

COMMUNITY CONSULTATION

**MACKENZIE GAS PROJECT
PUBLIC CONSULTATION
VOLUME 1: CONSULTATION PROGRAM****INTRODUCTION****3.1.1 COMMUNITY MEETINGS****3.1.1.1 Purpose of Meetings**

Since January 2002, hundreds of meetings and open houses have been held in the Mackenzie Valley and Mackenzie Delta communities within the project area to support project activities for the gathering system, gas pipeline and field developments (see Section 2, Communication by Project Phase).

The purpose of these meetings was to:

- introduce the public to the project's scope and component parts
- continue the frequent communication with the public, local leaders and authorities during the Project Definition Phase
- keep the public informed of the various options for the project
- gather and incorporate community input, where appropriate
- present the environmental information that influenced the selection of the preferred sites and route alignment
- provide an opportunity to those most directly affected by the development and operation of these facilities to meet with the proponents and their consultants to discuss their concerns

3.1.1.2 Using Feedback from Meetings

The Mackenzie Gas Project proponents used feedback gathered from these public consultations to help them refine the:

- field development plans and gas gathering route north of the Inuvik area facility
- facility sites
- route of the NGL pipeline to the Enbridge interconnection in Norman Wells
- route of the gas pipeline from the Inuvik area facility to the NGTL interconnect facility

3.1.1.2 Using Feedback from Meetings (cont'd)

The outcomes of these considerations were communicated to the community when they became available.

3.1.2 COMMUNITY CONCERNS AND RESPONSES TO CONCERNS

Common concerns were raised in community and small group sessions throughout the project area. Table 3-1 summarizes the Mackenzie Gas Project proponents' responses to these concerns. Detailed responses to concerns are found in other volumes of the Mackenzie Gas Project regulatory submission. While the concerns can be captured under broad categories, they were often presented to the project proponents with specific examples, such as those outlined in the table. For example, concerns about caribou or bird migration were heard in different communities over a large geographical range. These concerns have been broadly identified as potential wildlife migration concerns.

Specific concerns about pipeline routing, facility siting and other local impacts were raised in all regions. The responses to such concerns were specific to the affected region or community.

For specific concerns and responses on a regional or community basis, see:

- Section 3.2, Inuvialuit Settlement Region
- Section 3.3, Gwich'in Settlement Area
- Section 3.4, Sahtu Settlement Area
- Section 3.5, Deh Cho Region
- Section 3.6, Northwestern Alberta
- Section 3.7, NWT Non-Corridor Area

3.1.3 ONGOING CONSULTATION

Consultation will continue after the regulatory applications have been filed, and feedback on responses to concerns will continue to be provided through discussions and through responses to information requests.

Assuming that regulatory approvals are obtained and that the project proceeds, public consultation will continue throughout the construction, operation and decommissioning of the project. The consultation will continue to meet the mutual needs of the stakeholders and project proponents.

Table 3-1: Community Concerns and Responses

Concerns in the Community	Examples of Concerns	Response to Community Concerns
Impact of construction activities on local wildlife habitats and migratory routes	<ul style="list-style-type: none"> • Noise, lights and dust causing displacement of birds, caribou and foxes • Noise causing attraction of animals • Increased risk of bear and human interaction • Land disturbance causing displacement of wildlife, such as caribou, bears, muskrat and birds • Above-ground pipe disrupting migration pathways • Hunting by non-local workers staying in camps 	<p>The proponents provided information on the project's environmental impact study, construction plans and experience from other pipeline construction projects.</p> <p>The proponents informed residents that scientific data is being collected to understand the animals and birds that might be affected during construction. As well, traditional studies, conducted by the communities, are contributing to the proponents' understanding of the project's potential impacts on wildlife.</p> <p>The proponents provided information on engineering design, construction schedules and construction practices to better understand the duration and degree of impact of construction on wildlife.</p> <p>The proponents are continuing to inform residents about changes that have been made to the project design as a result of these discussions. Examples include incorporating breaks in the construction of the pipeline trench to allow wildlife migration, planning to hire local wildlife monitors during construction and fencing off certain areas.</p>
Impact of construction activities during fish spawning and running seasons	<ul style="list-style-type: none"> • Increased sediment from dredging at river and stream crossings displacing or eliminating fish habitats and whale migration patterns • Seismic and construction noise displacing fish habitats • Accidental spills contaminating fish habitat • Fishing by construction workers 	<p>The proponents provided information on the project's environmental impact study, construction plans and experience from other pipeline construction projects.</p> <p>The proponents informed residents of the scientific data that is being collected in the project development regions to understand the fish and fish habitats that might be affected during construction. As well, traditional studies, conducted by the communities, are contributing to the proponents' understanding of local harvesting. With the proponents and communities working together, several changes have been made to the project's design, such as river crossing locations in the Sahtu Settlement Area near Tulita, and pipeline routing in the Gwich'in Settlement Area near Travaillant Lake.</p> <p>The proponents provided residents with engineering design information, construction schedules and construction practice information to help them better understand the duration and degree of the impact of construction on fish, especially at lake, river and stream crossings and at designated water-withdrawal locations.</p> <p>The proponents are continuing to inform residents about approaches that have been adopted in the project design as a result of these concerns. Examples include assessing the feasibility of isolation or trenchless methods (horizontal directional drilling) for river and stream crossings, and working with the communities and the Department of Fisheries to establish water-withdrawal locations.</p>
Preserving terrestrial, archeological and culturally significant sites	<ul style="list-style-type: none"> • Damage to medicinal plants, burial sites or culturally significant sites through land disturbance • Disrupting previously unknown sites during construction 	<p>The proponents provided information on the environmental impact study, field development, pipeline routing, facility locations and infrastructure plans to support construction.</p>

Table 3-1: Community Concerns and Responses (cont'd)

Concerns in the Community	Examples of Concerns	Response to Community Concerns
Preserving terrestrial, archeological and culturally significant sites (cont'd)	<ul style="list-style-type: none"> • Ownership of the knowledge of such sites 	<p>The proponents informed residents of the traditional knowledge work that, with financial support by the proponents, would be conducted and owned by the communities. In addition, scientific data collection, including archeological information and public participation, for the environmental impact study is contributing to the proponents' understanding of such sites. With the proponents and communities working together, changes have been made to the project's plans, such as a heater-facility location near Trout Lake in the Deh Cho and pipeline routing near Willowlake River.</p>
Preserving the land and environment for future generations to engage in traditional pursuits	<ul style="list-style-type: none"> • Land disturbance disturbing peace and tranquility, especially near traditional camping areas • Land disturbance disrupting revegetation rates or pristine waters and subsequent impacts on fishing, hunting and trapping • Accidental spills and improper waste treatment or disposal methods 	<p>The proponents provided information on the environmental impact study, field development, pipeline routing, facility locations, and infrastructure plans to support construction.</p> <p>The proponents informed residents that traditional knowledge and archeological data collection as well as public participation in the environmental impact study are contributing to the proponents' understanding of how these traditional pursuits can be preserved. For example, construction practices will incorporate ways to reduce land requirements and to reclaim land that was disturbed during project development.</p>
The impact of development adversely affecting the tourist potential in the area	<ul style="list-style-type: none"> • Loss of habitat for fishing and hunting • Land disturbance changing the visual aesthetics • Increased traffic, noise, lights and dust during construction • Reduced availability of accommodations and supplies in communities • Increased noise from compressors and light from flare stacks 	<p>The proponents provided information on the environmental impact study, field development, pipeline routing, facility locations, and infrastructure plans to support construction.</p> <p>The proponents informed residents that scientific data collection, including archeological information, and public participation in the environmental impact study are contributing to the proponents' understanding of tourist activities and of the businesses supporting such activities.</p> <p>The proponents provided residents with facility locations and infrastructure plans as well as construction practice information to allow residents to better understand the project's consideration for tourism. For example, the project is coordinating road use planning and maintenance with the territorial government. The project will comply with the NWT requirements pertaining to noise.</p>
The visibility of, and noise from, facilities and activities at or near sites that are used and enjoyed by residents and visitors in the area	<ul style="list-style-type: none"> • Disruption to peace and tranquility • Decreased safety for the public • Displacement of fish and wildlife 	<p>The proponents provided information on the environmental impact study, field development, pipeline routing, facility locations, infrastructure plans to support construction, and project operations plans.</p> <p>The proponents informed residents that the scientific data collection in the project development area, including archeological, wildlife and fish habitat and noise studies, as well as public participation for the environmental impact study, are contributing to the proponents' understanding of areas enjoyed by residents and visitors.</p> <p>The proponents provided residents with facility locations and infrastructure plans as well as construction-practice information to allow residents to better understand the project's consideration of</p>

Table 3-1: Community Concerns and Responses (cont'd)

Concerns in the Community	Examples of Concerns	Response to Community Concerns
The visibility of, and noise from, facilities and activities at or near sites that are used and enjoyed by residents and visitors in the area (cont'd)		<p>aesthetics. For example, the project will incorporate visual breaks, such as a row of trees, where appropriate, to reduce visual disturbances from the facilities. As well, the project will develop communication plans during the construction and operations phase to coordinate activities with the local residents, such as routine facility maintenance. Working together to find alternatives has resulted in changes to the project design, such as the location of a camp in the Fort Good Hope area in the Sahtu region being changed.</p> <p>In addition, to help residents better understand pipeline construction and operations, tours have been conducted to view other operations that are similar to those of the Mackenzie Gas Project.</p>
The potential effects of the project on infrastructure within the project area, such as roads, water supply, waste treatment, and medical and other social services	<ul style="list-style-type: none"> • Desire for road access to certain areas • Desire to not have road access to certain areas • Desire for use of spare waste management capacity • Decreased safety for the public • Accidental spills and improper waste treatment or disposal methods • Increased strain on existing medical and social services 	<p>The proponents provided information on the environmental impact study and infrastructure plans, and held workshops with municipalities to discuss such project specifics.</p> <p>The proponents provided residents with information about construction practices to address some of these concerns. For example, worker and public safety is a priority, camps will be self-sufficient, and road-use planning and maintenance will be coordinated with the GNWT. Working together to find alternatives has resulted in changes to the project design, including the potential use of existing spare municipal capacity, such as land, water and waste management.</p>
The capacity in the communities for reviewing regulatory material, conducting consultation and negotiating benefits	<ul style="list-style-type: none"> • Lack of funds • Time constraints • Disruptions to regular community business 	<p>The proponents provided project information and made consultation staff available to address questions.</p> <p>To help identify community capabilities, the proponents discussed with the residents how the EIS studies were being conducted and how they could become involved.</p> <p>The proponents contributed funds to negotiate access and benefits agreements, encouraged governments to provide resources to support negotiations and regulatory reviews, and hired and trained consultation field workers to help review draft regulatory materials.</p>
The possible effects of increased disposable income contributing to alcohol and drug abuse and displacement of traditional lifestyles	<ul style="list-style-type: none"> • Increased incidence of drug and alcohol abuse • Increased availability of alcohol and drugs to residents and to youth • Fewer residents going on the land and participating in traditional activities • Increased strain on families left behind by workers • Diminished support for the Elders 	<p>The proponents informed residents that the scientific data collection, including public participation, for the environmental impact study included assessing the existing problems and how the proponents might support the communities in reducing impacts.</p>

Table 3-1: Community Concerns and Responses (cont'd)

Concerns in the Community	Examples of Concerns	Response to Community Concerns
The ability of the people within communities to access training, employment and business opportunities	<ul style="list-style-type: none"> • People having to leave the communities for training, leaving families behind with no support • People unable to afford to get training • People with good skills but no certification will not be able to get jobs • Local companies will be unable to compete with high-volume low-cost companies from the South • Local workers and businesses will not get work • Local businesses will be unable to afford to grow without certainty of receiving contracts 	<p>The public expressed their views regarding accessing job skill training and obtaining employment and business opportunities.</p> <p>The proponents published information brochures on job and business opportunities typically associated with pipeline construction and distributed them widely during public meetings, door-to-door visits, career fairs, local radio information programs and community gatherings.</p> <p>Community residents were encouraged to send resumes and employment or training interests to project regional offices.</p> <p>Career fairs were attended and supported by the proponents, encouraging students to stay in school to be better positioned to have career choices.</p> <p>Seminars were given to local businesses to show them how to qualify for project work.</p> <p>The proponents participated in and supported the development of pipeline-operation and construction-skills training programs. As well, the proponents co-sponsored, with Resources, Wildlife and Economic Development (RWED), site-safety training in the Deh Cho corridor communities to better position local people for employment in planned geotechnical work.</p> <p>Contracts were awarded for geotechnical work, with preference for local businesses, and proponent representatives met with contractors to encourage local employment.</p> <p>Geotechnical work was broken down into smaller packages to allow local businesses to qualify for the work, and insurance requirements were adjusted to facilitate participation from smaller community businesses.</p> <p>Benefits agreements are being negotiated.</p>
The possibility of unions reducing the ability of local residents to qualify for and access employment and business opportunities	<ul style="list-style-type: none"> • Aboriginal people not employed to do work for which they were qualified • Local businesses ineligible for work because of lack of union affiliation 	<p>The public expressed concerns that unions involved in the project construction would limit opportunities for local residents and businesses. The proponents communicated that they are meeting with union and non-union labour representatives and are developing measures to address these concerns.</p>
Land-access revenues and other associated benefits	<ul style="list-style-type: none"> • Desire to ensure that benefits are maximized from the land claims • Land ownership for the Deh Cho • Land use rights for the Dene Tha' 	<p>The proponents entered into land-access and benefits discussions and negotiations in all of the affected regions.</p>

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VOLUME 1: CONSULTATION PROGRAM

INUVIALUIT SETTLEMENT REGION

3.2.1 LOCATION

The Inuvialuit Settlement Region (see Figure 3-1) extends along the Arctic coast from the Alaska border on the west to the boundary with Nunavut on the east, from the Gwich'in Settlement Area boundary on the south and north across the Beaufort Sea to include Banks Island, parts of Victoria Island and the western Queen Elizabeth Islands.

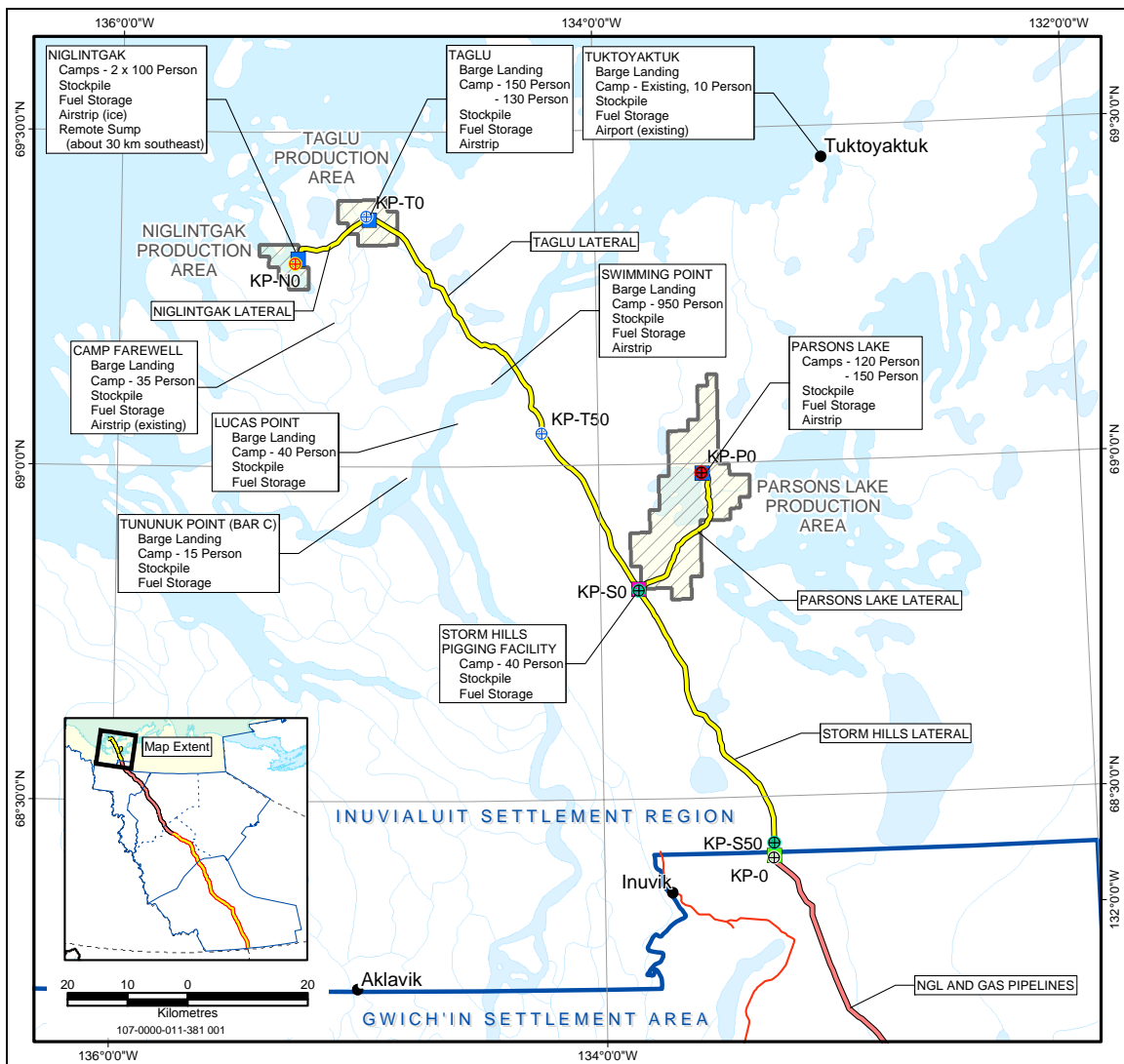


Figure 3-1: Project Development in the Inuvialuit Settlement Region

3.2.2 COMMUNITIES

Communities in the region are:

- Sachs Harbour
- Paulatuk
- Holman
- Tuktoyaktuk
- Inuvik
- Aklavik

The *Western Arctic Claim – The Inuvialuit Final Agreement* – is applicable throughout the Inuvialuit Settlement Region. In accordance with the Inuvialuit Final Agreement, community corporations represent the Aboriginal populations.

The Inuvialuit people regard the land and wildlife of the region as assets that must be protected in the long term.

3.2.3 REGIONAL PROJECT ACTIVITIES

The operators of the three anchor fields have participated in many of the consultation activities documented in this volume. Each has also conducted independent consultation with respect to its field. They have sought to coordinate their independent activities, where possible, to mitigate the impact on community members' time. The following is a summary of the approaches to and results of consultation undertaken individually by the anchor field operators.

3.2.3.1 Niglintgak Field Development

Discovered by Shell Canada Limited in 1973, Niglintgak is located in the Mackenzie Delta about 105 km northwest of Inuvik and 90 km west of Tuktoyaktuk. The Niglintgak natural gas field lies within the Kendall Island Bird Sanctuary and is one of the three anchor fields in the Mackenzie Gas Project. The gas produced from Niglintgak will be collected by the Niglintgak lateral and commingled with the volumes received from Taglu. Volumes from both fields will then be transported to the junction with the Storm Hills lateral, where production from Parsons Lake will be combined before being transported to the Inuvik area facility for processing.

Development plans for Niglintgak have involved assessing several options to best fit the constraints at the field location. Most of the shallow (700 to 1,000 m), compartmentalized reservoir lies below the Middle Channel of the Mackenzie River. This presents drilling challenges to access all of the reservoir. Drilling and production will occur from three surface locations that have been chosen next to previously disturbed exploration drilling locations. The field production will be delivered by above-ground flow lines to a gas conditioning facility, which will dehydrate (dry), compress and cool the gas to gathering system specifications. Shell has been evaluating both a barge-based option (preferred) and a land-based alternative option for siting the gas conditioning facility.

Consultation on the Niglintgak field development has been coordinated with the Mackenzie Gas Project, and many of the meetings regarding Niglintgak have been combined with the other fields and the gathering system. However, Shell arranged several meetings to consult specifically on Niglintgak.

Concerns and Responses

Most concerns with Shell's Niglintgak development are similar to the community concerns common throughout the Northwest Territories. However, during consultation, specific concerns were raised, including:

- the size and nature of the development's land footprint
- the biophysical and socio-economic effects of the proposed gas conditioning facility concept
- the drilling waste disposal method and the use of drilling sumps

Size and Nature of Footprint

The location of the development inside the Kendall Island Bird Sanctuary requires that the land footprint be reduced as much as possible. Concerns were expressed about:

- the amount of disturbed land that might affect wildlife habitat and their activities
- sensory disturbances, such as light and noise, that might interfere with wildlife use of habitat

In response to these concerns, Shell made reducing the development's footprint a priority in its assessment criteria when evaluating development options. The conceptual development design reduced surface disturbance and sensory impacts by:

- locating drilling sites at pre-disturbed locations
- preferentially scheduling drilling and construction activities in the winter
- using above-ground flow lines to reduce surface disturbance
- locating the gas conditioning facilities on a foundation in the river channel

Gas Conditioning Facility

Although the chosen gas conditioning facility concept helped reduce the land disturbance footprint, it raised several unique concerns, including the:

- environmental impact of potential dredging required to transport the gas conditioning facility to the site
- potential loss of jobs and business opportunities during construction because the gas conditioning facilities would be constructed off site

3.2.3.1 Niglintgak Field Development (cont'd)

- protection of the river system during construction and operations activities

These concerns were expressed in community meetings and in a letter from the Inuvialuit Game Council on April 15, 2004. Shell has responded to the Inuvialuit Game Council's letter and has initiated a number of design evaluations and work activities to address them.

Dredging

The potential impact of dredging in the Mackenzie Delta was assessed in the EIS, and it was concluded that dredging could be managed with no significant environmental impact. Additional studies are being done to further refine the scope for any dredging and potential design modifications needed to avoid or reduce dredging in the delta area. Shell will continue to share information with concerned and interested parties as design work continues and site-specific mitigation plans are refined.

Potential Loss of Jobs and Business Opportunities

Shell is aware of the public concern with the potential loss of jobs and business opportunities during construction with the current development compared to other land-based options. A review of the planned Mackenzie Gas Project activities in the region indicates that labour and business opportunities during the three years of scheduled Mackenzie Gas Project construction will exceed the Inuvialuit Settlement Region's capacity to supply the required resources. Therefore, although the proposed gas conditioning facility would remove some jobs from the Inuvialuit Settlement Region during construction, there would still be more employment opportunities available than could be filled locally. In addition, long-term operations jobs and business opportunities will be unaffected by the construction plan chosen for the gas conditioning facility.

Protecting the River System

Protecting the river system is a key component of the Niglintgak design work and construction plans. The gas conditioning facility has been designed to reduce the use of, and increase the control of, chemicals and fuels that might be spilled from it. The environmental impact of locating the gas conditioning facility in the river channel has been assessed in the EIS and mitigation strategies have been identified to address environmental concerns. Additional studies will be undertaken in ongoing engineering studies to develop the site-specific mitigation plan details for Niglintgak.

Shell will continue to consult with stakeholders and respond to concerns raised about the gas conditioning facility as more information is obtained.

Drilling Waste Disposal

The use of drilling sumps as a method of disposing of drilling waste was raised as a concern for all of the anchor field developments. Exploration sumps are

usually built adjacent to the wells. Historically, some have been built in less than ideal sites or in areas prone to flooding, and local stakeholders have raised concerns about their long-term aesthetics and integrity.

Shell assessed a number of options for disposing of drilling waste from the Niglintgak development. The options assessed for drilling waste disposal included:

- a Niglintgak-owned and operated drilling waste disposal well
- a third-party-owned and operated drilling waste disposal well
- transporting drilling waste to, and using, a remotely located engineered sump

Important in the consideration of these options was the volume and nature of the drilling wastes proposed for Niglintgak. Because of the shallow nature of the reservoir and low well count (6 to 12 wells), the volume of drilling waste is expected to be low. In addition, the drilling fluid will be water based, reducing the environmental concerns with longer term sump storage.

The characteristics of the Niglintgak drilling program favour the use of an engineered remote sump as the preferred method for containing and disposing of Niglintgak drilling cuttings and fluids. Downhole injection at Niglintgak was rejected because of a lack of a suitable injection formation and the prohibitive disposal costs given the small volume of Niglintgak drilling cuttings. Disposing of drilling cuttings and fluids into a third-party injection facility is a possible option, but is not currently feasible, as no facility has been identified with confirmed capacity for the Niglintgak cuttings volume.

Shell will continue to consult with interested parties within the Inuvialuit Settlement Region to try to address any remaining concerns with drilling cuttings disposal.

3.2.3.2 Taglu Field Development

Discovered in 1971 by Imperial Oil Limited, the Taglu natural gas field is located in the Mackenzie Delta about 120 km northwest of Inuvik and 70 km west of Tuktoyaktuk. It lies partially within the Kendall Island Bird Sanctuary and is one of the three anchor fields in the Mackenzie Gas Project. The natural gas produced from this field will be commingled with the natural gas received from the Niglintgak lateral. Natural gas from both fields will move through the Taglu lateral to the junction with the Storm Hills lateral.

The Mackenzie Gas Project proponents' coordinated approach to consultation has provided the opportunity for Imperial Oil Resources Limited, the proponent for the Taglu field development, to directly participate in, or be represented in, many of the Mackenzie Gas Project consultation activities. These activities have included providing printed materials and brochures, exchanging information at workshops, public meetings and open houses, and seeking input from community representatives and leaders.

Concerns and Responses

During consultation, many of the concerns raised about the Taglu field development were similar to the community concerns common throughout the Northwest Territories. However, specific concerns raised by stakeholders in the Beaufort Delta Region about the proposed Taglu field development included land disturbance and footprint in the Kendall Island Bird Sanctuary, and the disposal of drilling waste.

Drilling waste, including drilling cuttings and fluids, will be disposed of in a disposal well. This will eliminate the need for a permanent sump and reduce the footprint in the Kendall Island Bird Sanctuary.

Potential mitigation to address land disturbance and footprint includes:

- conducting all drilling from a single well pad
- staging materials and supplies offsite at an existing disturbed area at Tununuk Point

A study was completed to evaluate the potential effects of constructing and transporting the Taglu gas conditioning facility on a marine barge to further reduce the footprint within the Kendall Island Bird Sanctuary. The results of this study indicated that this option would not reduce the footprint because of the excavation requirements along the shoreline. Additional concerns were raised about the foundation requirements for the barge and the limited ability to manoeuvre the barge through the narrower sections of the river channels. As a result, the barge-mounted gas conditioning facility option was rejected and the community was notified of this decision.

3.2.3.3 Parsons Lake Field Development

The Parsons Lake field, discovered in 1972, is located about 70 km north of Inuvik and about 55 km southwest of Tuktoyaktuk, in the Mackenzie Delta Region. Parsons Lake is one of the three anchor fields in the Mackenzie Gas Project. The natural gas produced from the Parsons Lake field will be collected by the Parsons Lake lateral and transported to the Storm Hills junction of the Mackenzie Gas Project gathering system.

ConocoPhillips' approach to consultation for the Parsons Lake field development is proactive, community-based in design and flexible in its implementation. Ongoing and changing stakeholder interests and priorities are being accommodated throughout the consultation process. Particular efforts are being made to accommodate the unique culture and character of communities. Resources and materials are being provided to stakeholders, particularly local communities, to enhance their capacity to participate in the consultation process.

ConocoPhillips' commitment to consultation involves seeking community input on project plans. Community input is one of five factors that ConocoPhillips considers in making decisions. The others are safety, environment, technical feasibility and cost. To listen to and understand input from the community,

ConocoPhillips has engaged in formal consultation, including workshops, meetings and correspondence, and informal consultation, as well as one-on-one meetings, school visits and door-to-door visiting with community members and leaders. ConocoPhillips values and responds to community input, as it contributes to project planning and the evolving consultation process.

Concerns and Responses

Most concerns with the Parsons Lake development were similar to the community concerns common throughout the Northwest Territories. However, concerns raised in the Beaufort Delta Region (including portions of the Gwich'in Settlement Area) specific to Parsons Lake are shown in Table 3-2.

3.2.3.4 Gathering System

Many of the project's proposed activities will occur in the Inuvialuit Settlement Region, because the three anchor fields are located in the region. Gas from these anchor fields will feed a gathering system that will connect to the Inuvik area facility.

Niglintgak Lateral

The Niglintgak lateral, about 16 km long, will originate at the Niglintgak field, cross the Kumak Channel and traverse eastward, cross two more large channels and terminate at the outlet of the Taglu gas field gas conditioning facility. The entire route is on crown land.

Taglu Lateral

The Taglu lateral will begin south of Big Lake, traverse southeast, cross the Harry Channel onto Richards Island and leave the island by crossing the East Channel north of Swimming Point. It will continue southeast to the junction of the Parsons Lake lateral at the Storm Hills pigging facility. The distance is about 81 km, of which 23.5 km is on private Inuvialuit land.

Parsons Lake Lateral

The Parsons Lake lateral originates at the northeast corner of Parsons Lake, continues south around the lake, then southwest between West Hans Lake and East Hans Lake, a distance of about 27 km. The entire route is on crown land.

Storm Hills Pigging Facility

The Storm Hills pigging facility, where pipeline cleaning and inspection devices might be launched and received, is a 4 ha site located at the junction of the Parsons Lake and Taglu laterals. Gas volumes from both of these laterals will be metered before entering the Storm Hills lateral, which will terminate at the Inuvik area facility.

Table 3-2: Parsons Lake Concerns Addressed in Project Planning

Issue or Concern	Description of Issue Expressed by Community	Response
Access (movement of people, supplies and equipment) to project	Construction of an all-weather road from Inuvik to Tuktoyaktuk. Some community members and leaders support this.	An extensive analysis was conducted on options to access the project considering safety, environment, community input, technical feasibility and economics. After careful consideration, the proposed access option for the Parsons Lake field is a blend of winter ice roads, air support (helicopter and fixed-wing) and low-ground-pressure vehicles. ConocoPhillips will not build an all-weather road from Inuvik to the Parsons Lake area to support the proposed Parsons Lake development.
Reduce footprint	Size of north pad	The size of the north pad will decrease from 20 ha to 15 ha. Equipment on the north pad will be moved closer together. The drilling pad size will be reduced.
	Size of south pad	The size of the south pad will decrease from 4 ha to 1 ha. Fewer buildings are planned on the south pad.
	Construction and location of flare stacks	The two required flare stacks will be located together to reduce the land area required.
Reduce disturbance	Zed Creek Parsons lateral crossing	Recommended to gathering system operator that gathering system plans be evaluated for potential to change from a below-ground crossing to an above-ground crossing.
	Height of above-ground lines	Lines crossing tundra or flow lines will be designed to be 2.2 m above ground level to ensure safe passage of people and animals below, even with snow cover.
Respect the environment	Avoiding use of drilling sumps. Managing drilling wastes responsibly.	The use of permanent sumps will be avoided. If the proposed geological formation is found suitable for injection, and regulatory approval is obtained, drilling cuttings will be injected for disposal. Otherwise, drilling cuttings will be stabilized, stored and transported to an approved disposal facility. Oil-based drilling fluids will continuously be reused and eventually transported out of the region for recycling or disposal.
	Prevention and management of spills or leaks	Recommended that buildings be designed with an integral floor that will contain spills. Design work is ongoing.
Emergency Response	Management of incidents	An approved emergency response plan will be in place.

Storm Hills Lateral

The Storm Hills lateral traverses southeast from the Storm Hills junction, east of Noell Lake, until it reaches the Inuvik area facility, a distance of about 51 km. The entire route is on crown land.

Unique Concern

A continuing concern in the Inuvialuit Settlement Region is the proposed Storm Hills lateral.

Residents expressed concern about the possible effects of the pipeline construction and the proposed route south from the Storm Hills pigging facility to the Inuvialuit–Gwich'in regional boundary. The communities believed that the route should be adjusted to parallel the existing Ikhil pipeline right-of-way, which is located about 15 km west of the proposed route, to reduce the environmental impact. They also expressed concern about potential impacts on the caribou.

Response to Concern

In response to this concern, the proponents studied alternative routes for the gathering system, including the route paralleling the Ikhil pipeline right-of-way, which would be about 19 km longer than the proposed route. The study concluded that the alternative routes did not provide incremental protection of the environment. Further, a study of the caribou and their habitat concluded that any disruption would be minor and temporary during the construction period. These results were communicated by letter and in person at various meetings with the Inuvialuit Game Council and other interested parties.

In April, the Inuvialuit Game Council reinforced their preference in a letter to the Mackenzie Gas Project for the eastern route alternative, the twinning of the current Ikhil pipeline right-of-way.

The timing of construction activities and potential caribou movements will be considered as construction planning progresses for the proposed Storm Hills lateral.

COMMUNITY CONSULTATION

MACKENZIE GAS PROJECT
PUBLIC CONSULTATION
VOLUME 1: CONSULTATION PROGRAM

GWICH'IN SETTLEMENT AREA

3.3.1 LOCATION

The Gwich'in Settlement Area (see Figure 3-2) is bordered on the north by the Inuvialuit Settlement Region, on the west by the Yukon Territory, on the south and east by the Sahtu Settlement Area.

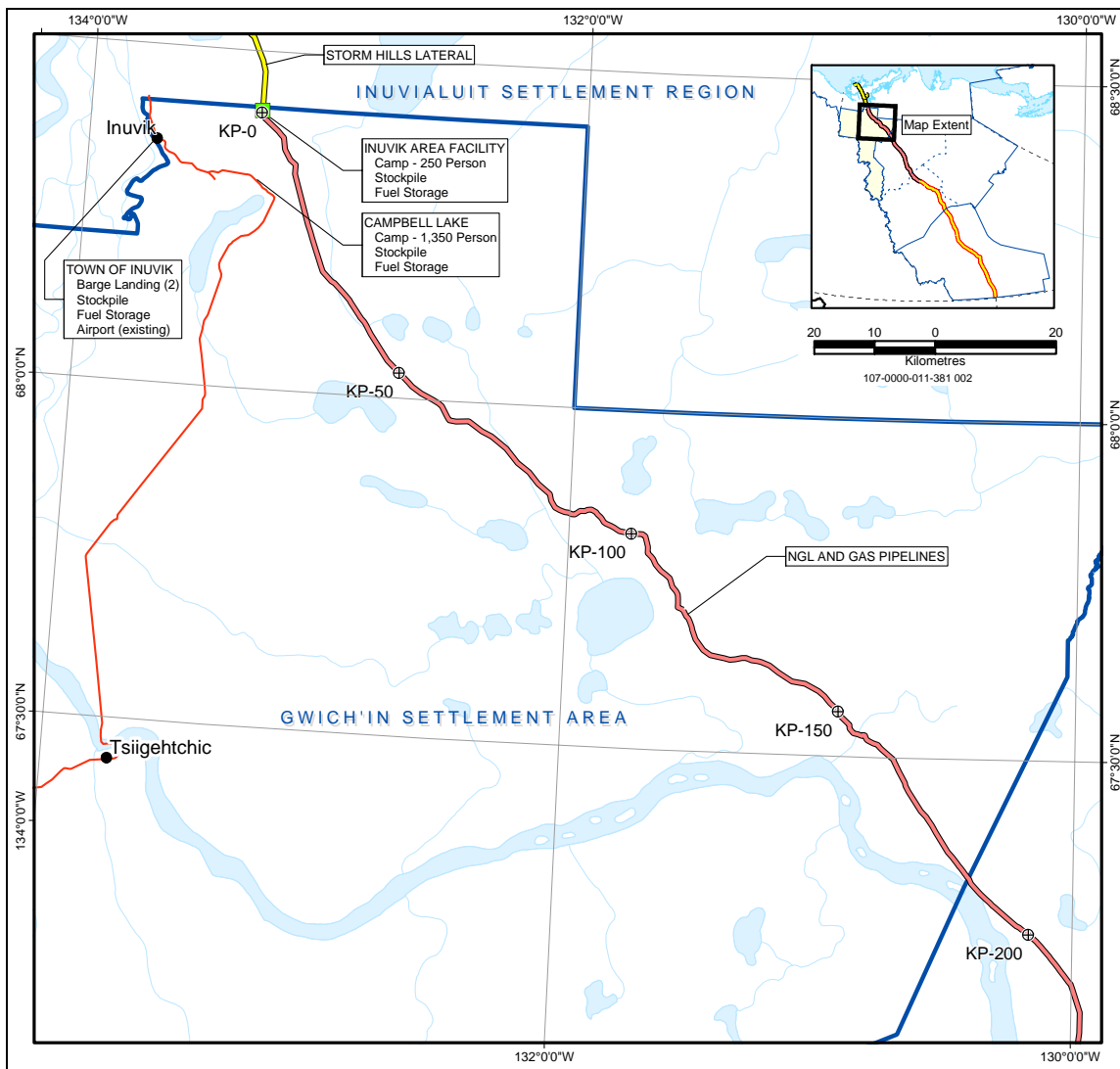


Figure 3-2: Project Development in the Gwich'in Settlement Area

3.3.2 COMMUNITIES

Communities in the Gwich'in settlement area include:

- Tsiigehtchic (Arctic Red River) – Gwichya Gwich'in
- Fort McPherson – the Tetlit Gwich'in
- Aklavik – Ehdiitat Gwich'in
- Inuvik – Nihtat Gwich'in

The people of the Gwich'in Settlement Area regard the land and wildlife as assets that must be protected in the long term. The Gwich'in Comprehensive Land Claim Agreement describes the lands to which the Gwich'in people have rights. On Gwich'in-owned lands, the Gwich'in enjoy all rights of private property ownership. The Gwich'in Tribal Council administers surface land use.

3.3.3 SETTLEMENT AREA PROJECT ACTIVITIES

The Gwich'in Settlement Area will not have the same degree of project activity as the Inuvialuit Settlement Region. Activities in the Gwich'in Settlement Area will be focused on constructing and operating the Inuvik area facility and the accompanying road and right-of-way for the gas and NGL pipelines. The Inuvik area facility will be located just south of the regional boundary between the Inuvialuit Settlement Region and the Gwich'in Settlement Area, and will:

- process the gas collected in the gathering system
- separate the natural gas from the NGLs
- stabilize the NGLs and compress the gas, so that they can be transported south through two separate single-phase pipelines in the same right-of-way through the Gwich'in Settlement Area to Norman Wells
- include a large (1,350-person capacity) camp site at the north end of Campbell Lake
- include a smaller (250-person capacity) camp site at the Inuvik area facility

3.3.4 UNIQUE CONCERN

A unique concern in the Gwich'in Settlement Area is about the pipeline right-of-way route in the Travaillant Lake area.

The Gwich'in Land Use Plan designates the Travaillant Lake area as a protected area because it is:

- an area of numerous lakes where the community harvests fish stocks
- the headwater for the Kugaluk and Anderson river systems
- of cultural significance to the Gwich'in
- a potential wintering area for the bluenose caribou

This concern was expressed in meetings with the community of Tsiigehtchic, the Renewable Resource Committee, Elders, and the Chief and Council. The Gwich'in Land Use Plan acknowledges and allows for a pipeline through this protected area. The community did not want to oppose the pipeline but wanted to ensure that their concerns were weighed equally with those of the project. The proponents asked the community to provide an alternative route, so that they could take that input and review the feasibility of a route change.

3.3.4.1 Response to Concern

Through work with the community of Tsiigehtchic, the Chief, the Council and the Elders affected by the route in this area, an alternative route was drawn up by the community for review by the project proponents. After analyzing the alternative from an environmental and engineering perspective, the proponents determined that the alternative was an appropriate route. Therefore, the alternative route was adopted.

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PUBLIC CONSULTATION
VOLUME 1: CONSULTATION PROGRAM

SAHTU SETTLEMENT AREA

3.4.1 LOCATION

The Sahtu Settlement Area (see Figure 3-3) is bordered to the north by the Gwich'in and Inuvialuit settlement areas, to the east by Nunavut, to the southeast by the North Slave Region, to the south by the Deh Cho Region and to the west by the Yukon.

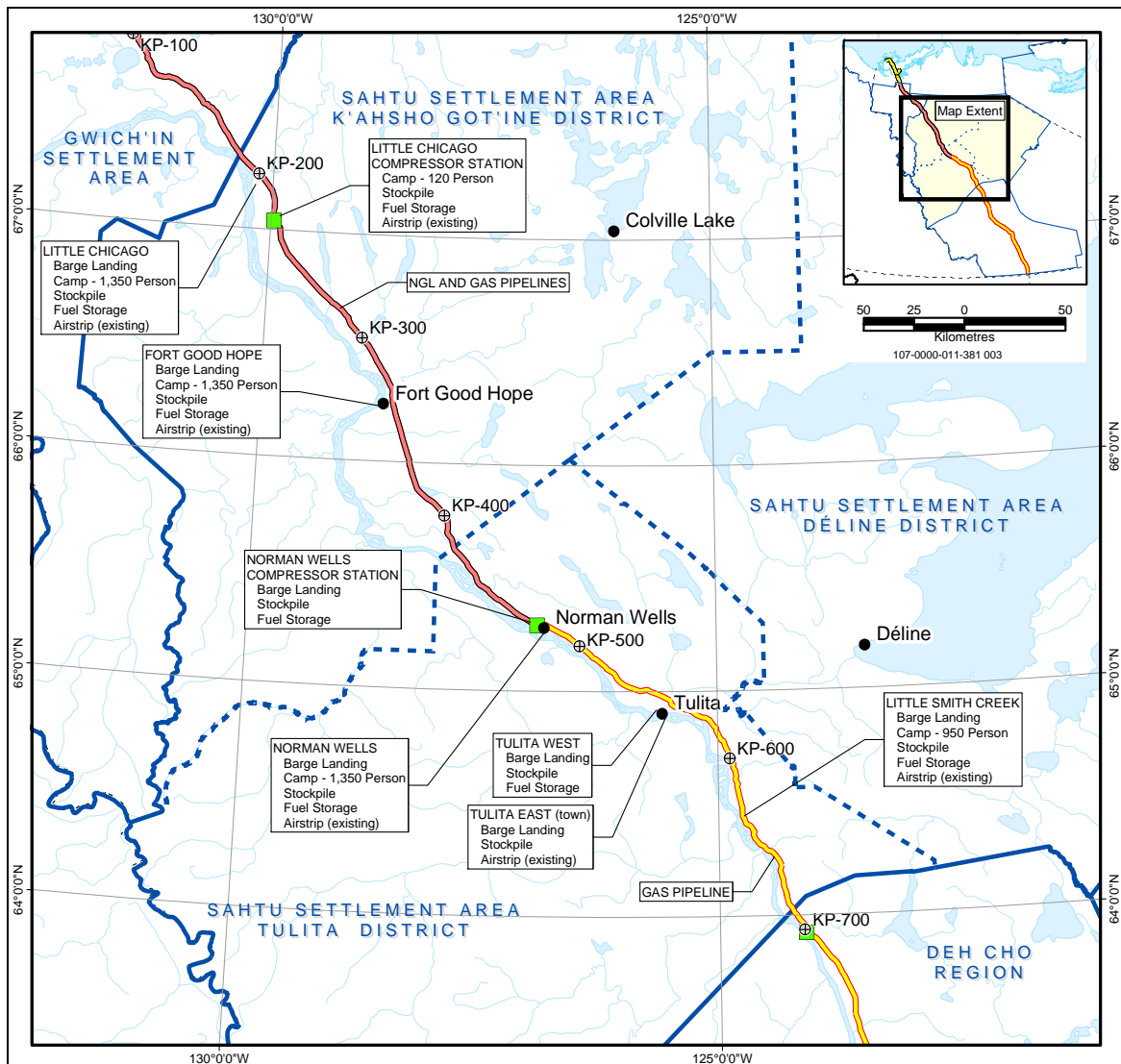


Figure 3-3: Project Development in the Sahtu Settlement Area

3.4.2 COMMUNITIES

Communities in the Sahtu Settlement Area are:

- Colville Lake
- Fort Good Hope
- Norman Wells
- Tulita
- Déline

Each of the five Sahtu communities has its own renewable-resource council that deals with hunting and trapping matters associated with the land claim.

3.4.3 SAHTU ORGANIZATIONS

The Sahtu Dene and Métis Comprehensive Land Claim Agreement was completed in 1993. Title to the settlement lands is held by the three district land corporations. There are also seven community-based land corporations in the Sahtu Settlement Area. The Sahtu Secretariat Inc. is the coordinating body for the seven community land corporations and for matters related to the Sahtu Dene and Métis Comprehensive Land Claim Agreement. The mandate of the Sahtu Secretariat Inc. is to ensure that programs and services implemented under the Sahtu Dene and Métis Comprehensive Land Claim Agreement benefit the Sahtu people. The Sahtu Secretariat Inc. takes direction from the Sahtu Dene Council, which includes the Sahtu Grand Chief and the Sahtu Chiefs.

3.4.4 REGIONAL PROJECT ACTIVITIES

The Sahtu Settlement Area is divided into three districts. Project construction activities will take place on K'ahsho Got'ine District and Tulita District lands. No construction will occur in the Déline District lands.

In the K'ahsho Got'ine District, three construction camps are proposed:

- one large temporary construction camp (about 1,350-person capacity) in the Little Chicago area
- one large temporary construction camp (about 1,350-person capacity) in Fort Good Hope
- one small camp (about 120-person capacity) at the proposed compressor site location

The Little Chicago area will also have a barge landing site, equipment and materials storage area, fuel storage facilities, two airstrips and a compressor station site. Also proposed near Fort Good Hope is an equipment, materials and fuel storage area, and the use of an existing barge landing site and airstrip.

In the Tulita District, at Norman Wells, a large temporary construction camp (about 1,350-person capacity) is proposed, as well as a small temporary construction camp (about 120-person capacity), a compressor site, an equipment- and materials storage area and the use of existing barge landing sites, fuel storage facilities and the regional airport.

Near the community of Tulita, two temporary infrastructure sites are proposed. They consist of stockpile sites for equipment and materials, barge landings and fuel storage. Use of the existing airstrip will also be required. South of Tulita, near Little Smith Creek, a temporary infrastructure site, consisting of a 950-person construction camp, a stockpile site for equipment and materials, a barge landing site, an airstrip and fuel storage facilities will be located.

3.4.5 UNIQUE CONCERNS

3.4.5.1 Déline District

Access to private lands to carry out project activities will be required from the Sahtu district land corporations of K'ahsho Got'ine and Tulita. Déline has indicated that access and benefits agreements negotiated with these other districts should not disadvantage or exclude Déline from participating fully in project-related employment and business opportunities.

The project proponents encouraged Déline district leaders to work with the other two regions to facilitate:

- a single set of access and benefits arrangements with the proponents at a regional level
- incorporating Déline impact into the K'ahsho Got'ine and Tulita agreements

The proponents also encouraged Déline leaders to contact their counterparts in the other districts to make their concerns known. On several occasions, the proponents advised the other district leaders of Déline's concerns. The proponents have included Déline in all consultation activities and workshops, contract pre-qualification orientation and pre-qualification processes, requests for bids for geotechnical programs, career fairs and other related project activities.

3.4.5.2 K'ahsho Got'ine District

Unique to the camp near Fort Good Hope was a concern about its proximity to a local swimming area. In response, the proponents held a public meeting in Fort Good Hope to help better understand the community's concerns about the proposed construction camp and to involve residents in possible solutions.

Fort Good Hope residents also expressed concerns with the planned temporary infrastructure required near Little Chicago to support pipeline construction. A workshop was held in Fort Good Hope to help understand the residents' concerns and involve them in possible solutions. The locations of cabins and burial sites near Little Chicago were discussed and mapped, so that infrastructure and

3.4.5.2 K'ahsho Got'ine District (cont'd)

pipeline construction activities could be designed to avoid sensitive areas. There was also some discussion on pipeline routing. The residents offered differing opinions as to the best route, with support generally expressed for the proposed route.

K'ahsho Got'ine District representatives proposed that three committees be formed, comprising community residents and project staff, to address socio-economic issues and business opportunities. The proponents agreed to participate in these committees and have facilitated meetings with the K'ahsho Got'ine Pipeline Working Group to develop committee mandates, arrange meetings and address issues.

3.4.5.3 Tulita District

Some Tulita residents expressed concerns about how close the proposed pipeline route was to the community's water intake system. It was also suggested that ice build-up in that vicinity could cause problems with construction and reliability of the pipeline operation.

In response, the proponents asked residents for their views on a more appropriate Great Bear River crossing to avoid the issues raised and to improve constructability. The project's technical staff assessed the suggested alternatives and adopted one of the suggested alternatives.

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VOLUME 1: CONSULTATION PROGRAM

DEH CHO REGION

3.5.1 LOCATION

The Deh Cho Region (see Figure 3-4) is the southernmost region of the NWT on the proposed pipeline corridor. It is bordered by the Yukon to the west, the Sahtu Region to the north, the North Slave Region to the northeast, the South Slave Region to the southeast and Alberta to the south.

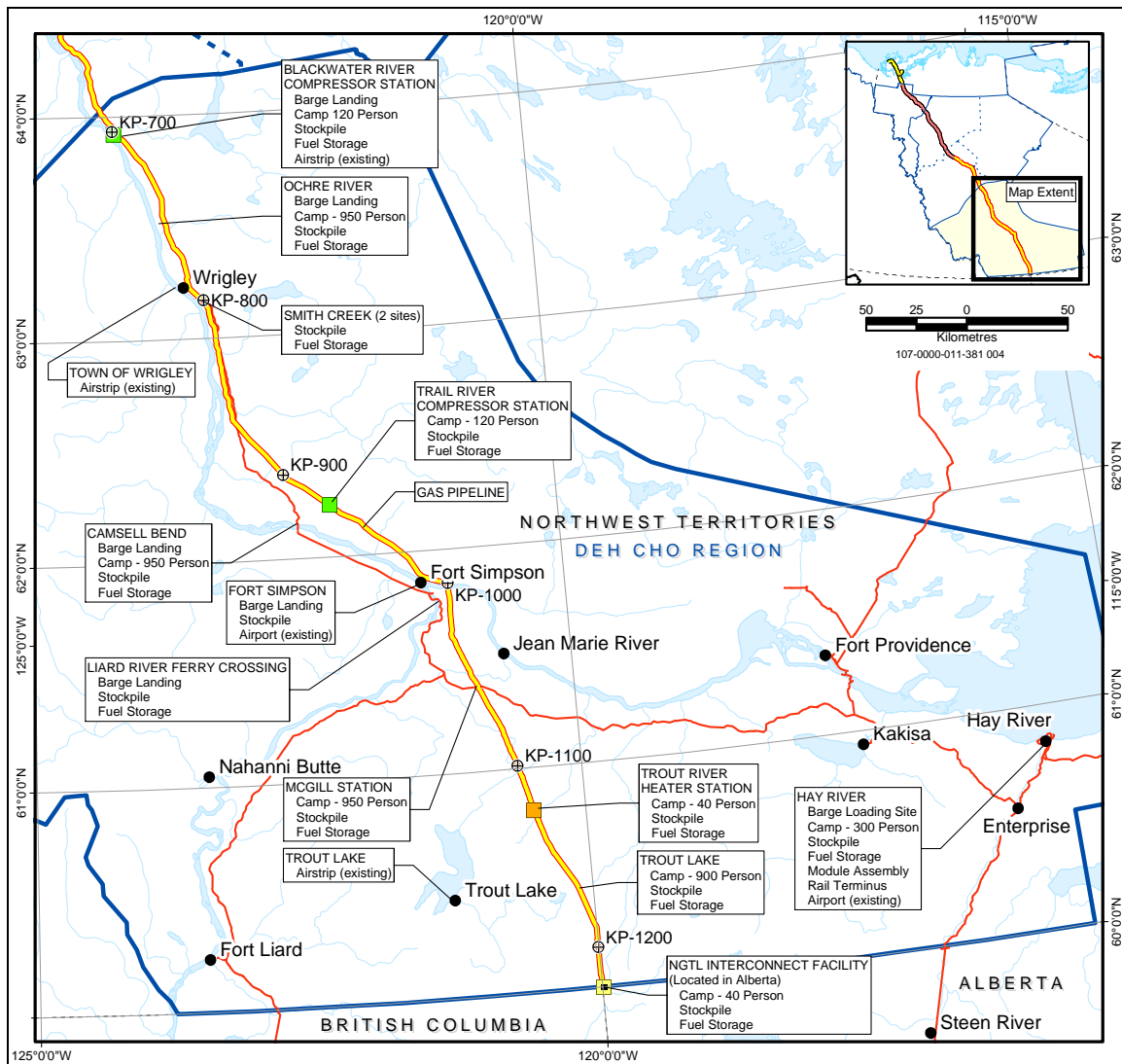


Figure 3-4: Project Development in the Deh Cho Region

3.5.2 COMMUNITIES

The region includes 12 separate communities represented by 17 organizations, including First Nation, Métis and town, hamlet or village councils. The region is currently involved in the Deh Cho Process, which is intended to lead to decisions on land management and governance between the federal and territorial governments and the Deh Cho. The Deh Cho Process has not been concluded. This process involves negotiations between the federal government, the Government of the Northwest Territories and the Deh Cho First Nations, which will set a framework for land management and governance.

The Deh Cho Region contains four territorial electoral constituencies:

- Nahendeh
- Deh Cho
- Hay River North
- Hay River South

Early in 2002, the Aboriginal communities, through the Deh Cho First Nations, identified communities that would be most affected by the project, either because of proximity to the pipeline or traditional land-use implications. These communities are referred to as corridor communities and include:

- Wrigley – Pehdzeh Ki First Nation
- Fort Simpson – Liidlii Kue First Nation and Métis Local 52
- Jean Marie River – Tthe’K’ehdeli First Nation
- Trout Lake – Samba K’e Dene Band First Nation
- Kakisa – K’a’agee Tu First Nation

In early 2003, the project proponents met with the Deh Cho First Nations and INAC to review the 2002 pipeline route through the Deh Cho Region. Subsequently, the Deh Cho Interim Land Withdrawal process established a route that could provide for development of a pipeline corridor.

A resolution creating and empowering a Deh Cho Pipeline Working Group was passed by Deh Cho First Nations leadership in February 2003. The working group was in place by September 2003.

The Hay River area, including Enterprise, will experience short-term impacts as a result of moving materials and equipment through the area during the Construction Phase of the project. This area received ongoing updates and presentations on the project and participated in scoping issues for the socio-economic and environmental impact assessments.

3.5.3 REGIONAL PROJECT ACTIVITIES

The proposed development in the Deh Cho Region involves the construction and long-term operation of a buried, 30 inch, sweet natural gas pipeline from the southern Sahtu boundary to the Alberta boundary.

The proposed permanent facilities include:

- two compressor stations, one at Blackwater River and one at Trail River
- a heater station east of Trout Lake

Eight temporary construction camps, ranging in size from 60 to 950 persons, will also be used.

3.5.4 UNIQUE CONCERNS

Community members, local and regional leaders and local business groups expressed concern to the proponents about matters related to land management and governance. The proponents urged those concerned to bring the Deh Cho Process to a timely conclusion and communicated a commitment to abide by any agreement arising from the process.

The proposed pipeline route near the Willowlake River area raised concern from Wrigley Pehdzeh Ki First Nation and Fort Simpson Liidlii Kue First Nation. The proposed route passed through an area of cultural and spiritual significance. As well, a problem identified was that construction activities would be too close to families living on the land. In response, the proponents evaluated several alternative routes proposed by the family living in the area. The result of this work was the adoption of a new route that stayed to the east of the all-weather road past Willowlake River.

The Trout Lake community expressed concern about the development potentially affecting the watershed feeding Trainor Lake. Specific concerns were raised regarding:

- potential borrow sites east of Trainor Lake
- the planned location of the Trout Lake main construction camp
- the proximity of the pipeline right-of-way to Trainor Lake

The proponents reviewed alternatives and agreed to move the proposed pipeline route about 2.5 km to the east side of the pipeline development corridor, as determined through the Interim Land Withdrawal process. The camp location was also moved farther east of Trainor Lake.

Through the traditional knowledge study at Trout Lake, concerns were raised about the proposed location for a heater station. The proposed location, at the intersection of the Trout Lake winter road and the Enbridge pipeline right-of-way, is on a heritage site and on low ground. The community proposed, and the project has adopted, an alternative location on higher ground, about 3 km south of the original site. As a result of the traditional knowledge work, the project has also eliminated a proposed granular development site east of Trainor Lake, which is a site of spiritual significance.

Kakisa raised concerns about protecting the Tathlina Lake inflow watershed. Tathlina Lake is used for traditional activities and is a primary inflow to Kakisa

3.5.4 UNIQUE CONCERNS (cont'd)

Lake. Residents are concerned about potential impacts from the existing Enbridge pipeline and the proposed Mackenzie Valley natural gas pipeline.

The proponents offered to arrange for some community Elders to fly along the existing Enbridge right-of-way where it crosses the Tathlina Lake watershed and the proposed natural gas pipeline right-of-way.

COMMUNITY CONSULTATION

**MACKENZIE GAS PROJECT
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VOLUME 1: CONSULTATION PROGRAM****NORTHWESTERN ALBERTA**

3.6.1 LOCATION

The Dene Tha' is a Dene First Nation located in northwestern Alberta. They assert that they have traditional-use lands in the project area that extend into the southern portion of the Deh Cho Region.

3.6.2 COMMUNITIES

The Dene Tha' communities are:

- High Level
- Meandering River
- Bushe River
- Chateh (formally Assumption)

3.6.3 REGIONAL PROJECT ACTIVITIES

During the project's Feasibility Study Phase and the first year of the Project Definition Phase, project proponents evaluated several options for the terminus of the pipeline. During this time, the Dene Tha' were consulted and informed on current project plans. In mid-2003, a decision was made to terminate the Mackenzie Valley pipeline just south of the Northwest Territories–Alberta boundary. NOVA Gas Transmission Ltd. (NGTL) will be responsible for submitting a regulatory application to the Alberta Energy and Utilities Board (EUB) for the required NGTL facilities. Facilities proposed by NGTL are:

- an interconnect facility
- a 66 km pipeline to connect Bootis Hill to the interconnect facility

3.6.4 AREA CONCERNS

The proponents have offered to hold public meetings in the Dene Tha' communities. Dene Tha' leaders have opposed such meetings before signing a protocol agreement with the Mackenzie Gas Project proponents. The Dene Tha' negotiating team and project representatives have met to discuss a protocol agreement. Until such an agreement is resolved, the Dene Tha' leadership will not support public meetings.

COMMUNITY CONSULTATION

**MACKENZIE GAS PROJECT
PUBLIC CONSULTATION
VOLUME 1: CONSULTATION PROGRAM****NWT NON-CORRIDOR AREA**

3.7.1 LOCATION

The non-corridor area is the remaining area of the NWT after the Inuvialuit Settlement Region, Gwich'in Settlement Area, Sahtu Settlement Area and Deh Cho Territory.

Most of the population is non-Aboriginal and located primarily in Yellowknife. Most of the population living outside of Yellowknife is Aboriginal.

3.7.2 COMMUNITIES

The communities in the non-corridor area are:

- Yellowknife
- Rae Lakes
- Wekweti
- Wha Ti
- Rae-Edzo
- Dettah
- N'dilo
- Lutselk'e
- Fort Smith
- Fort Resolution

3.7.3 REGIONAL PROJECT ACTIVITIES

Project activities in this region are primarily related to federal and territorial governance, including regulatory bodies, which operate from Yellowknife.

3.7.4 APPROACH TO PUBLIC CONSULTATION IN THE REGION

The proponents offered to provide information sessions or open houses in each of the communities in the non-corridor area. Open houses were held in Dettah and N'dilo.

The City of Yellowknife is home to other organizations interested in the Mackenzie Gas Project. An open house forum and lunch-and-learn session provided project information and the opportunity to gather input. Representatives

3.7.4 APPROACH TO PUBLIC CONSULTATION IN THE REGION (cont'd)

of some of these organizations and groups participated in the EIS non-government organization (NGO) workshops.

3.7.5 COMMUNITY CONCERNS

No specific community concerns were raised, except those that are closely associated with the general concerns identified in Section 3.1.

GLOSSARY

%	The symbol for percent.
abandonment	The act of permanently stopping operations, removing facilities and restoring land to a productive state.
Aboriginal person	Any Indian, Inuit or Métis person who was born in the Northwest Territories or who is descended from an Aboriginal person born in the Northwest Territories.
access road	A temporary, permanent, or winter road that provides access to a facility, camp site, borrow site, barge landing site or a pipeline right-of-way and that is not open to the public.
all-weather road	A paved or unpaved, i.e., gravel, road that is open to traffic all year.
anchor fields	The three natural gas fields Taglu, Parsons Lake and Niglintgak, whose production will provide the basic volume of gas shipped in the Mackenzie Valley pipeline.
APG	The abbreviation for Aboriginal Pipeline Group.
aquatic	Growing, living in, or frequenting water. Also, occurring in or situated on water.
ARI	The abbreviation for Aurora Research Institute.
barge	A large, flat-bottomed boat used for transporting equipment and material. Usually propelled by towing with a tugboat.
barge landing site	A location on the shore or bank where a barge can land or dock to unload or load equipment and material.
baseline	A surveyed condition that serves as a reference point to which later surveys are coordinated or correlated.
biophysical study	The study of air, noise, aquatic (hydrogeology, hydrology, water quality and fisheries) and terrestrial (geology, permafrost, soils, vegetation and wildlife) conditions.
borrow site	An area that could be excavated to provide material, such as gravel or sand, to be used by the project.

GLOSSARY

Canada Benefits Plan	A plan to provide Canadians, including Aboriginal and other northerners, with a fair opportunity to participate competitively in supplying the goods, services and personnel required by the project.
CBC	The abbreviation for Canadian Broadcasting Corporation.
compressor station	A facility containing equipment that is used to increase pressure to compress natural gas for transportation.
ConocoPhillips	The abbreviation for ConocoPhillips Canada (North) Limited.
consultation, public	The process of involving all affected parties in the design, planning and operation of a project. The process requires that the proponents give the parties to be consulted notice of the matter in sufficient form and detail to allow them to prepare their views on the matter. They are also given a reasonable amount of time to prepare their views and an opportunity to present their views to the proponents, who consider the views presented, fully and impartially.
crown land	Land whose mineral rights are owned by the federal or provincial government in Canada.
decommissioning	The act of taking a processing plant or facility out of service and isolating equipment, to prepare for routine maintenance work, suspending or abandoning.
demographics	Of or relating to the dynamic balance of a population, especially with regard to its density and capacity for expansion or decline.
DFO	The abbreviation for Fisheries and Oceans Canada, a department of the federal government of Canada.
disposal well	A well into which process and other wastewater will be injected.
EIRB	The abbreviation for Environmental Impact Review Board.
EIS	The abbreviation for Environmental Impact Statement.
Enbridge	The abbreviation for Enbridge Pipelines (NW) Inc.
environmental impact assessment	The process of evaluating the biophysical, social and economic effects of a proposed project.
environmental impact statement	A report containing the environmental impact assessment.
EUB	The abbreviation for Alberta Energy and Utilities Board.
ExxonMobil	The abbreviation for ExxonMobil Canada Properties.

GLOSSARY

flare stack	A chimney used to dispose of surplus hydrocarbon gases by igniting them in the atmosphere.
footprint	The amount and shape of the area disturbed.
gas, natural	A compressible mixture of hydrocarbons with a low specific gravity that occurs naturally in a gaseous form.
gas pipeline	The proposed gas pipeline that would extend from the Inuvik area facility, parallel to the NGL pipeline along the Mackenzie River to Norman Wells, and continue south to connect to an extension of the TransCanada PipeLines Alberta system south of the Northwest Territories–Alberta boundary. Also known as the <i>Mackenzie Valley pipeline</i> .
gathering system	A system of pipelines and related facilities that include four gathering pipelines, the Inuvik area facility, the NGL pipeline and related facilities, such as valves, pig launchers and receivers. Also known as the <i>Mackenzie gathering system</i> .
geotechnical	Related to the application of scientific methods and engineering principles to civil engineering problems, by acquiring, interpreting and using knowledge of materials of the crust of the earth.
GNWT	The abbreviation for Government of the Northwest Territories.
granular resources	The material deposits that have a granulated surface or structure, such as gravel.
GSA	The abbreviation for Gwich'in Settlement Area.
ha	The metric symbol for hectare.
helipad	A cleared landing area for helicopters, located at camps and facilities.
horizontal directional drilling	A water crossing technique used in pipeline construction in which the pipe is buried under a watercourse at depths much greater than conventional crossings. An inverted arc-shaped hole is drilled beneath the watercourse and the assembled pipeline is pulled through it. Also known as a <i>trenchless crossing</i> .
HTC	The abbreviation for Hunters and Trappers Committee.
ice road	A secondary road made of compact snow or ice, often ploughed over a frozen lake or ground, and that is impassable in the summer. Also known as a <i>winter road</i> .
ILA	The abbreviation for Inuvialuit Land Administration.
Imperial Oil Resources Limited	A subsidiary of Imperial Oil Limited that currently holds the Significant Discovery Licence for, and operates, the Taglu gas field.

GLOSSARY

Imperial Oil Resources Ventures Limited	A subsidiary of Imperial Oil Limited that will construct and operate the Mackenzie gathering system and the Mackenzie Valley pipeline on behalf of the gathering system and pipeline proponents.
INAC	The abbreviation for Indian and Northern Affairs Canada.
infrastructure	The basic facilities, such as transportation, communications, power supplies and buildings, that enable an organization, project or community to function.
Inuvik area facility	The gas and NGL processing facility for the Mackenzie Gas Project, to be located near Inuvik.
IRC	The abbreviation for Inuvialuit Regional Corporation.
ISR	The abbreviation for Inuvialuit Settlement Region.
km	The metric symbol for kilometre.
Land Use Permit	A permit issued by the designated managing body for a specific tract of land, allowing for an activity to be conducted on that land, as described in a land use application.
lateral, pipeline	A gathering pipeline that connects the production area facilities to the Inuvik area facility.
logistics	The activities associated with procuring, maintaining and transporting materials, equipment and personnel.
m	The metric symbol for metre.
Mackenzie gathering system	A system of pipelines and related facilities that include four gathering pipelines, the Inuvik area facility, the NGL pipeline and related facilities, such as valves, pig launchers and receivers. Also known as the <i>gathering system</i> .
Mackenzie Valley pipeline	The proposed gas pipeline that would extend from the Inuvik area facility, parallel to the NGL pipeline along the Mackenzie River to Norman Wells, and continue south to connect to an extension of the TransCanada PipeLines Alberta system south of the Northwest Territories–Alberta boundary. Also known as the <i>gas pipeline</i> .
Memorandum of Understanding	The written statement, signed on October 15, 2001, and ratified by Imperial, the APG, ConocoPhillips, Shell and ExxonMobil, identifying mutually acceptable principles and arrangements for the economic and timely development of a Mackenzie Valley pipeline.
mitigate	To cause to become less harsh or hostile.
MLA	The abbreviation for Member of the Legislative Assembly.

GLOSSARY

natural gas	A compressible mixture of hydrocarbons with a low specific gravity that occurs naturally in a gaseous form.
natural gas liquids	The hydrocarbons that are gaseous in the reservoir, but that will separate out in liquid form at the pressures and temperatures at which separators normally operate. The liquids consist of varying proportions of butane, propane, pentane and heavier fractions, with little or no methane or ethane.
NEB	The abbreviation for National Energy Board.
NGL	The abbreviation for natural gas liquid.
NGO	The abbreviation for non-government organization.
NGTL	The abbreviation for NOVA Gas Transmission Ltd.
North, the	The Arctic, or the northern part of a province.
NWT	The abbreviation for Northwest Territories.
permafrost	Perennially frozen ground, occurring wherever the temperature remains below 0°C for several years.
pigging	The act of pushing a device through a pipeline to physically clean deposits from the inner surface of the pipeline, to remove liquids or to conduct internal inspections of the pipeline.
pigging facility	Pipeline in-line inspection and cleaning tool receivers and launchers.
Preliminary Information Package	The initial report submitted by the proponents of a proposed project, indicating their intentions and providing information relevant to the project.
project proponents	The five organizations (Imperial Oil Resources Ventures Limited, the APG, ConocoPhillips, Shell and ExxonMobil) that are undertaking the Mackenzie Gas Project.
public consultation	The process of involving all affected parties in the design, planning and operation of a project. The process requires that the proponents give the parties to be consulted notice of the matter in sufficient form and detail to allow them to prepare their views on the matter. They are also given a reasonable amount of time to prepare their views and an opportunity to present their views to the proponents, who consider the views presented, fully and impartially.

GLOSSARY

reclamation	The process of re-establishing a disturbed site to a former or other productive use, not necessarily to the same condition that existed before disturbance. The land capability might be at a level different, i.e., lower or higher, than that which existed before the disturbance, depending on the goal of the process. Reclamation includes the management of a contaminated site and revegetation, where necessary. Reclamation is not considered complete until the goals for reclamation have been achieved.
reservoir	A subsurface, porous, permeable rock body containing a natural accumulation of oil or gas, or both.
revegetation	The process of providing denuded land with a new cover of plants.
right-of-way	The right of passage or of crossing over someone else's land. Also, an easement in lands belonging to others that is obtained by agreement or lawful appropriation for public or private use.
RRC	The abbreviation for Renewable Resources Council.
RWED	The abbreviation for Resources, Wildlife and Economic Development.
SEIA	The abbreviation for Socio-Economic Impact Assessment.
Shell	The abbreviation for Shell Canada Limited.
socio-economics	The study of social and economic factors.
SSA	The abbreviation for Sahtu Settlement Area.
stakeholders	People or organizations with an interest or share in an undertaking, such as a commercial venture.
stockpile	A storage supply of something, such as line pipe or soil, to be used later.
sweet natural gas	Gas that has no more than the maximum sulphur content, as defined by the specifications for the sales gas from a plant or by a legal body.
terrestrial	The earth's land area, including its human-made and natural surface and subsurface features, and its interfaces and interactions with the atmosphere and the oceans.
traditional knowledge	Cultural knowledge that is based on direct observation or information passed on orally from other community members, developed from centuries of experience of living off the land.
TransCanada	The abbreviation for TransCanada PipeLines Limited.
transmission pipeline	A system of pipelines, compressor stations and other related facilities that transport natural gas from the gathering system to the southern terminus.

GLOSSARY

trench, pipeline	A long, narrow excavation dug in the earth in which a pipeline is buried.
trenchless crossing	A water crossing technique used in pipeline construction in which the pipe is buried under a watercourse at depths much greater than conventional crossings. An inverted arc-shaped hole is drilled beneath the watercourse and the assembled pipeline is pulled through it. Also known as <i>horizontal directional drilling</i> .
tundra	A vast treeless zone, lying between the ice cap and the timberline of North America and Eurasia, that has a permanently frozen subsoil.
winter road	A secondary road made of compact snow or ice, often ploughed over a frozen lake or ground, and that is impassable in the summer. Also known as an <i>ice road</i> .

GLOSSARY
