ALASKA NATURAL GAS TRANSPORTATION PROJECTS
OFFICE OF THE FEDERAL COORDINATOR

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Office of the Federal Coordinator Summary Report on the Alaska Pipeline Project

This report summarizes the status of project issues followed by the Office of the Federal Coordinator regarding federal permitting for the Alaska North Slope natural gas pipeline project proposed by TransCanada and ExxonMobil (operating as the Alaska Pipeline Project). Though the sponsors have put on hold the project to move Alaska gas to North American markets while they take a new look at pursuing a project to liquefy and export the gas for overseas markets, the office sees value in issuing this status report. The report presents a summary of the issues tracked by the office the past three years while the sponsor pursued the North American pipeline option, the most recent actions on those issues, and the next steps that should be taken to help reduce the risk of permitting delays should the sponsor proceed with a project. Early, close and constant coordination between the applicant and agencies is essential. In addition, the Federal Coordinator's office has proposed suggestions for dealing with potential problems not identified in its previous updates. The issues covered in this report are relevant for either pipeline project — whether it delivers gas to North American or overseas markets.

Air Quality/Non-Attainment/Greenhouse Gas Emissions

Air quality has been a significant issue for the natural gas pipeline project due to changing federal regulations. In addition to dealing with regulatory uncertainty, some of the project's facilities could be within non-attainment areas, imposing additional regulatory requirements and requiring data collection by the applicant. The applicant has little to no baseline air quality data outside of the Fairbanks North Star Borough for the pipeline route or compressor station sites or for the gas treatment plant on the North Slope. Federal agencies raised several requests and questions regarding air quality assessments and data collection in response to the applicant's draft resource reports submitted to the Federal Energy Regulatory Commission in January 2012.

Next step: The regulatory issues may not be resolved by the time the project sponsor submits an application to FERC. Regardless, the Federal Coordinator suggests that the applicant sit down with FERC, the U.S. Environmental Protection Agency and Alaska Department of Environmental Conservation far in advance of submitting a project application to discuss the current state of regulations relevant to the project and provide an updated project design. It will be critical for the applicant to continue discussing baseline data needs with the agencies and to discuss if modeling is needed where collected data does not exist, as well as addressing concerns raised in agency comments to the draft resource reports.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act allows for disturbing eagles or destruction of inactive nests, provided the applicant employs avoidance and minimization measures for potential takes. Eagle nest data are available for much of the proposed pipeline corridor from the North Slope to Fairbanks and then to the Canadian border.

Next step: The U.S. Fish and Wildlife Service identified in response to the January 2012 draft resource reports that it needs the applicant to provide coordinates of each nest location identified by the applicant and clear identification of areas planned for winter and summer construction. The Fish and Wildlife Service was able to verify that the applicant has a fair amount of survey data that would be applicable for a National Environmental Policy Act review. However, additional data (including surveys) will likely be needed to support permitting each year before construction or operations that have the potential to disturb eagles could begin. The Federal Coordinator recommends further discussions between the applicant and Fish and Wildlife Service as the eagle permitting program and mitigation measures are determined for bald and golden eagles.

Bridges

U.S. Coast Guard approvals will be required for crossings of navigable waters under the General Bridge Act. In order to accelerate the process for determining which waters would be jurisdictional, the Coast Guard completed navigability determinations for more than 85 water bodies that it determined could possibly be crossed by the Alaska Pipeline Project North Slope-to-Canada pipeline and its Point Thomson field pipeline, and also the smaller, state-sponsored North Slope-to-Southcentral Alaska gas pipeline. In response to the Alaska Pipeline Project's January 2012 draft resource reports, the Coast Guard identified a list of navigable waterways along the proposed route that might require bridge permits.

Next step: After the project sponsor finalizes its route and crossing methods for water bodies, the Coast Guard will be able to verify which will require permits. Additional navigability determinations may be required if the project sponsor decides to proceed with a pipeline to Southcentral Alaska, terminating at an LNG export facility.

Climate Change

No formal protocols or guidance documents currently exist to give guidance to federal agencies regarding the role of greenhouse gas emissions and climate change when making decisions subject to the National Environmental Policy Act. In 2010, the Council on Environmental Quality released a draft guidance document and the Interagency Climate Change Adaptation Task Force provided recommended actions for the federal government. To date, however, formal guidance has not been released. The Council on Environmental Quality continues to work on this issue. Climate change as a potential factor cannot be completely ignored by federal agencies when making decisions under the National Environmental Policy Act, yet the process for doing so is unclear.

Coastal Zone Management

The state of Alaska abolished its federally approved coastal management program effective July 1, 2011. Therefore, unless the state re-establishes a program under the U.S. Coastal Zone Management Act, an applicant for a project within the designated coastal zone will not be required to obtain a state consistency certification. Regardless of Alaska's lack of a coastal zone management program, an applicant still would be required to meet all federal laws regarding development in coastal waters and uplands.

Contaminated Sites

A contaminated site is an area affected by petroleum products or other hazardous substance releases. Several state and federal agencies have documented contaminated sites along the potential pipeline route. The project also could encounter additional unknown contaminated sites along the route. Of particular concern are unknown sites associated with former Department of Defense activities. The project applicant conducted a literature review to determine known contaminated sites for field survey work in 2011, and results of the literature review were presented in Draft Resource Reports 2 and 8 in January 2012. Results of the field work were shared with agencies later in 2012. The applicant also had asked agencies to review and comment on the contaminated site list to verify if any sites were missing from the list.

The applicant noted in its draft resource reports that not all sites have been sampled for groundwater contamination and it is unknown whether several sites identified as open have been sampled to determine whether they are of environmental concern. Before putting the project on hold, the applicant had committed to developing a draft soil-handling plan and a plan for dealing with unanticipated contamination discovery. The plans are to establish protocols ahead of time to avoid delays if workers encounter unknown contamination sites during construction.

Next step: All contaminated sites should be investigated to determine whether they are of environmental concern. Additionally, the project applicant should investigate suspected and known contaminated sites identified by residents near the project area. The applicant will need to conclude its work with agencies to develop a plan for dealing with unanticipated contaminated sites. The project's environmental impact statement will need to fully address these issues to avoid delays in permitting or construction activities.

Cultural Resources/Prehistoric and Historic Properties

With a long linear project such as a natural gas pipeline, identification of cultural resources is critical for routing and construction activities. FERC will lead the federal consultation process for the project under Section 106 of the National Historic Preservation Act, involving the applicant as well as state, local and federal agencies. In many cases a programmatic agreement can provide federal agencies a tool for

dealing with complex projects. Discussions have been ongoing between the applicant and agencies regarding the programmatic agreement and the timing of the effort; development of such an agreement can be a lengthy process.

Next step: The path forward will require collaboration between the agencies and applicant regarding the programmatic agreement, additional survey needs and a plan for dealing with unanticipated discoveries.

Data Collection and Field Season Plans

In August 2011, the Federal Coordinator identified that the applicant had not shared sufficient information with federal agencies regarding its environmental data collection plans, including the timing of data collection for NEPA review and permitting purposes. The applicant held discussions with the majority of permitting agencies in late 2011 to review its data collection and data sharing plans. However, agency data needs have not been fully resolved for the majority of major federal approvals. The applicant needs to continue working with agencies on the timing and delivery of information to reduce the risk of NEPA review and permitting delays.

Next step: The applicant should clearly communicate to each agency with permitting authority what information will be provided and when with respect to the NEPA review and permitting process.

Efficient Use of Government Resources

Federal agencies have allocated significant time and effort to assist the applicant toward a successful project. Some agencies have the authority to enter into cost-recovery or reimbursable service agreements, which can help meet their budgetary needs as they work on projects. For example, through the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011, the federal Pipeline and Hazardous Materials Safety Administration was granted authority to enter into such agreements under certain conditions; it previously lacked such authority. The Office of the Federal Coordinator, meanwhile, is operating at a reduced budget while the project is on hold. If activity resumes on the project, the office expects to restore its reimbursable service agreement with the applicant.

Emergency Response Plan

The ability to respond to an emergency situation associated with the project is of concern, especially to Native organizations, local, state and federal agencies. This issue has drawn increased attention following several pipeline incidents in the Lower 48. The Alaska Pipeline Project, in its January 2012 Draft Resource Report 1, said it would communicate with the relevant agencies as it develops emergency preparedness and response plans to address and mitigate occurrences involving public or personnel safety or environmental protection.

Next step: Final plans should be developed in collaboration with local, federal and state agencies, as well as other interested stakeholders, to prepare for any incidents that could affect public or personnel safety or environmental protection.

Fish Habitat

Fish habitat is of particular concern to federal and state agencies due to potential impacts by project construction and operations. Examples of activities that could affect fish habitat include water withdrawal from lakes for ice roads, pipeline installations across streams and lakes, expansion at West Dock on the North Slope, blasting, and construction of access roads. Essential fish habitat, as defined in the Magnuson-Stevens Fishery Conservation and Management Act, and habitat for anadromous and resident fish are protected by law. The applicant has collected data regarding anadromous fish streams, essential fish habitat areas and overwintering fish habitat. In its January 2012 draft resource reports, the applicant described fisheries in the project area and potential impacts and mitigation. Federal agencies will look for completion of that analysis in the final resource reports.

Next step: In preparation of the project's final resource reports, the applicant will need to ensure that data have been collected for fish habitat areas for the entire scope of the project, particularly for essential habitat areas. Analysis of the potential impacts of the project should include all construction and operation activities, as well as possible conservation or mitigation measures.

Floodplains

Executive Order 11988 requires federal agencies to avoid adverse impacts to floodplains and/or limit authorizations to develop in these areas to the extent practical. Disturbance and construction within floodplains can result in secondary impacts that could have an adverse effect on buried pipeline and other infrastructure in the area. The applicant has routed and designed most of the project facilities to avoid the 100-year floodplain as defined in the Federal Emergency Management Agency's National Flood Insurance Program maps. The applicant also used terrain mapping and other available information to locate areas of potential flooding hazards within the vicinity of the pipeline. The applicant stated in its draft resource reports that it will bury the pipeline to a sufficient depth where erosion and scour would not occur.

Next step: The applicant will need to provide appropriate mitigation measures for those project facilities located within the 100-year floodplain or subject to other potential flooding hazards. Federal agencies will evaluate the project design and mitigation measures to determine compliance with Executive Order 11988 as they move forward with the NEPA review and permitting process.

Geological Studies

Geological hazard concerns such as active faults, permafrost, avalanches, subsidence and landslides are prevalent along the proposed pipeline route. The applicant has utilized years of study data and has gone

into the field to collect additional data for a preliminary geohazard assessment. In addition, the Alaska Division of Geological and Geophysical Surveys recently collected and publicly released lidar (light detection and ranging) data along a wide swath of possible pipeline routes to assist with evaluation of many of these geological hazards, such as areas of slope instability, erosion and active faults.

Next step: Consensus will be needed between the project applicant and agencies, particularly the U.S. Geological Survey, Pipeline and Hazardous Materials Safety Administration, FERC and Alaska Division of Geological and Geophysical Surveys, over the potential risks of geologic hazard areas and construction practices (including mitigation measures) appropriate in these areas.

Government-to-Government Consultation

Government-to-government consultations with federally recognized tribal governments are an essential component of effective federal agency decision making. FERC has coordinated the government-to-government consultations for the project through correspondence and face-to-face discussions. Agencies with government-to-government consultation requirements have agreed to coordinate with FERC for this project. Coordination between federal agencies will be critical to ensure that each agency's requirements for consultation are met and meaningful involvement with the tribes is achieved. It is important that federally recognized tribes have the opportunity to express their concerns regarding the project to the federal agencies through open and continuous consultation.

Next step: Consultation with the federally recognized tribes will continue as the project changes and/or develops.

Human Health

Evaluating potential human health impacts from development projects has gained momentum across Alaska. Several large-scale projects in the state have received comments from stakeholders that potential human health impacts are a major concern, including this project. A human health impact assessment effort for this project (in consultation with FERC) has been initiated and baseline data have been collected by the state under contract to the project applicant. This issue should continue as a priority because additional data may be needed and analyzed to determine the effects and appropriate health management efforts.

Next step: Any data gaps will need to be filled and analysis prepared after the applicant decides to proceed with further project design. Discussion among key government agencies should occur before completion of the environmental impact statement to ensure that sufficient analysis is provided for the agencies' evaluations under NEPA.

Infrastructure Projects and Challenges

All necessary support systems must be in place before construction can begin; inadequate road, port or railroad facilities could slow down construction and increase costs. The applicant has indicated that among its transportation needs, only West Dock at Prudhoe Bay would require upgrades to support project construction. Based on the information in the draft resource reports, however, several agencies have identified that logistics information was not adequately described for the transportation of construction materials via railroad, airport, road and ports.

Next step: With a final project design, the applicant will be able to share details of its transportation logistics plan. Agencies will then be able to evaluate the information to ensure all potential impacts can be determined and mitigated.

Landowner and Land Access Issues

Until the final pipeline route is determined, a full analysis of landowner and access issues cannot be completed. In general, Native allotments, Native land conveyances, mining claims, military bases, private land and conservation system units (e.g., wildlife refuges, wild and scenic rivers) are the landowner issues of potential concern. If the project were to cross any of these, regulatory approval could take longer due to a potentially lengthy and challenging process. In draft Resource Report 8, the applicant identified land ownership by milepost for the proposed project. To date, the applicant has said the pipeline would not cross any Native allotments, and that it has been working with agencies to resolve the details of crossing federal lands. The applicant has reported the potential for the project to cross a very small piece of the Tetlin National Wildlife Refuge, a conservation system unit located along the last two miles of a possible pipeline route near the Canadian border. Discussions have been ongoing between the applicant, local stakeholders and the U.S. Fish and Wildlife Service regarding a land transfer and easement for this portion of the line. As part of that process, the Fish and Wildlife Service is responsible for obtaining public comments and preparing an environmental document to discuss potential impacts of the action.

Next step: The applicant will need to complete its refinement of the project route to determine the scope of potential landowner and land access issues. While that process continues, the applicant should maintain its dialogue with likely affected landowners to gain access to their lands for field studies and to address long-term needs for the success of the project.

Native Land Conveyances

There are dozens of Alaska Native and Alaska Native veteran allotment applications pending for consideration by the Bureau of Land Management in the vicinity of the proposed project route. Final determination for the conveyance of these lands will remain on hold until the final project route is determined.

Next step: After the project route is determined, all parties should work together to quickly determine if the project crosses any of these areas in order to reach a timely resolution of issues.

Ocean Dumping of Dredged Material

Dredging might be required at the West Dock facility to bring in the large modules required for the gas treatment plant. If so, disposal of that dredged material poses a permitting challenge for the project sponsor. The quantity of dredged material could exceed the volumes previously dredged in the area and the preferred disposal location has not been determined. The applicant has conducted the initial level of testing needed for permitting of disposing the dredged material in ocean waters and provided those results to the Environmental Protection Agency and U.S. Army Corps of Engineers in 2012.

Next step: Federal agencies will need to review sampling data from the proposed dredge and disposal sites to ensure completeness and determine the next step in permitting. Additional sampling may be required, so the timing for data collection and submission to federal agencies should be discussed and agreed upon by the applicant and agencies. Permitting for ocean disposal of dredged material could be lengthy and complex, requiring close communication between the applicant and federal agencies.

Permitting Plan

The applicant has indicated it will use a phased approach to permitting this project. This would consist of submitting data sufficient for the application to FERC and the FERC-led NEPA analysis, then submitting additional data needed for other federal reviews and approvals sometime later (such as permits required for actual construction). The applicant has committed to explaining its permit plan and data submission schedule in detail to FERC and each individual federal agency. Those discussions are essential to ensure a complete project application is submitted to FERC that contains sufficient data for the environmental impact statement and NEPA analysis. In March 2012, FERC provided comprehensive comments from the federal agencies that had reviewed the applicant's draft resource reports regarding data submission and analysis. The Federal Coordinator had added this issue to its status updates over concerns that the applicant had not fully coordinated its permit plan with agency needs.

Next step: If the applicant wants to pursue a phased permitting approach for the project, the details on timing and data submission must be agreed upon by the applicant and agencies. The comments provided by agencies in March 2012 should be carefully considered to ensure no delays in project permitting.

Pipeline and Hazardous Materials Safety Administration Special Permits

Federal regulations dictate specific rules for the design of natural gas pipelines. When an applicant proposes to construct a pipeline under different specifications, it must obtain a waiver from the requirements, called a special permit, from the Pipeline and Hazardous Materials Safety Administration.

The applicant began a lengthy engagement process with PHMSA in 2010, which continued through 2012, to discuss design details and components that might be subject to a special permit.

Next step: The pipeline agency has said it will need at least 12 months to review the information submitted under a special-permit application and may require additional testing or data before a special permit could be issued. Technical discussions between the applicant and PHMSA regarding project design should proceed as expeditiously as possible so that PHMSA has the information needed for its review before development of an environmental review document for the project.

Scope of Project Alternatives/Statement of Purpose and Need

The purpose and need for the project must be thoughtfully crafted to define the sideboards within which the National Environmental Policy Act analysis is conducted. Congress defined the purpose and need of a natural gas pipeline project from the North Slope to the Canadian border in Section 103 of the Alaska Natural Gas Pipeline Act. This purpose and need will also be used to evaluate alternatives in accordance with NEPA for a project subject to the Alaska Natural Gas Pipeline Act. The applicant provided a description of the project purpose and need in draft Resource Report 1 and the range of alternatives it considered in draft Resource Report 8.

Next step: Federal agencies provided comments on the scope of alternatives and the purpose and need provided in the draft resource reports. These comments should be considered and incorporated into the next version of the project's environmental documents to provide substantive information for agency review so as to eliminate any need for further requests for information. Also, agencies will need to work together to craft the appropriate range of alternatives for inclusion in the environmental impact statement to ensure the document meets each agency's requirements for an alternatives analysis.

Subsistence

The project's potential effects on subsistence uses and activities are of large concern to the sponsor, Alaskans, Alaska Natives and the federal government. Specifically, the federal government must disclose and consider potential impacts to subsistence uses and users through the NEPA process. For example, the Bureau of Land Management is required to prepare a finding under the Alaska National Interest Lands Conservation Act on the project's potential to restrict subsistence activities. Early on in this project, FERC identified a data gap for current subsistence information along the project corridor. Data collection activities funded by the project sponsor started in 2011, but completion of the work is not expected until the applicant decides whether to proceed further with a pipeline to Canada or to tidewater in Alaska for LNG exports.

Next step: Depending which project the applicant selects, in addition to completing the subsistence community survey work started in 2011 subsistence data collection may be necessary for areas where use and user data do not exist or is out of date. Discussions regarding the appropriate amount of data

collection and analysis needed, as well as timing for delivery of the information must occur between the agencies and the applicant to avoid delays in the NEPA or permitting processes.

Threatened and Endangered Species

Alaska is home to several species listed under the Endangered Species Act, requiring federal agencies to take special consideration with projects that may potentially affect these species or their critical habitat. The list of threatened or endangered species is subject to change as species are added or removed. The National Marine Fisheries Service is currently considering whether to list populations of ringed and bearded seals, as well as reviewing the status of the ribbon seal, with decisions planned by the end of this year. Several other species are candidates for listing. The Fish and Wildlife Service has agreed to make the determinations in specific years: The Kittlitz's murrelet decision will be made in 2013; yellow-billed loon in 2014; and Pacific walrus in 2017. Even though a candidate species may not have official listing status, discussions and consideration of these species are encouraged early during project permitting. Preliminary discussions have started between the applicant and federal agencies regarding the consultation process.

Next step: Federal agencies provided several comments and questions on the applicant's discussion of threatened and endangered species in the January 2012 draft resource reports that will need to be addressed. Discussion and coordination will need to occur between federal agencies and the applicant as early as possible in the process to assist with writing of a draft biological assessment as required for Section 7 consultation. Initiation of the informal consultation process early can prevent delays and help identify whether formal consultation will be necessary.

Water Quality Certificate

Certain federal permits require certification from the Alaska Department of Environmental Conservation under Section 401 of the Clean Water Act before the permit can be issued. The purpose of this certification is for the state to determine if the project will likely be able to meet Clean Water Act and state water quality standards. State and federal agencies met with the project applicant in October 2011 to discuss data needs for the certificate and associated timing considerations. Each U.S. Army Corps of Engineers 404 permit and U.S. Coast Guard bridge permit will require certification per federal law, but the timing for those certifications will not be determined until the project is further advanced.

Next step: Once the applicant has a clearer picture of permitting needs, discussions should occur with the state and federal agencies to arrive at agreement of what authorizations will be necessary and the timing of each.

Wetlands

About half of the almost 800-mile pipeline route in Alaska and project facilities would be sited within wetlands, resulting in the need for careful delineation of wetlands, jurisdictional boundaries and

potential impacts. Several discussions have occurred between the U.S. Army Corps of Engineers, Environmental Protection Agency, Federal Energy Regulatory Commission and the applicant to achieve alignment on wetland mapping methodologies. In comments on the draft resource reports, agencies requested that the applicant provide data to support the rationale for its selected mapping methodology. Several agency concerns addressed the lack of discussion on wetland functional analysis, impacts to wetlands and mitigation measures. In addition, the EPA and Army Corps of Engineers are considering national guidance on what constitutes "waters of the U.S.", which could affect the scope of jurisdictional wetlands.

Next step: The applicant should review with federal agencies the wetland mapping data collected to guarantee it has met the appropriate requirements and addressed concerns outlined in comments on the draft resource reports, in particular impacts and mitigation measures. Depending on the timing of the project, the Army Corps of Engineers and EPA should be able to discuss their latest guidance with the applicant to ensure that expectations on jurisdiction are the same between all parties.

Additional Items of Concern

The Federal Coordinator has identified several additional areas of concern that will need attention in future project efforts.

Agencies and the applicant will need to work together on appropriate and reasonable mitigation measures for minimizing as well as offsetting any project impacts. Agencies will have different expectations of what would be appropriate and reasonable, and each site may present unique opportunities or circumstances. The requirement for compensatory mitigation to offset project impacts on wetlands in Alaska may pose a challenge for a project of this size. The applicant and agencies may have to be creative in designing an acceptable compensatory mitigation package, keeping in mind the likelihood of success and overall goals. Each agency has its own priorities for the best way to mitigate permanent and temporary impacts, and timely discussion among the agencies is essential to preventing delay.

Agencies will also need to work together on defining performance standards for successful revegetation within wetlands and uplands across the entire project area. Growing conditions and vegetation habitats vary between the North Slope and the rest of the state, so applying one standard may be impractical. The growing conditions also prove difficult for quick revegetation – short growing season, lack of access to seeds, need for fertilizer or irrigation, and the presence of permafrost. A vague definition of success will lead to conflict among agencies as they try to enforce standards for the applicant's work. Also, length of time for monitoring and achieving performance standards for revegetation should be carefully considered as the time to achieve the same amount of ground cover will vary from the North Slope to the Interior. Access to sites and lack of surrounding infrastructure may prove a challenge for the applicant to bring in necessary equipment during a short, seasonal time frame, which should be taken into consideration when designing reclamation plans.

For a long lead time project requiring multiple permits from many different federal, state and local agencies in Alaska, it is important to practice good communication and information exchange practices. Project applicant communication with each agency as early as possible can minimize delays and start the long process on a positive note. Also, regular interagency discussions can provide useful results. An applicant should ensure it has sufficient information to describe the project and discuss potential impacts, but not present a final or rigid design when sitting down with agencies for input. Agencies have devoted substantial effort to this project, assisting the applicant in preparing for an efficient NEPA and permitting process. The most success will come from all parties communicating and committing to actions throughout the process.

Cumulative impacts analyses can be complicated as the scope of the analysis must be defined for past, present and reasonably foreseeable future actions. Further complications arise when there are multiple agencies that will need to rely on the NEPA document. For example, for the FERC-led EIS to support the eagle permitting process, Fish and Wildlife Service stated in its comments to the draft resource reports that the cumulative effects analyses must be conducted at two distinct spatial scales for each eagle species. The appropriate scale for the cumulative impact analysis will be best determined through agency discussion.

Overall, the multi-agency coordination efforts that began with the memorandum of understanding in 2006 have been successful in helping to move this project forward, dealing with many of the permitting challenges of a large natural gas pipeline project in Alaska. Continued coordination is essential if the project sponsor decides to proceed to permitting and actual construction.