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DEPARTMENT OF NATURAL RESOURCES
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**KENAI KACHEMAK PIPELINE
RIGHT-OF-WAY APPLICATION**

**COMMISSIONER'S ANALYSIS
and
PROPOSED DECISION and ACTION
ADL 228162**

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I. NATURE OF THE REQUEST

NORSTAR Pipeline Company (NORSTAR), as agent for the Kenai-Kachemak Pipeline, LLC (KKPL LLC), applied to the State of Alaska under the Right-of-Way Leasing Act for a common carrier pipeline to transport natural gas. A pipeline application was received on December 19, 2001 (revised on March 20, 2002) and superseded by the application dated May 10, 2002 for a pipeline right-of-way lease across state lands for the Kenai-Kachemak Natural Gas Pipeline. The case file is serialized as ADL 228162. KKPL LLC is a limited liability company formed by Marathon Oil Company and GUT LLC, a wholly owned subsidiary of Union Oil Company of California, dba Unocal Alaska.

The proposed Kenai-Kachemak Pipeline Project would be located on the Kenai Peninsula, between the communities of Kenai and Ninilchik, Alaska. KKPL LLC proposes to construct an approximately 32-mile long pipeline with approximately 31 miles of the pipeline located on state land. The pipeline (hereafter referred to as “Kenai-Kachemak Pipeline”) would extend from the Alaska Pipeline Company 500 Master Meter Building (located east of Kalifonsky Beach Road) located within Section 30, Township 5 North, Range 11 West, Seward Meridian, to approximately Milepost 128 of the Sterling Highway, located within Section 5, Township 1 South, Range 13 West, Seward Meridian. This southernmost point of the line is approximately 13 miles north of the community of Ninilchik. The Kenai-Kachemak Pipeline will provide tie-ins for future potential production lines from current exploration sites.

The proposed route for the Kenai-Kachemak Pipeline is within the following described state lands that lie within the Kenai and Homer Recording Districts:

Seward Meridian, Alaska

Township 5 North, Range 11 West, Sections 30 & 31;
Township 4 North, Range 12 West, Sections 1, 12, 13, 24, 25 & 36;
Township 3 North, Range 12 West, Sections 1, 13, 24, & 36;
Township 3 North, Range 11 West, Sections 6, 7, 18, 19, 30, & 31;
Township 2 North, Range 12 West, Sections 1, 11, 12, 14, 15, 21, 22, 28, 29 & 32;
Township 1 North, Range 12 West, Sections 5, 6, 7 & 18;
Township 1 North, Range 13 West, Sections 13, 23, 24, 26, 27, 33 & 34;
Township 1 South, Range 13 West, Section 5

Attachment A shows the Kenai-Kachemak Pipeline route.

The Kenai-Kachemak Pipeline will be a buried steel transmission line designed in accordance with U.S. Department of Transportation/Office of Public Safety (USDOT/OPS) Pipeline Safety Regulations 49 CFR Part 192 to accommodate future growth without necessitating changes to the system. Manual block and blowdown valves will be installed every eight miles and at ends of pipe segments to facilitate isolation of damaged sections in the event of an accident or natural disaster. Valve locations will be adjusted within this eight-mile maximum spacing to avoid potential hazards to the public and existing facilities during line venting. Additional valves will be located at the pipeline inlet, the pipeline outlet, and each well site facility. *(KKPL ROW Application)*

Some pipeline work will be conducted in winter from ice pads and ice roads *(KKPL ROW Application)*. A geotechnical program examining soil conditions through drilling and sampling 26 geotechnical borings was conducted between January 21 and February 12, 2002. Emphasis was placed on potential river/creek crossings of anadromous bodies of water, and potential highway crossings. *(HDD Investigation)* The results of this program are considered in this analysis. Staking, clearing, grubbing and grading, is planned to begin in January 2003. Pipeline trenching and construction is planned during January through October 2003 with hydrostatic testing of the pipeline scheduled for completion by the end of October 2003. Pipeline commission and start-up is projected for November 2003. *(KKPL ROW Application)*

The applicant requests a temporary 60-foot wide right-of-way, 30-feet on either side of the right-of-way centerline, for construction. For Horizontal Directional Drilling (HDD) of rivers or creeks, an area of 100 feet wide by 300 feet long on each side of the river or stream will be required to accommodate the directional drilling equipment. The construction right-of-way will contain 227 acres, more or less. *(KKPL ROW Application)*

The permanent (operations) right-of-way will be reduced to 20 feet in width, with 10 feet on either side of the right-of-way centerline. The operations right-of-way will contain 76 acres, more or less. Attachment B shows the legal descriptions for the Kenai-Kachemak Pipeline construction and operations rights-of-way.

II. BACKGROUND

A. Authorities: The State of Alaska's policy, as set out in AS 38.35.010, is that development, use, and control of a pipeline transportation system make the maximum contribution to the development of the human resources of this state, increase the standard of living for all its residents, advance existing and potential sectors of its economy, strengthen free competition in its private enterprise system, and carefully protect its incomparable natural environment.

The Commissioner of the Alaska Department of Natural Resources (ADNR) has been given all powers necessary and proper to implement this policy and to grant leases of state land for

pipeline rights-of-way, to transport natural gas under conditions prescribed by AS 38.35.015 and the administrative regulations. The Commissioner is charged with deciding 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.

B. Administrative Actions Taken on Application: The State Pipeline Coordinator's Office (SPCO) has worked in consultation with a number of state and federal agencies on the proposed Kenai-Kachemak Pipeline in accordance with their specific mandates. Some of the agencies have statutory and regulatory authority that governs certain aspects of the proposed project. Such agencies will maintain their regulatory role over applicable activities. The lease will require KKPL LLC to comply with all applicable statutes and regulations. The following agencies have participated in the project:

The Alaska Department of Environmental Conservation (ADEC) regulates facilities and issues permits to protect human health and the environment. The ADEC evaluated potential impacts related to air and water quality, oil discharge prevention and contingency, hazardous material control, and sanitation and waste disposal. ADEC will authorize these activities through their permitting authority.

The Alaska Department of Fish and Game (ADF&G) regulates activities affecting fish passage, anadromous fish streams, and hazing of wildlife in connection with oil spills. The ADF&G reviewed potential impacts on fish and wildlife, their habitat, and subsistence harvests. ADF&G will authorize these activities through their permitting authority.

The Alaska Department of Transportation and Public Facilities (ADOT/PF) designs, constructs, operates, and maintains state transportation systems, buildings, and other facilities. The ADOT/PF evaluated potential impacts on state transportation systems and facilities. The ADOT/PF will issue utility permits for the portions of the project within the existing road rights-of-way that ADOT/PF manages.

The Alaska Department of Labor (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 Kenai-Kachemak Pipeline Project proposal so they can evaluate the impacts relating to occupational safety and health for protection of employees.

The Division of Governmental Coordination (DGC) coordinates review of projects under the Alaska Coastal Management Program and consolidates state comments on National Environmental Policy Act (NEPA) issues. The DGC coordinated a coastal consistency review of the project and made a final consistency determination.

The Alaska Department of Natural Resources, Division of Mining, Land and Water Management (ADNR/DML&W) accepts title to the state's public domain and in

conjunction with other agencies manages state land-use leases, permits; material sales; water rights and water use. The ADNR/DML&W has been apprised of the activity so they can evaluate existing and future use and permitting requirements in relation to this application.

The Alaska Department of Natural Resources, Division of Oil and Gas (ADNR/DO&G) is responsible for leasing state land for oil and gas exploration, monitors and audits subsequent lease and unit agreement operation, and continues to promote new opportunities for sale of royalty oil and gas. The ADNR/DO&G has been apprised of the activity so they can evaluate this development with potential surrounding reserves.

The State Historic Preservation Office (SHPO) is responsible for the preservation and protection of the historic, prehistoric and archaeological resources of the state. The SHPO reviewed the Kenai-Kachemak Pipeline Project area for conflicts with cultural resources. The applicant has agreed to conduct an additional survey of the project area.

The Regulatory Commission of Alaska (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 RCA has received an application for the certificate of public convenience and necessity for the Kenai-Kachemak Pipeline. The RCA has also been provided a copy of the AS 38.35 application for a right-of-way lease.

The Alaska Attorney General's Office (AGO) is responsible for prosecuting violations of state laws and provides legal services to all executive agencies. The AGO has reviewed the proposed lease document and provided legal advice related to this application. The AGO is responsible on the advice of the ADNR Commissioner 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) regulates the transportation by pipeline of hazardous liquids and gases, as well as drug testing related to pipeline safety, and conducts inspections. The USDOT/OPS will monitor design, construction, operation, and maintenance of the pipeline.

The U.S. Environmental Protection Agency (EPA) works in partnership with the ADEC to administer regulatory programs such as the Clean Air Act and the Clean Water Act. The EPA will require this pipeline to meet the requirements in the laws and regulations.

The U.S. Army Corps of Engineers (COE) is responsible for providing comprehensive engineering, management and technical support for the protection of the nation's waterways and wetlands. The COE has reviewed this application for impacts to waterways and wetlands. The COE's permits will require the project to meet the requirements in the laws and regulations.

The Kenai-Kachemak Pipeline right-of-way lease application (ADL 228162) and information contained within the case file constitute the administrative record used in this analysis and proposed decision. Coordinate state agencies, as defined in AS 38.35.230, were furnished copies of the revised Kenai-Kachemak Pipeline right-of-way lease application. Other state and local government agencies, towns, and ANCSA Corporations within the vicinity were made aware of places they could review copies of the Kenai-Kachemak Pipeline right-of-way lease application. Copies were made available to the public at cost. Public notices of the application, which met the notice requirements of AS 38.35.070, were posted in post offices and letters were sent to cities and towns within the vicinity of the proposed pipeline. The public notices were published in the Anchorage Daily News, Homer Alaska Tribune, Homer News, and Peninsula Clarion.

Public Notice

Publication Dates

Kenai-Kachemak Pipeline Right-of-Way Lease Application	April 3 and 4, 2002
Revised Kenai-Kachemak Pipeline Right-of-Way Lease Application	May 29 & 30, 2002

The State Pipeline Coordinator's Office attended a community meeting sponsored by Unocal Alaska, Marathon Oil Company, Enstar Natural Gas Company and Homer Electric Association, Inc. at the Anchor River Inn in Anchor Point on December 13, 2001 from 5:00 PM to 7:00 PM. The purpose of the meeting was to inform local residents about the pipeline project, address technical aspects and answer questions related to the route. Project engineers were on hand with maps and diagrams to discuss right-of-way aspects of the project. The meeting format was an open house style with charts, maps and handouts spread through out the room addressing the project scope, descriptions of horizontal drilling, safety concerns, right-of-way, wetlands, environmental impacts and information on natural gas usage. Forms were also available to submit additional questions and provide comments about the project. Approximately 100 people attended.

This meeting provided an opportunity for participants to discuss the effects of gas development generally and the Kenai-Kachemak Project proposal specifically, including the proposed pipeline right-of-way. It also provided an opportunity to exchange ideas and information that has proven beneficial in the analysis of the Kenai-Kachemak Pipeline Project.

The public notices required under AS 38.35.070 have been completed. No comments were received in response to these public notices.

DGC coordinated the Alaska Coastal Management Program (ACMP) review for the Kenai-Kachemak Pipeline Project. The project was found consistent and DGC issued a Final Consistency Determination on July 23, 2002. The SPCO participated as a state agency in the preparation and during the consistency review, which included review of the pipeline right-of-way lease.

This analysis constitutes the Commissioner's Analysis as required under AS 38.35.080. The department will provide public notice of the availability of copies of this analysis and of the draft right-of-way lease, and of the public's opportunity to provide written comments to the department during the comment period. A public hearing will be held in Soldotna on November 13, 2002, or the next available date. The Commissioner will consider comments received within the comment period and from the public hearing. The Commissioner will issue a final decision under AS 38.35.100, within approximately 30 days after the close of the public comment period, which date will be set forth in the public notice. This Commissioner's Analysis will form the basis of the final decision required under AS 38.35.100. It may be amended in response to public comment or within the department's discretion, or in the event that no changes are made, it will be adopted as the final decision required under AS 38.35.100. Copies of the Commissioner's final decision, and copies of the right-of-way lease, if one is offered, will be available from the department.

III. ANALYSIS OF REQUESTED ACTION

This analysis assesses whether KKPL LLC 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 KKPL LLC's application for the Kenai-Kachemak Pipeline, and its supporting data and correspondence, were evaluated to prepare this Commissioner's Analysis for the proposed Kenai-Kachemak Pipeline.

A. Land Status

1. Title: The State Pipeline Coordinator's Office (SPCO) reviewed land title information to confirm the state's title to the state lands encompassed by the proposed pipeline right-of-way. Because the state lands encompassed by the proposed right-of-way for the proposed Kenai-Kachemak pipeline lay within existing ADOT/PF road right-of-way and reserved section lines, The Alaska Omnibus Act (P.L. 86-70; 73 Stat 141) and Alaska Statutes 19.10.010 (Dedication of Land For Public Highways) both conveyed sufficient title to the state.

On April 18, 1994, a Cooperative Management Agreement was entered into by ADOT/PF and ADNR for the purpose of improving the management of state lands and natural resources by providing for coordination between the Departments' respective management programs. This agreement as it relates to Kenai-Kachemak Pipeline Right-of-Way Lease identifies joint and concurrent management. The DNR will process and manage the AS 38.35 pipeline right of way lease and ADOT/PF will process and manage the utility permits. The ADOT/PF utility permits will be incorporated and made a part of the ADNR Pipeline Right-of-Way Lease. ADOT/PF has sole authority for management of highway rights with the exception of this proposed right-of-way lease.

2. Third Party Interests: The Kenai-Kachemak Pipeline construction will conflict with third party interests previously granted by the ADOT/PF. Third party interests on state lands granted by ADOT/PF within the proposed right-of-way include, driveway,

encroachment and utility permits. The protection of these interests will be covered under the issuance of ADOT/PF's Application For Utility Permit on State Rights-of-Way.

3. Communities: The closest communities to the proposed Kenai-Kachemak Pipeline are Ninilchik, Kenai, and Soldotna. Ninilchik is approximately 13 miles south of the southernmost point of the proposed pipeline. Kenai is approximately 10 miles north, and Soldotna is approximately 13 miles east, of the northernmost point of the proposed pipeline.

B. Technical and Financial Analyses

KKPL LLC is a newly formed limited liability company that is formed from established corporations, which have experience in Alaska. The financial and technical capabilities of Marathon Oil Corporation (Marathon) and UNOCAL Corporation (UNOCAL) will be examined in this analysis as guarantors for the complete fulfillment of all duties and obligations of KKPL LLC.

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 consider the following:

1. Does the proposed use of the right-of-way unreasonably conflict with existing uses of the land involving a superior public interest?
2. Does the applicant have the technical and financial capability to protect state and private property interests?
3. Does the applicant have the technical and financial capability to take action to the extent reasonably practical to 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. 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. 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. 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?

Criterion 1: Conflict of Proposed Uses with Existing Uses of the Land

Existing Uses. The proposed Kenai-Kachemak pipeline will be constructed in State Department of Transportation and Public Facilities Highway Right-of-Ways and within section

line easements.

The ADNR Commissioner is required to determine whether any body of water or waterway adjacent to any interest in state land is navigable water, public water, or neither. Upon determining the body of water or waterway is navigable or public water, the Commissioner shall ensure free access to and along the body of water, unless the Commissioner finds that regulating or limiting access is necessary for other beneficial or public uses. The Commissioner considers all of the bodies of water and waterways within the proposed Kenai-Kachemak Pipeline right-of-way to be navigable or public. Access to navigable or public waters in the proposed Kenai-Kachemak Pipeline was considered in this analysis. Safe access outside the construction area will be required to be provided and maintained during construction and maintenance activities.

Limited access to waterways will occur primarily during construction of the pipeline. Kasilof River, Crooked Creek and Coal Creek will be crossed using HDD methods so interference with free access along these waterways should be minimal. Clam Gulch, Falls Creek, and Corea Creek will be crossed using dam and pump method as described by KKPL LLC or other appropriate methods to isolate the work area. This method will be used for those streams with surface flow. Open cut method will be used on drainages that have no surface flow during the winter months. Interruption of these waterways will be more invasive than the crossings using HDD; however, this disruption will also be short term.

Access to and from private (both residential and business) and public driveways will be interrupted during construction. Driveways will be crossed using open trenching. As with the water crossings, these interruptions will be short term in duration. The Sterling Highway and other major roadway crossings will be accomplished by boring beneath the road to minimize traffic interruptions. Accommodations will be made to minimize impacts to local traffic flow. ADOT/PF's Utility Permits for the Kenai-Kachemak pipeline will address the appropriate notification procedures of public and private landowners who will experience interruptions in access during construction and maintenance of the pipeline to minimize any potential negative impact to these individuals.

Because the Kenai-Kachemak pipeline will be buried in existing right-of-way transportation corridors, any interference with access to public waters or public/private property would be temporary and occur primarily during construction. Some interruptions of access are also possible during maintenance of the pipeline. Design criteria, construction and maintenance procedures have been utilized to minimize access disruptions and keep them short term in duration. The Commissioner does not find it necessary to regulate or limit access for other beneficial or public uses.

Gravel, coal, oil, and gas are known to be within the vicinity of the proposed pipeline project area (*DNR 2000*). Activities associated with the use of these resources will not be impacted due to the short duration of construction and future maintenance activities.

The Kenai-Kachemak Pipeline is proposed to be within existing highway right-of-way and section line easements that have been previously cleared and are largely maintained to be free of brush, therefore clearing for this project will be minimal. Any trees that are cleared will require the applicant to follow the ADNR, Division of Forestry guidelines. Although spruce bark beetles have killed most of the spruce in the area, some of the better-drained uplands, which are outside of the right-of-way, contain timber with potential for commercial and personal use harvest. The DNR Division of Forestry's Five-Year Schedule of Timber Sales, 2001-2005 proposes sales in areas adjacent but not including the proposed pipeline corridor along Slikok Creek, Coal Creek, north of Centennial Lake and west of Clam Gulch (*DNR, 2000*)

The Kenai Peninsula is one of the most popular tourist recreation destinations statewide. Activities include sightseeing, camping, boating, hiking, cross-country and backcountry skiing, snow machining and all-terrain vehicle use, hunting, trapping, and fishing. (*DNR, 2000*)

Because of the scenic mountains and waters adjacent to the Sterling Highway and Kalifonsky Beach Road sightseeing, camping and picnicking along the highways are very popular. In these areas, the highways offer spectacular views of Cook Inlet. In addition to offering recreational and tourism opportunities themselves, the highways provide access to many of the trail systems in the area. Activities on these trails include backcountry skiing, cross-country skiing, hiking, mountain biking, camping, hunting, dog sledding and snow machining. ADOT/PF is considering a State Scenic Byway designation for the Sterling Highway south of the proposed pipeline route. Other state owned parcels are recognized as potential scenic viewpoints along the Sterling Highway. (*DNR, 2000*)

The ADF&G has collected the following records on hunting and trapping:

Hunting: ADF&G maintains harvest records based on geographic units. The project area falls within game management unit (GMU) 15 and more specifically subunits 15 B and C. The harvest in GMUs 7 and 15 for 2000-2001 totaled 435 moose (ADF&G, 2001(a)). The preliminary 2000-2001 harvest of black bears in GMUs 7 and 15 was 302 (ADF&G, 2001(b)). The 2000-2001 brown bear harvest in GMUs 7 and 15 totaled 13 bears. This includes 7 bears taken by nonsport methods (e.g. defense of life and property, illegal, etc.) (ADF&G, 2001(c)).

Trapping: In 2000-2001 a total of 63 beaver, 22 otter and 48 lynx were harvested in GMU subunits 15 B and C (ADF&G, 2001(d)).

Fishers use Kasilof River and the adjacent shores of Cook Inlet intensively for sport and personal use. Clam digging is popular along the coast. Camping occurs primarily on the beach and in the state park units. Demand for public access to the beaches is high. Camping, beach combing, boat launching, fishing, and other recreation uses are concentrated along the beach on the tidelands. With the exception of the Clam Gulch State Recreation Area, the uplands above the beaches are not receiving heavy public use. The Clam Gulch Critical Habitat Area was established along the entire coast of this area to protect razor clam habitat. However, the bluff lands have the potential to support the growing public use of the beaches by providing additional

facilities for access, camping and sightseeing. Commercial salmon harvest and processing has a significant economic impact on this area. Salmon migrate along the coast and up the Kasilof River. Salmon heading for the Kenai River and upper Cook Inlet are also intercepted. The tidelands along the south half of the coast in this region are lined with Shore Fishery Leases. Sportfishing, personal-use setnetting and dipnetting are popular activities. (DNR 2000)

Fish Harvest: Commercial, recreational, subsistence and personal use fisheries benefit from fish produced in the streams along the proposed right-of-way. The Kenai Peninsula is dependent on these fisheries to support the local economy. A brief description of each fishery except subsistence use, which is addressed in criterion 5 below, follows:

Personal Use Fishery: Within the project area, there is a personal use dipnet and gillnet salmon fishery at the mouth of the Kasilof River. From 1981 to 2000, there was an average 3,730 angler-days of effort (range from 1,091 to 13,929) documented for the Kasilof River personal use fishery (Gamblin et. al., 2002).

Recreational Fishery: Recreational fisheries for salmon in the project area occur primarily in fresh and to a lesser degree in saltwater. Recreational fisheries for Dolly Varden, steelhead/rainbow trout, smelt and lake trout also occur in the project area.

Kasilof River Recreational Fishery – The Kasilof River early-run chinook salmon fishery is supported primarily by stocked salmon introduced into Crooked Creek as well as natural production from Crooked Creek. The 2000 total return of early-run chinook salmon was estimated at 8,815 fish. A total of 46,654 angler-days of effort was documented in 2000 (Gamblin et. al., 2002). Steelhead currently provide limited recreational fishing opportunity in Kasilof River. A small stocked return of this species was established in Crooked Creek in the 1980's. This stocking program has been discontinued due to straying of stocked fish into the Kenai River. Since 1995 steelhead production in Crooked Creek is from natural production.

The economic value of Kenai Peninsula recreational fisheries was estimated by Jones and Stokes Associates, Inc. in 1986 (Gamblin et. al., 2002). The expenditures totaled \$82 million. Expenditures for the lower Kenai Peninsula fisheries were estimated at \$6 million. In addition, anglers were asked to estimate their “net willingness to pay” to ensure continuation of these fisheries. Anglers indicated they would spend an additional \$163 million to ensure the continued viability of the recreational fisheries. This provides an indication of the importance placed on the sport fish resources in the area.

Commercial Fishery: Salmon produced in streams within the project area contribute to the commercial fishery in Upper Cook Inlet. Salmon production from the Kasilof River is of particular importance to this commercial fishery. The 2001 sockeye salmon escapement into the Kasilof River was 308,000 fish.

The average annual harvest in Upper Cook Inlet between 1954 and 2001 was 19,337 chinook, 2,355,514 sockeye, 308,083 coho, 669,808 pink and 542,871 chum salmon (Fox and Shields,

2001). In 2001, 468 drift net permit holders harvested 619 chinook, 846,257 sockeye, 39,418 coho, 31,218 pink and 75,599 chum salmon in the Central District. Also in 2001, 338 set net permit holders fishing in the upper subdistrict of the Central District harvested a total of 6,009 chinook, 870,019 sockeye, 4,246 coho, 32,998 pink and 248 chum salmon.

The total 2001 ex-vessel value of the commercial salmon harvest in Upper Cook Inlet was \$7,734,010.

Because the Kenai-Kachemak pipeline is being placed in an established transportation/utility corridor, any impact to commercial, subsistence, public recreation or tourist activities would be minimal during construction, operation, and maintenance of the pipeline. Visual impacts to scenic areas are mitigated by the fact that the pipeline will be buried.

Proposed Uses. There are two phases in the Kenai-Kachemak Pipeline and the proposed uses for each differ. The first phase is its construction, the second its operation and maintenance.

During construction, a 60-foot wide right-of-way is requested. Additionally, due to the topography at Milepost 2.4 of the Kalifonsky Beach Road, an additional 60-feet of construction right-of-way on state land lying outside of the ADOT/PF right-of-way is requested for a length of 2,693 feet. This area lies within the Kasilof Airport, which requires authorization from ADOT/PF. To accommodate directional drilling of the Kasilof River, Crooked Creek, and Coal Creek, an area of 100-feet wide by 300-feet long on each side of the river or creek will be required to accommodate the directional drilling equipment. (*KKPL ROW Application*)

The Kenai-Kachemak Pipeline, operated as a common carrier, must accept natural gas from other sources for transportation to market. The main line will provide tie-ins for future potential lines from current exploration sites. (*KKPL ROW Application*)

The applicant will be encouraged to operate and maintain the pipeline with residents of the State of Alaska. Repairs and special maintenance will be staffed according to the requirements of that specific job.

Possible Use Conflicts. Some land use conflicts will occur between the existing land uses outlined above and the uses to which the land will be put along the pipeline route, if the proposed pipeline is constructed. However, these conflicts will be short term.

The Commissioner recognizes the importance of issuing a long-term lease and requires that state land be not encumbered with a purpose not fulfilled. The Kenai-Kachemak Pipeline right-of-way lease will require forfeiture of the lease by KKPL LLC upon failure to begin construction of the pipeline system within two years of the effective date of the right-of-way lease or failure to begin operation of the pipeline as a common carrier within five years of the effective date of the right-of-way lease for reasons within the control of KKPL LLC.

The superior uses of these existing rights-of-way are as transportation corridors. Since other utilities, driveways and other ADOT/PF authorized encroachments are already located within the

corridor, mitigative measures will be required of the applicant to minimize the conflict with these uses during construction. Driveway access to homes, businesses, and recreational and hunting/fishing areas would potentially be temporarily interrupted during placement of the pipeline. Access will be restored to previous condition as required in the ADOT/PF Utility Permits.

Because the Kenai-Kachemak pipeline will be buried in existing rights-of-way, there should be little impact to subsistence resources other than temporary access issues to areas adjacent to the existing rights-of-way. The primary areas of concern would be river and stream crossings where subsistence fishing occurs. Design criteria and construction and operation procedures have been designed to minimize the negative impact to individuals using the area for subsistence purposes. These measures, which are also designed to protect the overall environment, include scheduling to avoid wildlife disturbance, route selection, and design to minimize and avoid adverse impacts to the environment. *(KKPL ROW Application)*

Fish and other wildlife species will not be adversely impacted for river crossings installed by HDD. Drill cutting and fluids will be collected and hauled to an approved disposal location. Additionally, the HDD process requires that the transitions be located away from sensitive river banks and channels, which will be virtually undisturbed by construction. *(KKPL ROW Application)* The design basis for the Kenai-Kachemak Pipeline has been reviewed and found to be acceptable. The engineering analysis is made a part of the administrative record.

Operation of the pipeline is not expected to result in any wildlife behavioral changes or change habitat use. Wildlife could be disturbed during pipeline maintenance activities, but these impacts would be short-term and not generally significant. *(KKPL ROW Application)*

Impacts from pipeline termination activities would be short-term and similar to those described during construction. *(KKPL ROW Application)*

Criterion 2: Technical and Financial Capability to Protect State and Private Property Interests.

Technical Capability. The specific technical capability of the applicant to protect state and private property interests is discussed in the material relating to criterion 5 below.

Financial Capability. The specific financial capability of the applicant to protect state and private property interests is discussed in the material relating to criterion 6 below.

The Right-of-Way Leasing Act requires consideration of the applicant's technical capability to protect state and private property interests. As noted elsewhere in this analysis, the state property interests at stake in this application are the state transportation system and lands over which the pipeline will pass. The most significant manner in which KKPL LLC will protect such state property interests is through the design, construction, operation and maintenance of a safe pipeline system.

The SPCO will require that a quality assurance program be reviewed and approved prior to the issuance of any lease. The quality assurance program is defined as documented, planned, and systematic actions necessary to provide evidence that KKPL LLC is satisfying the right-of-way lease commitments and requirements for integrity of the pipeline, health, safety, and environment. A comprehensive quality assurance program will be implemented in all stages of construction, maintenance, operation, and termination activities of the pipeline. KKPL LLC's quality assurance program will require that audits be performed in compliance with commitments in the application and supporting documents approved by the Commissioner. The right-of-way lease will require KKPL LLC to submit a construction plan that implements the quality assurance plan, and addresses the work schedules and other information related to the construction of the Kenai-Kachemak Pipeline. The construction plan will be used by the SPCO with the support of other agencies to oversee these activities. The quality assurance program will be the tool used for monitoring the construction activities conducted under the construction plan of the Kenai-Kachemak Pipeline. Prior to natural gas being transported through the pipeline, KKPL LLC will develop and submit a surveillance and monitoring program that implements the quality assurance program to detect and abate situations that endanger health, safety, the environment or the integrity of the pipeline. The quality assurance program will continue to be used as the tool for monitoring commitments made by KKPL LLC in the application and the design of the Kenai-Kachemak Pipeline during the maintenance, operation, and termination of the pipeline. KKPL LLC, their contractors, and subcontractors are required to comply with the quality assurance program, which must be approved by SPCO before the Commissioner signs the right-of-way lease. A stipulation will require any amendments to the quality assurance program to be approved by the Commissioner. The lease will require KKPL LLC to reimburse the state for all oversight costs.

In KKPL LLC's application dated May 10, 2002, the applicant stated that they had consulted the Alaska Heritage Resource Survey. Based on their findings, no sites were within the proposed alignment and those sites adjacent would not be disturbed. If cultural resources were discovered during construction, any work that may damage these resources would be halted, and the State Historic Preservation Officer would be contacted. KKPL LLC determined that an archaeological survey was not required for this project.

AS 41.35.070 requires the department to locate, identify and preserve in suitable records information regarding historic, prehistoric and archeological sites, locations and remains. On July 11, 2002 during the coastal consistency review of the Kenai-Kachemak Pipeline Project, SHPO stated that they reviewed this project and based on their findings recommended that the project area undergo an archaeological survey. SHPO stated that they would only support a consistency finding for this project if the applicant agreed to accept SHPO's recommendation for an archaeological survey prior to development. On July 23, 2002, the Final Consistency Determination was issued by DGC. The determination did not require an archaeological survey of the route but the Alaska Coastal Management Program (ACMP) analysis required an archaeological clearance for ADNR's proposed right-of-way lease. With this conflicting determination came numerous telephone calls and emails between DGC, SHPO, SPCO and the applicant, KKPL LLC. For the applicant to meet SHPO's requirement for an archaeological

survey prior to development, the survey would have to be conducted and completed before the issuance of the right-of-way lease. Once the right-of-way lease was issued, development would commence within the right-of-way, which would not meet the prior to development requirement specified by SHPO during the ACMP review. On August 2, 2002, SHPO sent a letter to DGC withdrawing their support of the final consistency determination. Due to the lateness in SHPO's elevation of the determination, DGC held to the July 23rd final consistency determination.

On August 5, 2002, KKPL LLC committed to performing an archaeological survey along the route of the natural gas transmission pipeline. Their plan is to conduct this survey prior to commencement of clearing and construction activities. This survey will satisfy the recommendations made by SHPO in accordance with the Standards of the Alaska Coastal Management Program, 6 AAC 80.150.

A stipulation in the right-of-way lease will require KKPL LLC to undertake affirmative responsibility to protect any cultural, historic, prehistoric and archeological resources that may be impacted while conducting pipeline activities. The Alaska Historic Preservation Act prohibits the appropriation, excavation, removal, injury or destruction of any state-owned historic, prehistoric (paleontological) or archaeological site without a permit from the Commissioner. KKPL LLC will be required to take affirmative responsibility to require their employees, agents, contractors, subcontractors and their employees to comply with the Alaska Historic Preservation Act. Should any sites be discovered during the course of construction, maintenance, operations, or termination of the pipeline activities, the activity will cease and the SHPO and the appropriate coastal district will be immediately notified.

KKPL LLC is required to mark and protect all land and geodetic survey monuments encountered during construction, operation, maintenance, and termination of the pipeline system. These monuments are not to be disturbed, however, if disturbance becomes necessary, KKPL LLC will be required to notify the Commissioner in writing before any such disturbance occurs and the Commissioner will provide instructions. Stipulations in the right-of-way lease will require KKPL LLC to protect survey monuments. The lease requires KKPL LLC to employ a qualified land surveyor to reestablish or restore damaged or disturbed survey monuments. The Commissioner may require additional requirements for the protection of monuments and corners.

A stipulation in the right-of-way lease will require KKPL LLC to prevent fires and notify the Commissioner of fires, which may threaten any portion of the pipeline system. KKPL LLC will be required to comply with the instructions and directions of the Commissioner concerning use, prevention and notification of fires on state land.

The SPCO has reviewed the proposed design of the Kenai-Kachemak Pipeline and determined that such design will perform safely and will withstand the conditions to which it will be subjected, so long as it is maintained adequately. The engineering analysis is made a part of the administrative record.

Both UNOCAL Corporation and Marathon Oil Corporation have a demonstrated history of protecting state property interest in Alaska. UNOCAL has shown this on the North Slope by virtue of its ownership in the Endicott and Kuparuk Pipelines, as well as in the many oil fields pipelines on the Kenai Peninsula. Marathon's history is shown through its holdings in Cook Inlet and oil and gas field pipelines on the Kenai Peninsula.

The KKPL LLC has indicated their plans to protect state and private property interests and to avoid, abate and diminish problems that may arise from this project through the implementation of a comprehensive program to ensure that construction, operation, and maintenance does not harm or damage public or private property within or adjacent to the pipeline corridor. The first component of this program is the project planning and impact assessment process. During the final planning phase of the project, the KKPL LLC will take steps to ensure pipeline system integrity and to 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. *(KKPL ROW Application)*

A major component of the program will be to ensure compliance with applicable pipeline design and operation standards, including:

- Federal and State Regulations
- 49 CFR Part 190, "Pipeline Safety Programs and Rulemaking Procedures"
- 49 CFR Part 191, "Transportation of Natural and Other Gas by Pipeline; Annual Reports, Incident Reports, and Safety-related Condition Reports"
- 49 CFR Part 192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards"

Project design incorporates measures to ensure pipe integrity. In addition, design for buried river crossings incorporates measures to maintain normal flow regimes and to avoid habitat damage. *(KKPL ROW Application)*

The proposed construction techniques are specifically designed to minimize impacts to public, and private lands and the environment. Work in sensitive habitat will be conducted to minimize or avoid damage to the underlying vegetation and inclusive wildlife. Design and construction measures are designed to prevent or repair any damages to project area vegetation. *(KKPL ROW Application)*

After construction, a comprehensive pipeline inspection and maintenance program will be implemented. The goals of this program will 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 inspection and maintenance program will address potential adverse habitat or water-quality impacts resulting from unplanned events with pipeline performance. *(KKPL ROW Application)*

Many of the measures and precautions pertaining to safeguarding the health and safety of the public will also protect property located adjacent to the project. (*KKPL ROW Application*) The technical capabilities of KKPL LLC to protect private property are the same as those that are relevant to protect public property. The SPCO has scrutinized the proposed design of the Kenai-Kachemak Pipeline and determined it to be acceptable. Marathon and UNOCAL have demonstrated a history of building and operating safe pipelines. The Commissioner is therefore satisfied that KKPL LLC has the technical capability to protect state and private property interests.

Criterion 3: 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 Land and Damage to Fish, Wildlife, and their Habitat.

Technical Capability. The specific technical capability of the applicant to prevent to the extent reasonably practical any significant adverse environmental impact from the pipeline is discussed in the material relating to criterion 5 below.

Financial Capability. The specific financial capability of the applicant to prevent to the extent reasonably practical any significant adverse environmental impact is discussed in the material relating to criterion 6 below.

Fisheries Resources

The proposed route crosses 22 rivers and streams (Table 1). The Kasilof River, Crooked Creek, and Coal Creek crossings will be accomplished by horizontal directionally drilling. The KKPL application states that the remaining streams/drainages will be crossed using conventional trenching methods.

Table 1. River and stream/drainage crossing information in accordance with the application.

Stream/Drainage Number	Name	Receiving Water Body	Stream Discharge (GPM)¹	Construction Method	Mileage Description
S1	Unnamed	Cook Inlet	215	Open Cut	K-Beach MP 11.2
S2	Unnamed	Cook Inlet	31	Open Cut	K-Beach MP 10.3
S3	Unnamed	Cook Inlet	10	Open Cut	K-Beach MP 7.9
S4	Unnamed	Cook Inlet	84	Open Cut	K-Beach MP 7.3
S5	Unnamed	Cook	118	Open Cut	K-Beach MP

¹ Gallon per minute (GPM). Measured December 2001 (Kenai-Kachemak Pipeline Project, Project Description/Environmental Evaluation, 2002)

Stream/Drainage Number	Name	Receiving Water Body	Stream Discharge (GPM) ¹	Construction Method	Mileage Description
		Inlet			6.7
S6	Unnamed	Cook Inlet	1	Open Cut	K-Beach MP 3.9
S7	Coal Creek	Kasilof River	3,263	Directional Drilling	K-Beach MP 2.4
S8	Kasilof River	Cook Inlet	512,565	Directional Drilling	Sterling Hwy MP 109.4
S9	Crooked Creek	Kasilof River	8,079	Directional Drilling	Sterling Hwy MP 111
S10	Clam Gulch	Cook Inlet	1	Open Cut	Sterling Hwy MP 117.4
S11	Unnamed	Cook Inlet	17	Open Cut	Sterling Hwy MP 121
S12	Falls Creek	Cook Inlet	2,841	Open Cut	Sterling Hwy MP 121
S13	Corea Creek	Cook Inlet	496	Open Cut	Sterling Hwy MP 123
S14	Unnamed	Cook Inlet	2	Open Cut	Sterling Hwy MP 124
S15	Unnamed	Cook Inlet	30	Open Cut	Sterling Hwy MP 125
S16	Unnamed	Cook Inlet	7	Open Cut	Sterling Hwy MP 125.9
S17	Unnamed	Cook Inlet	5	Open Cut	Sterling Hwy MP 126.5
D1	Unnamed	Kasilof River	0	Open Cut	Road #1 Kasilof
D2	Unnamed	Kasilof River	0	Open Cut	Old Kasilof Road
D3	Unnamed	Cook Inlet	0	Open Cut	Reeder Road
D4	Unnamed	Cook Inlet	0	Open Cut	Clammers Avenue
D5	Unnamed	Cook Inlet	0	Open Cut	Compton

¹ Gallon per minute (GPM). Measured December 2001 (Kenai-Kachemak Pipeline Project, Project Description/Environmental Evaluation, 2002)

The Kenai-Kachemak Pipeline Project Description/Environmental Evaluation (KKPL, 2002) identifies 11 species of fish that may be present in the impacted streams (Table 2). The Kasilof River and Crooked and Coal Creeks are specified as anadromous waterbodies by the Alaska Department of Fish and Game (ADF&G). No known surveys have been conducted to document the fish resources utilizing the remaining 19 stream/drainages. Although not documented, as the Kenai-Kachemak Pipeline Environmental Evaluation suggests, there is the possibility that some of these streams support one or more species of fish. A general description of each referenced species life history is provided to facilitate evaluation of measures to protect fish resources.

Table 2. Fish species found along the proposed right-of-way route.

Life History Type	Common Name	Scientific Name
Anadromous	Chinook Salmon	<i>Oncorhynchus tshawytscha</i>
Anadromous	Coho Salmon	<i>Oncorhynchus kisutch</i>
Anadromous	sockeye Salmon	<i>Oncorhynchus nerka</i>
Anadromous	Pink Salmon	<i>Oncorhynchus gorbuscha</i>
Anadromous	Longfin smelt/eulachon	<i>Spirinchus thaleichthys/</i> <i>Thaleichthys pacificus</i>
Freshwater	Rainbow (Steelhead)	<i>Oncorhynchus mykiss</i>
Freshwater	Dolly Varden	<i>Salvelinus malma</i>
Freshwater	Lake Trout	<i>Salvelinus namaycush</i>
Freshwater	Arctic Grayling	<i>Thymallus arcticus</i>
Freshwater	Round Whitefish	<i>Prosopium cylindraceum</i>
Freshwater	Northern Pike	<i>Esox lucius</i>

Life Histories

Chinook Salmon: Chinook salmon are anadromous. They hatch in fresh water, spend part of their life in the ocean, and then spawn in fresh water. In Alaska, the eggs usually hatch in late winter or early spring, depending on time of spawning and water temperature. The newly hatched fish, called alevins, live in the gravel for several weeks and gradually absorb the food in the attached yolk sac. Juveniles in fresh water initially feed on zooplankton and later eat insects. These juveniles, called fry, emerge from the gravel by early spring. Most juvenile chinook salmon remain in fresh water until the following spring when they migrate to the ocean in their second year of life.

Coho Salmon: Coho salmon enter spawning streams from July to November. The eggs develop during the winter, hatch in early spring, and the alevins remain in the gravel utilizing the egg yolk until they emerge in May or June. The emergent fry occupy shallow stream margins, and, as they grow, establish territories that they defend from other salmonids. They live in ponds, lakes, and pools in streams and rivers, usually among submerged woody debris-quiet areas free of current - from which they dart out to seize drifting insects. They spend one to three winters in streams and may spend up to five winters in lakes before migrating to the sea as smolt.

Pink Salmon: Pink salmon enter Alaska spawning streams between late June and mid-September. Different races or runs with differing spawning times frequently occur in adjacent streams or even within the same stream. Most pink salmon spawn within a few miles of the coast and spawning within the intertidal zone or the mouth of streams is common. Shallow riffles where flowing water breaks over coarse gravel or cobble-size rock and the downstream ends of pools are favored spawning areas.

After hatching, usually by mid-winter, the alevins, or young fry, feed on the attached yolk sac material continuing to grow and develop. In late winter or spring, the fry swim up out of the gravel and migrate downstream into salt water.

Sockeye Salmon: Sockeye salmon return to freshwater systems from the ocean during the period from late June to mid-August, and most populations show little variation in their arrival time on the spawning grounds from year to year. Freshwater systems with lakes produce the greatest number of sockeye salmon. Spawning usually occurs in rivers, streams, and upwelling areas along lake beaches.

Eggs hatch during the winter the alevins remain in the gravel, living off the material stored in their yolk sacs, until early spring. At this time they emerge from the gravel as fry and move into rearing areas. In systems with lakes, juveniles usually spend one to three years in fresh water lakes before migrating to the ocean in the spring as smolts. However, in systems without lakes, many juveniles migrate to the ocean soon after emerging from the gravel. While in fresh water, juvenile sockeye salmon feed mainly upon zooplankton (such as ostracods, cladocerans, and copepods), benthic amphipods, and insects.

Rainbow: Maturing rainbows usually seek out the shallow gravel riffles or a suitable clear-water stream as spawning habitat during late winter or early spring. Spawning takes place from late March through early July, depending upon the specific location and the severity of the winter. Hatching normally takes place from a few weeks to as much as four months after spawning, depending upon the water temperature. A few more weeks may be required for the fry to emerge from the gravel. Upon emergence, juveniles assemble in groups and seek shelter along the stream margins or protected lakeshore, feeding on crustaceans, plant material, and aquatic insects and their larvae. Rainbow rear in similar habitat for the first two or three years then move into larger waterbodies and turn more to a diet of fish, salmon carcasses, and fish eggs.

Steelhead are an anadromous form of rainbow that enter freshwater systems as adults in August, September, October, and into the winter. Spawning commences about mid-April and usually occurs throughout May and early June. By mid-summer fry emerge from the gravel and seek refuge along stream margins and in protected areas. Generally, the juvenile steelhead will remain in the parent stream for about three years before out-migrating to salt water.

Dolly Varden: Dolly Varden, both the anadromous and non-anadromous form, spawn in streams, usually during the fall from mid-August to November. Hatching of the eggs occurs in April or March, four to five months after fertilization. After hatching, Dolly Varden juveniles obtain food

from their yolk sac and usually do not emerge from the gravel until this food source is exhausted. Emergence usually occurs in April or May for the southern form and in June for the northern form. Dolly Varden juveniles often remain on the bottom, hidden from view under stones and logs, or in undercut areas along the stream bank, and appear to select most of their food from the stream bottom. At maturity, Dolly Varden return to spawn in the stream from which they originated. The northern form Dolly Varden usually overwinter in the river system in which they have spawned.

Lake Trout: Lake trout prefer large, deep, cold lakes in which they spend their entire lives. Spawning takes place over clean, rocky lake bottoms from September through November. Eggs hatch early in the following spring. Little is known about the early life history of lake trout that are thought to be reclusive while feeding on plankton during their first few years of life. Spawning occurs for the first time after seven or eight years. Lake trout spawn every other year or less frequently in northern Alaska, while in some southern populations, such as those on the Kenai Peninsula, spawning may occur annually. Lake trout growth varies from place to place depending on diet, water temperature, altitude, and genetics.

Grayling: Grayling have evolved many strategies to meet the needs of life in what are often harsh and uncertain environments. Grayling can be highly migratory, using different streams for spawning, juvenile rearing, summer feeding, and overwintering. Or, in other areas, they can complete their entire life without leaving a short section of stream or lake. Winter generally finds grayling in lakes or the lower reaches and deeper pools of medium-sized rivers or in large glacial rivers. Their tolerance of low dissolved oxygen levels allows grayling to survive the long winters in areas where many other salmonids could not. With the coming of spring, grayling begin an upstream migration to spawning grounds. Like salmon, grayling faithfully return every year to the same spawning and feeding areas. Grayling spawn for the first time at an age of 4 or 5 years and a length of about 11 to 12 inches. About one month after spring breakup, adult grayling begin their post-spawning migration to summer feeding areas. Depending on where they have spawned, the distance traveled can be up to 100 miles. By the middle of summer, grayling will segregate within a stream according to age and maturity. The older adults will be found in the upper reaches of river and stream systems, the sub-adults in the middle, and the juveniles in the lower ends. Grayling fry hatch about three weeks after spawning, and they tend to occupy the quieter waters near where they were spawned. In the early fall, grayling again begin a leisurely downstream migration to reach overwintering areas.

Northern Pike: Northern Pike spawn in the spring soon after the ice goes out. Because of the colder temperatures of Alaskan waters, egg incubation may take 30 days. Young pike feed on small crustaceans and insects. By the time they reach 2 inches in length they may be eating smaller fish. The diet of larger pike is composed almost entirely of fish, but shore birds, small ducks, muskrats, mice, shrews, and insects are also eaten. Very little is known of the winter habits of pike in Alaska. However, it is known that most pike overwinter in the deep, slow waters of larger rivers because shallow lakes become depleted of oxygen. Pike also winter in deeper lakes. Spring upstream migrations from overwintering areas to the spawning grounds and then to summer feeding areas are quite short. Movement during the summer is minimal.

Round Whitefish: Round Whitefish spawn in the fall (November-December) over gravel shoals of lakes or at river mouths. Eggs are broadcast over the shoals and hatch approximately 140 days later. Round whitefish are bottom feeders. They eat a variety of invertebrates including mayfly larvae, chironomid larvae, small mollusks, crustaceans, fish, and fish eggs.

Longfin smelt/eulachon: Smelt returns to Upper Cook Inlet occur in many of the larger river systems. Eulachon begin returning to spawning areas from mid-May through mid- June. Longfin smelt return to Cook Inlet spawning areas in the fall of the year.

Possible Adverse Environmental Impacts of the Proposed Pipeline to Fish Resources.

- Stream Crossings – Trenching: The proposed pipeline corridor crosses 22 drainages along the 32 mile route. ADF&G has documented fish in three of the 22 streams. These three streams, Kasilof River, Crooked and Coal Creeks, have been specified as anadromous waters and are subject to the requirements of AS 16.05.870. KKPL LLC has agreed to install the pipeline beneath these streams using horizontal drilling techniques and no direct impacts to fish are anticipated.

The Kenai-Kachemak Pipeline Project Description/Environmental Evaluation identifies three methods for stream crossings, open cut, dam and pump, and horizontal direction drilling. The project proposes to use the open cut method for installation of the pipeline beneath the 19 remaining streams/drainages. The open cut method specifies that excavation dewatering discharges will be made to upland areas whenever possible.

Surveys conducted in December of 2001 indicate that many of the streams/drainages have no surface flow during the winter months, which is the proposed timing of the open cut trenching activities. The open cut method is appropriate for these drainages; however ADF&G has recommended that the dam and pump method as described by KKPL LLC, or other appropriate methods to isolate the work area, be used for those streams with surface flow. This measure is necessary to protect water quality and fish, if present, downstream of the crossing location. A stipulation in the right-of-way lease will require KKPL LLC to meet this recommendation.

- Riparian Habitat: KKPL LLC will restore disturbed areas to provide bank stabilization and minimize erosion. Minor stream crossing bank stabilization will be accomplished using brush layering, coir logs, erosion control fabric, root wads or vegetated cribbing. Other erosion control and restoration techniques include live siltation, hedge-brush layering and spruce tree revetments.
- Water Withdrawal: Hydrostatic testing of the pipeline will be conducted prior to project completion. Testing will be performed using water from local water sources including Kasilof River and Coal and Crooked Creeks. Water withdrawal from fish streams may

alter or affect the quantity or quality of overwintering habitat and have the potential to affect fish populations. To avoid potential impacts to fish associated with water withdrawal activities, KKPL LLC will use a properly sized and screened structure to surround the water intake structure.

- ***Wastewater Discharge:*** Excavation dewatering will be subject to Alaska Department of Environmental Conservation (ADEC) General Wastewater Disposal and U.S. Environmental Protection Agency (EPA) NPDES permits. KKPL LLC will discharge water in a manner that does not affect the water quality of the receiving waters (i.e. Kasilof River, Cook Inlet, or other waterbodies). Wastewater generated by excavating below the water table will be discharged to an adjacent upland area to allow filtration prior to re-entering receiving waters. Further filtration may be necessary and will be accomplished using straw bales, silt fences or other approved methods. The project will also monitor excavation discharges for erosion, effects on vegetation, sediment accumulation, petroleum products, drilling muds, and floating and other material. Monitoring will be conducted daily during discharge of excavation dewatering effluent and hydrostatic testing water.

Wildlife Resources

Wildlife: The project area provides wildlife habitat for several species including moose, bear, beaver, otter, wolf, wolverine, lynx, coyote, weasel, red fox, snowshoe hare, marten, red squirrel, voles and shrews. Important habitats are areas considered essential for maintaining healthy populations. Examples of these areas include calving concentration areas, mineral lick areas, migratory corridors or movement zones and winter use concentration areas.

Birds: The project area is in close proximity to the Kenai National Wildlife Refuge where over 150 species of birds have been documented (U.S. Fish and Wildlife Service, No Date). Species of waterfowl, seabirds, shorebirds, raptors, grouse/ptarmigan, and passerines are likely to within or in close proximity to the project area.

The U.S. Fish and Wildlife Service (USFWS), under the Migratory Bird Treaty Act of 1918 (16 USC 703-712), has regulatory authority for migratory birds and will review the project pursuant to this authority. In addition, the USFWS will review the project with respect to the Bald Eagle Protection Act (16 USC 668-668c) and the Endangered Species Act of 1973 (as amended).

Possible Adverse Environmental Impacts of the Proposed Pipeline to Wildlife and Bird Resources. Construction activities result in noise, vibrations, equipment movement and human presence, all of which may disturb wildlife in several ways:

- Moose may be present in the area during construction and their travel patterns may be altered to avoid the immediate construction zone (this would be a short-term impact);
- Animals may be attracted by food to construction sites creating the potential for injury to animals and humans;

- A slight potential exists for animals to be killed by collisions with construction equipment and vehicles (although a greater risk of this happening occurs by virtue of the existing highway);
- Eagle nests will need to be located to avoid any impacts during construction.
- Construction activities may result in short-term disturbance to birds within the project area, however no long-term impacts are anticipated;
- The proposed route generally follows lands conveyed to the State of Alaska along the existing Sterling Highway and Kalifonsky Beach Road right-of-way. The selection of the route is a significant mitigation factor because it is within a previously disturbed utility/road corridor. This is consistent with the recommendations of the Kenai Area Plan for State Lands (DNR, 2000) and the Kenai Peninsula Brown Bear Conservation Strategy (ADF&G, 2000).

ADF&G has identified the Kenai Peninsula Brown Bear as a *Species of Special Concern*. To address concerns associated with the Kenai Peninsula brown bear population, thirteen stakeholders were appointed, representing a wide spectrum of public, private, and government interests, to develop a conservation strategy. The resultant document, Kenai Peninsula Brown Bear Conservation Strategy, contains recommendations that are applicable to this project. Since brown bears are present in the project area, a human-bear interaction plan that addresses waste management, access, timing and other appropriate measures should be developed prior to project start-up.

Prior to commencement of any activities, lessees shall confirm the locations of den sites that are actually occupied in the season of proposed work with the ADF&G, Division of Wildlife Conservation based on data provided by ADF&G ((907) 267-2281). Construction begun between November 15 and March 31, will not be conducted within one-half mile of occupied brown bear dens, unless alternative mitigation measures are approved by ADF&G. Occupied dens not previously identified by ADF&G that are encountered in the field must be reported to the Division of Wildlife Conservation, ADF&G, within 24 hours ((907) 262-9368). Mobile activities shall avoid such dens by one-half mile unless alternative mitigation measures are approved by DNR with concurrence from ADF&G. Non-mobile facilities will not be required to be relocated.

Visual monitoring will be used to detect any construction activities that may adversely impact fish or wildlife. Methods of abatement will include usage of covered garbage containers; following standard procedures for waste handling; controlling sediments on site; and minimizing the extent of disturbance. A quality assurance program will be implemented during construction and testing to ensure the integrity of the pipelines. *(KKPL ROW Application)*

Fish and other wildlife species will not be adversely impacted for river crossings installed by HDD. Drill cuttings and fluids will be collected and hauled to an approved disposal location. Additionally, the HDD process requires that the transitions be located away from sensitive river banks and channels, which will be virtually undisturbed by construction. *(KKPL ROW Application)*

Operation of the pipeline is not expected to result in any wildlife behavioral changes, or change habitat use. Wildlife could be disturbed during pipeline maintenance activities, but these impacts would be short-term and not generally significant. Impacts from pipeline termination activities would be short-term and similar to those described during construction. (*KKPL ROW Application*)

The Right-of-Way Leasing Act requires consideration of the applicant's technical capability to prevent significant environmental impact, including prevention of erosion and damage to fish and wildlife and their habitat. KKPL LLC's application and qualifications demonstrate that they have such technical capabilities.

The most important factor in protection of the environment is the design, construction and operation of a safe pipeline system. The SPCO has scrutinized the proposed Kenai-Kachemak Pipeline and is satisfied that it is designed so as to minimize environmental impacts and, more importantly, prevent impacts that are significant.

KKPL LLC is proposing to use existing and developed rights-of-way to reduce impacts to the environment. The Commissioner is therefore satisfied that KKPL LLC has the technical capability to prevent significant environmental impacts.

Criterion 4: Technical and Financial Capability to take Action to the Extent Reasonably Practical to Undertake any Necessary Restoration or Re-vegetation.

Technical Capability. The specific technical capability of the applicant to undertake, to the extent reasonably practical, any necessary restoration or re-vegetation is discussed in the material relating to criterion 5 below.

Financial Capability. The specific financial capability of the applicant to undertake, to the extent reasonably practical, any necessary restoration or re-vegetation is discussed in the material relating to criterion 6 below.

Impacts That May Require Restoration or Re-vegetation. Impacts that may require restoration or re-vegetation are related to the construction and maintenance of the pipeline. An area as wide as 60-feet will need to be cleared of timber, brush, and vegetation for construction and an equal or lesser area for maintenance. Other impacts include erosion at stream crossings made via open cut construction and surface/subsurface erosion resulting from contour disturbance. (*KKPL ROW Application*)

The Right-of-Way Leasing Act requires consideration of the applicant's technical capability to undertake any necessary restoration and re-vegetation. Review of the application and KKPL LLC's qualifications again demonstrates that it has the requisite technical capability.

Construction activities will be controlled to abate erosion. Stream crossings made via open cut construction and surface waters will be controlled to avoid erosion. The banks near open cuts will be protect with suitable protection, such as sandbags. In areas where local longitudinal or transverse slopes are steep, measures will be taken to control erosion including transverse levees, drop structures, slope flattening, drainage channels, geosynthetic, or straw bales to control surface/subsurface flow and to protect areas prone to erosion. Sedimentation from erosion areas will be controlled with straw bales or silt fences. Once construction is complete, any disturbed areas will be seeded and contours will be restored close to their pre-existing condition. During the operations phase, erosion is not expected to be a significant issue. If erosion is visually detected, it will be repaired using the appropriate method described above. *(KKPL ROW Application)*

As noted elsewhere, the impacts to vegetation of the Kenai-Kachemak Pipeline will be minimal. A major factor in the minimization of such impacts includes: buried pipeline, drilling major river crossings, winter construction, and use of existing right-of-ways that are largely cleared.

The Commissioner is satisfied that KKPL LLC possesses the requisite technical capabilities to perform necessary restoration and re-vegetation.

Criterion 5: Technical and Financial Capability to take Action to the Extent Reasonably Practical 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.

Technical Capability. The matter to be considered by the Commissioner is the extent to which the applicant would be able to carry out their plans is discussed in this criterion.

Financial Capability. The specific financial capability of the applicant to undertake, to the extent reasonably practical, to protect the interests of individuals living in the general area of the Right of way who relay on fish, wildlife and biotic resources of the area for subsistence purposes is discussed in the material relating to criterion 6 below.

Subsistence

Subsistence harvest of fish, wildlife and vegetation occur within the project area. The ADF&G, Subsistence Division develops community profiles for towns and villages around the state to quantify utilization of subsistence resources. The community profile performed for Ninilchik is most representative of the area (ADF&G, No Date). The profile was conducted in 1998 and provides an extensive listing of resources used for subsistence purposes. Table 3 provides a summary of the 1998 harvest estimates.

Table 3. Ninilchik community profile, summary of subsistence harvest information, 1998 (ADF&G, No Date).

Subsistence Resource	Estimated Pounds	Average Pounds	Per Capita Pounds
Fish - Salmon	45,560	113.90	42.45
Fish - Non-Salmon	41,113	102.78	38.31
Large Land Mammals	70,474	176.18	65.66
Small Land Mammals	617	1.54	0.57
Marine Mammals	0	0	0
Birds and Eggs	1,537	3.84	1.43
Marine Invertebrates	11,837	29.59	11.03
Vegetation	4,679	11.70	4.36

Subsistence Fishery: The Federal Subsistence Board adopted proposals to establish seasons, harvest limits, and methods and means for the taking of fish, for the Kenai Peninsula and Cook Inlet areas. This action allows Federally qualified subsistence users to harvest fish on open Federal public lands during regulated seasons. The Federal Subsistence Board made a rural determination for the Kenai Peninsula designating all communities rural except the non-rural areas of Kenai, Homer and Seward.

In Federal regulations there are no customary and traditional use determinations for salmon, Dolly Varden, trout and char, in the Cook Inlet area. Therefore, all rural residents statewide are eligible to participate in these subsistence fisheries until more specific determinations are made. The Federal Subsistence Board deferred establishing more specific determinations of customary and traditional use of these fisheries until more information can be obtained regarding subsistence use patterns for the rural areas of the Kenai Peninsula.

KKPL LLC is a limited liability company formed by Marathon Oil Company and GUT LLC, a wholly owned subsidiary of Union Oil Company of California, dba Unocal Alaska. NORSTAR Pipeline Company (a subsidiary of Alaska Pipeline Company) has been authorized by the KKPL LLC to act as their agent for the permitting and engineering phases of the Kenai-Kachemak pipeline project.

The Marathon Oil Corporation is engaged in worldwide exploration and production of crude oil and natural gas; domestic refining, marketing and transportation of petroleum products primarily through its 62 percent owned subsidiary Marathon Ashland Petroleum LLC; and other energy related businesses. (*Marathon Oil Corporation Annual Report 2001*) Marathon is one of the largest gas producers in Cook Inlet, with more than 40 years of exploration and production activity. The company supplies over 60 percent of the natural gas consumed in Southcentral Alaska utility markets. (*Alaska Oil and Gas Reporter, Marathon Alaska announces first gas at Wolf Lake 12/18/2001*) During 2001, Marathon completed successful drilling operations on six wells in Alaska including two exploration wells related to the Ninilchik Unit referenced

previously in this analysis as one of the potential natural gas sources on the southern Kenai Peninsula that would utilize the Kenai-Kachemak pipeline to tie into the existing Cook Inlet natural gas infrastructure. Proved remaining reserves at year-end 2001 were approximately 19 billion net cubic feet of natural gas. One well is scheduled for drilling in 2002, with additional drilling anticipated during 2003. Marathon is operator of the Ninilchik Unit with a 60 percent interest. (*Marathon Oil Corporation Annual Report 2001*)

UNOCAL Corporation is one of the world's largest independent oil and gas exploration and production companies, with major activities in Alaska, Asia and the United States Gulf of Mexico. UNOCAL Corporation's primary activities are oil and gas exploration, development and production. These activities are carried out by the company's North America operations in the U.S. Lower 48, Alaska and Canada and by its International operations in over a dozen countries around the world. The Company's Alaska oil and gas operations are primarily located in the Cook Inlet. The Company operates ten platforms in the Cook Inlet and five of twelve producing natural gas fields. In 2001, UNOCAL's net natural gas production averaged 103 MMcf/d. Pursuant to agreements with the purchaser of UNOCAL's former agricultural products business, most of the Company's natural gas production is sold, at an agreed price, for feedstock to a fertilizer manufacturing operation in Nikiski, Alaska. The Company's Alaskan assets also include working interest in two North Slope fields. The Company has a 10.52 percent working interest in the Endicott field and a 4.95 percent working interest in the Kuparuk and Kuparuk satellite fields. (*UNOCAL Corporation Annual Report 2001*) Alaska oil and gas operations contributed about 9 percent of the Company's worldwide production in 1999. (*UNOCAL Annual Report 2000*) Early in 2002, the Company announced a discovery of a new natural gas reservoir with the Grassim Oskolkoff #1 well drilled under a joint operating agreement with Marathon in the Ninilchik Unit. Exploration efforts also continue at several other wells in the unit. UNOCAL signed a contract to sell up to 450 billion cubic feet of natural gas to an affiliate of ENSTAR Natural Gas Company beginning in January 2004. ENSTAR distributes natural gas to Anchorage, the Matanuska-Susitna Valley and the Kenai Peninsula. (*UNOCAL Corporation Annual Report 2001*)

The Kenai-Kachemak Pipeline Project uses proven standard pipeline construction designs for the buried gas pipeline route. The proposed design and construction techniques, and other pipeline integrity issues were reviewed by the SPCO.

The Right-of-Way Leasing Act requires consideration of the applicant's technical capability to protect the subsistence interests of those individuals who live in the general area of the right-of-way. Review of KKPL LLC's application, the design of the Kenai-Kachemak Pipeline and KKPL LLC's qualifications demonstrates that KKPL LLC has this technical capability.

Protection of subsistence interests is similar to protection of the environment and state and private property interests. The Commissioner is satisfied that KKPL LLC has the technical capability to design, construct and operate a pipeline that is safe. Accordingly, the pipeline will not be harmful to the resources on which the people who live in the general area of the Kenai-Kachemak Pipeline rely.

The Kenai-Kachemak Pipeline will be buried a minimum of 36 inches under ground over the pipeline. (*KKPL ROW Application*) Because the pipe is buried, it will permit the free passage of moose and bear which are important for subsistence use in the area. Additionally, the utilization of HDD at the Kasilof River, Crooked Creek and Coal Creek will minimally impact these rivers and any fish for subsistence use in the area. During construction and maintenance, the dam and pump method as described by KKPL LLC, or other appropriate methods to isolate the work area, will be used for those streams with surface flow. This measure is necessary to protect fish, if present, downstream of the crossing location. A stipulation in the right-of-way lease will require KKPL LLC to cross streams/drainages in this manner.

The foregoing technical information illustrates that UNOCAL Corporation and Marathon Oil Corporation have demonstrated their ability to design, construct, operate, and maintain pipelines. Therefore, with guarantees from both UNOCAL Corporation and Marathon Oil Corporation, the Commissioner is satisfied that the applicant, KKPL LLC, possesses the requisite technical capabilities to protect the subsistence interests of those individuals who live in the general area of the Kenai-Kachemak Pipeline.

Criterion 6: Financial Capability to Pay Reasonably Foreseeable Damages for which the Applicant May Become Liable on Claims Arising from the Construction, Operation, Maintenance or Termination of the Pipeline.

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

Annual Reports for 1999, 2000 and 2001 have been provided for UNOCAL Corporation and Marathon Oil Corporation. The financial records submitted are not considered confidential in accordance with AS 38.05.035(a)(9)(D). Additionally, on April 15, 2002 the Fortune 500 ranked Unocal at number 278 with revenues of 6,752 (\$millions) and Marathon Oil at 43 with revenues at 35,041 (\$millions).

Pursuant to AS 38.35.120(a)(14), if the Commissioner determines that the net assets of a pipeline right-of-way lessee are insufficient to protect the public from damage for which the lessee may be liable arising out the construction or operation of the pipeline, the Commissioner may require that the lessee obtain and furnish liability and property damage insurance from a company licensed to do business in the state or furnish other security or undertaking upon the terms and conditions the Commissioner considers necessary. Considering the financial capability of KKPL LLC, the Commissioner will require that UNOCAL Corporation and Marathon Oil Corporation each execute an unconditional guaranty for KKPL LLC to construct, operate, maintain, and terminate the Kenai-Kachemak Pipeline. From the financial records submitted, the

Commissioner found that UNOCAL Corporation and Marathon Oil Corporation have current financial resources sufficient to unconditionally guarantee, on behalf of KKPL LLC, the construction, operation, maintenance, and termination of the Kenai-Kachemak Pipeline consistent with the terms of the lease and all applicable laws and regulations. The requirement for unconditional guaranties will be part of the right-of-way lease.

The lessee will be required to observe and abide by the stipulations contained in the Right-of-Way Lease for the Kenai-Kachemak Pipeline. These stipulations provide for: safeguards and plans to prevent damage to persons, the public and the environment; prevention of erosion and damage to fish and wildlife habitat; restoration and re-vegetation; protection of subsistence rights of the people who live in the general area of the right-of-way; and the protection of the public health and safety.

IV. BENEFICIAL IMPACTS

The Kenai-Kachemak Pipeline, operated as a common carrier, must accept natural gas from other sources for transportation to market. The main line will provide tie-ins for future potential lines from current exploration sites. Previously uneconomical or undeveloped gas fields may become economically viable. Pipelines are the only viable means to transport the natural gas to market. Tie-ins to the main line for distribution of natural gas to the communities in the vicinity of Kenai-Kachemak Pipeline by a public utility in the future are possible.

The Kenai-Kachemak Project will utilize air, truck, and existing roads to support the project. The increases in each form of transportation will have benefits and impacts. Benefits include increased revenues and employment. Any impact would be localized and of short duration. No long lasting effects are anticipated.

The project will not only provide economic benefits to the KKPL LLC, but also directly and indirectly benefit the Kenai Peninsula Borough, the Municipality of Anchorage, and the State of Alaska will benefit through payment of royalty, severance, income tax and property taxes. The Kenai-Kachemak project will 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 and private and public sector jobs are generated throughout a stimulated economy. *(KKPL ROW Application)*

KKPL LLC has committed to fill jobs with residents to the extent practical and possible. KKPL LLC has committed to comply with, and to require contractors and subcontractors to comply with, applicable and valid laws and regulations regarding the hiring of residents of the state. Approximately 150 workers are expected to be employed at the peak of construction activity and will be housed in existing facilities in the Kenai Peninsula Borough or in field camps on private land. No field camps will be constructed on state lands *(KKPL ROW Application)*.

The applicant will be encouraged to operate and maintain the pipeline with residents of the State of Alaska. Repairs and special maintenance will be staffed according to the requirements of that specific job.

KKPL LLC has the ability to transport hydrocarbons in the manner that benefits the present and future public interests. The right-of-way lease will require KKPL LLC to comply with Department of Labor requirements and encourage KKPL LLC, their contractors and subcontractors, to employ local and Alaska residents and companies for work performed on the leased area.

V. PROPOSED DECISION AND ACTION

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 all its residents, advance existing and potential sectors of its economy, strengthen free competition in its private enterprise system, and protect its incomparable natural environment. For an application filed under AS 38.35.050, AS 38.35.100 states that the Commissioner shall decide whether the applicant is fit, willing, and able to perform the transportation or other acts proposed in a manner that is required by the present or future public interest. In making this determination, the Commissioner shall consider whether or not statutory requirements have been met.

The Commissioner's Analysis analyzed the AS 38.35 requirements and KKPL LLC's commitments in their application and design for the Kenai-Kachemak Pipeline. Therefore, I, the Commissioner, make the following determinations:

1. The proposed Kenai-Kachemak Pipeline does not unreasonably conflict with existing uses of the land involving a superior public interest. The Kenai-Kachemak Pipeline right-of-way will not unreasonably interfere with free access to navigable or public waters nor will it unreasonably interfere with subsistence harvests or access to subsistence. The Kenai-Kachemak Pipeline, as proposed, will not conflict with state statutes, regulations, nor departmental policy. Stipulations to ensure protection of the public, fish, wildlife, and their environment will be incorporated into the right-of-way lease.

2. Based on the acceptable design criteria, which is part of the application, and the approval and implementation of the quality assurance program and the willingness of KKPL LLC to execute the right-of-way lease, demonstrates that the applicant, KKPL LLC, has the technical and financial capability to protect state and private property interests. KKPL LLC is technically and financially capable to design, construct, operate, maintain, and terminate the pipeline. KKPL LLC has the financial resources to pay foreseeable damages on claims arising from construction, operation, maintenance, and termination of the Kenai-Kachemak Pipeline.

3. Based on information provided, KKPL LLC has 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; to undertake any necessary restoration or re-vegetation; and to protect the interests of individuals living in the general area of the Kenai-Kachemak Pipeline who rely on fish, wildlife, and biotic resources of the area for subsistence purposes.

The Kenai-Kachemak Pipeline uses proven construction designs. The SPCO, and USDOT/OPS conducted a technical review of the pipeline design for structural adequacy, pipeline integrity, safety, potential impacts on the environment, and potential effects on fish and wildlife, their habitat, and subsistence uses. The design for the Kenai-Kachemak Pipeline is acceptable.

Prior to construction activities, KKPL LLC will be required to submit a construction plan that describes work schedules, permits or authorizations required and their interrelationship, construction sequencing, and includes a map or maps depicting the boundaries of the construction zone, and the following sections: public awareness programs; notice and scheduling of disturbance to public and private improvements; blasting; sanitation; waste management, including disposal; cultural resource preservation; restoration and re-vegetation; fish and wildlife avoidance and interaction; access; ice road and pad construction and maintenance; safety and hazard prevention; equipment and material storage areas; groundwater control; erosion and sediment control; stream, river and floodplain crossing; overburden and excess material disposal; trenching; and housekeeping. KKPL LLC will not initiate any construction activity until the plan is reviewed and approved by the Commissioner.

Prior to natural gas being transported through the pipeline, KKPL LLC will develop and submit a surveillance and monitoring program to detect and abate situations that endanger health, safety, the environment or the integrity of the pipeline. This program will be approved by me and will be implemented during maintenance, operation, and termination of the Kenai-Kachemak Pipeline. KKPL LLC will annually submit to me a written analysis of changes in conditions as documented by records gathered from this program. This annual submittal will document cumulative changes and changes from the previous year, effects of the changes, and the proposed actions to be taken related to the noted changes.

4. Based on information provided, the Commissioner will require that UNOCAL Corporation and Marathon Oil Corporation each execute an unconditional guaranty for KKPL LLC to construct, operate, maintain, and terminate the Kenai-Kachemak Pipeline. From the financial records submitted, the Commissioner found that UNOCAL Corporation and Marathon Oil Corporation have current financial resources sufficient to unconditionally guarantee, on behalf of KKPL LLC, the construction, operation, maintenance, and termination of the Kenai-Kachemak Pipeline consistent with the terms of the lease and all applicable laws and regulations. The requirement for unconditional guaranties will be part of the right-of-way lease.

5. KKPL LLC agrees in the construction, maintenance, operation, and termination of the Kenai-Kachemak Pipeline to comply with, and to require contractors and their subcontractors to

comply with, applicable and valid laws and regulations regarding the hiring of residents of the state. The right-of-way lease encourages KKPL LLC, contractors and subcontractors to employ local and Alaska residents and contractors for work performed on the leased area.

The Kenai-Kachemak Pipeline results in the extension of pipeline infrastructure south of the Alaska Pipeline Company 500 Master Meter Building on Kalifonsky Beach Road gas field area. Utilizing the Kenai-Kachemak Pipeline for the transportation of hydrocarbons has the potential to make other marginal gas fields more economical and more likely to be developed. An increasingly competitive global energy market underscores the prudence of removing and transporting the hydrocarbons in a timely manner. Development of Alaska's hydrocarbon resources complies with the legislative policy of utilizing the gas resources to increase the standard of living of the state's residents and to advance existing and potential sectors of the state's economy.

Supported by the foregoing, I conclude KKPL LLC can construct the Kenai-Kachemak Pipeline with minimal negative effect on the fish and wildlife and their habitat, and the environment, and can protect the interests of individuals living in the general area who rely on those resources. I conclude that the proposed Kenai-Kachemak Pipeline will not result in significant degradation of the environment, resources, or lands. Potential impacts from construction of the Kenai-Kachemak Pipeline are mitigated through the accepted design, which considered safety, the environment and pipeline integrity.

I also conclude that the right-of-way lease will require KKPL LLC to continue compliance with KKPL LLC's commitments in their application and accepted design during the maintenance, operation and termination of the Kenai-Kachemak Pipeline.

In my analysis, I find KKPL LLC to be fit, willing and able to transport the hydrocarbons through the Kenai-Kachemak Pipeline and direct that the following actions be taken:

1. Provide copies of the application and its supporting documents at cost to any member of the public requesting copies. Copies of the Commissioner's Analysis and draft Kenai-Kachemak Pipeline right-of-way lease will also be provided at cost upon request.

2. Solicit written comments and the hearing comments from the public regarding the leasing of state land for the Kenai-Kachemak Pipeline, as depicted in the application (ADL 228162), the Commissioner's Analysis, and the draft Kenai-Kachemak Pipeline right-of-way lease. To solicit public comments, ADNR will place public notices in newspapers of general circulation and public buildings, in Anchorage, Clam Gulch, Kenai, Ninilchik and Soldotna. A public hearing will be held in Soldotna on November 13, 2002, or the next available date. The Kenai Peninsula Borough, local governments, and local ANCSA corporations will be notified. Written comments must be received to the Alaska Department of Natural Resources, State Pipeline Coordinator's Office, 411 West Fourth Avenue, Suite 2C, Anchorage, Alaska 99501, on or before 5:00 p.m. on November 14, 2002.

3. Require KKPL LLC to provide to me a corporate resolution authorizing the signatory to represent KKPL LLC in the execution of the lease on behalf of KKPL LLC.

I will then make a determination under AS 38.35.100. The Commissioner of the Department of Natural Resources is charged under AS 38.35.100 with the duty to make the determinations required by this statute. On the basis of the entire record developed before and during the public comment period, I will determine whether the applicant is “fit, willing, and able” to perform all of the acts proposed by the Kenai-Kachemak Pipeline right-of-way lease application in a manner required by the present or future interest as set forth in AS 38.35.100. For this analysis I have reviewed all of the required areas of AS 38.35.100, and this analysis will form the basis of my decision under AS 38.35.100. If I do not alter my analysis following the period of public comment, and if KKPL LLC meets all of the conditions precedent, then this analysis shall constitute the Commissioner’s Final Decision and I will offer KKPL LLC the right-of-way lease. The draft Kenai-Kachemak Pipeline right-of-way lease will include covenants and stipulations determined necessary to protect the interests of the residents of the State of Alaska.

Within one year from the date that natural gas is transported through the pipeline system, KKPL LLC is required to provide to ADNR an approved survey of the pipeline depicting the as-built location of the pipeline.

/s/
Pat Pourchot, Commissioner
Alaska Department of Natural Resources

10/9/02
Date

Attachments:

- Attachment A: Kenai-Kachemak Pipeline Route
- Attachment B: Legal Description
- Attachment C: Literature Cited