

Gas Pipeline Project

FY2002 Request: \$10,242,800
Reference No: AMD 34773

AP/AL: Appropriation
Category: Development
Location: Statewide
House District: Statewide (HD 1-40)
Estimated Project Dates: 07/01/2001 - 06/30/2003

Project Type: Planning
Contact: Pat Pourchot
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Brief Summary and Statement of Need:

This project request summarizes state actions to be taken to facilitate the development of a pipeline for North Slope natural gas. Actions include initiating work on issuing state rights-of-way; collecting data for permitting reviews; development of an overall project labor agreement to provide job opportunities for Alaskans; and review of the 1977 agreement between Canada and the United States, and coordination with the Canadians to insure a collaborative approach.

Funding:	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	Total
Stat Desig	\$10,242,800						\$10,242,800
Total:	\$10,242,800	\$0	\$0	\$0	\$0	\$0	\$10,242,800

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input checked="" type="checkbox"/> Phased Project	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:

Project Description/Justification:

KNOWLES ADMINISTRATION GAS PIPELINE PROJECT

MISSION STATEMENT

The Knowles-Ulmer administration is working aggressively to develop Alaska's enormous North Slope natural gas resources by advancing construction of an Alaska Highway natural gas pipeline. This pipeline project is designed to achieve the three principles most Alaskans agree on when it comes to commercializing Alaska's gas:

- ? Alaska hire, use of Alaska businesses and development of new gas-related industries,
- ? Access to natural gas for Alaskan communities, including use of gas for future projects such as liquid natural gas exports or gas-to-liquids facilities, and
- ? A fair share of revenues for Alaskans.

Planning Assumptions for FY 2002 Gas Pipeline Capital Budget

Timeline: July 2001 – June 2002
Project Status: Pre- and post-application
Funding Source: July to December 2001 – general fund
January to June 2002 – reimburseable under AS 38.35.140(b)

1. The FY 2001 Supplemental gas pipeline project budget is passed by the Legislature including funding for records review and work planning essential to summer 2001 field work.
2. A gas pipeline right-of-way application will be received on or about December 1, 2001 for the Alaska Highway route.
3. Construction activities will not occur during FY 2002.
4. All agencies will have a liaison and technical staff available to accomplish the FY 2002 gas pipeline activities once a capital appropriation is received.
5. Major state agency activities during this period will include:
 1. field work to identify specific route and facility siting exclusions and /or special considerations i.e., to address access, land ownership, streams, material sites, camps, compressors, solid waste facilities etc.
 2. data gathering for permit requirements (air, water, fish etc.) to help establish design requirements for the pipeline based on environmental considerations, fill information gaps, etc.
 3. participation in the Alaska Coastal Management Program process
 4. pre-application consultations with producers
 5. execution of memoranda of understanding with federal and Canadian agencies
 6. preparation for 2002 field season and development of FY 2003 work plan
 7. application and technical plan review starting in December 2001
6. A consolidated, multi-agency Gas Pipeline Office (GPO) will physically be in place beginning in July 2001.
7. As provided in Administrative Order 187, agency liaisons shall be available to manage and perform work necessary to process agency permits and authorizations, assist as necessary with other agency permits and authorizations, and provide other assistance to the State Pipeline Coordinator in their areas of expertise. Agency liaisons are responsible for supervision of staff hired to work at the GPO. Staff providing support from a regional or central office on short-term work assignments will continue to work for their supervisor.
8. SPCO will budget for and provide all work space, computers, equipment, supplies and administrative services for agency liaisons and staff assigned to the GPO unless expressly agreed otherwise.
9. Some costs incurred during the pre-application period from July – December could be reimburseable under AS 38.35.140(b) if the application is for the Alaska Highway route. However, the working assumption is that expenditures during this period will not be reimburseable.

Description of Services in the Governor's FY 2002 Capital Gas Pipeline Budget Request
(Financial Summary Attached)

DEPARTMENT OF ENVIRONMENTAL CONSERVATION**Summary \$1,204.5**

The Department of Environmental Conservation (DEC) traditionally plays an important role in projects such as the proposed gas pipeline. The department is responsible for ensuring that impacts to the environment and human health are minimized. The project will require numerous DEC permits, plan approvals, state certifications of federal permits or approvals to operate under established general permits or DEC regulations.

During FY 2001 and FY 2002, the department will participate in updating the environmental impact studies, reviewing the State right-of-way application, and reviewing the overall project design for compliance with DEC statutes and regulations. DEC will provide pre-application assistance and permitting for major air pollution sources, such as compressor stations, and perform site-specific reviews for camp and other discharges, which take into account specific discharge and receiving water characteristics.

DEC believes that the proposed scope of work for FY 2001 and FY 2002 is the minimum level of effort necessary to provide the site-specific information needed for the planning process. By initiating the program immediately, DEC will capture the current (2001) summer field season. This proactive approach to integration of environmental protection and human health concerns into the planning process will minimize costly delays to the gas pipeline project.

Assumptions

In addition to the general planning assumptions used by all agencies, DEC has made the following assumption:

- Pre-application work with the project sponsor to update and perfect DEC permit applications¹ and supporting environmental documentation will reduce future delays in approving DEC permit applications. A proactive approach to permitting issues before the applications are filed will eliminate the need for time-consuming and costly modifications down the road, ensuring that environmental protection is "built-in" to the project applications that are published for public review.
- DEC will be able to determine by December 2001 whether any ROW work will be done during summer 2002 that will require a permit for herbicide/pesticide use.
 - DEC will receive permit applications in December 2001 that have been perfected to minimize need for additional information.

FY 2001 Immediate Pre-Application Work Tasks (April - June 2001)

- Hire Department of Environmental Conservation liaison to work with the State Pipeline Coordinator and other state agencies to establish an operating gas pipeline office.
- Hire four environmental program specialists (air, water, spill prevention & response, environmental health) to work with the project sponsor, and other state and federal agencies on issues within their program jurisdiction and expertise.
- Hire an air quality chemist to work with the project sponsor on summer air quality monitoring objectives.
- Complete a preliminary analysis of existing environmental information (ANGST EIS, federal and state lease documents, environmental plans etc.) and identify data gaps and additional information needs.
- Identify pollution prevention or control issues of concern including air, liquid and solid waste reduction, recycling and reuse plans, waste collection, treatment and disposal systems, fuel storage and handling systems, drinking water source protection, collection and treatment systems, food safety practices and pesticide or herbicide use requirements.

¹ DEC approvals: The project will require numerous DEC permits, plan approvals, state certifications of federal permits or approvals to operate under established general permits or DEC regulations.

Compressor stations - construction and operation air permits, approval of stormwater pollution control plans, fuel storage spill prevention and response contingency plan approval.

Construction Camps - water quality certification of fill permits, fuel storage spill prevention and response contingency plan approvals, solid waste disposal permits, domestic wastewater plans and permits, non domestic wastewater permits, contaminated site assessments and cleanups, food service permits, drinking water plan approval, pesticide permits.

Pipeline excavation or VSMs - non-domestic wastewater permits, contaminated site assessments and cleanups.

Construction material sites – non-domestic wastewater permits, contaminated site assessments and cleanups.

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- Meet with the project sponsor to outline the scope of the project design, DEC authorities and approval requirements, potential issues and DEC/sponsor work contacts to work specific issues.
- Develop FY 2002 permit review staff work plans and begin recruitment to hire in July.

FY 2002 Short Term Pre-Application Work Tasks (July – December 2001)

- Hire eight plan approval and permit specialists (domestic and non-domestic wastewater, solid waste, air quality, spill prevention and response, contaminated sites) to work with project sponsor on pre-application issues and begin public notice of applications received in December.
- Provide technical field work assistance to collect ambient pre-construction air and water quality data, environmental sensitivity mapping, contaminated site identification and assessments, solid waste disposal site assessments, drinking water source assessments, and sewage disposal site assessments.
- Develop State right-of-way pollution prevention and control lease stipulations consistent with the department's authority under AS 46.03.024.
- Draft provisions in MOUs with appropriate federal and Canadian agencies on a coordinated gas pipeline approval process that serves DEC's authorities and interests.
- Conduct pre-application meetings with the project sponsor to discuss department requirements for the planning and design of fuel storage and handling facilities, drinking water, wastewater, solid waste, and food preparation facilities, stormwater and other non-domestic wastewater collection, treatment and disposal systems, air emission control systems, and review potential pesticide use.
- Review drafts of the project sponsors environmental plans as sections become available.
- Review field operations planned for summer 2002 and meet with the applicant to determine if a pesticide permit will be needed at that time.

FY 2002 Long Term Post-Application Work Tasks (December 2001- July 2002)

- If pesticides will be applied during summer 2002, hire permitting staff.
- Complete site-specific reviews for camp and other construction related discharges, which take into account specific discharge and receiving environment quality.
- Develop construction monitoring requirements and construction camp mobilization field work plans.
- Coordinate contaminated sites and assessment/cleanup schedules to compliment pipeline construction schedules.
- Participate in the development and review of the federal environmental impact statement.
- Review and approve facility plans and/or permits for camp drinking water, domestic wastewater, solid waste, and sanitation systems.
- Review and approve non-domestic wastewater engineering plans and permits for all stream crossings, fills in wetlands, stormwater, excavation dewatering for gravel extraction and construction, discharge of hydrotest wastewaters for pipelines and storage tanks, and other environmental systems.
- Assess whether new air emissions will cause or contribute to a violation of an ambient air quality standards or air quality increment standards. Determine if the project is using the best available control technology for each applicable emission source and regulated pollutant.

DEPARTMENT OF FISH AND GAME

Summary \$636.7

The Alaska Department of Fish and Game (ADF&G) traditionally plays an important role in projects such as the proposed gas pipeline. The department is responsible for ensuring that impacts to fish, wildlife and their habitats are minimized. For planning and oversight purposes, the gas pipeline project can be broken into three distinct phases, pre-construction, construction and post-construction. Past experience has shown the most cost-effective approach to addressing potential impacts to fish and wildlife resources is through proactive participation in the planning process (design stage for engineering efforts). Early identification of issues provides both land management planners and design engineers the time and information needed to mitigate impacts.

ADF&G believes that the proposed scope of work for FY 2001 and FY 2002 is the minimum level of effort necessary to provide the site-specific information needed for the planning process. By initiating the program immediately, ADF&G will capture the current

(2001) summer field season. This proactive approach to integration of fish and wildlife concerns into the planning process will minimize costly delays to the gas pipeline project.

Assumptions

In addition to the general planning and budgeting assumptions used by all agencies, ADF&G made the following additional assumption for FY 2001 budgeting:

- A compressed timetable for gas pipeline construction requires expedited action to fulfill ADF&G work activities. Since DNR has no timetable beyond FY02, ADF&G assumed the need to be prepared for some level of construction activity in FY03.
- The applicant is Foothills and not one of or a group of oil and gas companies. This is significant because Foothills holds a federal grant of right of way and the existing EIS may only require updating. A new applicant for the Alaska Highway route may be required to initiate a new EIS process, possibly without benefit of existing proprietary information.

FY 2001 Work Activities

- Fill two positions, the Pipeline Liaison/Surveillance Supervisor and the Design/Permitting Coordinator. Emphasis will be preparation for summer 2001 field activities through records review and analysis. Additional work activities include coordination with divisional representatives to identify potential data gaps, selection and hiring of staff joining the program in FY 2002 and, working with the SPC and other agency Liaisons to create the gas pipeline office. ADF&G would like to use the existing JPO facilities to house staff, however, if office space is not available, temporary space may be available in the ADF&G, Region II facility.
- The longer it takes for ADF&G to receive funding with which to hire two lead JPO staff in FY 2001, the greater the chance that the department will lose the first of three critical field seasons (Summer '01, Winter '01-02, and Summer '02). We believe we need to have our Pipeline Liaison/Surveillance Supervisor (R22) and Gas Pipeline Design/Permitting Coordinator (R20) *in place by April 1st* in order to ensure that ADF&G will be able to evaluate enough of the existing archival information to be able to set up and conduct an effective summer field season. The amount of lead time ADF&G needs to make these hires by April 1st depends on whether we can find qualified applicants in-state, and whether these applicants can indeed be hired (given current restrictions on hiring retirees, including under the RIP program).

FY 2002 Work Activities

Based on the above assumptions, FY 2002 work activities will be critical in formation of recommendations to: prevent any significant adverse environmental impact, including but not limited to erosion of the surface of the land and fish and wildlife and their habitat; create guidelines for revegetation and restoration activities and; protect the interests of individuals living in the general vicinity of the right-of-way who rely on fish, wildlife, and biotic resources for subsistence purposes.

ADF&G feels that protection of environmental resources is best accomplished through early identification of concerns which allows engineers an opportunity to incorporate these concerns into the design process. Many of these concerns can be identified from past experiences associated with construction of TAPS, however, a chilled gas pipeline project of this magnitude comes with many unknowns.

The work activities proposed for FY 02 represent a measured approach to addressing environmental concerns associated with the proposed gas pipeline. A strong field component is necessary because of the compressed time table and the need to have site specific information for the planning process. It is important to note that while work will begin on the tasks listed below, completion may not be realized until the state right-of-way lease is finalized.

- Coordinate with other participating agencies to develop a wetland evaluation program (planning and field). Generally, participating environmental agencies form a work group to delineate wetlands along the proposed route through a modeling effort. Field assessment of the model's accuracy is a major component of the effort.
- Develop criteria to facilitate material site selection and mining, including rehabilitation (primarily a planning task with limited field support). Alyeska Pipeline Service Company plans an aggressive workpad maintenance program in anticipation of their lease renewal efforts. Up to 1,000,000 cubic yards of material may be needed for the program. In addition, DOT regularly uses material along the entire TAPS route for new construction and maintenance. The gas pipeline will need large quantities of material to bed the pipe, build a workpad, and build access roads. ADF&G provides technical expertise on the siting of material sites (upland, floodplain, etc.) and rehabilitation of the site (erosion control, use of the overburden and other factors that enhance fish or wildlife habitat).

- Develop a fish stream list for the gas pipeline, access roads, material sites, etc (field). The fish stream list developed for TAPS has proved to be an important document for both TAPS and agency staff. The document includes information on species present and sensitive life phases used by all staff to plan instream projects and to develop criteria to protect fish resources present.
- Provide engineers with fish passage design criteria and specifications (planning). Vehicle access for the construction and operation of a gas pipeline requires crossing fish streams. Criteria for bridge placement, culvert installation and low water crossing construction is important to protect fish passage.
- Analysis of environmental impacts associated with above versus below ground pipe (substantial differences in potential impacts, waste disposal, gravel requirements, long-term rehabilitation, etc.) (planning).
- Evaluate location and siting of construction camp sites (planning and field). Proposed construction camp sites need to be evaluated for proximity to fish streams or important wildlife habitat. In addition to primary impacts, possible secondary impacts associated with increased vehicle traffic and human use of the area need to be assessed.
- Develop a surveillance and monitoring agreement with the federal government (planning and field). State and federal agencies with similar surveillance and monitoring needs share resources to accomplish common goals.
- Provide fish stream crossing specifications for a chilled gas line (planning and field). ADF&G is concerned that a chilled gas line beneath a stream may create a freeze bulb with possible impacts to fish passage.
- Recommend fish streams to be crossed using directional drilling (planning and field).
- Develop trenching guidelines for crossing fish streams (planning and field).
- Update draft state lease stipulation 1.6.1 - Plans (human/bear interactions, revegetation/restoration, material sites, disposal sites, etc.), the intent of these plans was to include adequate design criteria and specifications which would allow development of the mile by mile design using site-specific data – this was one of the lessons learned from TAPS (planning).
- Develop construction guidelines for quality control/quality assurance monitoring (planning). Generally, companies are required to have a quality control/assurance program in place prior to beginning work. ADF&G would like these programs to include a section on environmental protection and will provide input for program development.
- Evaluate any design or route changes (planning and field). The current route and design is about 20 years old. Any proposed changes to either the route or design will require further assessment.
- Develop a conceptual plan to address wildlife mitigation (planning). ADF&G will identify sensitive wildlife habitats and propose timing or activity restrictions to protect these areas.
- Provide comments on the updated EIS (planning).
- Compile existing information on subsistence uses in communities along the proposed pipeline corridor, including areas used, seasonality of harvest activities, and harvest levels.
- Assess the adequacy of existing subsistence use information for application to pipeline planning, and develop mechanisms to fill data gaps and update information as needed.
- In consultation with corridor area communities and regional organizations;
 - (1) develop and prioritize a list of subsistence-related issues for consideration in formulating mitigation measures; and
 - (2) outline a proposed subsistence monitoring plan for implementation upon initiation of pipeline construction activities.

OFFICE OF THE GOVERNOR
DIVISION OF GOVERNMENTAL COORDINATION

Summary **\$74.4**

The Division of Governmental Coordination (DGC), in the Office of the Governor, is the lead agency for the Alaska Coastal Management Program (ACMP). Projects located in Alaska's coastal zone are reviewed by DGC for consistency with the ACMP. The portion of the gas pipeline projects that falls within Alaska's coastal zone is subject to consistency review by DGC per 6 AAC 50.

Assumptions

In addition to the general planning assumptions used by all agencies, DGC has made the following assumptions:

- DGC Project Analyst hired on May 1, 2001.
- The new DGC hire will locate either in the GPO, if it is open for business with available office space and computer equipment, or temporarily at the SPCO until the GPO office is opened.
- When available and collectable, all DGC Project Analyst costs will be fully reimbursable.

A DGC Project Analyst position will be dedicated to the start up of the GPO and coordination of pre-application assistance, the coordination of the State's review of proposals for consistency with the Alaska Coastal Management Program (ACMP) and other GPO related activities.

FY 2001 Work Activities

The ACMP involves decision making from the local government, state agencies, and federal agencies. The earlier these players get together to discuss the issues presented by the proposed project, the easier it is to avoid costly and time-consuming conflicts during the project review process. Specifically the pre-application process is a forum to:

- 1) Identify necessary permits;
- 2) Identify agency and district concerns early enough to affect design without costly added re-design;
- 3) Get coordinators, permitters, local government and applicants on the same page and fosters productive dialogue;
- 4) Avoid duplication of efforts as everyone is aware of who is responsible for what;
- 5) Identify potentially conflicting agency and local government requirements at the outset so that they may be resolved; and
- 6) Give applicants a reasonable and predictable timeline rather than starting a review that is incomplete or exceeds agency capacity.

During FY 2001, DGC will fill the Project Analyst position. The new hire will be trained on the purpose and procedures of the ACMP and agency procedures including how to coordinate consistency reviews and facilitate interagency interactions. The new position will begin to assume the primary and technical liaison role between the ACMP and other participating agencies involved in setting up the GPO pipeline office. A work plan will be developed for the DGC Project Analyst in coordination with GPO management. The DGC Project Analyst will develop briefing papers for the director on issues related to the gas pipeline.

FY 2002 Work Activities

- Coordinate among SPCO agencies during the final stages of the start up of the SPCO office.
- Provide pre-application and pre-review assistance to applicants. Work with applicants, State and federal agencies to ensure review packets and permit applications are complete.
- Assess whether it will be necessary to phase the consistency review of the project or whether all of the activities can be reviewed at one time.
- Coordinate the State's reviews of gas pipeline project applications for consistency with the ACMP.
- Work with the applicants, local and State resource agencies, and any affected coastal districts and the public to identify information requirements, potential impacts to the coastal zone, and applicable standards and regulations.
- Provide ACMP procedural information to applicants and other review participants
- Review State agency and coastal district comments to ensure that they are within the legal boundaries of the ACMP.
- Develop proposed and final consistency determinations based on comments and recommendations.
- Develop an analysis of how the project is consistent with the ACMP
- Resolve/mediate disagreements about project impacts, necessity for stipulations and interpretation of State and district policies.

DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT**Summary \$152.3**

The Department of Labor (DOL) will assess the demand for labor resulting from both the construction and operation of the gas pipeline. In an effort to ensure that a qualified workforce exists at the time of gas pipeline construction, DOL will conduct occupational supply and demand analysis to identify potential workforce gaps. In addition, DOL will coordinate efforts to maximize the employment of Alaska residents and to ensure worker safety.

DOL will begin this work in FY 2001 by reviewing existing occupational information and identify data gaps. The information researched will include, though not be limited to, gas pipeline staffing patterns and indicators of occupational supply. Working with process industry experts, DOL will also review the existing occupational taxonomy (based on federal Standard Occupational Classifications) for adequacy. If additional occupational detail is needed to accurately analyze gas pipeline activity, more detailed occupational categories will be developed and data collection methods investigated.

FY 2002 Work Activities

Research and Analysis

- ? Construct Gas Pipeline Staffing Patterns: Based on the FY2001 research, DOL will construct a matrix of gas pipeline-related occupational needs by industry.
- ? Expand Occupational Data Collection: If needed, DOL’s data collection programs will be expanded to include the collection of additional occupational information.
- ? Forecast Future Industry Employment: DOL will develop two industry employment forecasts, for the 2000 – 2005 and 2000 – 2010 time periods, reflecting the labor needs of the construction and maintenance of the gas pipeline. This analysis will include assessing the indirect effects of the gas pipeline project on Alaska’s labor market.
- ? Forecast Future Occupational Employment: DOL will estimate future occupational demand resulting from the gas pipeline project.
- ? Identify Potential Skills Gaps: DOL will analyze occupational demand and supply data to identify potential workplace skills gaps.
- ? Minimize the Potential Skills Gaps: DOL will assist with the development of strategies to close the projected skills gap. Strategies may include the identification of “training gaps” and the development of career information products that encourage Alaskans, of all ages, to consider potential shortage occupations with planning their careers.

Commissioner’s Office

The DOL will hire a GPO Liaison to represent the department in all inter and intra agency deliberations; provide liaison and outreach to external stakeholders with regard to employment and training of Alaskan workers and socio-economic impacts in general; and provide for appropriate review of mechanical, electrical and health and safety issues attendant to the application process. Stakeholders include contractors, communities, labor organizations, Alaska Native organizations, and others.

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE PREVENTION

Summary **\$188.9**

The Department of Public Safety, Division of Fire Prevention is tasked by AS 18.70 to review all new, remodel, addition and relocated construction for fire and life safety, fire alarm and fire suppression criteria. The fire and life safety review pertains to commercial, industrial, business, institutional and residential use containing four or more dwelling units as outlined in the state adopted building, fire and mechanical codes. Additionally, the Division of Fire Prevention monitors system operation, testing and maintenance of all fire alarm and suppression systems and conducts fire prevention inspections and enforcement actions to insure identified hazards are corrected in a timely manner. It is assumed that we will be heavily involved in helping to develop workable, reliable, flexible and reasonable fire response plans for both permanent and temporary facility uses.

- In anticipation of the application for a natural gas pipeline and the creation of one stop shopping for the application process, centered at the Joint Pipeline Office, it is important to jump-start our participation. This is so training, research, documentation requirements and pre-engineering of technical obstacles can be speedily assessed and processes are put into place.
- The result of these actions will ensure a quick and professional response to technical engineering issues, plan review of gas line facilities, support camps, and fire alarm and suppression system building permit approvals.
- We will eliminate unnecessary lag time between project submittals and project approvals, allowing us to hit the ground running once there is an applicant.
- There will already be a system in place to serve the applicant and the learning curve for the technical issues and process documentation will have already been achieved.
- It is anticipated that parts of the project will be accomplished through the design/build process. This will allow concurrent design, review and phased construction of individual and group projects at the same time and as in any major new endeavor the

newest technologies will be used to increase the efficient operation of the gas line. It is important that we be aware and educated on new technologies to support these concepts as they relate to natural gas production, distribution, compression and refrigeration.

- Early on we will be able to establish working relationships with partner agencies and applicant engineers to form a basis of understanding to the intent of building, mechanical and fire codes in support of their projects.

Required training for 2 new positions (including travel) in the engineering of natural gas distribution, compression, and refrigeration of pipelines and their associated facilities will be funded through the FY 2001 supplemental budget.

FY 2002 Work Activities

- ? State Fire Marshal (5% of time, salary and benefits) to act on behalf of the Commissioner of Public Safety as it pertains to the Gas Pipeline Cabinet and provide fire and life safety consultant services to the acting liaison.
- ? Assistant State Fire Marshal (20% of time, salary and benefits) to work with the new liaison and plan reviewer to learn state and JPO operating, documentation requirements, assist in the development of FY 2003 budget and work plan and provide fire and life safety consultation services as requested in support of the gas pipeline.
- ? Liaison (100% of time, salary and benefits) to manage and perform work necessary to process department permits, authorizations and inspections, consult and coordinate with the SPC, develop work plans, manage department administrative functions, and supervise staff assigned to the GPO.
- ? Administrative Manager (5% of time, salary and benefits) to provide accountability, RSA development and processing of billings.
- ? Plan Reviewer (100% of time, salary, and benefits) to process all requests for plan review; consult on fire detection and suppression; pre- and post-engineering support of the gas pipeline and related facilities as it relates to state adopted building, fire and mechanical codes.

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

Summary **\$308.5**

Funds are needed for a liaison position for overall coordination of pipeline activities within the department and liaison to the SPCO. Technical staff is also needed to assist in highway right-of-way (ROW) permitting issues. Department of Transportation and Public Facilities (DOT&PF) is owner of the highway ROW and thus must participate in any permitting activities that take place on or across it.

Assumptions

In addition to the general planning and budgeting assumptions used by all agencies, DOT&PF made the following additional assumption for FY 2001 budgeting:

- The pipeline office will need copies of the full set of highway ROW files along the corridor as well as a full set of geotechnical reports.

Tasks and Resources

An SPCO Liaison/Engineer III will be hired May 1, 2001 and located in the Anchorage Pipeline Office. This position will act as gas pipeline coordinator for the department and as liaison to the SPCO. This position will be familiar with the processes related to ROW permits for encroachments, utilities, construction, driveways, lane closures, etc. This position must be able to deal with issues as they arise concerning bridge integrity and impacts of overweight and oversized loads on the state's road system.

A Right-of-Way Agent IV position will be hired in FY 2002 to coordinate the ROW issues related to DOT&PF. Each crossing of the highway will require a full survey of the ROW at that location, research of land ownership and coordination with the underlying fee owner. If the underlying fee owner is a federal agency, then 23 CFR requires that the federal agency also approve the permit. Surveys performed by the Sate would be accomplished under consultant contracts administered by this position. The position would

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oversee land ownership research conducted by the Dept. of Law or by contract. The position would also develop the permit terms necessary to protect the interests of the traveling public at each location.

A Right-of-Way Agent IV position will be hired in FY 2002 to coordinate activities between the Northern Region and the Pipeline Office. Since the proposed route is entirely within the Northern Region boundaries, most planning, design, construction, maintenance and operations of the highway system along the corridor will be impacted. Records research and issue resolution will be the primary duties of this position.

An Engineer I position will be hired in FY 2002 to provide technical engineering support for the DOT&PF permitting activities. The position will evaluate highway design and operation issues such as sight distance, highway geometrics, traffic analysis, structures, and maintenance impacts related to each permit. This position will coordinate the DOT&PF response to any proposed use of the State's bridges and potential changes to the hydraulic condition at bridge piers and abutments due to the addition of other structures. This position will also provide Department coordination of requests for overload permits on the State's highways and bridges during construction.

The FY 2002 also includes contractual funds to respond to requests from potential applicants for land ownership and other ROW files inventory and copying.

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

Summary **\$4,965.9**

During FY 2001 and FY 2002, the State Pipeline Coordinator's Office (SPCO) will implement Administrative Order 187. The major task associated with AO 187 implementation is the creation of a functional Gas Pipeline Office (GPO). This task will be started in FY 2001 and completed in FY 2002. The GPO will be an operating unit of the SPCO. The Federal-State Joint Pipeline Office is the other operating unit of the SPCO.

Gas Pipeline Office

The GPO will provide multi-agency one-stop permitting, authorization, and oversight, comparable to that provided to the Trans Alaska Pipeline and common carrier pipelines on the North Slope by the Joint Pipeline Office. The main tasks associated with creation of the GPO are finding and moving to new offices; staffing the office; and creating the internal policies and procedures that will allow the participating agencies to work effectively together. These tasks will be initiated in FY 2001 and completed in FY 2002, culminating in the opening of the new GPO in July 2002. Hiring of many technical staff will be delayed until an application is received to reduce expenses.

Before receipt of an application, the agencies involved in the GPO will:

- Inventory existing information on the Alaska Natural Gas Transportation System (highway) route. Determine which of the information may be proprietary.
- Create a comprehensive list of required permits and authorizations and information and actions needed to process those permits and approvals for a highway application. Identify impediments to issuance of permits and authorizations.
- Develop and implement an aggressive plan for filling information gaps. Implementing the plan will provide a technical jump-start to permit and authorization processing.
- Develop aggressive plans to quickly and efficiently overcome identified impediments and process authorizations and permits. Creation of the plans will provide a procedural jump-start to permit and authorization processing. Creating the plans within the GPO will allow coordination between the tasks and resources of individual agencies, reducing duplication and redundancy, and producing better products faster and cheaper.
- Work with federal and Canadian agencies to agree upon application requirements and quick, efficient, coordinated review and approval processes. The goals of the effort are Memoranda of Understanding between the parties and participation of those entities in the Gas Pipeline Office.
- Work with project proponents to assure that statutory and regulatory requirements are understood and that the applications that are submitted to agencies within the GPO are as complete and responsive to those requirements as possible. Minimizing post-application information requests may be the single most effective means of speeding application processing.

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- Begin engaging and informing the public of permitting and authorization efforts. More public participation efforts at the beginning will streamline statutorily required efforts later.

Many of these tasks will be initiated in FY 2001, once a supplemental appropriation is received, and completed in FY 2002.

After receipt of permit applications during FY 2002, GPO staff will be processing those applications.

The SPCO will provide the management and administration of the GPO. SPCO technical staff within the GPO will perform lands and engineering work to process a gas pipeline right-of-way application, and will manage work by other state agencies and consultants in support of ROW application processing.

In addition to the general assumptions applicable to all gas pipeline budget requests, the SPCO budget request for GPO work is based on the following assumption:

- Hiring of SPCO and other GPO staff will be in the amounts and according to the timing indicated in the budget supporting documents.

Gas Pipeline Office Management

During FY2001, the State Pipeline Coordinator will delegate to his deputy all pipeline authorization and oversight responsibilities that do not relate to a gas pipeline. By May 2001, the SPC will be focused exclusively on the gas pipeline project. In FY2001 and FY 2002, he will focus on managing the Gas Pipeline Office startup and other tasks identified above. The Deputy SPC will assist the SPC with gas pipeline work until those delegations are completed.

Two deputy SPCs for the Gas Pipeline Office will be hired, the first in May 2001 and the second at the beginning of FY2002. One will assume responsibility for office and project management, including: work plan review, approval, and consolidation; budget review, approval, and consolidation; permit and authorization requirement and progress tracking; and field season planning and implementation. The second deputy SPC will manage relations among the many interested and involved parties to the state gas pipeline process, including involved state commissions, committees, and agencies, the federal and Canadian governments, and other pipeline route landowners. The second deputy will also manage media relations and public outreach.

A Special Assistant will be hired at the beginning of FY 2002 to communicate and coordinate with the DNR Commissioner's Office, the Gas Pipeline Cabinet, and the Natural Gas Policy Council. The Special Assistant will provide staff support to the Commissioner and Gas Cabinet as requested by the DNR Commissioner.

The Public Information Officer hired at the beginning of FY 2002 will be responsible for responses to public and media inquiries, and for the Gas Pipeline Office public outreach program. The latter duty is now envisioned to include a quarterly newsletter, a web site, and bi-monthly public meetings, in addition to the notices, meetings, and hearing that will be statutorily required. The existing JPO PIO will provide support to SPCO gas pipeline efforts until the position is filled.

The Executive Secretary hired at the beginning of FY 2002 will provide support to the SPC and deputies. Existing staff will provide that support until the position is filled.

The Engineering, Right-of-Way, and Administration sections are discussed below.

Gas Pipeline Office Right-of-Way Section

During FY 2001, the ROW Section of the GPO will initiate the following work prior to receipt of an application:

- Review previously submitted materials for relevancy to statutory requirements and likely proposals.
- Begin to develop checklists of requirements for authorizations, lists of impediments to authorizations, and a workplan to address both.
- Assist in the establishment and maintenance of the administrative record.
- Begin coordination with other landowners and land managers.

The ROW Section will continue the tasks above in FY 2002, and assist in the preparation and review of work scopes and budgets for outside expertise (generally from other state agencies) to support the workplan.

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During FY 2002, the ROW Section will receive the application, process the application fee, provide public notice of the application, and receive and respond to comments on the application. They will then:

- Review submitted materials.
- Begin the ACMP review.
- Begin acreage accounting.
- Begin preparation of the contract for the lease of the land, including development of special terms and conditions.
- Begin coordination with any NEPA process.
- Begin processing other required permits and authorizations, including those necessary for material sales, access roads, disposal sites, construction camps, communication sites, and water withdrawals.

During FY 2002, the ROW Section will provide quasi-legal assistance to the Commissioner and State Pipeline Coordinator.

Gas Pipeline Office Engineering Section

The Engineering Section will evaluate the adequacy of pipeline system engineering across state-owned land. The work will ensure that sound engineering practices have been followed and that, where assumptions or judgments have been made, they are reasonable and justified. The evaluation is likely to involve engineering expertise from SPCO staff, ADOT staff (through RSAs), and outside consultants.

The engineering staff will perform the following work during FY 2001 (assuming the supplemental appropriation is received):

- Review previously submitted materials for relevancy to requirements and likely proposals.
- Begin to develop checklists of engineering requirements for authorizations, lists of engineering challenges, questions, and impediments, and a responsive work plan.
- Assist project proponents in planning their engineering work, to assure that the work is performed in a manner that allows efficient review by GPO staff.
- Establish and maintain the engineering files and records.

During FY 2002, the engineering staff will continue the tasks above, and will:

- Coordinate with jurisdictional agencies to identify environmental, safety, and other requirements that must be addressed in the project design basis before detailed engineering is undertaken.
- Manage engineering consultants supporting the engineering work plan by developing scopes of work, budgets, and schedules, reviewing progress against work orders, and approving work products.
- Coordinate engineering reviews with other landowners and managers, and appropriate jurisdictional agencies.
- Approve design basis submittals.

Consulting engineers will provide specific discipline reviews of design basis documents and support data submitted by the applicant. Engineering disciplines that may be involved in the FY 2002 reviews include geotechnical, geophysical, hydrological, civil, electrical, mechanical, corrosion, and welding. In addition, reviews by chemists and physicists may be warranted.

Gas Pipeline Office Administration Section

An Administration Manager will be hired in May 2001 to oversee all administrative aspects of the startup and the functioning GPO. The manager will supervise the administrative staff that perform or support hiring, space procurement, supply and equipment procurement, space allocation, personnel management, computer system administration, document production, records management, budgeting, accounts payable and receivable, billing, reception, and other administrative tasks.

A System Administrator will be hired in May 2001 to set up and maintain a local area network for the new facility. He will purchase, set up, and configure computers. An Assistant System Administrator will be added to the GPO staff at the beginning of FY02.

A Records Manager will be hired in May 2001 to establish and maintain physical and electronic filing systems for agencies and functions with the GPO, and ensure compliance with applicable State and Federal retention schedules and regulations. The Records Manager will supervise the filing clerks; one clerk will be hired at the beginning of FY 2002, and two will be added after receipt of an application.

A temporary Procurement Specialist will be hired at the beginning of FY 2002 for a period of less than a year to establish new accounts with local vendors, and purchase equipment and supplies for the new office.

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An Administrative Assistant will be hired at the beginning of FY 2002 to handle personnel actions, timesheets, billings, RSAs, accounts receivable and payable, training, assist the Procurement Specialist with purchasing, and supervise the Administrative Clerks. The clerks will handle word processing, filing, mail handling, travel coordination and reception. At the beginning of FY 2002, three clerks will be hired to provide support to designated agency staff within the GPO, and two clerks will be hired to handle GPO travel and mail. A receptionist will be hired at the beginning of FY02 to greet visitors, keep track of staff, receive and distribute incoming faxes, and otherwise assist the administrative staff.

Gas Pipeline Office Procurement

Assumptions leading to contractual budget requests are provided in the support documents. Additional comments on specific items follow:

- We intend to "fast track" the file inventory contract, since much of the early GPO work will be based on the results of that effort. File inventory work will occur in FY 2001.
- The GPO will establish a shared records management system with the Joint Pipeline Office in FY 2002 that will require rental of an appropriate storage location and the purchase of basic files equipment.
- Engineering assistance was described above, and will occur in FY 2002.
- We expect staff recruitment to be difficult, and have included recruitment assistance in our request. Most of the costs are in FY 2001, with some continuing into FY 2002
- The requested archeological, sociological, economic, and appraisal assistance will be used for processing the right-of-way and other permit applications and for state interaction with federal processes such as NEPA. These are data that can be developed early, and that are normally developed by the state and not requested from the applicant. All work will occur in FY 2002.
- The public outreach items are based on an expectation that the GPO will begin a continuous outreach program in FY 2002 that will continue through permitting and construction.
- The Public Notice line item is for all Public Notices by all GPO agencies during FY 2002.
- The DNR Support Service Division will provide administrative support for the GPO in FY 2001 and FY 2002.
- Assumptions for rent, travel, equipment are provided.

DEPARTMENT OF NATURAL RESOURCES

Division of Mining, Land, and Water, Realty Services
Land Records Information Section
Division of Geological and Geophysical Survey
Division of Mining, Land, and Water, Water Section
Division of Parks and Outdoor Recreation, Office of History and Archaeology

Summary **\$810.4**

During Fiscal Year 2001, the Department of Natural Resources (DNR) will work with the State Pipeline Coordinator's Office (SPCO) and others to implement Administrative Order 187. The major DNR tasks associated with AO 187 implementation include land title work, mapping, geologic data assessment, hydrologic assessment, and archeological assessment. Each of these tasks will be completed in FY 2002.

Assumptions

- ✍ An early jump on land status and right-of-way issues will offer valuable input on routing alternatives and address permitting issues.
- ✍ The present demand for maps will continue and requests for increased detail will be made.
- ✍ Geologic hazard mitigation requires a state perspective that is broader than the narrow right-of-way focus of an applicant. The broader view can affect selection of routing alternatives.
- ✍ Preliminary knowledge of construction materials is needed to assist cost projections, site planning, and route adjustments.
- ✍ Initiating hydrographic review of existing literature and water data will save time, especially in the federal environmental review defined by the National Environmental Protection Act (NEPA).
- ✍ Initiating hydrologic review and compilation of existing literature and water data will save time, especially in the federal environmental review defined by the National Environmental Protection Act (NEPA).

- ✍ Compiling existing literature on archeological resources and preparing for site specific field work for summer 2001 will save time with the clearances required for permitting.

Deliverables

1. Title Report and Title System
This task includes the development of a title report for lands along the pipeline route that will define and ownership and use rights. Land title documents, maps, and text will be organized into a web-based storage and retrieval system accessible by all parties. This approach is much more efficient, cost effective, and user-friendly than a paper-based system.
2. Gas Pipeline Maps
Maps provide graphical information on routes, ownership, and landform. Initially supports needs of policy makers for preliminary information on routing and constraints. This effort will support agencies needs to view detailed information related to respective permitting duties.
3. Geologic Assessment
This task determines current level of knowledge about geologic hazards and construction materials that could affect future gas pipeline design, route adjustments, construction, and safety.
4. Hydrologic Assessment
This assessment of hydrologic data identifies and compiles current knowledge on surface and ground water quantity, quality, and timing. These data are needed for final pipeline routing and design. Protection of fisheries habitats and wetlands are dependent upon knowledge of water. Water data is critical to environmental analysis required under NEPA.
5. Archeological Assessment
This task assesses the current level of knowledge on archaeological sites listed on the Alaska Heritage Resources Site inventory, identifies information gaps, and assesses survey and evaluation needs.

Justification**Task 1: Title Report and System**

- ✍ An overland route will traverse complex federal, state, and private land holdings. Knowledge of detailed land ownership, right-of-ways, and land use constraints are essential to routing and permitting decisions.
- ✍ Once issued, the title report can be easily updated electronically to include changes in conveyance.
- ✍ Sharing title reports knowledge via electronic / Internet networks will be much more efficient than the present paper-based solution. This project builds a web-based land title reporting system. Cost is minimized by simply extending existing system capability.
- ✍ The current system is not workable for customers. A single title report for one route could easily create a pile of paper over three feet thick - just for one copy. Customers include SPCO, Department of Law, federal solicitor's offices, public interest groups, and applicants.
- ✍ The means to associate related federal land records with state records is best accomplished with an electronic storage and retrieval system. This approach leverages federal investments in records automation.
- ✍ The interface will permit easy search of the records by location (e.g. meridian, township and range, or route milepost), geographic name, case file, etc.

Task 2: Gas Pipeline Maps

- ✍ New maps will be needed to help management make informed land and resource decisions related to the gas pipeline route. State mapping work will be coordinated across agencies.
- ✍ Customers: Maps will be requested and used by the Gas Pipeline Cabinet, SPCO, other DNR managers and staff, ADFG, ADEC, DOTPF, legislators, federal agencies, potential applicants, and others.
- ✍ Mapping needs range from general overviews to detailed route and land ownership information.

Task 3: Report on Status of Geologic Hazards and Materials

- ✍ This report will utilize existing data to identify potential geologic hazards and their probable extent. Identification of hazards is the first step in geologic hazard mitigation.
- ✍ Knowledge of prior geological work will help eliminate redundancy, saving time and money by avoiding duplicate studies.

- ✍ Contractors and engineers must know about geologic materials they will encounter on site, and the availability of construction materials (appropriate rock, sand, gravel). This report will provide a basis for personnel and equipment cost estimates by the applicant.
- ✍ Detailed, accurate, and current geologic data is the foundation of engineering geology and geologic hazard identification. Presently DNR does not know the state of the geologic information base for the proposed gas pipeline corridor nor for the geologic hazards that may exist within it.
- ✍ The most effective and economic construction and route adjustment alternatives can be outlined and compared without impeding progress during actual construction. For example, DOT has experienced significant cost overruns on some projects due to encountering more resistant bedrock than anticipated or from inadequate supplies of gravel accessible to contractors. Similar situations could arise during construction of the proposed gas pipeline if the state does not have adequate geologic information.

Task 4: Hydrologic Assessment

- ✍ This task will speed the application process and any required state decision process or federal NEPA update through the compilation of hydrologic data, and rapid access to all pertinent data needed for decisions on routing, design, and construction.
- ✍ Identification and compilation of applicable hydrologic data will eliminate repetition of previous work, and pin point where additional site specific data are needed. This efficiency will save time and reduce cost.
- ✍ Areas where conflicts between water quality/quantity issues and fisheries habitats, wetland habitats, or users of water can be identified early in the route assessment and design process. Substantial savings and speed of design and construction can be realized if routing and design are done to minimize mitigation efforts.
- ✍ Sizing of all stream and river crossings are dependent upon design for maximum expected discharge. Design engineers must know maximum expected flows for all affected waterways to protect the pipeline itself, the affected physical and biologic environment, and the safety of people.

Task 5: Archaeological Assessment

- ✍ Identification of known archaeological sites and unsurveyed areas of high potential for sites is essential information for policy makers.
- ✍ Knowledge of prior archaeological work will avoid duplication of field inventory and site evaluation studies, thereby saving time and money.
- ✍ The most effective route alternatives and adjustments can be outlined and compared, if adequate understanding of the archaeological sites within the corridor is available beforehand.
- ✍ Mitigation measures that protect archaeological sites can be formulated prior to construction to avoid cost overruns and delays during construction.

Immediate Pre-Application Work Tasks (April - July 2001)

- ✍ Build a working system for title reports; integrate with existing DNR land records.
- ✍ Hire Natural Resource Officer to begin title research.
- ✍ Hire GIS Specialist / Analyst Programmer III to support title work and mapping demands.
- ✍ Begin work on title reports; look for overlap between TAPS renewal and the gas line.
- ✍ Generate preliminary maps and routing graphics to support multiple user needs.
- ✍ Hire non-perm geologists for compiling existing data on geologic hazards and construction materials, complete about 25% of this task.
- ✍ Map detailed route location showing proposed ANGTS pipeline route. Verify resolutions on information on alternate routes; initiate mapping database for the project.
- Hire non-perm archaeologists to compile known archaeological site location data and identify areas of insufficient data that require survey and evaluation.

Short Term Pre-Application Work Tasks (July 2001 – June 2002)**Title Report/System and Mapping**

- ✍ Realty Services Section will complete title work associated with the gas pipeline route on a township-by-township basis. Realty Services provides the updated title report prior to the final approval process. Township reports become available through the web based system as each one is completed.

- ✍ Land title and legal support documents will be scanned to augment the title reports. These documents include any actions affecting the State of Alaska title to lands along the proposed route. The scanned images will be used in a low-cost web retrieval system.
- ✍ Status Graphics Unit will automate the remaining mylar-based townships that lie within the corridor. All townships will be combined into a parcel level database on state ownership and land status. These data will be used in title reports and detailed mapping. Pending actions that affect title will be updated on a priority basis.
- ✍ Build a geographic information system (GIS) that supports multi-agency mapping and spatial data demands as expressed primarily through the State Pipeline Coordinator's Office. Contain cost by adding incremental capacity to DNR GIS operation. Incorporate essential federal digital land records.

Geologic Hazards and Materials Assessment

- ✍ Locate and assemble all available and pertinent geologic data on the trans-Alaska pipeline corridor from Prudhoe Bay to Delta Junction, Alaska.
- ✍ Create a computer accessible geo-referenced database of all geologic maps and reports for the area within the corridor.
- ✍ Create a digital geologic map-file archive for the corridor and a digital document-file archive.
- ✍ Quantify geologic and geologic hazard data coverage within the corridor and display the ranking in map format (this is not a geologic hazards assessment).
- ✍ Compile an office-based reconnaissance of construction materials resources in the vicinity of the proposed gas pipeline route from Prudhoe Bay to the Yukon border.
- ✍ Create a GIS application that will allow a broad spectrum of users to easily access and display the currently available data.

Hydrologic Assessment

- ✍ Identify and compile all pertinent hydrologic data for the proposed pipeline corridor.
- ✍ Assemble a computer accessible GIS database of hydrologic data for the pipeline corridor route.
- ✍ Identify areas of conflict between users, e.g. areas of high value for fisheries or wetlands habitats with the design needs of the pipeline and/or other users of the water.
- ✍ Identify specific sites within the pipeline corridor where insufficient data exist to adequately address routing and design needs.
- ✍ Use a geographic information system (GIS) to display and share the results – i.e. use a computer system, not a paper system, to facilitate and encourage easy retrieval and use of needed hydrologic information.

Archeological Review

- ✍ Locate and assemble all available and pertinent archaeological data within the corridor.
- ✍ Create a digital archaeological map atlas of known archaeological site locations for the corridor in GIS compatible format with level of evaluation and status, i.e., tested, excavated, or determined eligible for the National Register.
- ✍ Verify locations and determine size of important archaeological sites in crucial areas of the corridor.
- ✍ Conduct field reconnaissance in specific, unsurveyed areas of high archaeological site potential within the corridor.

DEPARTMENT OF NATURAL RESOURCES **DIVISION OF OIL AND GAS**

Summary **\$226.7**

Each of the following gas pipeline-related studies will be initiated in FY 2001 and completed in FY 2002.

ANS Gas Pipeline Studies (Royalty Modification)

In addition to the risks associated with the enormous cost of an ANS gas development project and the uncertain future of potential gas markets, successful completion of the project could depend on the economic impact of the State's fiscal regime. Of particular concern is how and when the State earns revenue for its royalty share of the resource. Alaska's royalty regime is regressive and insensitive to a project's profitability. The royalty regime also is insensitive to the risks assumed by the project developer. Although the State's tax policy vis-à-vis the gas pipeline have been examined, the effect of the State's royalty ownership of the gas resource has not been studied.

This study will examine how the royalty "take" of the State affects the ANS gas project and identify alternative royalty mechanisms. The alternatives will be designed to afford the greatest positive contribution to the success of the project at the least cost to the State's royalty revenue. Issues such as what is appropriate revenue share that the State should receive for its royalty ownership, the timing of

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royalty revenues, and how the royalty share should be valued will be studied. The study will be designed to precede a more detailed evaluation of ANS gas pipeline economics that would be needed if an AS 38.05.180(j)-type royalty modification is required.

Modification of the State's royalty on the gas that will supply the ANS Gasline project may remove an impediment to the project's successful completion. If this is the case, the State will need to understand what changes to the royalty regime will produce the best results.

ANS Gas Pipeline Study (Royalty-In-Kind ANS Gas Marketing Strategy and In-state Natural Gas Demand)

It is timely to fund this project as the ANS natural gas pipeline route location and out-of-state markets are being finally determined. Natural gas from Cook Inlet has provided Southcentral Alaskans with a low cost and clean burning fuel for over thirty years. The proximity of natural gas has given a location advantage for industry, and lower heating and electric bills for local businesses and residences. Other communities in Alaska could enjoy these same benefits if their requirements are identified and a portion of the large gas reserves on the Slope are directed to meet their needs.

In addition, the large, mature, Cook Inlet gas fields are nearing their end-of-life production discoveries of similar size in this well-known basin are uncertain, but unlikely. Any future loss of natural gas to Southcentral will cause unemployment and high investment cost to households forced to convert from their existing gas-fired furnaces and hot water heaters to alternative fuel sources.

The citizens of the state may benefit if royalty gas is sold in-state to guarantee a supply to local users and perhaps earn higher revenues. However, royalty gas sold in-state may crowd out small ANS gas producers from a ready market and produce a disincentive to new and smaller entrants on the North Slope who may bring competition to lease sales and energy to exploration ideas.

This research project will reconcile these conflicting forces and provide a structure for decision-making for royalty-in-kind policy and that produces the best overall, long-term, policy for the supply of ANS gas to Alaska residents.

Gas Pipeline Supply Side Study

For FY 2001, the Division of Oil and Gas will begin a study to quantify the additional gas resources that might be available for development from sources along and near possible natural gas pipeline routes across the state. Additional natural gas resources might be available from the eastern Beaufort Sea, the ANWR coastal plain, and the Brooks Range areas. Natural gas resources might also be found in the Yukon-Kandik, Tanana, Minchumina-Holitna, Susitna, Copper River and Cook Inlet Basins of central and south-central Alaska. Estimates of the volume of these potential gas resources and possible reserves, the types of gas present and their locations, a discussion of developmental issues and the timing with which such potential resources might be brought on-line to supply additional product to an Alaska gas pipeline (and possibly community trunk-lines) will contribute significantly to any gas-line feasibility study and to out-year planning as the project proceeds. This project will require FY 2002 capital budget funding for completion.

Approval of the supplemental will allow the division to initiate project planning and make early commitments for geological studies to be conducted during summer 2001. Failure to accomplish field work in 2001 will likely force the division's field studies to continue into summer 2002. Authorization of this supplemental will allow division staff to begin compilation and analyses of existing literature and geological data (maps, field samples, sample analyses, geophysical data) necessary for design of the summer's field programs.

ANS Gas Sales (Reservoir Studies)

Major gas sales from the Prudhoe Bay reservoir will likely result in lower annual reservoir pressures compared to the no-gas-sales case. Little reliable and detailed information exists in the public domain concerning the effect of major gas sales on oil production rates and ultimate recovery of oil from Prudhoe Bay. Some oil production could be deferred while some may also be lost forever depending on the timing of gas sales, the volumes involved and the mitigation measures employed to stem pressure decline. The goal of this project would be to gather information from the producers and various consultants and make the information available to interested parties. Detailed reservoir simulation models would not be built and run since the cost would be prohibitive. Information primarily would have to come from the Prudhoe Bay lessees. Without that cooperation the project would not succeed. Depletion options for the Point Thomson reservoir could, but need not, be included in this study. A consultant would be retained to review the data and results for completeness and accuracy.

The state as a North Slope gas and oil royalty owner needs to know what effect gas sales will have on future oil production (volume and timing) and how any perceived negative effects from major gas sales can be managed and mitigated. In addition to gas sales, NGLs and LPGs are available to send down the gas line along with the gas if sales of these products are justified. Sales of additional NGLs (now mixed with the oil in TAPS or sold to other north slope fields for enhanced oil recovery) and sales of LPGs (the same molecules now used at Prudhoe Bay for miscible injectant) can also effect future oil production both at Prudhoe Bay and across the North Slope. Understanding the effects and trade offs of the various gas sales options and analyzing the various pipeline scenarios against the effects on future oil production will reduce uncertainty around the project and help define "ramp up" strategy, use of gas from fields other than Prudhoe Bay, gas liquids options, reserves and timing trade offs and annual volumes of gas reasonably available for sale. Members of the public, the Legislature and the AOGCC will want these types of physical waste and economic waste questions analyzed and answered before the gas line project goes forward. The project sponsors will want at least implicit approval from the regulatory agencies that the project can proceed under the basic assumptions that the project sponsors put forward. Moving forward with this reservoir study now will prevent a later delay or reevaluation of the preferred alternative in the future. It will take considerable time to award a contract, establish contacts with the North Slope lessees, assemble the required data, analyze the data and then report the results. To the extent effort and work products can be shared between DNR and the AOGCC, that sharing will occur.

ALASKA OIL AND GAS CONSERVATION COMMISSION

Summary \$500.0

The Alaska Oil and Gas Conservation Commission (AOGCC) is required to evaluate the effects of gas sales on oil recovery from the Prudhoe Oil Pool in order to carry out its statutory obligation to prohibit physical waste of oil and gas, and achieve maximum ultimate recovery of those resources. Specifically, the AOGCC needs to know what effect gas sales will have on oil recovery and what options are available to mitigate potential negative effects on oil production. It is critical to identify and understand issues associated with Prudhoe gas sales versus continuing gas injection for enhanced oil recovery. Currently, the AOGCC does not have monetary resources or adequate staff to conduct this study.

Gas that is proposed for sale is currently being re-injected to maintain reservoir pressure to increase oil recovery. In general, maintaining reservoir pressure increases ultimate oil recovery. In the Prudhoe Bay Field, reservoir pressure is partially maintained through a combination of gas re-injection and water injection. Reservoir pressure is gradually declining in a controlled manner to accommodate the diverse recovery mechanisms in the reservoir. In general, gas production on a large scale will cause lower reservoir pressure that, if unmitigated, may result in reduction of ultimate oil recovery. We propose a study to evaluate how to most effectively and efficiently achieve greater recovery of both oil and gas.

The AOGCC proposes a two-phase approach to the problem. The first phase is currently in progress. An independent, outside expert was hired to assist in establishing a scope of critical issues and make recommendations for subsequent evaluation of gas sales issues and course of action for the AOGCC. Phase one will be paid from existing FY01 appropriations.

Recommendations of phase one will be carried out by phase two and will result in a comprehensive technical study and report that identifies effects on oil production by the Gasline Project and what methods can be employed to mitigate negative impacts on ultimate recovery.

Based on the recommendations developed in phase one, the second phase will encompass one of the three following options:

- ? Independent evaluation (estimated \$3,000,000)
- ? Audit of the owners' internal evaluation (estimated \$500,000)
- ? Other option recommended by the Phase I consultant

As a comparison, an AOGCC sponsored independent study of Prudhoe Bay reservoir performance and depletion plans performed in 1978 cost approximately \$7,000,000.

The cost of the project is dependent on two factors:

- ? The consultant's recommendations made from phase one, which should be received before April 30, 2001.
- ? The amount of information and internal evaluations the owners willingly share versus the amount of work the AOGCC must perform independently because the owners do not supply the information. The more information that is supplied, the lower

to cost of phase two will be. Conceivably, if the owners supply enough information, the project cost could be less than \$500,000.

Depending on which option is executed, phase two could involve a tremendous amount of data and interpretation, resulting in significant staff-hours.

Early initiation of the study of gas recovery and its impact on fluid recovery will benefit the State of Alaska by identifying and understanding conservation issues early. The study will assure that mitigation factors are evaluated and implemented timely to ensure maximum (optimum) ultimate recovery from both the oil and gas resources, while not interfering with the timely progression of the Gasline Project.

GOVERNOR'S OFFICE

Summary **\$535.9**

The Governor's Office requests funds for implementation and operation of the Alaska Highway Natural Gas Policy Council. The Governor created the council on January 26 to hold statewide meetings to obtain the views of Alaskans on how the state can best promote a gas commercialization project and maximize benefits for Alaskans. He asked the council to report back with recommendations by November 30 so their work can be incorporated into gas line legislation and project development. Among the issues the council will consider are:

- Benefits of natural gas development to Alaska communities, including those located in rural areas of Alaska;
- Best uses of the state's royalty share of the gas and promotion or attraction of investment for in-state and value-added processing;
- Costs and benefits of the state taking delivery of its royalty share of the gas in Alaska versus allowing a project developer to include the gas in its delivery flow to the Lower 48 states;
- Options for projects utilizing gas-to-liquids, liquified natural gas, and natural gas liquids;
- Demand for in-state natural gas consumption and its effects on a gas project;
- Environmental impacts and necessary protection measures;
- Training and readiness of Alaskans for jobs on a gas project; use of the Alaska labor pool by contractors and subcontractors, and use of Alaska businesses; and
- State promotion and facilitation of project financing, including potential ownership by the state of some or all of a project.

A professional staff member and a temporary secretary will support the council's activities. The request funds up to five face-to-face council meetings and ten statewide public hearings. Expert consultants will be engaged to assist the council as necessary.

DEPARTMENT OF LAW

Summary **\$583.6**

The Department of Law is responsible for retaining expert legal advice in Washington D.C. and Ottawa, Canada, on the numerous national and international regulatory issues that are raised by potential gas development on the North Slope. Additionally Law is responsible for providing legal advice to the State Pipeline Coordinator's Office and other agencies in carrying out their responsibilities in conjunction with the gas pipeline project. Contractual work will be initiated in FY 2001 and continued in FY 2002.

Contractual Work

The first time a North Slope gas project received serious consideration, the regulatory, executive branch and legislative process for selecting and permitting an Alaska gas pipeline took eight years, from 1974 to 1982. The State was active in the entire process not only to promote its choice but also to obtain legal structures that expedited the selection process, protected the State's right to take royalty gas in kind in Alaska, and its right to impose its own environmental conditions on the right of way over state lands. The State also investigated a one billion-dollar equity participation in the project, and helped secure tariff and other financial structures that assisted the disposition of royalty gas.

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There will be extensive regulatory, executive branch and legislative proceedings in FY 2002 both in the United States and Canada. The environmental impact statements at the Federal level need to be revised. The tariff mechanism, a subject of the Federal Energy Regulatory Commission (FERC) responsibility, needs to be revised to modern financial conditions. The FERC also will issue updated terms and conditions for the basic certificate for the Alaska Natural Gas Transportation System (ANGTS). The FERC has to resolve the issue of whether investments made for the ANGTS in the 1980's can be carried forward into the rate base of any new project. The FERC and other federal authorities have to decide whether other applicants are entitled to be heard at this time or whether the ANGTS statutory preference precludes consideration of those applications. The State also will have to coordinate its right of way terms and conditions and procedures with those of other landowners. At a minimum, it is reasonable to expect the State to advocate its interests to the Department of Interior, the FERC, the Department of Energy, the White House, the Environmental Protection Agency, the Congress, and the national and affected regional governments of Canada. The funds requested will assist the State in that effort.

The early resolution of numerous national and international regulatory and legal issues raised by potential gas development on the North Slope will result in a more efficient, quicker pre-application and permitting process and an earlier construction start-up.

Personnel

The Commissioner of the Department of Natural Resources has requested that the Department of Law retain a full time attorney to assist the Gas Pipeline Group in its duties. Other agencies involved in the project have also anticipated that their involvement in the project will require additional legal services from Department of Law. An additional position is requested to serve the needs of the Departments of Fish and Game, Environmental Conservation, and Transportation as well as any other agency that may encounter a legal question in conjunction with their work on the gas project.

One attorney position to be hired in FY 2001, and a second attorney position to be added in FY 2002, shall provide legal advice and perform the legal work necessary to assist the Gas Pipeline Group in the processing of permits and authorizations of gas pipelines. In addition, the attorney shall assist as necessary with permits and authorizations by other agencies; assist the Group in performing work necessary to oversee construction of Gas Pipelines; and provide other assistance as necessary to the Group's staff in their areas of expertise.

The attorneys will be located in the Anchorage offices of the Department of Law. It is anticipated that the services these attorneys will provide will be necessary as soon as staff in the State Pipeline Coordinator's Office and in the other agencies involved in the gas pipeline project are in place and their work is underway.

DEPARTMENT OF REVENUE

Summary **\$55.0**

The Department of Revenue would use professional services contracts to begin its analysis of the state's fiscal regime for natural gas development. A North Slope gas project would be significantly larger than existing operations in Cook Inlet, raising fiscal issues never before thoroughly analyzed by the State of Alaska. The economics of a natural gas project are much different than that for oil development and production, and the Department needs to ensure that the state's existing tax structure is not a disincentive to commercialization of Alaska's natural gas reserves. The contractor(s) will research and analyze how best to structure Alaska's economic rent to improve the competitiveness of a North Slope natural gas project in the market, while at the same time protecting the state's interests.

Active participation in the effort to encourage, promote and analyze the various proposals for commercialization of Alaska's natural gas reserves will require meeting with public officials in Washington, D.C. and Canada, oil and gas producers, pipeline operators, the financial community and potential natural gas customers. It also will be necessary to attend key sessions on natural gas markets to maintain Alaska's presence in the discussions and to protect the state's interests.