservation Office requires a comprehensive archaeological ground survey of the entire final spur line corridor prior to any ground disturbing activities such as centerline staking, development of gravel sites, and staging areas for pipeline materials, taking place. A Cultural Resource Preservation Plan must be completed and approved by the Commissioner. Any pipeline realignments, new access roads or material site locations will be reviewed for site conflicts prior to any land disruption activities taking place.

The ANGDA identified 25 recorded sites found in the Office of History and Archeology (OHA), Alaska Heritage Resources Survey (AHRS) within one mile of the proposed pipeline corridor. Two of these sites might be located within the proposed 300 foot construction right-of-way corridor shown on the Alignment Sheets 1-24. All of the sites of concern date from the historic period of human occupation. Prehistoric sites are listed in the AHRS database for this region; however, none of these sites are located in proximity to the proposed pipeline route.

The proposed pipeline route passes through 12 miles of Bureau of Land Management lands (approximately PLMP 59.5 to PLMP 79.5) along the north edge of the Glenn Highway. The Eureka Lodge (ANC-0485), and Wickersham Cabin and Outbuilding (ANC-0774) are in

close proximity to the proposed right-of-way. The Eureka Lodge is part of a complex of buildings located on a private in-holding adjacent to the Glenn Highway.

# PROPOSED RIGHT-OF-WAY RELATED ACTIVITIES AND POTENTIAL EFFECTS ON RESOURCES

The project consists of three phases, with different proposed project activities for each phase. Pre-construction and construction represent the first phase, operation and maintenance comprise the second phase and termination is the third and final phase. The state and its resource agencies will work with ANGDA to develop mitigation measures for potential adverse environmental, social and economic effects of the project.

Construction activities will create the greatest potential for adverse effects to the environment and to people living in or traveling in the construction area. The season and method of construction for the pipeline will be designed to minimize potential impacts to the environment. Most of the pipeline will be buried and, once the project is in the operational phase, potential impacts to people and fish and wildlife resources along the right-of-way will be greatly reduced from the impacts experienced during construction.

The proposed route is primarily within existing right-of-way corridors and lasting impacts to waterbodies are not anticipated. Pipeline construction activities will be conducted in full compliance with state and federal statutes and regulations to minimize the potential effects to local drainage patterns, stream diversion or impacts to wildlife or habitats.

Once the pipeline is operational, there will be only minor activities that provide evidence of its presence, other than the surface structures, such as valves and CP systems. Compressors at the beginning and terminus of the pipeline will be unmanned and visited by maintenance inspectors on a specified regular schedule. The compressors will be equipped with low-noise compressor units to reduce the potential impacts to the surrounding environment.

The operation of the pipeline system will involve only a relatively small staff. The ANGDA has not identified where the staff will be based. The operations and maintenance facilities will be minor during operation of the pipeline system.

Some minor short-term land use conflicts will occur between the existing land uses during the construction of the pipeline. The proposed route utilizes existing section line, utility easements and highway corridors to the extent possible.

Existing utilities, pipelines, driveways and other ADOTPF authorized encroachments may be located within the proposed corridor. The ANGDA will be required to take mitigative measures to minimize conflict with these uses. Driveway access to homes, businesses, and recreational and hunting/fishing areas could be temporarily interrupted during placement of the pipeline. Access will be restored to previous condition as required in the ADOTPF Utility Permits.

In the course of construction the pipeline, additional demands may be placed on public services in the vicinity. The state's resource agencies will develop ways to mitigate potential adverse economic, social and environmental effects of the project.

# **Mineral Resources:**

The project should not impact mineral resources in the vicinity. Commercial mining activities will be allowed to the extent that the mining activity does not cause damage or threaten the pipeline. Mechanical mining will not be allowed within the pipeline right-of-way. However, gold panning may be allowed depending on the equipment used.

## Vegetation:

Concerns regarding impacts to the physical environment through erosion, sedimentation, ice formation, mass wasting, thawing of permafrost areas, and the disruption of surface and ground water flow will be addressed through design review and implementation of plans processes.

#### Wildlife:

#### **Amphibians and Reptiles**

During construction and maintenance activities amphibians and reptiles that utilize the construction area may be disturbed; however, these impacts are expected to be short-term and will be mitigated to the extent possible. Operation of the pipeline is not expected to result in amphibian and reptile behavioral changes.

#### Mammals

Long term behavioral changes or changes in habitat use, such as migration, calving and nesting are not anticipated. Impacts are expected to be short-term and will be mitigated to the maximum extent possible. The pipeline will primarily be buried, which will allow for continued large animal migrations.

Bear, fox and other animals can be attracted to construction sites A Human/Carnivore Interaction Plan will be required prior to any field activity taking place. This plan will address such things as the use of covered garbage containers, prohibiting storage of food materials, waste handling, sediment controls, and minimizing the extent of disturbance.

#### Birds

Noise and other disturbances can affect nesting birds, such as bald eagles. Minimum distances will be maintained and project activities will comply with the Bald and Golden Eagle Protection Act.

#### Fish

Adverse impacts to fish and wildlife due to river and stream crossing activities during construction, operation or maintenance of the pipeline will be minimized by complying with the statutes and regulations of the ADNR, OHMP. No in-stream work may occur from spring to early fall where fish are known to be spawning.

The following streams and rivers along the project corridor have been catalogued as anadromous and are subject to the requirements of AS 41.14.870.

Anadromous Fish Streams that may be Crossed or Affected by the ANGDA Comdor	
Stream Name	ADFG Stream Number
Matanuska River	247-50-10220
Eska Creek	247-50-10220-2095
Tributary of S. Matanuska River	247-50-10220-2098
Tributary of S. Matanuska River	247-50-10220-3015
Granite Creek	247-50-10220-2105
Little Granite Creek	247-50-10220-2341
Tributary of N. Matanuska River	247-50-10220-3012
Kings River	247-50-10220-2115
Chickaloon River	247-50-10220-2171
Moose Creek	247-50-10220-2085
Caribou Creek	247-50-10220-2341
Carnegie Creek	247-50-10260-2019-3076
Mendeltna Creek	212-20-10080-2431-3142
Mendeltna Creek	212-20-10080-2431-3122
Tolsona Creek	212-20-10080-2431-3082
Tazlina River	212-20-10080-2431-2431
Durham Creek	212-20-10080-2431-3075
Spring Creek	247-50-10260-2019-3020
Woods Creek	212-20-10080-2431-3122-4010

 Table 4: Anadromous Fish Streams

Anadromous Fish Streams that may be Crossed or Affected by the ANGDA Corridor

Source: ADFG Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes. 1992.

Anadromous stream identification was prepared for the ANGDA and evaluated for constructability of the pipeline, including visual inspections of the soil and local geology, hydrologic and hydraulic factors, potential environmental concerns, and miscellaneous factors impacting and/or aiding construction were evaluated. All stream crossing activities will be in accordance with applicable state and federal regulations. The type, timing and conditions upon all crossings and removal of water from fish bearing rivers, streams and natural lakes will be subject to prior written approval by OHMP

#### Subsistence, Hunting and Fisheries:

Because the pipeline will be primarily buried, little impact to subsistence, hunting and fishery resources, other than temporary interrupted access to adjacent areas, is expected. The primary areas of concern are river and stream crossings where subsistence fishing occurs. The design criteria and final route selection is intended to protect the overall environment and avoid adverse impacts to subsistence resources, including scheduling construction activities to avoid impacting fishing, hunting and disturbance to wildlife.

## Socioeconomics:

The project will provide direct and indirect economic benefits to the Matanuska-Susitna Borough, Municipality of Anchorage, and the State of Alaska through payment of royalty, severance, city and property taxes. The project may also result in capital expenditures being distributed into the local economy. Gas-related employment includes direct and indirect employment in the oil and gas and construction industries. In addition, vendors provide gas supplies and services; including grocery stores, hotels/motels and gas stations, and private and public sector jobs are generated through a stimulated economy.

Alaska Statute 36.10 requires the Commissioner of the Department of Labor and Workplace Development to enforce a 90% Alaska resident hire requirement for designated job classifications on certain public works contracts throughout the state. The current job classifications affected by this requirement are: bricklayers, carpenters, electricians, laborers, equipment operators, insulation workers, culinary workers, cement masons, painters, ironworkers, mechanics, truck drivers, welders, roofers, plumbers and pipefitters, and piledriver occupations. The ANGDA, as a public corporation and an instrumentality of the state, are required to comply with this statute.

An estimated 680 workers are expected to be employed at the peak of the construction activity and will be housed in existing facilities in the Matanuska-Susitna Borough or in field camps on private land. No field camps will be constructed on State lands. This number will be reduced during the operational phase of the project.

Negative socioeconomic impacts should be localized, of a short duration, and may include an increase of heavy duty equipment and trucks, which could result in slower travel times along the roads and highways adjacent to the project. Additionally, temporary access to backcountry may be limited during construction for safety reasons.

#### Recreation

The area along the Glenn Highway has an abundance of resources including scenery, minerals and energy resource development. Land uses in the area are residential, subsistence related, commercial, native-owned, parks, refuges, sanctuaries, public trails and recreation. The highway right-of-way is a transportation corridor for vehicles, ATVs, snow machines, and pedestrians. Mitigative measures will be taken to protect visual and habitat values and to ensure recreational opportunities are not minimized along the proposed pipeline.

No facilities or operations may be located in a manner that blocks public access to or along navigable and public waters (AS 38.05.965 (13) and (17)) unless the Commissioner finds that regulating or limiting access is necessary for other beneficial or public uses. Access to the backcountry for hunting, recreation, timber, coal mining and settlement by motorized vehicles, including ATVs or snowmobiles, or by foot will remain as unobstructed as safety allows during pipeline construction, operation and maintenance. Temporary access controls, in compliance with State and Federal regulations, may be used to protect the pipeline and construction operations from vandalism, theft, and other inappropriate activities.

## **Cultural Resources:**

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. If any sites are discovered during the course of pipeline construction, maintenance, operations, or termination activities, the activity must cease and the SHPO and the appropriate coastal district notified immediately. The SHPO requires a comprehensive archaeological ground survey of the entire final corridor prior to any ground disturbing pre-construction activities, such as "centerline staking, developing gravel sites, and staging areas for permanent pipeline materials." A Cultural Resource Preservation Plan must be approved by the ADNR. The SHPO will be asked to review this plan to ensure its concerns are addressed. Additional review for site conflicts will be conducted if any realignment of the right-of-way corridor is approved.

An Information Use Agreement entered into between the ADNR, Office of History and Archaeology (OHA) and the ANGDA in January 2005 restricts access to cultural resource information by the general public in order to protect known resources. Because of this agreement, the full report is "Confidential" and is not available to the public nor will it be placed on the JPO website. However, the SHPO has approved a *Redacted Cultural Resources Report* that is on the JPO website for public review.

## ANALYSIS AND DECISION OF REQUESTED ACTION

This constitutes the Commissioner's Analysis and Proposed Decision as required under AS 38.35.080. The ADNR will provide public notice of the availability of copies of this Analysis and Proposed Decision and the draft conditional lease, and of the public's opportunity to provide written comments to the ADNR during the comment period, ending at 5:00 p.m. on April 24, 2006. Public hearings will be held in Palmer, Sutton, Chickaloon, Glacier View, Glennallen and Anchorage during March, 2006. The Commissioner will consider written comments received within the comment period and oral and written comments from the public hearings. Written comments may be faxed to (907) 646-5012.

The ADNR is conducting this process consistent with the provisions of the agreement between the State of Alaska and the Federal recognized sovereign Tribes of Alaska (the "Millennium Agreement" signed April 11, 2001).

The Commissioner will consider public comment and issue a Final Decision under AS 38.35.100 after the public comment period. This Analysis and Proposed Decision will form the basis of the Final Decision required under AS 38.35.100. It may be amended in response to public comment or, in the event that no changes are made, it will be adopted as the Final Decision. Copies of the Commissioner's Final Decision and the conditional lease, if one is

offered, will be available on-line at www.jpo.doi.gov or hard copies will be available from the ADNR at cost.

# TECHNICAL AND FINANCIAL ANALYSES

Under the provisions of AS 38.35.100, the Commissioner is required to determine whether the applicant is fit, willing and able to construct and operate the pipeline in a manner that will be required by the present or future public interest. If the Commissioner makes the determination favorably, then he may offer a lease. In making the determination, the Commissioner is required to analyze the application against the following statutory requirements:

- 1. Pursuant to AS 38.35.100(a)(1), does the proposed use of the right-of-way unreasonably conflict with existing uses of the land involving a superior public interest?
- 2. Pursuant to AS 38.35.100(a)(2), does the applicant have the technical and financial capability to protect State and private property interests?
- 3. Pursuant to AS 38.35.100(a)(3)(A), does the applicant have the technical and financial capability to take action to the extent reasonably practical to 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?
- 4. Pursuant to AS 38.35.100(a)(3)(B), does the applicant have the technical and financial capability to take action to the extent reasonably practical to undertake any necessary restoration or re-vegetation?
- 5. Pursuant to AS 38.35.100(a)(3)(C), does the applicant have the technical and financial capability to 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?
- 6. Pursuant to AS 38.35.100(a)(4), does the applicant have the financial capabilities to pay reasonably foreseeable damages for which they may become liable or claims arising from the construction, operation, maintenance or termination of the pipeline?
- 7. Pursuant to AS 38.35.100(a)(5), has the applicant agreed that in the construction and operation of a pipeline within the right-of-way the applicant 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 then in effect or that take effect subsequently.

A discussion of the six criteria is provided below. The discussion of financial capability is consolidated into criteria number six.

# **CRITERIA 1:** Does the proposed use of the right-of-way unreasonably conflict with existing uses of the land involving a superior public interest?

Existing roads will be used to access the project. New access roads would be applied for under AS 38.05.

Where the project crosses existing highways, roads and trails, the pipeline will be designed to withstand the expected traffic. Alternative access routes may be required during construction. All roads and trails must be restored to their original or better condition upon completion of construction of the pipeline.

Land uses along the pipeline corridor include residential, subsistence related, commercial, native-owned, parks, refuges, sanctuaries, public trails and recreation. State legislation and land use plan classifications along the route, including the Matanuska Valley Moose Range, Susitna Area Plan, and Copper River Basin Area Plan, do not prohibit the use of the land for pipeline purposes. The DOF Five Year Schedule of Timber Sales does not include any lands within the pipeline corridor. There are no known mineral closing orders that would conflict with this project

# **SUMMARY FOR CRITERIA 1:**

The granting of a conditional lease does not give the lessee an interest in land or the right to exclude the public from the right-of-way. In addition, this project is subject to state and federal laws. The design, construction, operation, maintenance, and termination of the project must be undertaken in a manner consistent with conditions and stipulations included in

various federal permits and authorizations, including a Clean Water Act Section 404 (wetlands) permits from the COE, and Clean Water Act Section 401 permits and Coastal Zone Management Act / ACMP determinations from the State in support of the Section 404 permits. Project activities also must be conducted in a manner consistent with the conditions in the conditional lease, Title 41 Fish Habitat Permits, AS 38.05 rights-of-way and land use permits, Temporary Water Use Permits, SHPO regulations, ADEC requirements, and other state and local laws and requirements. Based on the fact that a conditional lease does not grant an interest in land and the fact that any future project is subject to the issuance of an unconditional lease and compliance with the foregoing laws, regulations, and other requirements, the project does not unreasonably conflict with existing uses involving a superior public interest of state land along the proposed route.

# **CRITERIA 2:** Does the applicant have the technical and financial capability to protect State and private property interests?

The Right-of-Way Leasing Act requires consideration of the applicant's technical capability to protect state and private property interests. The state property interests at stake in this application are the state highway transportation systems and other state lands over which the pipeline will pass.

The ANGDA is a public corporation and an instrumentality of the state located within the Alaska Department of Revenue has the authority and means to contract with entities that have a significant background in constructing and maintaining natural gas pipelines. At the present time, the ANGDA cooperates has a strong working relationship with companies with gas pipeline and large project experience such as Enbridge and Enstar.

The ANGDA has the authority to issue bonds in order to finance the project. Bonds issued by the ANGDA are not the obligations of the state; rather they are paid for from project revenues. The conditional lease requires that the ANGDA defend, indemnify and hold harmless the state, its agents and employees from and against all causes of action and damages of any kind arising out of or related to the ANGDA's interests in the leasehold. The conditional lease also requires the ANGDA to provide liability and property damage insurance in the principle amount of one million dollars (\$1,000,000) prior to issuance of the first preconstruction permit. The State is self insured and bonded, which means that the ANGDA may not provide ADNR with liability insurance policy from a private bonding or insurance company. However, a document showing the state is willing to insure this project will be required. Additionally, the ANGDA is required to provide Workman's Compensation insurance in the principle amount of one million dollars (\$1,000,000) per occurrence.

Prior to initiating field activities project-specific plans must be submitted to ADNR for approval. The plans must be developed to meet specific performance standards set out in the lease regarding protection and management of land, water and air resources that may be potentially affected by the construction and operation of the pipeline. The purpose of the plans is to avoid, abate and diminish problems that may arise from the project. Some plans may not be required until the ANGDA enters into the Right-of-Way Lease. The following is the list of plans, including the plan objects and performance standards:

# (1) Air Quality

**Plan Purpose and Objective**: This plan will provide the criteria and basic methodology and serve as the basis for the detailed planning and design work for the mitigation of potential air quality impacts associated with the construction and operation of a natural gas transportation pipeline from Glennallen to Palmer.

**Performance Standard**: The Lessee shall implement this plan to avoid where practical or minimize potential adverse air quality impacts and to ensure that air emissions are in accordance with applicable State and Federal standards.

# (2) Blasting

**Plan Purpose and Objective**: This plan will provide the criteria and methodology for any blasting that will be undertaken in connection with construction. The plan will provide environmental as well as technical criteria including, but not limited to, environmental protection, mitigation, and restoration methodology; public safety; and TAPS protection, if applicable.

**Performance Standard**: The Lessee's blasting activities shall be conducted in a manner to protect employees and members of the public, avoid where practical or minimize impacts to the fish and wildlife resources, and protect public and private structures including TAPS.

# (3) Clearing

**Plan Purpose and Objective**: This plan will provide the criteria used to determine the clearing boundaries, method of disposal, use or storage of overburden, slash, timber and other vegetation.

**Performance Standard**: The Lessee shall provide a clearing plan detailing clearing methods for pre-construction, construction, operation and maintenance activities. The plan shall include methods addressing disposal, utilization or storage of slash and overburden, timber and other vegetation. In addition, buffer zones and visual effects shall be addressed. The plan shall also include brushing methods for the operational phase of the pipeline system.

# (4) Corrosion Control

**Plan Purpose and Objective**: This plan will serve as the basis for the integrity program and will describe the methods to be used for early detection of corrosion.

**Performance Standard**: The Lessee shall have an approved integrity management program, which shall include corrosion protection, mitigation, assessment, and repair, and be based upon best practicable industry practices, applicable laws, regulations and the NACE standards.

# (5) Cultural Resource Preservation

**Plan Purpose and Objective**: This plan will show how cultural resources will be protected during the construction, operation and maintenance or other activities.

**Performance Standard**: The Lessee shall develop, establish and maintain a Cultural Resource Protection Program to preclude negative impacts to significant cultural resources by avoidance or, if this is not possible, to preserve significant data. The Lessee will coordinate with the Alaska State Historic Preservation Office in the development of a project-specific Programmatic Agreement for Cultural Resource Protection.

# (6) Environmental Briefing

**Plan Purpose and Objective**: This plan will provide a continuing education program for management and the labor force to ensure that environmental concerns are properly addressed.

**Performance Standard**: The Lessee shall ensure that all employees will be provided with the knowledge to perform work in a manner that complies with all State and Federal statutes, regulations and policies pertaining to the protection of fish, wildlife and other environmental resources; lease stipulations; and permit conditions required by regulatory agencies.

# (7) Erosion and Sedimentation Control

**Plan Purpose and Objective**: This plan will provide the criteria and basic methodology for developing detailed designs and procedures to control erosion and sedimentation during construction and operation of a natural gas transportation pipeline project.

**Performance Standard**: The Lessee shall implement methods described in this plan to minimize project-related erosion and sedimentation in streams, rivers and wetlands.

## (8) Fire Control

**Plan Purpose and Objective**: This plan will identify methods that will be used to prevent and suppress fires near the right-of-way and related facilities.

**Performance Standard**: The Lessee shall utilize approved measures described in this plan to prevent and suppress fires on or near the right-of-way and its related facilities.

## (9) Liquid Waste Management

**Plan Purpose and Objective**: This plan will provide the criteria and basic methodology and serve as the basis for the detailed planning and design work for the collection, transportation, management, and disposal of wastes generated by construction and operations of a natural gas transportation project.

**Performance Standard**: The Lessee shall develop, establish and maintain a liquid waste management program to implement the prevention, minimization, and the proper collection, handling, transport and disposal of the liquid waste produced by all phases of the project including pre-construction, construction, operation and maintenance, and termination. The plan shall provide the methods used to manage point source and non-point source liquid waste in accordance with applicable State, Federal, and local government codes and standards.

# (10) Material Exploration and Extraction

**Plan Purpose and Objective**: This plan will provide a comprehensive discussion of the criteria and methodology for siting, developing, operating, and restoring material sites needed for the project and for spoil disposal from the sites.

**Performance Standard**: The Lessee's plan shall describe the criteria and methodology for siting, developing, operating, and restoring material sites needed for the project and disposal of spoil from the sites in a manner that minimizes environmental and social impacts.

# (11) Oil and Hazardous Substances Control, Cleanup and Disposal

**Plan Purpose and Objective**: This plan will provide the detailed procedures for assessment and cleanup of oil and hazardous substance contamination that may be encountered during any field activity, and will provide the criteria and basic methodology for a comprehensive management program to control, cleanup, and dispose of oil and hazardous substances used in the construction and operation of a natural gas transportation pipeline.

**Performance Standard**: The Lessee shall develop, establish and maintain a comprehensive Oil and Hazardous Substance Contamination Program, providing the methods to be used to integrate the assessment, prevention, minimization, collection, handling, transport and disposal of oil and hazardous substances in accordance with all applicable State and Federal requirements during the construction, operation, maintenance and termination of the natural gas pipeline.

# (12) Overburden and Excess Material Disposal

**Plan Purpose and Objective**: This plan will ensure that overburden and excess materials are disposed of in a manner that protects the environment and that overburden to be used for restoration purposes is properly stored.

**Performance Standard**: The Lessee shall dispose of spoil material within the right-of-way construction zone to the extent practical. The placement of the spoil material shall utilize techniques to avoid or minimize environmental disturbance, such as impacts to vegetation. If the spoil material cannot be completely distributed within the right-of-way, the Lessee shall develop approved spoil disposal sites. Mineral and organic materials useable for rehabilitation and restoration purposes shall be segregated from other materials and stored for future use.

# (13) Pesticides, Herbicides, Chemicals

**Plan Purpose and Objective**: This plan will provide the criteria and basic methodology to develop a comprehensive management program for the

control, use, cleanup, and disposal of pesticides, herbicides, and chemicals used in the construction and operation of a natural gas transportation pipeline.

**Performance Standard**: The Lessee shall use only non-persistent and immobile types of pesticides, herbicides and other chemicals currently registered by the Environmental Protection Agency and the State. Each chemical to be used and its application constraint shall comply with applicable State regulation. All applications will be conducted by a certified pesticide applicator in the category of "Right-of-Way" or any other appropriate category or supervised on site by a certified pesticide applicator. Pesticides should be transported, stored and disposed of according to the label and applicable laws and regulations.

# (14) **Pipeline Contingency**

**Plan Purpose and Objective**: This plan will describe measures to plan and prepare for pipeline failures.

**Performance Standard**: The Lessee shall develop plan(s) to address uncontrollable events that could have a significant adverse impact on the operation or integrity of the pipeline and its appurtenances, or that could be hazardous to persons or property. The Lessee shall include provisions for natural gas control, specify that the action agencies responsible for contingency plans in Alaska shall be among the first to be notified in the event of any pipeline failure resulting in an natural gas release, provide for immediate corrective action including control of the release and restoration of the affected resource, and allow for approval of any disposal sites or techniques selected to handle disposal of materials.

# (15) Quality Assurance/Quality Control

**Plan Purpose and Objective**: This plan will ensure that the Lessee (including sub-contractors and vendors) pipeline activities comply with all State, Federal, and local government laws and other requirements, industry codes and standards and internal policy and programmatic requirements.

**Performance Standard**: The Lessee's quality assurance/control program shall be comprehensive and designed to assure that the applicable requirements of 49 CFR §192 and the environmental and technical stipulations of the lease will be incorporated in the final design and complied with throughout all phases of pre-construction, construction, operation and maintenance and termination of the Pipeline. The quality assurance/control program shall document compliance with the lease.

# (16) **Restoration**

**Plan Purpose and Objective**: This plan will describe the practicable methodologies to return disturbed lands to a natural condition.

**Performance Standard**: Upon completion of use, the Lessee shall restore disturbed areas to an acceptable condition as outlined in the approved plan to the satisfaction of the Commissioner.

## (17) **River Training Structures**

**Plan Purpose and Objective**: This plan will develop a process to monitor rivers and streams along the right-of-way for bank erosion. The plan shall also include a description of the river training structures.

**Performance Standard:** The Lessee shall implement measures to protect the pipeline from river and stream bank erosion in accordance with all applicable State and Federal requirements. Bank protection and river training structures shall be used when required to stabilize eroding banks and to control the flow along a pre-selected alignment. In addition to those described in the approved plan, the following structure types are suitable for use in streams: revetments, channel stabilization aprons, spurs, guide banks, dike plugs, biological stabilization techniques, and stabilization using natural materials.

## (18) Solid Waste Management

**Purpose and Objective**: This plan will provide the detailed procedures for safe disposal of solid wastes generated during any field activity.

**Performance Standard**: The Lessee shall develop, establish and maintain a comprehensive Waste Management Program pursuant to all applicable State, Federal and local requirements for the prevention, minimization, and the proper collection, handling, transport and disposal of the wastes produced during all phases of the project including construction, operation and maintenance, and termination.

## (19) Stream, River and Floodplain Crossings

**Plan Purpose and Objective**: This plan will provide design criteria and basic methodologies for the various crossing structures that will be used in pipeline construction to minimize impacts to fish passage, water quality, sedimentation and erosion by maintaining natural flow regimes.

**Performance Standard**: The Lessee's stream and river flood plain crossings shall not significantly alter the natural flow regime of those waterbodies, except during construction and maintenance of these structures. Construction and maintenance-related disturbance to stream banks shall be stabilized to prevent project-related erosion and rehabilitated as required. Installation of structures in fish streams shall be approved by the Commissioner or the Department of Fish and Game, depending on the jurisdication.

#### (20) Surveillance and Maintenance

**Plan Purpose and Objective**: This plan will describe the Lessee's program to surveil and maintain the pipeline and right-of-way.

**Performance Standard**: The Lessee shall conduct a surveillance and maintenance program applicable to the sub-arctic and arctic environment. This program shall be designed to protect public health and safety; prevent damage to natural resources; prevent project-related erosion; and maintain pipeline integrity.

#### (21) Visual Resources

**Plan Purpose and Objective**: This plan will describe how visual resources will be protected or mitigated during construction, operation, maintenance, and termination of the natural gas transportation pipeline.

**Performance Standard**: The Lessee shall prevent or mitigate, to the extent practicable, impacts to visual resources during pre-construction, construction, operation and maintenance, and termination activities.

## (22) Wetlands Construction

**Plan Purpose and Objective**: This plan will describe methodologies that will be used to minimize impacts to wetlands habitats.

**Performance Standard**: The Lessee shall minimize the alteration of drainage patterns in wetlands. The effects of frost bulb growth on groundwater flow in sensitive wetlands shall be minimized or avoided. Clearing of trees, brush and tall vegetation shall also be minimized to reduce impacts to wetlands. Construction in wetlands shall, to the extent possible, be scheduled when the ground is frozen. For wetland construction, the Notice to Proceed package shall include relevant information on the following: cross drainage control, erosion control, siltation control, clearing, re-grading, and revegetation.

## (23) Seismic

**Plan Purpose and Objective**: This plan will describe the measures to be employed to protect the pipeline from seismic activity.

**Performance Standard**: The pipeline system shall be designed, where technically feasible and practicable, by appropriate application of modern, state-of-the-art seismic design procedures to prevent any natural gas leakage

from the effects (including seismic shaking, ground deformation and earthquake-induced mass movements) of earthquakes along the route. Environmental damage from a leak shall be minimized by special design provisions that shall include, but not be limited to: a network of groundmotion detectors that continuously monitor, record and instantaneously signal the occurrence of ground motion in the vicinity of the pipeline reaching the operational design level; and rapid programmed shutdown of the pipeline and prompt close inspection of system integrity in the event of ground motion reaching the contingency design level. Prior to applying for a Notice to Proceed for any construction segment, the Lessee shall satisfy the Commissioner that all recognizable or reasonably inferred faults or fault zones along the alignment within that segment have been identified and delineated, and that the risk of natural gas leakage resulting from fault movement and ground deformation has been adequately assessed and provided for in the design of the pipeline for that segment. Evaluation of said risk shall be based on geologic, geomorphic, geodetic, seismic, and other appropriate scientific evidence of past or present fault behavior and shall be compatible with design earthquakes tabulated above and with observed relationships between earthquake magnitude and extent and amount of deformation and fault slip within the fault zone.

## (24) Human/Carnivore Interaction

**Plan Purpose and Objective**: This plan will provide design criteria and basic methodologies for various pipeline activities that will be used to minimize human/carnivore interactions and will describe the measures to be employed to provide employees with adequate training and knowledge to deal with the potential dangers associated with interactions between humans and bears and other carnivores.

**Performance Standard**: The Lessee shall minimize the occurrence of human-carnivore interactions during pre-construction, construction, operation and maintenance, and termination activities by taking measures to prevent interactions between humans and carnivores. This plan shall contain personnel safety guidelines developed in consultation with the ADFG.

## (25) Water Quality Monitoring Plan

**Plan Purpose and Objective**: This plan will provide the criteria and basic methodology and serve as the basis for the detailed planning and design work for the prevention, control and measurement of water quality impacts associated with the construction and operation of a natural gas transportation pipeline through Alaska.

**Performance Standard**: The Lessee shall implement this plan to ensure that point and non-point water pollution sources are prevented controlled in accordance with applicable State and Federal standards.

In the event the plans do not provide the detailed and/or site-specific data required to support the final design or to guide the conduct of the construction, operation, maintenance and termination of the pipeline system, additional or supplementary plans may be required.

The plans, or other plans as required, will set forth the array of methods available to meet the requisite performance standards. The selection of a specific method will depend on the geographic region and site-specific conditions or circumstances.

The Notice to Proceed procedures set forth the state approval process and provide an umbrella process that is intended to ensure that, for each field activity proposed to be undertaken, all regulatory reviews, public process, and permits are in place prior to the start of such field activity. Pursuant to these procedures, certain significant field activities (e.g., major activities involving construction of the pipeline system) will require a Notice to Proceed from the Commissioner, while other more minor field activities may require other written authorizations from the Commissioner. Certain field activities may require written authorizations by other State and Federal agencies under State or Federal statutes or regulation, either alone or in addition to an authorization from the Commissioner.

Pre-construction land use activities, such as fish and wildlife surveys and right-of-way staking, would be applied for and authorized separately under AS 38.05.

The final planning phase of the project will require ANGDA to ensure pipeline system integrity and prevent leaks, establish procedures to monitor performance to ensure continued integrity, develop a plan for response, and ensure the construction area is rehabilitated in accordance with permit conditions. Among other requirements, the following pipeline design and operation standards must be complied with:

- 49 CFR §190, "Pipeline Safety Programs and Rulemaking Procedures;"
- 49 CFR §191, "Transportation of Natural and Other Gas by Pipeline; Annual Reports,
  - Incident Reports, and Safety-related Condition Reports;" and

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• 49 CFR §192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards."

Pipeline construction techniques will be designed to avoid or minimize impacts to public and private lands and the environment. Work in sensitive habitat will be conducted in a manner that minimizes damage to the underlying vegetation and wildlife. Design and construction measures will be employed to prevent, minimize, or repair any damage to project area vegetation. The state resource agencies will work with the ANGDA to develop ways to mitigate potential adverse environmental, social and economic effects of the project and to protect state and private property interests.

Impacts from pipeline termination activities will be similar to those related to construction activities.

## **Physical Resources**

The ANGDA selected the route using existing transportation corridors (Glenn Highway, Parks Highway, Trunk Road, and existing utility and road easements), which reduces the need for new roads. The use of existing facilities and corridors will also reduce the impacts to the surrounding environment.

# **Biological Resources**

The project may have varying impacts on the biological environment including:

- 1. Anadromous and Resident Fish;
- 2. Wildlife, including Threatened, Endangered, or State Species of Special Concern; and
- 3. Vegetation/Wetlands.

**1. Anadromous and Resident Fish**: The OHMP are involved in the design review, construction, and monitoring phases of the project to mitigate impacts to anadromous and resident fish resources. The effect of the pipeline on groundwater, maintenance of fish passage, and sedimentation at or near known salmon spawning areas is a concern of ADFG

and OHMP. Environmental plans (Design Criteria, Plans and Programs) are intended to address sedimentation and erosion, groundwater flow, stream and river crossings, and water quality as they affect anadromous and resident fish. Stipulations will be developed to provide specific fish and wildlife protection measures.

# 2. Wildlife may be affected in the following ways:

- a. Direct mortality from collisions with vehicles, shooting (hunting and destruction of nuisance animals), and stress (exhaustion) from harassment;
- b. Passive or active disturbance caused by human activities, especially during critical periods or seasons (calving, denning, nesting, breeding, winter);
- c. Indirect loss of habitat through displacement of animals or disruption of movements and migrations;
- d. Direct habitat loss through physical alteration;
- e. Attraction to artificial food sources; and
- f. Contact with and contamination of food by pollutants, especially fuel and oil spills.

The above effects to wildlife may occur along the entire pipeline route during construction and operation of the project; however it is expected that the majority of wildlife impacts will occur during construction. Plans will be required in the right-of-way lease to address these concerns.

The ADFG or appropriate federal agency will address species listed as threatened or endangered under the Federal Endangered Species Act and the state administered Species of Special Concern program. Currently, there are no federally listed species along the proposed project route; however, the Peregrine Falcon remains on the State of Alaska Species of Special Concern list, maintained by the Commissioner of ADFG. This classification requires the avoidance of nesting period disturbance from low-flying aircraft, other noisy activities, ground level activities, and construction near nest sites during critical nesting times. In addition, activities that could have negative impacts throughout the year (not only during nesting periods) include habitat alterations, construction of permanent facilities, and pesticide use.

The project may remove some fish and wildlife habitat from production through wetland fills, construction of gravel workpads, and development of mineral material sites. Such losses will be greatest in the short term and will be mitigated as restoration and revegetation occurs following construction. Habitat losses could persist for the life of the project or longer, such as areas covered by permanent facilities and certain drainage structures. Additional losses may occur from accidents such as large fuel spills or from construction activities resulting in the siltation of aquatic habitat. Finally, habitat may become unavailable as a result of project-related activities that may disturb or displace wildlife or block fish migration. Habitat losses or reduced availability of habitat to fish and wildlife populations ultimately may adversely affect subsistence uses of such populations.

Animals may suffer direct mortality from vehicle-animal collisions, fuel spills, stress, defense of life and property, or other mechanisms. The Human/Carnivore Plan requires the employees, agents, contractors, subcontractors and their employees to be informed of applicable laws and regulations relating to hunting, fishing, trapping and feeding of animals.

**3. Vegetation/Wetlands**: The project requires the clearing of a construction zone on State land along the pipeline route. The width of the clearing will vary depending on the topography, construction method, and the facilities to be placed on State land. In no instance will the clearing on state land be wider than the construction right-of-way. The clearing of vegetation from the construction zone is one of the primary impacts during construction. In addition, compaction of the organic layers may result in additional seasonal thawing. Vegetation removed will be burned, buried, chipped or hauled to a designated disposal site. Marketable timber will be cut and stacked along the route and made available to the public as firewood. The method of disposal will depend upon the location being cleared and the removal method used. The improper disposal of the slash could result in insect infestations that could damage the adjacent forested areas.

The application of construction methods to minimize injury to vegetation through the use of special construction methods, including the use of ice and snow pads to support working equipment and to provide access roads to haul pipe and equipment will be determined by the design criteria. The project will take advantage of the natural protections provided to vegetation during winter dormancy. Rehabilitation of areas that are disturbed by construction will be performed according to the criteria and methodologies described in the design criteria, and the plans submitted and approved by the Commissioner. The rehabilitation program will integrate other programs such as drainage and erosion control, visual resource protection, and fish and wildlife protection, among others, in the selection of site-specific rehabilitation methods.

A COE 404 Permit for wetland construction activities associated with this project is required prior to beginning construction. Impacts to wetlands will be mitigated through the use of construction techniques and design measures to minimize altering the characteristics of the wetlands.

The proposed design calls for a buried pipeline, with the possible exception of fault crossings and stream or river crossings. The design criteria review process will evaluate whether the gas pipeline should be buried for its entire length or whether it should be elevated in certain areas (e.g., ice rich soils, unstable soils, and ground water aquifers). Accordingly, the end result could result in portions of the pipeline being elevated to ensure the protection of the environment.

#### Subsistence

Rivers and streams with subsistence fisheries are areas of concern along the project area. Design criteria and construction and operation procedures will be designed to minimize the negative impact to individuals using the rivers or streams for subsistence purposes. These measures, which are designed to protect the overall environment, include scheduling construction to minimize fish and wildlife disturbance, route selection, and design to minimize adverse impacts to the environment.

#### **Public Safety**

The project has the potential to affect public safety along the pipeline route. The ANGDA and agencies are committed to making the project as safe as possible. This is accomplished through the design review and monitoring of the construction. The state will focus its attention on fire protection, high-pressure relief and emergency venting, spills or leaks, shutdown systems, physical environmental considerations, noise control, adherence to applicable design codes and regulations, personnel training, and quality assurance/quality control.

The pipeline may be subject to gas leaks as a result of seismic activity, frost heave, ground settlement or intentional human acts and is also a potential risk to public safety. To reduce this potential risk, the location of valve installations as may be required to shut down the pipeline in emergency situations or for routine repairs must be identified in the design criteria approved by the Commissioner. Although most of the pipeline will be buried, the above-ground portions of the pipeline may have restricted access to reduce the potential for tampering and improve public safety. The pipeline will also be designed with a system to reduce corrosion due to a chemical reaction between the soil and the carbon steel pipe. Another security measure includes signage on all pipeline features, as required by USDOT regulations. Additional security for the pipeline and public would be established through aerial and ground reconnaissance.

Although the compressors will not be located on state lands, the state is concerned about the public safety related to those facilities as compressors are a potential source of gas leak related incidents. The ANGDA is required to take measures to protect the health and safety of all persons directly affected by construction, operation, maintenance or termination activities, and to immediately abate any health or safety hazards.

A pipeline surveillance and maintenance program must be approved by the Commissioner and implemented by the ANGDA. The goals of this program are to ensure pipeline operating integrity and safety, and also prevent, identify, and respond to any situations that could cause significant damage to the environment. This ongoing pipeline Surveillance and Maintenance Program will address potential adverse habitat or water-quality impacts resulting from unplanned events with pipeline performance.

All land and geodetic survey monuments encountered during construction, operation, maintenance, and termination of the pipeline system must be marked and protected. These monuments are not to be disturbed; however, if disturbance becomes necessary, per statute the Commissioner must be notified in writing before such disturbance occurs. The Commissioner will provide instructions on the re-establishment or restoration of damaged or disturbed survey monuments. Additional measures may be required to protect monuments and corners.

The ADNR proposes to issue a conditional lease and has not obtained a final design for review. When the design basis is received it will be reviewed for compliance with the USDOT regulations in 49 CFR 192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards," and other applicable standards and codes. The pipeline design must allow the pipeline to perform safely and withstand the conditions to which it will be subjected, so long as it is maintained adequately. All pre-construction, construction, operation and maintenance, and termination activities must be performed in accordance with all applicable State and Federal requirements, codes and standards, and lease conditions and stipulations.

# **SUMMARY FOR CRITERIA 2:**

A conditional lease does not vest a property interest in state land. To convent a conditional lease to an unconditional lease, the Commissioner must be provided with documentation showing the ANGDA is technically and financially capable of constructing and operating the gas pipeline. When this documentation, the plans and other information is provided to Commissioner, the Commissioner can make a decision as to the technical and financial capability of the ANGDA constructing and operating the gas pipeline.

The conditional lease requires the Lessee to submit evidence of financial commitment sufficient to design and construct the pipeline. This information shall include letters of intent for gas sales, letters of intent for gas purchase and written preliminary commitments for construction financing. Additional evidence may include financial plans, a summary of project economics, and any other financial information that may be required by the Commissioner.

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

The submittal of project performance standards for review and written approval by the Commissioner is required. These standards will define the constraints within which the design criteria, final design, construction, operation and termination activities of the project will occur. A Quality Assurance Program must be approved concurrent with the final pipeline design and must include the documented, planned and systematic actions necessary to provide evidence that the ANGDA is satisfying the right-of-way lease requirements for maintaining or protecting pipeline integrity, health, safety, and the environment. The Quality Assurance Program will require audits be performed to ensure and document compliance with the Right-of-Way Lease and other commitments. The Quality Assurance Program will continue to be used as the tool for monitoring commitments made by the ANGDA in the design of the project during the maintenance, operation, and termination of the pipeline. The ANGDA and its contractors and subcontractors are required to comply with the Quality Assurance Program. Any amendment to the Quality Assurance Program must be approved by the Commissioner.

Additionally, a Construction Plan addressing the work schedule and other information related to the construction of the project is required. This plan will be used by the State to develop a comprehensive construction oversight strategy. Prior to natural gas being transported through the pipeline, a Surveillance and Maintenance Program, must be developed to detect and abate situations that endanger health, safety, the environment or the integrity of the pipeline.

The ANGDA must specifically plan and design, construct, operate and maintain, and terminate the pipeline system in a manner to prevent serious and irreparable harm or damages to fish and wildlife resources, and consistent with federal and state conditions and stipulations. The following is a summary of the information provided by the ANGDA in its application. Prevention of harm or damage to fish and wildlife resources will provide the primary level of protection, and involves two key steps:

1) Identification of the fish and wildlife resources in the area of the project and their sensitivities to project activities or facilities; and

2) Applications of appropriate environmental protection criteria in the planning and design phases of the project.

The fish and wildlife resources in the area of the proposed pipeline have been studied by OHMP. The information on sensitive time periods and locations are available through state and federal resource agencies. The ANGDA will coordinate with the state and federal resource agencies to evaluate and update the baseline fish and wildlife information and associated activity restrictions. Twenty-one potential anadromous streams may be crossed by the pipeline. A report recommends construction methods for stream/river crossings, relocation of the pipeline route at Mendeltna Creek, Chickaloon River and Moose Creek and that additional subsurface investigation may result in other relocations of the route.

Prevention of fish and wildlife resources damage in the planning and design phase of the project involves selection of several key project elements, including:

- Pipeline route and facility locations;
- Pipeline system design;
- Construction methods;
- Construction schedules;
- Rehabilitation methods; and
- Right-of-way maintenance methods.

The pipeline route was selected to reduce, to the extent reasonably practicable, harm to fish and wildlife resources by utilizing existing transportation and utility corridors, specifically the Glenn Highway, Parks Highways, Trunk Road, the MEA utility corridor, and section line easements. The need for new access roads to construct and operate the pipeline is reduced by utilizing existing corridors. Alternative pipeline routings may involve habitat alteration and destruction to create road access into otherwise less accessible areas. The state encourages the use of existing transportation and utility corridors to the maximum extent feasible, subject to existing rights vested in other parties.

Inherent in the project design are key features that will help prevent harm to fish and wildlife resources, including:

- The pipeline will be buried entirely except at compressors, some river or stream crossings, and at major fault crossings in compliance with pipeline safety regulations;
- The buried design will avoid creating a potential obstruction to ungulate, large mammal, and other wildlife movements across the right-of-way;
- Permanent work pads and access roads are not necessary throughout the system for spill response. Instead, native vegetation will be allowed to colonize and establish in the right-of-way; and
- Compressors will not be occupied, reducing the amount of human activity and the potential for interactions with wildlife at the stations. Overall, there will be very little human activity along the right-of-way associated with the project operation and maintenance.

Special construction methods, including the use of ice and snow pads to support working equipment and to provide access roads to haul pipe and equipment will be used to minimize hard to fish and wildlife habitat. The use of ice roads and pads is a common method used on the North Slope to minimize vegetation damage. Construction methods for crossing of rivers, streams and wetlands will be part of the design and will done in a manner to minimize harm to fish and fish habitat. The crossing types and selection of appropriate methods will be subject to Title 41 authorizations and approval by the OHMP. By avoiding the seasons when

most fish and wildlife species are present and active, the opportunity for direct impacts to most organisms will be minimized. The conditions of frozen soil and dormant vegetation in the winter will provide natural protections to the habitat during construction.

Rehabilitation of fish and wildlife habitat that may be disturbed by construction of the pipeline system will be performed according to the design criteria and methodologies approved by the Commissioner. The rehabilitation program will integrate other programs such as drainage and erosion control, visual resource protection, and water resource protection, among others, in the selection of site-specific rehabilitation methods and will apply specific criteria for creating conditions that are suitable for colonization of the disturbed areas by adjacent native plants, including important wildlife browse and cover species.

Environmental protection programs will be integrated into the planning and design, construction, and operations phases. These programs directed specifically at fish and wildlife protection and others that are directed at habitat protection, include:

- Air Quality Protection;
- Waste Management;
- Oil and Hazardous Materials Management;
- Water Resources Protection;
- Contaminated Sites Management; and
- Noise Control.

A key component of the project's approach for protecting fish and wildlife resources is the training and education of construction managers, supervisors, and workers through a Briefings, Orientation and Education Program.

Integration of fish and wildlife protection and other environmental protection approaches into the overall project organization will be accomplished through a Project Environmental Management System (PEMS). The PEMS will focus on achieving a high level of environmental protection and ensuring compliance with regulatory requirements. Monitoring fish and wildlife protection during all phases of the project will be accomplished through the inspection program initiated under the Quality Assurance Program. The inspection program will be integrated with the PEMS to provide a comprehensive project-wide system, implemented through all project phases, to detect and abate conditions that could cause serious and irreparable harm or damage to fish and wildlife resources.

## **SUMMARY FOR CRITERIA 3**:

A Quality Assurance Plan approved by the Commissioner is a requirement of the conditional lease. The purpose of the plan is ensure the Lessee (including contractors, sub-contractors and vendors) pipeline activities comply with all state, federal, and local government laws and other requirements, industry codes and standards and internal policy and programmatic requirements. The Erosion and Sedimentation Control Plan will provide the criteria and basic methodology for developing detailed designs and procedures to control erosion and sedimentation during construction and operation of a natural gas transportation pipeline project. These plans and other Lease requirements will mitigate environmental impacts, including erosion of the surface of the land and damage to fish, wildlife and their habitat.

# **CRITERIA 4:** Does the applicant have the technical and financial capability to take action to the extent reasonably practical to undertake any necessary restoration or revegetation?

The conditional lease requires the ANGDA to submit a restoration plan to describe the practicable methodologies to return disturbed lands to a natural condition. The lease also requires the prevention of unnecessary damage to vegetation by applying appropriate environmental criteria in the planning and design phases. This includes the selection of key project elements:

- Pipeline route and facility locations;
- Construction methods;
- Construction schedules;

- Rehabilitation methods; and
- Right-of-Way maintenance methods.

The proposed route was selected to reduce negative impacts to vegetation and timber resources by utilizing existing transportation corridors (the Glenn Highway, Parks Highway and Trunk Road), utility corridors and existing rights-of-way with the intent of reducing the need to extend new access roads to construct and operate the pipeline.

The conditional lease requires a Wetlands Construction Plan to address methodologies that will be used to minimize impacts to wetland habitats. Special construction methods that may be utilized to minimize injury to vegetation include the use of ice and snow pads to support working equipment and to provide temporary access roads to haul pipe and equipment. Use of ice and snow pads has been proven to minimize damage to vegetation on the North Slope. Additionally, the design criteria and other comprehensive plans and/or programs that are required address restoration and revegetation guidelines. The Commissioner will coordinate with other state agencies or facility owners (i.e., TAPS) that may be impacted by the design criteria, plans or programs.

Areas disturbed by construction will be rehabilitated to restore the natural vegetation and timber production, erosion control, wildlife habitat, visual resources, and other relevant resource functions, in compliance with lease conditions and stipulations. Rehabilitation will be performed according to the design basis criteria and methodologies and the plans required under the lease. Methods for restoring areas harmed during operation and maintenance and termination activities will be the same as those described for construction.

Cleanup and erosion control work will be applied to all areas used or disturbed during the construction of the pipeline system, including construction zones, access roads, material sites, temporary storage areas, and disposal sites. Temporary structures and debris will be removed. Large rock fragments will be used for riprap material or will be blended into the surrounding terrain within the right-of-way. Materials that cannot be used for revegetation will be disposed of at approved sites. All waterways will be cleared of temporary structures

used during construction and rehabilitated to prevent interference with fish migrations and natural drainage patterns.

Revegetation includes seeding and planting of disturbed areas suitable for vegetation. The revegetation program will focus on creating conditions that are suitable for colonization of the disturbed areas by adjacent native plants, including timber-producing species. Revegetation will be used, as appropriate, for controlling erosion. Planting schedules will be planned for optimum seasonal growth periods. Seeding of the final grade of the construction zone, material sites, and disposal sites will be done with conventional equipment and methods including aerial seeding and hydroseeding. Fertilizer, mulches, and soil stabilizers may be used, as appropriate, to enhance growth and prevent erosion

Native vegetation, including timber-producing species, will be allowed to colonize and establish in the right-of-way. Within the permanent right-of-way, some clearing of invading trees and brush will be necessary to allow aerial inspection and maintenance in accordance with federal pipeline safety regulations.

Operation and routine maintenance of the pipeline system will impact vegetation and timber within the right-of-way. For instance, routine brushing to allow for access and surveillance will be necessary along portions of the right-of-way. Additionally, clearing and grading may be necessary to provide access to work pads. Major maintenance work such as the replacement of pipe sections, valves, or other buried components of the system may impact vegetation and timber that have colonized the right-of-way.

The pipeline has a minimum of thirty (30) years of expected service life; however the pipeline can be expected to operate indefinitely if properly maintained. Any decommissioning of the pipeline facilities would be subject to approval by the appropriate state and federal agencies.

The Right-of-Way Leasing Act requires consideration of the applicant's technical capability to undertake any necessary restoration and revegetation. A review of the application and the

ANGDA's qualifications demonstrate that they have access to the requisite technical capability.

#### **SUMMARY FOR CRITERIA 4:**

The Commissioner is satisfied that the ANGDA has access to the technical capabilities to take action, to the extent reasonably practical, to undertake any necessary restoration, rehabilitation or revegetation.

**CRITERIA 5:** Does the applicant have the technical and financial capability to 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?

A Stream, River and Floodplain Crossings Plan will provide the design criteria and basic methodologies for the various crossing structures used during construction to minimize impacts to fish passage, water quality, sedimentation and erosion by maintaining natural flow regimes.

Measures for protecting subsistence resources and their uses in the vicinity of the proposed activity will be required. Protection of subsistence users requires an understanding of which resources are used for subsistence, the extent of associated subsistence use (both in harvest amounts and geographic use area, if available), the primary seasons of use, relevant socioeconomic information, issues of concern in rural communities along the proposed corridor, and the nature of the potential effects the project could have on those users. In order to protect subsistence users and/or mitigate potentially adverse project-related effects, this basic information is necessary.

### **SUMMARY FOR CRITERIA 5:**

The ANGDA must comply with the requirements of AS 41.14.840 - 41.14.900, including consultation, through the Commissioner, with ADFG, Subsistence Division, with respect to the protection of fish and game in undertaking construction activities. The Commissioner is

satisfied that ANGDA has access to the technical capabilities to protect the interests of individuals who rely on fish, wildlife and biotic resources of the area for subsistence purposes.

**CRITERIA 6:** Does the applicant have the financial capabilities to pay reasonably foreseeable damages for which they may become liable or claims arising from the construction, operation, maintenance or termination of the pipeline?

The state is "self-insured". Because ANGDA is a public corporation and an instrumentality of the state, it may fall under the self-insured umbrella of the state.

The ANGDA retained First Southwest Company (FSC) to develop a financing plan for the construction of the natural gas pipeline to serve the energy customers in the Cook Inlet area. The goals of the financial structure were to:

- Minimize the cost of the financing to energy customers in the Cook Inlet area;
- Minimize the financial impact on energy providers in the region, both public and private;
- Provide simplicity in structure with the flexibility to respond to future challenges;
- Minimize the administrative burden on the ANGDA; and
- Minimize the need for financial support from the State of Alaska.

To achieve the lowest cost of service to Alaskans, FSC recommended establishing a public gas transmission utility to issue tax-exempt bonds to finance the construction of the pipeline. Once the pipeline is constructed, the utility would continue to operate the pipeline. The utility would not purchase, sell or deliver natural gas. Rather, the utility would operate a facility so that others can transport gas through the pipeline. FSC anticipated that residents and businesses served pay for the pipeline through a monthly charge evaluated and adopted by the Regulatory Commission of Alaska (RCA). The monthly charge would be collected by the local energy providers, and remitted to the ANGDA and the bond trustee for payment of the operating expenses for the pipeline and the gas transmission utility as well as debt service.

FSC indicated the financing can be accomplished through the issuance of tax-exempt bonds, thereby creating the lowest debt service costs available. The financial structure proposed is simple and requires minimal administrative burden. The security of the bonds relies upon the strength of the energy customers in the Cook Inlet area, as well as agreements to be negotiated between the ANGDA and the providers of electricity and gas in the area. The proposal does not rely on the financial condition of the utilities in the region, public or private. Their proposal would not require use of the State of Alaska's bond rating in order to provide the lowest cost of financing.

The security for the bonds will be a user fee assessed upon all Cook Inlet energy customers in the area, both residential and industrial. This fee would be established by the RCA upon request of the ANGDA and included in each customer's monthly bill. The fee will be collected by the energy (gas or electric) provider. The fee calculation will be based upon the amount of debt service coming due, plus administrative charges for the ANGDA to cover the operating and maintenance costs of the pipeline.

The ANGDA will need to apply to the nationally recognized credit rating agencies for a bond rating, which will be used to market to potential investors. The credit ratings on the bonds will be evaluated based upon three factors:

• The rating agencies' assessment of the willingness and ability of the RCA to set tariff rate with a transportation charge equal to the amount of debt service to be paid and operating expenses incurred;

• The strength of the legal documents requiring the energy providers to collect fees from customers and remit payments to the bond trustee; and

• Consideration of the financial ability of the customers to pay the fee over the life of the bonds.

By selecting this method, the ANGDA will avoid the need for executing take-or-pay contracts as security for the bonds. The ANGDA will also minimize the disruption to the consumer by including the fees as part of the regular billing process. Fees will be collected by the existing energy providers, thus eliminating the need for additional bureaucracy to administer the collection process.

FSC recommended the ANGDA consider a staged issuance to reduce the amount of negative arbitrage, which based on current rates, is more than \$30 million, when compared to issuing all bonds for the project at once. Additionally, FSA recommended the ANGDA consider the use of variable rate debt in order to reduce the overall cost of the project.

The FSC recommendation does not require the use of the State of Alaska credit rating. The FSC developed a bond structure that can be sold independently of the State's bond rating.

While the ANGDA does not have a background in constructing and maintaining natural gas pipelines, the ANGDA does have the authority and means to contract with entities that do have such experience. The ANGDA has a strong working relationship with numerous companies with gas pipeline and other large project experience, including Enbridge and, Enstar.

The ANGDA has the authority to issue bonds to finance the project. Bonds issued by the ANGDA are not the obligations of the state; rather they would be paid for from project revenues.

The conditional lease requires that the ANGDA defend, indemnify and hold harmless the state, its agents and employees from and against all causes of action and damages of any kind arising out of or related to the ANGDA's interests in the leasehold. These requirements will remain if the lease is perfected and a Right-of-Way Lease issued.

Prior to the first preconstruction permit, the ANGDA must furnish liability and property damage insurance must be carried for the duration of the conditional lease. Initially, the coverage shall be the minimal amount of one million dollars (\$1,000,000) per occurrence.

Additionally, Workman's Compensation insurance must be provided, as required by AS 23.30. This coverage must include employer's liability protection not less than one million dollars (\$1,000,000) per occurrence.

The ANGDA must obtain a Certificate of Public Convenience and Necessity from the Regulatory Commission of Alaska to construct, own and operate the pipeline. The RCA requires the ANGDA demonstrate it is financially fit and technically capable of financing, constructing and operating the pipeline. The RCA will be concerned with issues associated with access to the pipeline and will require the ANGDA to develop policies and procedures regarding initial and future access to pipeline transportation services.

The operator of the pipeline will be determined prior to the ANGDA submitting the application for financing of the pipeline. Strong expressions of interest have been received from Enstar (a gas utility company) and Enbridge (a pipeline operator) to be involved in the project as an investor and/or as a utility/operator.

### **SUMMARY FOR CRITERIA 6:**

The conditional lease does not require the ANGDA to have the financial capabilities to pay reasonably foreseeable damages for which they may become liable or claims arising from the construction, operation, maintenance or termination of the pipeline. Rather the conditional lease provides the ANGDA with the time to obtain the financing needed to show it is fit, willing and able to perform under a Right-of-Way Lease. In addition, the ANGDA is required to submit financial information to the RCA in order to obtain a Certificate of Public Convenience and Necessity.

Additional guarantees to ensure performance under the right-of-way lease will be required prior to issuance of the right-of-way.

If an assignment of the lease is approved by the Commissioner prior to the initial request for construction authorization, the guarantee shall be executed by the assignee's guarantor.

From the information submitted, the Commissioner finds that the ANGDA currently has access to financial resources sufficient to be awarded a conditional lease. The conditional

lease provides a continuing right of the Commissioner to review the Lessees'/guarantors' financial resources throughout the Lease term.

#### PROPOSED DECISION AND ACTION

A conditional lease conveys no interest in land, property or resources of the State or any preference or priority rights to a particular right-of-way or alignment. The issuance of a conditional lease does not prevent the Commissioner from issuing other conditional or unconditional leases for the same or similar right-of-way. Additionally, a conditional lease may be revoked by the Commissioner if it is determined that the Lessee is not willing or able to perform under the terms of the lease or it is determined they are not fit, willing and able to perform under the application or all or any part of the lease. Any future administrative decisions made by the State of Alaska that affects the title to the property described in the conditional lease is subject to administrative and legal appeal made pursuant to State statutes.

A conditional lease does not authorize any construction activities; however preconstruction activities, such as changes to the right-of-way alignment and gathering of geotechnical and other information along the route may be authorized under a conditional lease. Pursuant to the conditional lease, the ANGDA must obtain approval from the ADNR prior to initiating any field activity on state land. The approval may be in the form of a Notice to Proceed, would contain site specific terms and conditions the Commissioner finds necessary to protect the state's interest, and will only authorize field activities specific to that permit.

If the ANGDA complies with the requirements of the conditional lease, the Commissioner may enter into a Right-of-Way Lease for the project. When the ANGDA and the Commissioner enter into a Right-of-Way Lease, the Commissioner is giving approval for the ANGDA to utilize State land for a gas pipeline and the ANGDA could begin construction activities after the appropriate construction authorization(s) has been reviewed and approved by the Commissioner. Again, the construction authorizations may come in the form of a Notice to Proceed and would contain site specific terms and conditions the Commissioner finds necessary to protect the State's interest. A Right-of-Way Lease does not grant exclusive rights to the land; accordingly, the Commissioner may authorize other uses within

the right-of-way or other conditional or unconditional leases for the same or similar right-ofway route.

Transportation of hydrocarbons results in significant contributions to the general welfare of the people of Alaska. It is State policy that the development, use, and control of a pipeline transportation system be directed to make the maximum contribution to the development of the human resources of this state, increase the standard of living for its residents, advance existing and potential sectors of its economy, strengthen free competition in its private enterprise system, and protect its incomparable natural environment.

The project will directly and indirectly benefit local governments and the State through payment of royalty, severance, city and property taxes and will result in capital expenditures being distributed into local economies. Gas-related employment includes direct and indirect employment in the oil and gas and construction industries. Vendors along the right-of-way will provide supplies and services, for instance hotels/motels, grocery stores and gas stations. Additionally, private and public sector jobs are generated throughout a stimulated economy.

The State has a 90% Alaska resident hire requirement for designated job classifications on certain public contracts throughout the state. The current job classification affected by this requirement are: bricklayers, carpenters, electricians, laborers, equipment operators, insulation workers, culinary workers, cement masons, painters, ironworkers, mechanics, truck drivers, welders, roofers, plumbers and pipefitters, and piledriver occupations. The ANGDA must comply with, and shall require contractors and subcontractors to comply with, applicable laws and regulations regarding the hiring of residents of the State. Approximately 680 direct workers are expected to be employed at the peak of construction activity. The ANGDA has committed to take all appropriate steps to enhance employment and training opportunities for Alaska contractors and businesses, and their subsequent hiring of Alaskans. This will include sufficient notice to Alaska businesses of the ANGDA needs, so that Alaska firms may collaborate or compete with non-Alaska firms if so desired.

This document constitutes the Commissioner's Analysis, Proposed Decision and Action as required under AS 38.35.080. This Analysis and Proposed Decision assesses whether the ANGDA has the technical and financial capabilities to perform the transportation or other acts proposed in a manner that will be required by the present or future public interest. Information contained within the application for the project, its supporting data and correspondence, were evaluated to prepare this Analysis and Proposed Decision.

The ADNR is conducting this process consistent with the provisions of the agreement between the State of Alaska and the federally recognized sovereign Tribes of Alaska (The "Millennium Agreement" signed April 11, 2001). On April 4, 2002, the Commissioner issued a Policy on Government-to-Government Relations with the Federally-Recognized Tribes of Alaska. This policy reinforces government to government relationships between the Department of Natural Resources and the federally-recognized tribes in Alaska through consultation on significant matters of mutual concern. Consultation means the timely process of meaningful inter-governmental dialogue between the department and tribes regarding a proposed department action. When assessing what action will be subject to consultation, the department will take into account the cultural and traditional activities of tribes and any relevant state or federal law. Consultation may take place by in-person meeting, teleconference, video conference, and exchange of written documents, e-mail, or other means appropriate to the circumstances.

The Commissioner will consider public comments and issue a Commissioner's Final Decision under AS 38.35.100 after the public comment period closes. This Analysis and Proposed Decision forms the basis of the Final Decision required under AS 38.35.100. After the public comment period has closed and the Commissioner has had the opportunity to review those comments, this Analysis and Proposed Decision may be amended and adopted or adopted as is. In the alternative the Commissioner may determine that the lessee does not meet the requirements of a conditional lease and make the determination to not issue the lease. Copies of the Commissioner's Final Decision, and copies of the conditional lease, if one is offered, will be available from the ADNR, at cost, and will be on-line at www.jpo.doi.gov at no cost.

AS 38.35.100 requires the Commissioner to determine whether an 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. A conditional lease allows the ANGDA the opportunity to obtain the necessary financing to proceed with the project, along with the opportunity to finalize the project specifics and pipeline design. This Commissioner's Analysis and Proposed Decision has reviewed and considered the ANGDA's proposal and commitments, as set out in their application for the project, under the statutory requirements of the Alaska Right-of-Way Leasing Act (AS 38.35). Based upon this Analysis and Proposed Decision, and subject to further consideration of any and all comments and submissions that may be submitted during the course of the public comment and hearing process for this conditional lease application, I make the following determinations:

1. The proposed project does not unreasonably conflict with existing uses of the land involving a superior public interest. The project will not unreasonably interfere with free access to navigable or public waters, nor will it unreasonably interfere with subsistence harvests or access to subsistence areas. The project, as proposed, will not conflict with State statutes, regulations, or ADNR policy. Stipulations to ensure protection of the public, fish, wildlife, and the environment are incorporated into the conditional lease.

2. The ANGDA, as a public corporation, has access to technical and financial backing to protect State and private property interests.

a. The ANGDA, as a public corporation, has access to individuals and corporations that are technically and financially capable of designing, constructing, operating, maintaining, and terminating the proposed pipeline.

b. The ANGDA, through bonding, has the financial resources to pay all reasonably foreseeable damages for claims arising from construction, operation, maintenance, and/or termination of the project, for which the ANGDA may become liable.

3. The ANGDA has access to the technical and financial capability to take action to the extent reasonably practical to prevent any significant adverse environmental impact,

including erosion of the surface of the land and damage to fish and wildlife and their habitat; undertake any necessary restoration or re-vegetation; and protect the interests of individuals who rely on fish, wildlife, and biotic resources of the area for subsistence purposes.

a. The lease application proposes to utilize proven natural gas pipeline construction design. The USDOT Research and Special Programs Administration (RSPA), acting through the Office of Pipeline Safety (OPS), administers the USDOT national pipeline safety regulatory program, pursuant to 49 USC § 601 to assure safe transportation of natural gas, petroleum and other hazardous materials by pipeline. The USDOT/OPS is the primary governmental authority responsible for ensuring the project design is compliant with 49 CFR §192. The state, therefore, relies on USDOT/OPS compliance verification of the project's technical design as a condition precedent to initiation of pipeline construction activities.

b. Prior to initiating construction activities, the ANGDA is required to submit twentyfive project-specific plans developed to meet specific performance standards regarding protection and management of land, water and air resources that are potentially affected by construction and operation of the pipeline for State review and approval. The plans will be prepared and submitted as a part of the final design and construction planning process.

c. Prior to initiating construction activities, the ANGDA is required to submit, for state and federal review and approval, a Construction Plan and Summary Network Analysis and Decision that outlines and describes work schedules; all permits or authorizations required prior to initiation of specific construction activities and their interrelationship; construction sequencing, including maps depicting the boundaries of the construction zones; and providing for the following: public awareness programs; notice and scheduling of disturbance to public and private improvements; air quality; blasting; camps; clearing; corrosion control; cultural resource preservation; environmental briefings; erosion and sedimentation control; fire control; human/carnivore interaction; liquid waste management; material exploration and extraction; oil and hazardous substance contamination management; oil and hazardous substances control, cleanup and disposal; overburden and excess material disposal; pesticides, herbicides and

chemicals; pipeline contingency; quality assurance/quality control; restoration; river training structures; seismic; solid waste management; surveillance and maintenance; visual resources; and wetland construction. Construction activities are not authorized to begin until the Commissioner has approved the design basis and construction plan.

d. The ADOTPF is the entity responsible for issuing permits of the portions of the project within existing road rights-of-way under their management. Prior to any construction of the project, the ANGDA must to enter into an agreement with the ADOTPF, which may include, but is not limited to,: compensation for costs of increased maintenance or repair of facilities and highways; permits; costs of permits, design/plan reviews, on-site inspections; insurance, indemnification and defense of 3<sup>rd</sup> party claims; safety issues; conflicts with existing permit holder or utility uses; relocation of highways or utilities; security measures; environmental protection, clean-up or mitigation during construction; use of airports and airport facilities; traffic controls; encroachments; highway integrity, repair and maintenance; mineral/material removal and use; ADOTPF access to construction sites; coordination and scheduling of construction activities; coordination with approvals by other affected agencies or jurisdictions; and other issues relating to ANGDA's use of the ADOTPF rights-of-way, transportation facilities or state highways or impacts related to construction.

e. Prior to final design approval, the ANGDA is required to submit for state and federal review and approval a Quality Assurance Program. The Quality Assurance Program shall include the documented, planned and systematic actions necessary to provide evidence that the ANGDA is satisfying the right-of-way lease requirements for maintaining or protecting pipeline integrity, health, safety, and the environment. The Quality Assurance Program shall require that audits and assessments be performed to ensure and document compliance with the lease and other commitments. The Quality Assurance Program will continue to be used as the tool for monitoring commitments made by the ANGDA in the application and the design of the project during the maintenance, operation, and termination of the pipeline.

f. Prior to natural gas being transported through the pipeline, a Surveillance and Maintenance Plan must be submitted for the Commissioner's approval. This plan will provide for detection and abatement of situations that endanger health, safety, the environment or the integrity of the pipeline for approval by the Commissioner. This plan will be implemented in all maintenance, operations, and termination activities of the project.

# DECISION

Based on the foregoing, and supported by all information contained in and considered by this Analysis and Proposed Decision, the Commissioner finds that the proposed pipeline conditional lease is in the State's best interest and recommends the following actions be implemented:

1. The Department of Natural Resources shall make copies of this Commissioner's Analysis and Proposed Decision and Action, copies of the lease application and its supporting documents, and copies of the draft conditional lease available, at cost, to any member of the public requesting copies. This information shall also be placed on-line at <u>www.jpo.doi.gov</u> so the public can access the information at no cost.

2. The Department shall solicit written comments and provide for public hearings regarding the leasing of state land for the project, as depicted in the application (ADL 229297), the Commissioner's Analysis, Proposed Decision and Action, and the draft conditional lease. To solicit public comments, ADNR will place public notices in newspapers of general circulation and public buildings in Anchorage, Palmer, Sutton, Chickaloon, Glacier View, and Glennallen. Public hearings will be held in Anchorage, Palmer, Sutton, Chickaloon, Glacier View, and Glennallen between March 17, 2006 and March 28, 2006. The Matanuska Susitna Borough, local governments, community councils, and local ANCSA corporations, and native tribal governments will be notified. Written comments must be received by the Alaska Department of Natural Resources, State Pipeline Coordinator's Office, 411 West Fourth Avenue, Suite 2C, Anchorage, Alaska 99501, attn: Gas Pipeline Group, on or before 5:00 p.m. on April 24, 2006.

3. The ANGDA shall provide to the Commissioner a resolution authorizing the individual or individuals to sign the lease on behalf of the ANGDA.

4. Following completion of the public comment and hearing process, and consideration of all comments received, the Commissioner will make a Final Determination on the application under AS 38.35.100. On the basis of the entire record developed before and during the public comment period, the Commissioner will determine whether the project is in the state's best interest under AS 38.05 and whether the ANGDA is able to perform all of the acts proposed by the conditional lease application in a manner required by the present or future interest.

I have reviewed all of the required areas of AS 38.35.100 for this Analysis and Proposed Decision and this Analysis and Proposed Decision forms the basis of my decision under AS 38.35.100. If I do not alter this Analysis and Proposed Decision following the period of public comment and if the ANGDA meets all of the conditions precedent, then this Analysis and Proposed Decision shall constitute the Commissioner's Final Decision and I will offer the ANGDA a conditional lease. The conditional lease will include covenants and stipulations determined necessary to protect the interests of the residents of the State of Alaska.

<u>/s/ Edmund J. Fogels</u> Michael L. Menge, Commissioner Alaska Department of Natural Resources February 24, 2006\_\_\_\_

Date

#### REFERENCES

Alaska Department of Community and Economic Development, prepared by Global Insight. 2004 The Alaska Tourism Satellite Account (A Comprehensive Analysis and Decision of the Economic Contribution of Travel and Tourism).

Alaska Department of Fish and Game, 1985. Alaska Habitat Management Guides.

Alaska Department of Fish and Game, Division of Subsistence, 1987-88. Technical Paper No. 168. Juneau.

Alaska Department of Fish and Game website 2005. http://www.wildlife.alaska.gov/division\_info/overview.cfm.

Alaska Department of Labor, 2004. Alaska Economic Trends, September 2004 Newsletter.

Alaska Department of Revenue, 2004. Draft Stranded Gas Development Act Municipal Impact Analysis and Decision. Prepared for the Department of Revenue by Information Insights Inc.

Alaska Department of Transportation and Public Facilities, Alaska Scenic Byways website, 2005; www.dot.state.ak.us/stwdplng/scenic/abyways.shtml.

American Petroleum Institute - API STD 1104 (API 1104) - Welding of Pipelines and Related Facilities -19th edition, September 1999; <u>http://petrochemical.ihs.com/abstracts/api-1104.jsp</u>; updated 20<sup>th</sup> edition; November 2005;

Benefits of Integrating NGL Extraction and LNG Liquefaction Technology - 2005, ConocoPhillips Company; www.ipsi.com/Tech\_papers/NGL\_Extraction\_and\_LNG\_Liquefaction.pdf

Bristol Environmental and Engineering Services Corporation, October 2005, Alaska Natural Gas Development Authority, Recreational Use Research Report, Glennallen to Anchorage, Natural Gas Spurline.

Guide to the Birds of Alaska, Revised Edition, 1990, by Robert H. Armstrong.

Hoeffler Consulting Group, October 2005, Alaska Natural Gas Development Authority, Environmental Permitting Plan, Glennallen/Palmer Natural Gas Pipeline.

Michael Baker Jr. Inc. October 17, 2005; Alaska Natural Gas Development Authority, Glennallen to Palmer Spur Line, Bored River Crossing Investigation. Natural Resource Group, Inc. October 2005, Alaska Natural Gas Development Authority Glennallen to Palmer Spur Line, Native Landowner Right of Way Report. Natural Gas Supply Association website, 2004, www.naturalgas.org

R&M Consultants, Inc. October 2005, Alaska Natural Gas Development Authority, Glennallen to Palmer Spur Line Soils Studies, Volume 1 and 2.

Shaw Alaska Inc., November 2005, Alaska Natural Gas Development Authority, Glennallen to Palmer Gas Spurline, Archaeological Studies, Redacted Report.

Trans-Alaska Pipeline System Owners, 2001. Environmental Report for Trans-Alaska Pipeline System Right-of-Way Renewal. Anchorage, Alaska.

TransCanada Alaska and Foothills Alaska, 2004. Alaska State Right-of-Way Application for the Alaska Natural Gas Transportation System.

TransCanada Corporation and Alaskan Northwest Natural Gas Transportation Company, 2004. Application of TransCanada Corporation ("TransCanada") and Alaskan Northwest Natural Gas Transportation Company ("ANNGTC") Submitted to the Alaska Department of Revenue Pursuant to AS 43.82.120 For Approvals under the Alaska Stranded Gas Development Act.

University of Alaska Anchorage, Institute of Social and Economic Research, 2003. New Revenues to Fill the Fiscal Gap-Gas Pipeline, Alaska Citizen's Guide to Budget.

URS Report, September 2005, Alaska Natural Gas Development Authority, Delta Junction to Glennallen Natural Gas Pipeline Engineering Feasibility and Cost Assessment.

URS Final Report, October 2005, Alaska Natural Gas Development Authority, Engineering/Fault Zone Crossing Design, Glennallen to Palmer Spur Line.

# ATTACHMENT A