

# *Guidance Document for Hearings:*

## *Topics and Locations of Community, General and Technical Hearings (Revised December 11, 2006)*

[Yellow highlighting indicates new text effective December 11, 2006]

On November 10, 2006 Justice Phelan of the Federal Court of Canada issued his Judgment in a court challenge initiated by the Dene Tha' First Nation concerning the proposed Mackenzie Gas Project. This Judgment has implications for the environmental impact review process being conducted by the Joint Review Panel (the Panel). While complying with Justice Phelan's Judgment, the Panel has a responsibility to continue to fulfill its mandate, within the constraints of the Judgment. As a result, the Panel has made decisions in relation to the public hearings that were remaining in its schedule and has scheduled some of these hearings during the months of January, February and March 2007. The Panel has also made decisions to postpone some previously scheduled hearings.

**With respect to all public hearings scheduled for January – March 2007, the Panel will not consider evidence on matters involving the Connecting Facilities or the territory in which the Dene Tha' First Nation have or have asserted aboriginal or treaty rights.** The Panel anticipates that it may need to revisit these topics in the context of the Connecting Facilities or the territory in which the Dene Tha' First Nation have or have asserted aboriginal or treaty rights.

This is a revised version of the document entitled *Guidance Document for Hearings: Topics and Locations of Community, General and Technical Hearings* (revised July 19, 2006)

The following previous hearing update has also been incorporated into this version:

- [Update on Guidance for Inuvik Topic-Specific General Hearing – Harvesting and Other Land Use - November 17, 2006](#) (October 25, 2006)

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The purpose of this document is to provide updated information about the scope of the topics and associated subject matter that the Joint Review Panel (JRP or the Panel) expects to hear during the public hearings phase of its review of the environmental impacts of the proposed Mackenzie Gas Project (MGP or the proposed Project). It also contains updated information with respect to the type, duration, location and date of select hearings. This information is intended to assist participants in preparing for the Panel's remaining public hearings. It amends the *Schedule for the Hearings Phase of the Environmental Review of the Proposed Mackenzie Gas Project* (the Schedule) dated February 2, 2006 and July 19, 2006.

The Joint Review Panel's public hearings address six general themes:

- Theme 1: Setting the Scene – Project Description and Assessment Methodology
- Theme 2: Physical Environment – Land, Water and Air
- Theme 3: Biological Environment – Fish and Wildlife and Their Habitats;  
Conservation Measures
- Theme 4: Human Environment – Economic Impacts
- Theme 5: Human Environment – Socio-cultural Impacts
- Theme 6: Project Alternatives, Cumulative Impacts, and Project Net Effects and Trade-offs after Enhancement, Mitigation and Follow-up

These themes include several topics, each of which contains many specific matters for discussion. The manner in which each topic is treated in any particular hearing will vary, depending on whether that hearing is a General Hearing, a Technical Hearing, or a Community Hearing.

This document also describes the different types of public hearings, and the different approach and opportunity that each offers for the presentation of information and comments, and the discussion of topics. The Panel's *Direction on Procedures for Hearings* ("the Procedures") details how it will conduct each type of hearing.

## ***Types of Public Hearings and Related Topics***

The public hearings are an important element of the Panel's environmental impact review of the proposed MGP. They are *public* hearings and as such they present an essential opportunity for public participation in the Panel's review. The public hearings will provide a unique forum for Northerners to express their views about the proposed MGP, and to present their knowledge and understanding directly to the Panel about how people and the environment could be affected by the proposed Project.

The objectives of the public hearings are to provide opportunities for:

- The proponent of the MGP (the Proponent) to explain the Project and to respond to comments, questions and concerns raised by other Parties and the general public during the hearings;
- Individuals, organizations and government representatives to provide their views on all aspects of the MGP within the mandate of the Panel, including the implications of

the MGP for the people and natural environment in those regions in which the proposed Project would be located; and

- The Panel to receive information that will help in thoroughly examining the matters relevant to its mandate.

The public hearings will generally follow a format that begins with opening comments from the Panel chairperson, a presentation by the Proponent describing the Project in general or a specific Project-related topic to be addressed at the session, followed by presentations by registered participants. Questions may be asked of any presentation by the Panel, the Proponent, and registered Interveners, in accordance with the Panel's *Direction on Procedures for Hearings*. The requirements for participant registration during the public hearings and for the filing of submissions are set out in the Panel's *Direction on Procedures for Hearings*. All Parties should review them closely.

The Joint Review Panel will hold three types of public hearings:

## **1. Community Hearings**

The Panel will hold Community Hearings in the Mackenzie Gas Project Area as defined in the Environmental Impact Statement. Community Hearings will be held to promote the full and open participation of people living near the location of the proposed Project. Community Hearings are intended to provide a more informal setting than the Technical or General Hearings.

Community Hearings will begin with a short presentation by the Proponent, describing the MGP and how it will affect the community in which the Community Hearing is being held. Participants may then speak to any matter of interest and concern within the mandate of the Panel, relating, for example, to any of the six general themes noted above. At the Community Hearings, priority will be given to people and organizations from the community in which the hearing is being held. In Community Hearings, residents will have the opportunity to participate directly and make presentations in their own languages and in their own ways.

The Panel will hold Community Hearings in Inuvik, Tuktoyaktuk, Sachs Harbour, Holman, Paulatuk, Aklavik, Tsiigehtchic, Fort McPherson, Fort Good Hope, Colville Lake, Deline, Tulita, Norman Wells, Fort Simpson, Wrigley, Fort Liard, Trout Lake, Jean Marie River, Kakisa, Fort Providence, Hay River, Hay River Reserve and High Level.

Please consult the Schedule for a listing of locations, dates and times for all JRP Community Hearings.

## **2. General Hearings: Open and Topic-Specific**

There will be two types of General Hearings: Open and Topic-Specific.

Open General Hearings will provide the opportunity for organizations, businesses or individuals to make presentations to the Joint Review Panel on any of the topics outlined in this document or

any other matter within the scope of the Panel's environmental impact review.

Open General Hearings will begin with a presentation by the Proponent describing the Mackenzie Gas Project and how it may affect the community or region in which the hearing is held. General Hearings are not limited to registered Interveners and do not require the presentation of expert knowledge and opinion.

General Hearings are a means for participants to formally convey to the Panel their ideas, interests, positions and concerns regarding the proposed Project. Presentations in both the Open and Topic-Specific General Hearings are generally limited to a maximum of 15 minutes and may be followed by a question and answer period. Registration with the Joint Review Panel Manager is requested at least 30 days before the scheduled General Hearing session. Written submissions must be filed with the Panel Manager 15 days in advance of their scheduled presentation for Open General Hearings and 20 days in advance of Topic-Specific General Hearings.

The Panel will hold Open General Hearings in Tuktoyaktuk, Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River, High Level, Edmonton and Whitehorse. Please consult the Schedule for locations, dates and times for all JRP Open General Hearings.

The Panel recognizes that formal presentations on some topics, especially those relating to the biological and human environment, will be made by individuals, organizations or institutions with a special interest in, and responsibility for, matters associated with public expenditures, public policies, programs and services, rather than by technical experts as such. Consequently, the Panel will devote certain General Hearings (or portions of them) to specific topics identified below. Such hearings are designated as Topic-Specific General Hearings.

The rules for Topic-Specific General Hearings differ from those for Technical Hearings chiefly in that people knowledgeable of and responsible for matters relating to the designated topic will be able to make presentations without necessarily having the same technical qualifications as those making presentations at Technical Hearings will require. Accordingly, this allows for broader participation in Topic-Specific General Hearings of both qualified technical experts and those who hold program or policy responsibilities in the area under discussion. However, participants in Topic-Specific General Hearings will have to present their written evidence in advance, and be subject to questioning by the Panel and by other participants. The focus of Topic-Specific General Hearings is on the presentation and review of evidence. Statements of interest and concern by the Parties should be presented at Open General Hearings.

Topic-Specific General Hearings and their locations and date are identified in this document and will be held in Inuvik, Norman Wells, Fort Simpson, Hay River, and Yellowknife. Please consult the Schedule (as amended December 2006) for locations, dates and times for all JRP Topic-Specific General Hearings.

### **3. Technical Hearings**

The Panel will hold Technical Hearings in some of the larger centres. The purpose of a Technical Hearing is twofold: a) to bring together individual experts to provide their opinion on a particular

topic based on their knowledge and expertise; and b) to provide a forum where technical experts on select topics may exchange opinions and have their opinions subject to rigorous and technical questioning by the Panel, other experts, the Proponent and Interveners.

Technical Hearings will begin with a presentation by the Proponent's technical expert panel, and be followed by other panels of experts, or individual experts, that other Parties may wish to call. Each presentation may be subject to detailed questioning by the Panel and other Parties.

Registration with the Joint Review Panel Manager is required 30 days prior to any Technical Hearing. Presenters at Technical Hearings must also file their submissions in writing 20 days in advance of the hearing, along with a statement of their qualifications to provide expert opinion on the particular topic.

Technical and Topic-Specific General Hearings have been organized to focus discussion on select topics. The distinction between Topic-Specific and Technical Hearings is based chiefly on the qualifications of the persons giving evidence, and this will depend on whether the Proponent, registered Interveners, or the Panel itself, choose to select persons with the appropriate technical qualifications to provide expert opinion on the topic in question.

The Panel will hold Technical Hearings in Inuvik, Tuktoyaktuk, Norman Wells, Hay River, and Yellowknife. Please consult the Schedule (as amended December 11, 2006) for locations, dates and times for all JRP Topic-Specific General Hearings.

#### **4. Technical Experts**

Technical experts are individuals who are experts in their field who are called on to provide their opinion based on their expertise. An expert can be used by a Party to assist in the evaluation of the facts presented by others and can draw a conclusion from those facts even if they did not observe them personally. However, it is up to the Panel to determine the truth of those facts and the weight to be attached to the evidence of the expert. In weighing the opinion of the expert, the Panel will take into consideration the status, qualifications, interests, experience, reputation, bearing and response of the expert.

Only the Proponent, registered Interveners and the Panel can put forward technical experts at Technical Hearings and Topic-Specific General Hearings. All Parties with technical experts related to a Technical or specific General Hearing topic are expected to make their technical experts physically available at the Technical or Topic-Specific General Hearing. If a technical expert is not physically present at a Technical or Topic-Specific General Hearing, the opportunity to present technical evidence at that Hearing will be foregone. Because the Panel will not be able to verify the qualifications of the experts or receive affirmation of the experts' opinions directly from them if they are not present at the hearing, the Panel may place less weight on any written submission that may have been filed as expert evidence. The expert will not be able to participate in the questioning of other Parties' technical experts or, if presented, the Panel's specialist advisors.

It may be possible for the Party to make arrangements for filing of similar information at a Community or Open General Hearing. While individuals with technical expertise may choose to make a presentation to the Panel at a Community or General Hearing, the information they submit to the Panel may not be given the same weight as if it had been presented and tested at a Technical or Topic-Specific General Hearing. Information presented at a Community or Open General Hearing will be treated as the personal views of the presenter or the views of their organization.

## **5. Summary of Registration and Information Filing Requirements (in effect for September 2006 and subsequent hearings)**

### Community Hearings

- Presenters do not need to register in advance of a hearing.
- Presenters are encouraged to register with the Panel Manager at the hearing.
- Presenters will be called on to make their presentation in the order they registered with the Panel Manager.
- Oral presentations are limited to 15 minutes.
- Registered Interveners who want to make recommendations must provide 15 copies of their written submissions to the Panel Manager 15 days in advance of the hearing.

### Open General Hearings

- Parties register with Panel Manager 30 days prior to the hearing date.
- All presenters file their submissions in writing 15 days in advance of the hearing date.
- Prefiled documents must accurately reflect the hearing presentations. Information in hearing presentations (e.g. slide decks or delivered orally) which is substantially new or different from that in prefiled written submissions may be subject to challenge.
- Oral presentations are limited to a maximum of 15 minutes and may be followed by a question and answer period.

### Topic-Specific General Hearings

- Parties register with Panel Manager 30 days prior to the hearing date.
- All presenters (technical experts and persons responsible for programs and policies related to the topic) file their submissions in writing 20 days in advance of the hearing date.
- Prefiled documents must accurately reflect the hearing presentations. Information in hearing presentations (e.g. slide decks or delivered orally) which is substantially new or different from that in prefiled written submissions may be subject to challenge.
- Oral presentations are limited to a maximum of 15 minutes and may be followed by a question and answer period.

### Technical Hearings

- Parties register with Panel Manager 30 days prior to the hearing date.
- Presenters file their submissions in writing 20 days in advance of the hearing date, and a statement of their qualifications to provide expert opinion on the particular topic.
- Prefiled documents must accurately reflect the hearing presentations. Information in hearing presentations (e.g. slide decks or delivered orally) which is substantially new or different from that in

prefiled written submissions may be subject to challenge.

- Technical experts presenting evidence file a statement of their qualifications to provide expert opinion on the particular topic 20 days in advance of the hearing date.
- Oral presentations are limited to a maximum of 30 minutes and are followed by a question and answer period.

## ***Outline of Topics for Technical and General Hearings***

### **Scope of Hearing Topic Discussion**

To assist participants in preparing for Topic-Specific hearings, the Panel has provided an outline of subject matter that individual hearings should address. For some hearing sessions the Panel has also identified certain questions that the Parties should consider in their preparation for hearing discussions. As the hearings progress, the Panel may provide further guidance through hearing-specific Updates of additional matters and questions that the Panel may ask the Parties to consider in their hearing preparations and presentations.

### ***Theme 1 – Setting the Scene***

#### **Topic 1. Project Description**

The purpose of this hearing session is to describe the proposed Mackenzie Gas Project and its features that may have impacts on the social, economic, cultural physical or biophysical environments, as a basis for further examination of those impacts at subsequent hearing sessions. Only the Proponent will present evidence. Questions of clarification relating to the nature, but not the impacts, of the proposed Project may be raised at this session.

The Joint Review Panel expects the representative from each of the Project proponent companies to provide introductory information on the scope, nature, and setting of the Project, including its general requirements, facilities and installations, locations, associated infrastructure, footprint, normal and necessary environmental inputs and outputs (e.g. Project-related emissions and effluents), logistics, transport, costs, and workforce, during each phase of the Project (construction, operation, decommissioning and abandonment). The description should include basic information on employment and rotation schedules. (Some of the Project description and requirements will also be addressed in subsequent hearing sessions, such as Topic 3 – Project Routing and Design; Topic 4 – Green House Gas Emissions, Topic 9 – Education, Training, Employment and Procurement, Topic 10 – Project-related Expenditures and Economic Benefits, and Topic 11 – Project-related Economic Costs and Physical Infrastructure Impacts.) The Project description should also identify design characteristics that allow for uncertainties and enable adjustments in the event of unforeseen conditions, accidents, malfunctions, or unforeseen impacts. It should identify plans for decommissioning and abandonment. It should indicate alternative means of carrying out the Project and why the proposed means are the preferred ones.

*Locations:* Inuvik Topic-Specific General Hearing – February 15 - 16, 2006

Open General Hearings as listed in the Schedule

## **Topic 2. Approaches to and Methods for Evaluating the Information in the EIS and Supplementary Submissions**

These hearing sessions are intended to identify general approaches and specific methods for evaluating and assessing information about Project impacts (positive and negative) and their significance. The objective is to ensure that the Joint Review Panel and Parties to the review are aware of several different perspectives and contemporary approaches to, and methods of, impact assessment. It is not the Panel's intention at this stage, however, to endorse, recommend or justify any particular approach.

The Proponent will explain the methods and approaches used in its Environmental Impact Statement (EIS) and supplementary information, including the application of traditional knowledge and the precautionary principle, for assessing the impacts of the Project, and in determining the significance of those impacts.

The Panel encourages the Parties to approach this hearing session as an early opportunity to identify specific areas of interest and concern with respect to approaches and methods associated with any particular subject matter addressed by the EIS and supplementary submissions provided by the Proponent. This is not intended to preclude participants from raising issues of impact assessment methodology and providing detailed comments in the particular context of their presentations on particular subject matters at a later stage in the hearings.

The hearing session will commence with the Proponent explaining the methods and approaches used in its EIS and supplementary information, including the application of traditional knowledge and the precautionary principle, for assessing the impacts of the Project, and in determining the significance of those impacts. It will be followed by an opportunity for the Panel and Interveners to ask questions.

This presentation will be followed by presentations from a panel of specialist advisors to the Joint Review Panel who have prepared expert reviews of the following areas in impact assessment:

- Indicators of Social, Economic, and Cultural Cumulative Effects Resulting from Petroleum Development in Alaska: A Review by Jack Kruse
- Sustainability-based Assessment Criteria and Associated Frameworks for Evaluations and Decisions: Theory, Practice and Implications for the Mackenzie Gas Project Review by Robert Gibson
- Significance Criteria and Determination in Sustainability-Based Environmental Impact Assessment by David Lawrence

Presentations by the Panel's specialist advisors will be followed by an opportunity for the Panel, the Proponent and Interveners to ask questions. Reports by these specialist advisors to the Panel will be available on the Public Registry prior to the commencement of public hearings

A report on approaches to the determination and assessment of cumulative impacts associated with future development scenarios will be prepared by a specialist advisor to the Panel. It will be released for discussion prior to the scheduled hearing on Topic 15 – Cumulative Impacts.

Presentations by Interveners on any area of interest and concern with respect to approaches and methods for evaluating the information in the EIS and supplementary submissions will follow the presentations of the Panel's specialist advisors. Each will be followed by an opportunity for the Panel, the Proponent and other Interveners to ask questions.

*Locations:* Inuvik Topic-Specific General Hearing – February 21 - 22, 2006

Open General Hearings as listed in the Schedule

## ***Themes 2 and 3 – Physical and Biological Environments***

While the Joint Review Panel will for the most part treat the physical and biological environments as separate hearing topics, in some cases they are combined in the same session for reasons of scheduling or logistics.

### ***Theme 2 – Physical Environment - Land, Water, and Air***

These hearing sessions will focus on how the proposed Project design, pipeline and access road routing, and facility and materials storage site selection are intended to avoid or minimize terrain degradation and hydrological disruption under both present conditions and their possible variability, and possible future conditions as these might be altered by the Project itself or by such exogenous factors as climate change. To the extent that adverse impacts on terrain, the marine environment, water, and air may nonetheless occur as a result of construction or operation, each session will also address the nature and certainty of these impacts, how and whether these impacts can be mitigated, and the likely effectiveness of such mitigation.

Sessions will be organized according to four main topic areas:

- Routing and siting in relation to terrain and hydrology
- The marine environment
- The aquatic environment
- Atmospheric emissions and noise

The Panel expects presentations to address the inter-relations of environmental systems and among Valued Components (VCs) and Key Indicators (KIs), as well as impacts on individual VCs and KIs.

### **Topic 3. Project Routing and Design in Relation to the Physical Environment**

This hearing session will focus on the relation between the design, routing and siting of the proposed MGP and the physical environment, with particular emphasis on permafrost conditions.

The topic will be divided into two parts reflecting the distinct, but related major components of the Project (pipelines and anchor field facilities):

**(a) Mackenzie Valley Pipeline and Mackenzie Gathering System  
Routing and Design**

Matters for discussion should include:

- Project construction and operating impacts on the permafrost regime (including pipe-laying and stream crossing methods, and operating temperatures) that may affect terrain, slope stability, and erosion
- Project construction and operation impacts on the permafrost regime that may affect water crossings and hydrology: stream and groundwater flow, surface runoff, ponding, and pipeline ditch subsidence
- Geological instability and hazards
- Gravel, water and timber and timber extractions
- Effects of climate change on pipeline design and operation
- Project abandonment

With regard to the **Inuvik Technical Hearing (follow-up session)** and the matters listed above, presentations and discussion by the Proponent and Interveners should include consideration of the following questions:

- When considering the potential geohazards that may be associated with the MGP, what are the lessons that may apply from the Enbridge pipeline and its proximity to or interaction with the same or similar geohazards?
- How are the levels of risk (e.g. potential impacts related to safety, cost, and environmental impacts) and acceptable risk associated with geohazards determined?
- What risk assessment models are available and which ones are recommended?
- When and how should critical areas of uncertainty associated with geotechnical information be addressed through geotechnical investigations and through pipeline design options?
- Where plans and programs exist for future geotechnical investigations generally and for critical slopes and horizontally directionally drilled (HDD) sites specifically, what do they entail and what schedule is proposed for their implementation?
- Where HDD is not successful and/or feasible, and open cut or isolated crossings are the engineering design alternative for water crossings, what are the associated potential impacts and consequences and what mitigation measures exist to address them and which ones may be required?
- Where pipe strain may be anticipated and where intrusive remediation works may be necessary during operations:
  - what potential cumulative effects may occur?
  - how will site specific mitigation plans address them?
  - how and with what frequency will pipe strain on new and

remediated pipe be monitored?

- What is the planned geotechnical program for the investigation of critical slopes and HDD sites and when will it occur?
- What construction issues are associated with peatland areas? What are the appropriate methods of avoidance and/or mitigation?
- To what extent might water crossing design need to take account of groundwater discharge points in open talik, and what are the appropriate methods of avoidance and/or mitigation?
- what pipeline design and routing options were considered, why were certain options selected, and what options remain subject to further geotechnical investigation prior to final selection?
- What is the effectiveness of thermal operating regime of the gathering system in preserving massive ground ice?
- What are the alternative design proposals for the gathering system (e.g. elevated gathering lines)?
- How completely will the residual components, equipment and wastes of the Project be removed, and how fully will the negative effects be corrected by site rehabilitation or other initiatives, when the Project ends?

*Locations:* Inuvik Technical Hearings – March 14 - 17, 2006 (includes discussion of pipeline gathering system)

Hay River Technical Hearing – June 6 – 7, 2006 (continues discussion from Inuvik session, March 14 – 17, 2006).

Yellowknife Technical Hearings – August 15 – 16, 2006 (excludes discussion of pipeline gathering system)

Inuvik Technical Hearing – October 23 - 24, 2006 (follow-up session on pipeline gathering system)

Open General Hearings as listed in the Schedule

## **(b) Anchor Field Design**

Matters for discussion should include:

- Project construction and operating impacts on the permafrost regime (including drilling effects and production operating temperatures)
- Gas field subsidence
- Sea level change, storm surges, shoreline erosion/submergence
- Geological instability and hazards
- Gravel and water extractions
- Waste disposal (drilling mud and process water)
- Project abandonment

With regard to the **Inuvik Technical Hearing** (follow-up session) and the matters listed above, presentations and discussion by the Proponent and Interveners

should include consideration of the relevant questions listed under Topic 3a that apply to anchor field design, as well as the following:

- New information on sumps that was filed during and since the anchor field hearings of March 20-22, 2006.
- Gas field subsidence, in particular the projected extent and duration of subsidence and level of confidence in these projections.

*Locations:* Inuvik Technical Hearing – March 20 – 22, 2006

Inuvik Technical Hearing (follow-up session) – October 23 - 24, 2006

Open General Hearings as listed in the Schedule

#### **Topic 4. Greenhouse Gas Emissions and Air Quality**

This hearing session will focus on how the proposed MGP might interact with the atmospheric environment, and the measures proposed to mitigate any adverse impacts on that environment. Consideration will be given to how the proposed Project might:

- (a) Contribute by virtue of its construction and normal operation to greenhouse gases and air quality; and
- (b) Contribute to or detract from Canada's measures to reduce greenhouse gas emissions.

This is a technical session on the appropriateness and accuracy of GHG emission estimates, and on possible mitigations of these emissions. Concern about possible end uses of gas shipped via the MGP should be directed to Open General Hearings.

*Locations:* Yellowknife Technical Hearing – October 17, 2006

Open General Hearings as listed in the Schedule

#### **Topic 5. Marine Environment, Marine Habitat and Marine Mammals and Birds**

This hearing session will focus on how the MGP might interact with the marine environment, marine habitat, marine mammals, fish and birds and how these may have affected the design of the proposed MGP and associated mitigation measures.

Matters for discussion should include:

- Marine ecosystem scale and function, key habitats and populations and trends without the Project
- Dredging, spoil disposal and sedimentation
- Marine transport
- Noise and spills in the marine environment

- Direct, indirect and cumulative impacts on marine mammals
- Direct, indirect and cumulative impacts on marine fishes
- Direct, indirect and cumulative impacts on marine birds
- Implications for the Beaufort Sea Integrated Management Planning Initiative and potential marine protected areas

With regard to the matters listed above, hearing presentations and discussion by the Proponent and Interveners should include consideration of the following questions:

- What is the capacity of the existing ocean-going barge transportation infrastructure to meet the Project's requirements and what changes will be required to meet these requirements?
- How do the Proponent's transportation requirements and associated activities (e.g. dredging, spoil disposal, etc.), as stated in the EIS and supplementary filings (including transcripts), affect existing ocean-going barge transportation infrastructure as well as marine ecological systems and conservation areas in the Project area? Discuss specifically the materials that will be transported between fixed locations, the means by which they will be transported and the timing for transportation of same.
- How might the Project affect present and future conservation initiatives and marine fish, birds and mammal management plans?
- Does the area currently defined by boundaries of beluga management zones provide optimum protection for beluga, and, if so, how?
- How does the Proponent intend to mitigate the Project's potential ocean-going barge impacts?
- How might activities related to the Project and its interaction with the marine environment contribute to lasting effects on the seasonal habitats and/or movements of migratory species and the ecological relations and human activities dependent on them?
- Beyond the associated and induced activities, what otherwise likely additional hydrocarbon exploration, extraction and transportation undertakings and other activities in the region might combine with the effects of the Project on marine ecosystems and marine-based traditional activities?

*Locations:* Tuktoyaktuk Technical Hearing – September 13 - 14, 2006

Open General Hearings as listed in the Schedule

### ***Theme 3 – Biological Environment – Fish and Wildlife and Their Habitat; Conservation Measures***

These hearing sessions will address the potential effects of the proposed Project on the biological environment (separately in the aquatic and terrestrial environments, but also with attention to any overlapping and interactive impacts). These sessions will consider the temporary and lasting impacts of the Project on the biological environment as it now exists and as it may evolve during the life of the proposed Project, the certainty of those impacts, the anticipated effectiveness of proposed mitigation of adverse impacts in design, construction, or operation in the northern

environment, and the potential for enhancements (e.g. through rehabilitation or replacement). As well, these sessions will consider the potential impacts of the proposed Project on the maintenance and development of the tools for promoting environmental conservation and rehabilitation.

Sessions will be organized according to three main topics: fish and aquatic (freshwater) habitat; wildlife and birds and their habitat; and conservation areas and measures (the tools for maintaining habitat integrity and wildlife populations).

The Joint Review Panel expects presentations to address issues of ecosystem structure, function, integrity, and viability, as well as issues related to particular Valued Components. The Panel expects that the sessions will also identify indirect as well as direct impacts, and identify changes in the environment that are not caused by the Project, but that may combine with any Project-induced impacts. Consideration of the biological environment must address Project impacts on the capacity of renewable resources to meet existing and future needs, and any changes that the Project may cause to any species (including its critical habitat) listed under the federal *Species at Risk Act*.

## **Topic 6. Water Quality and Quantity, and Fish and Aquatic Habitat**

This hearing session will focus on how the proposed MGP might interact with the aquatic environment and how that environment may have affected the design of the proposed Project and associated mitigation measures. This topic also links physical and biological environments, includes aquatic habitat and fish and addresses direct, indirect and cumulative impacts.

Matters for discussion should include:

- Impacts of Project-induced changes in stream, groundwater, and surface flow
- Extent and impact of Project water withdrawals, effluents, and in-stream activities
- Impacts of Project-induced Mackenzie River barge traffic, other transportation activity and transportation infrastructure and access
- Possible changes in water levels and flows
- Possible changes in sedimentation, turbidity, and contamination
- Impacts of anchor field subsidence
- Impacts on aquatic and riparian habitat
- Impacts on fish populations
- Implications for Department of Fisheries and Oceans' no net loss principle and habitat alteration disturbance or destruction (HADD) authorizations, and other related policies

With regard to the matters listed above, further guidance may follow pending the outcome of the Norman Wells Technical Hearing.

*Locations:* Norman Wells Technical Hearing – August 23 - 24, 2006 (excludes effects of gas field subsidence and focuses on effects of pipeline infrastructure and activities)

Inuvik Technical Hearing – October 26, 2006 (includes effects of gas field subsidence and anchor field and gathering system infrastructure and activities)

Open General Hearings as listed in the Schedule

## **Topic 7. Wildlife and Wildlife Habitat, including Birds and Bird Habitat**

Matters for discussion should include:

- Probable trends without the Project
- Landscape ecology, habitat modeling and impacts on vegetation
- Habitat assessment as it relates to the abundance, distribution and productivity of wildlife populations
- Direct, indirect and cumulative impacts on wildlife and bird species and their habitat, including species at risk
- Impacts on birds and bird habitat with particular emphasis on the Kendall Island Bird Sanctuary (KIBS) area and Project-induced subsidence
- Visual or auditory disturbances (atmospheric noise)
- Impacts of Project-induced changes to transportation infrastructure, increased transportation activity and increased human access
- Wildlife management plans as mitigation measures (example: Proponent and government plans, and matters and issues addressed by these plans)

With regard to the **Yellowknife Topic-Specific General Hearing** and the matters listed above, presentations and discussion by the Proponent and Interveners should include consideration of the following questions as they apply to the Sahtu and Deh Cho regions in the Northwest Territories, and to northwestern Alberta:

- What are the limitations and constraints of the habitat assessment model and associated methodology as described in the EIS and supplementary filings provided by the Proponent as they relate to the assessment of Project-related impacts on wildlife and wildlife habitat?
- What is the most current assessment of the status of boreal caribou and grizzly bear populations potentially affected by the Project and the conservation concerns associated with these populations?
- Are there critical wildlife areas that have been identified within or adjacent to the Project area and that should be addressed for management purposes (e.g. woodland caribou)?
- What are the wildlife management challenges, especially with regard to boreal caribou as a transboundary (Northwest Territories / northern Alberta) population that affect and are affected by the Project and proposed mitigation measures?
- What is the status and effectiveness of boreal caribou management strategies and activities in northern Alberta, how is industry involved, and what lessons could be applied to the Northwest Territories?
- What regulatory instruments or approaches in Alberta are applied to industry as conservation measures for boreal caribou and other wildlife? Are there lessons that

- could be applied to the Northwest Territories?
- What recommendations by the Panel might contribute to addressing the aforementioned management challenges and future management strategies?

With regard to the **Inuvik Topic – Specific General Hearings** and the matters listed above, presentations and discussion by the Proponent and Interveners should include consideration of the following questions as they apply to the Inuvialuit Settlement Region and Gwich'in Settlement Area:

- What are the limitations and constraints of the habitat assessment model and associated methodology as described in the EIS and supplementary filings provided by the Proponent as they relate to the assessment of Project-related impacts on wildlife and wildlife habitat?
- What is the most current assessment of the status of barrenground caribou and grizzly bear populations potentially affected by the Project and the conservation concerns associated with these populations?
- Are there critical wildlife areas that have been identified within or adjacent to the Project area and that should be addressed for management purposes?
- What is the significance of the potential long-term impacts of noise disturbance associated with anchor field operations?
- What are the potential impacts of gas field subsidence in combination with climate change and extreme weather events on wildlife and habitat, and the effectiveness of the KIBS?
- Does the area currently defined by KIBS boundaries provide optimum protection for waterfowl?
- What Project routing and design alternatives would be appropriate for addressing potential impacts on wildlife and wildlife habitat generally, and KIBS specifically?

*Locations:* Yellowknife Topic-Specific General Hearing – October 19 - 20, 2006 (excludes effects of gas field subsidence and any consideration of the Kendall Island Bird Sanctuary; focuses on effects of pipeline infrastructure and activities)

Inuvik Topic-Specific General Hearing – November 15 - 16, 2006 (includes effects of gas field subsidence and related impacts on the Kendall Island Bird Sanctuary; and effects of anchor field and gathering system infrastructure and activities)

Inuvik Topic-Specific General Hearing – January 15 - 16, 2007 (This is a continuation of the November 15 – 16, 2006 hearing and includes effects of anchor field and gathering system infrastructure and activities. It will address wildlife and wildlife habitat in the ISR and GSA.)

Open General Hearings as listed in the Schedule

## Topic 8. Conservation Areas and Measures

In some hearing sessions, conservation areas and measures will be discussed in combination with Topic 12 – Harvesting and Other Land Uses, Topics 6 and 7 – Fish and Wildlife and Their Habitats.

Matters for discussion should include:

- Habitat fragmentation and connectivity
- Heritage and cultural resources, sites and trails
- Existing and proposed protected areas and networks and special management areas
- Systems and methods for designating and protecting conservation areas (federal, territorial, and claims-based), resources required, and potential effectiveness
- Species listed under the federal *Species at Risk Act* (also addressed under Topic 7)
- Relevant policies, regulations, land use and conservation management plans, or other measures, to protect or enhance fish and wildlife and habitat, and cultural and heritage resources
- Visual or auditory disturbances as they affect human use and appreciation of the environment

With regard to the **Norman Wells Topic-Specific General Hearing** and the matters listed above, presentations and discussion by the Proponent and Interveners should include consideration of the following questions:

- Are there critical conservation areas and/or measures that have been identified within or adjacent to the Project area and that should be addressed for conservation purposes?
- How might the Project affect present and future land use planning and conservation initiatives and land and protected area plans?
- What specific concerns, if any, exist with regard to species listed under the Species at Risk Act and how might these be potentially affected by the Project?

*Locations:* Fort Simpson Topic-Specific General Hearing – May 17 - 18, 2006

Norman Wells Topic-Specific General Hearing – August 21 - 22, 2006  
(excludes effects of gas field subsidence and any consideration of the Kendall Island Bird Sanctuary: see Topic 7 - Inuvik Topic-specific General Hearing; excludes marine protected areas: see Topic 5 - Tuktoyaktuk Topic-specific General Hearing)

Open General Hearings as listed in the Schedule

## ***Themes 4 and 5 – Human Environment: Economic and Socio-cultural Impacts***

The Joint Review Panel recognizes that these two themes are often interconnected, although for the purpose of hearing sessions they have been separated. The Panel anticipates that many presentations at General Hearing sessions will address economic impacts, and that many people at Community Hearings will speak to both themes. It is not the Panel's intention to limit discussion of these themes to Technical Hearings. However, the Panel urges the Parties to the greatest extent possible to substantiate their submissions with supporting evidence that is provided to the Panel and to limit comments based on unsupported opinion and conjecture.

Presentations on topics in either theme should address issues such as the distribution of positive and negative impacts, and the sustainability of benefits related to the proposed Mackenzie Gas Project. Presentations should address not only specific impacts on individual Valued Components, but also the interrelations of key indicators at the community, regional, and territorial levels, and potential trade-offs among them. The Panel expects that the hearing sessions will also identify and explain indirect and cumulative as well as direct impacts, and institutional as well as community or culturally-specific vulnerabilities and opportunities for enhancements, particularly as they relate to the pace and scale of development during construction, operation and abandonment.

The description of the human environment should identify and explain important interrelationships, processes and systems, and changes in the human environment that are not caused by the proposed Project, but that may combine with those impacts related to the Project or cause a change to the Project.

Topics under the Human Environment themes are of widespread public interest to individuals, organizations and institutions with a special interest in, and responsibility for, matters associated with public expenditures and public policies, and programs and services. The Panel recognizes that expertise in these areas is not limited to technical experts as such. Consequently some of the matters listed below will be addressed in Topic-Specific General Hearings, in order to relax some of the rules that apply to Technical Hearings, and to facilitate presentations by Interveners.

### ***Theme 4 – Human Environment: Economic Impacts***

These hearing sessions will address the impact of the proposed Mackenzie Gas Project on the economic environment. The sessions will consider the temporary and lasting impacts of the proposed Project on the local, regional, territorial and national economic environment as it now exists and as it may evolve during the life of the proposed Project, the certainty of those impacts, the anticipated effectiveness of proposed mitigation of adverse impacts, and the potential for enhancement of beneficial impacts (whether resulting directly from the proposed Project or from cumulative impacts).

These sessions will also consider the impacts of the Project on the maintenance and development of the institutional tools for promoting durable economic gains.

## Topic 9. Education, Training, Employment, and Procurement

These hearing sessions will focus on specific MGP-related education, training, employment and procurement opportunities and constraints, and comparative adverse and beneficial effects associated with conditions of eligibility, access, participation and preference, and human and business capacity.

Topic 9 focuses on how individuals and businesses may or may not benefit directly from the proposed MGP. Potential macro level economic impacts associated with Project activities and expenditures on labour forces, employment and income, government revenues, and economic diversification are addressed in Topic 10 – Project Related Expenditures and Economic Benefits.

Matters for general discussion should include:

- Education and training opportunities and constraints
- Conditions of work and employment
- Business opportunities, procurement, and constraints

The Panel needs to assess the combined contributions of various means of Project-related mitigation and enhancements, whether they are contained in the EIS, Commitments Tables, access and benefits agreements, socioeconomic agreements, and cooperation plans and agreements (ie. whether these are publicly stated or privately negotiated).

With regard to the matters listed above, hearing presentations and discussion by the Proponent and Interveners should include consideration of the following questions:

- What are the conditions and opportunities for regional participation in wage and salary employment, considering such factors as:
  - disincentives and constraints for local participation in employment (e.g., child and elder care, housing assistance and related policies)
  - the extent to which the skills of the available workers match the job requirements
  - the level of interest in Project-related work
  - commuting arrangements to allow these workers to reach the work site
- What are the Proponent's policies, plans and commitments with particular regard to:
  - points of hire, hiring preferences, adjacency issues
  - conditions of employment and work (example: rotation schedules, cross-cultural awareness, discrimination, gender equity and equality)
  - camp policies (example: closed camps, drugs and alcohol, health and safety)
  - business opportunities and procurement plans in the NWT and the Yukon
  - training and education of northerners, aboriginal people, women and youth
  - their status and effect on the policies, plans and commitments of prime contractors and subcontractors
- With respect to the implementation of the Proponent's company policies, plans and commitments, how would compliance be enforced?
- What are the implications of the pace and scale of Project development during

- construction, operation and abandonment?
- What is the subject matter and status of access and benefits agreements, and in what ways and to what extent do they contribute on a regional basis to enhancements of education, training, employment, conditions of work, and business opportunities and procurement?
  - With regard to education and training, employment, and business opportunities and procurement, what undertakings has the Proponent implemented and what has been achieved with regard to these matters in the last five years?
  - What is the proven effectiveness of the Proponent's proposed enhancement and mitigation measures?
  - With respect to union labour participation:
    - where will there be Project-labour agreements and where will there not be?
    - what will be the relationship between union and non-union contractors? (eg. gravel, water, and timber haulage)
    - what are the qualifications required of experienced Northerners for union employment?
    - what is the unions' capacity for training of unskilled northern labour?
  - In the Northwest Territories, who will bear the cost of training northerners in Project-related programs?
  - What are the subject matter and status of socioeconomic agreements, cooperation plans and service agreements as they pertain to the Proponent, Government of the Northwest Territories and aboriginal organizations?
  - what are the interests and issues (as they pertain to the aforementioned matters) the Government of the Northwest Territories (GNWT) is seeking to address through the following measures:
    - a socioeconomic agreement with the Proponent?
    - cooperative arrangements, plans and programs with the Proponent, the federal government, and aboriginal organizations?
  - Based on the experience of the GNWT with socio-economic agreements negotiated and implemented with the NWT diamond mining industry, what lessons have been learned and what are their implications for a socio-economic agreement with the MGP?
  - What success have Canada Benefits Plans prepared pursuant to the *Canadian Petroleum Resources Act* had in addressing the aforementioned matters (in the context of the anchor fields and gathering system)?

The Panel will not consider evidence on matters related to the Connecting Facilities or the territory in which the Dene Tha' First Nation have or have asserted aboriginal or treaty rights.

*Locations:* Yellowknife Topic-Specific General Hearing – February 6, 7 and 8, 2007

Open General Hearings as listed in the Schedule

## **Topic 10. Project-related Expenditures and Economic Benefits**

This hearing session will address the direct, indirect and induced economic inputs, outputs and benefits of the proposed Mackenzie Gas Project on local, regional, territorial, provincial and national economies. It will review the type, scope, level and distribution of predicted macro-level economic impacts associated with Project activities and expenditures and will provide a basis for the discussion of related potential socio-economic and socio-cultural impacts in Topic 9 - Education, Training, Employment and Procurement, Topic 11 – Project-related Economic Costs and Physical Infrastructure Impacts , and Topic 13 – Socio-cultural Impacts.

Matters for discussion should include:

- Capital expenditures and investment impacts, including direct economic impacts from Project expenditures and indirect and induced economic impacts associated with spin-off economic activity nationally, territorially, regionally and locally
- The methodology used to predict the identified economic impacts, the methods, assumptions and data underlying the application of referenced economic models, and the level of certainty and confidence that can be assigned to resulting identified outcomes over the life of the proposed Project
- Labour force impacts by location, type and duration of employment, and by employee residency
- Employment income and its distribution by employee residency
- Impacts on diversification of the NWT and regional economies
- Revenues to governments and their distribution, including effects on the NWT
- Project enhancements and constraints that could affect economic benefits or opportunities.
- Implications of the pace and scale of Project development during construction, operation and abandonment for direct and indirect economic impacts

With regard to the matters listed above, hearing presentations and discussion by the Proponent and Interveners should include consideration of the following questions particularly as they apply to sustainable development in the NWT and its regions:

- What are the estimated Project expenditures and distribution of potential revenues (taxes, royalties and rents) that would flow to the federal and territorial governments from the MGP based on the information presented in the EIS and relevant supplementary filings by the Proponent? What is the associated approach and assumptions used to predict the estimated revenues, and what factors affect the reliability of the estimated revenues?
- What are the fiscal policies and arrangements (e.g. resource revenue sharing, formula financing and other fiscal arrangements) that affect or may affect the determination of potential revenues (e.g. economic rents, royalties and taxes) that could flow to the governments of Canada and the NWT from the MGP and what are the potential financial impacts of those policies and arrangements on government revenues over the life of the Project?

- What might be the overall effects on the maintenance and enhancement of economic self-reliance in the communities of the Project area and the larger region?
- How are the Project and associated and induced activities likely to affect and be affected by the anticipated demand for skilled employees in the hydrocarbon and pipeline construction sector in the Project area, in the larger region and in Canada?
- Is the Project (along with associated and induced activities) likely to increase or decrease the equity of distribution of benefits and risks (e.g., employment opportunities, revenue flows and access to resources) in the communities of the Project area and in the NWT and northern Alberta? Is this distribution likely to be more equitable or less equitable during Project operation than it is now? Is this distribution likely to be more equitable or less equitable after the end of the Project than it is now?
- What may be the boom-bust effects during and after Project construction and during and after Project operation (taking into account associated and induced projects and activities as well as the Project itself)?
- What particular effects may result from the nature of and rises in revenue flows with the commencement of the Project and the uses made of these revenues?
- What particular effects may result from the decline in revenue flows with the end of the Project, with special consideration of the activities that had been funded by these revenues?
- What are the local and regional risks of dependence on a temporary hydrocarbon-based economy? How might these risks be minimized?

*Locations:* Yellowknife Topic-Specific General Hearing – November 6 - 8, 2006

Open General Hearings as listed in the Schedule

## **Topic 11. Project-related Economic Costs and Physical Infrastructure Impacts**

These hearing sessions will address the direct and indirect economic costs and impacts of the proposed Mackenzie Gas Project on local, regional and territorial infrastructure and institutions that own or provide support services to maintain and operate this infrastructure.

Matters for general discussion should include:

- Impacts on local, regional and territorial physical infrastructure such as:
  - communications and transportation networks and equipment
  - water supply
  - sewers, solid and liquid waste treatment facilities, and land fills
  - community lands
  - quarries and quarry material availability
  - housing availability, accessibility, quality and affordability
- Impacts on community services, costs and institutional capacity associated with maintaining physical infrastructure, and on the tax-base of affected communities

The **Hay River General Hearing** session will address the direct and indirect economic costs and impacts of the proposed Mackenzie Gas Project (the Project) on local, regional and territorial transportation infrastructure as they relate to air, road, rail and river transportation networks. Ocean-going marine barge transportation impacts and transportation infrastructure impacts on the human and biophysical environments (see Topic 5 – Marine Environment, Topic 6 – Water, Fish and Aquatic, Topic 7 – Wildlife and Wildlife Habitat, Topic 12 – Harvesting and Other Land Use) will be the focus of subsequent hearings.

With regard to the Hay River General Hearing and the matters listed above, presentations and discussion by the Proponent and Interveners should include consideration of the following questions:

- What is the capacity of the existing transportation infrastructure to meet the Project's requirements and what changes will be required to meet these requirements? (Example: how does Project-related gravel and pipe haulage affect the existing territorial highways network? Is upgrading required, and, if so, to what extent?)
- How does the Proponent's transportation requirements, as stated in the EIS and supplementary filings (including transcripts), affect existing transportation infrastructure (road, rail, river and air transportation)? Discuss specifically the numbers of people and volume of materials (including gravel) that will be transported between fixed locations, the means by which they will be transported and the timing for transportation of same. (Example: discuss air transport requirements such as types of aircraft, scheduling for personnel, frequency of flights, use of private and commercial carriers, etc.)
- How does the Proponent intend to mitigate the Project's impacts on local, regional and territorial transportation infrastructure?
- Have assessments been done on the Project's transportation requirements by local and territorial government agencies responsible for managing transportation infrastructure? If so, what is their assessment of the predicted impacts and mitigation proposed by the Proponent?
- what are the transportation interests and issues the GNWT is seeking to address in the following areas:
  - capital programs for the next 10 years
  - a socioeconomic agreement with the Proponent
  - other arrangements with municipal governments, federal governments and the Project Proponent
- How will safety and traffic management of public roads be conducted by the Proponent, the GNWT and local governments?
- What are the controls affecting public access to non-public roads (proponent-made roads for haulage) in summer or winter?

The **Inuvik General Hearing** session will address the direct and indirect economic costs and impacts of the MGP on the community and territorial physical infrastructure listed above (with the exception of transportation), the support services and activities that local and municipal governments and the GNWT provide to maintain and operate it, and the tax base of the municipalities of Inuvik, Norman Wells, Fort Simpson and Hay River.

Inuvik hearing presentations and discussion by the Proponent and Interveners should include consideration of the aforementioned matters and the following questions in relation to each of the communities in the Project area:

- What are the direct and indirect impacts of the Project on housing availability, accessibility, quality and affordability and how effective is the proposed mitigation?
- What are the impacts on community and municipal infrastructure and how effective is the proposed mitigation?
- What are the impacts on municipal and local services and service providers (associated with operating and maintaining physical infrastructure) and related institutional capacity and how effective is the proposed mitigation?
- What is the potential impact of revenues from the Project on tax-based communities?
- What is the status of municipal or local service agreements between affected communities and the Proponent? What matters do they address and what matters remain outstanding or of concern?
- What is feasible and where is it feasible for northern communities to access natural gas supplies delivered by the pipeline? What interests have been expressed, and what arrangements and undertakings are required for communities to establish access to natural gas?

The Panel will not consider evidence on matters related to the Connecting Facilities or the territory in which the Dene Tha' First Nation have or have asserted aboriginal or treaty rights.

*Locations:* Hay River Topic-Specific General Hearing – June 12, 2006 (focus on impacts on transportation infrastructure)

Inuvik Topic-Specific General Hearing – January 11 – 12, 2007

Open General Hearings as listed in the Schedule

### ***Theme 5 – Human Environment: Socio-cultural Impacts***

These hearing sessions will address temporary and lasting impacts on the socio-cultural environments potentially influenced by the proposed Mackenzie Gas Project. The sessions will consider impacts of the proposed Project on the socio-cultural environment as it now exists and as it may evolve during the life of the Project, the certainty of those impacts, the anticipated effectiveness of proposed mitigation of adverse impacts, and the potential for enhancements through effective responses to current socio-cultural problems. As well, these sessions will consider the impacts of the proposed Project on the maintenance and development of the institutional tools for socio-cultural protection and enhancement. The Joint Review Panel expects that the Parties will address the residual impacts (if any) of the proposed Project after the period of peak construction employment and after the Project is decommissioned.

The Panel expects that information on these matters will be presented at the Community, General, and Technical Hearings.

## Topic 12. Harvesting and Other Land Use

These hearing sessions will address the potential impacts of the Mackenzie Gas Project on subsistence, sport and commercial harvesting and other land uses.

Matters for discussion should include:

- Project and cumulative impacts on plants, wildlife and fisheries abundance, distribution, productivity, quality, and accessibility as these impacts may affect harvesters
- Direct impacts on harvesters and harvester access, including traditional trails
- Potential impacts on land use, including land use patterns and specific sites or features
- Provisions for wildlife and harvesting compensation

With regard to the **Inuvik Topic – Specific General Hearing**, presentations and discussion by the Proponent and Interveners will address the matters listed above only as they apply to the Inuvialuit Settlement Region and Gwich'in Settlement Area. Presentations and discussion should also include consideration of the Worst Case Scenario requirements (applicable in the Inuvialuit Settlement Region only), including review of:

- Five defined scenarios (Mackenzie Gas Project Environmental Impact Statement, *Supplemental Information - Worst-Case Scenarios in the Inuvialuit Settlement Region*, Submitted to the Joint Review Panel by Imperial Oil Resources Ventures Limited, November 2004) and agreed to by the Inuvialuit Game Council (December 2004).
- Potential impacts on wildlife, habitat and harvesters associated with each scenario
- Potential mitigation measures that may apply to the Worst Case Scenario(s)
- Methods for calculation of financial compensation to Inuvialuit harvesters

With regard to matters associated with timber harvesting from the Project footprint, presentations and discussion by the Proponent and Interveners will be addressed at a future hearing date and place to be determined.

Matters for discussion include:

- Potential impacts on forest resources
- Project requirements and specifications for wood products
- Community wood salvage and wood sale opportunities
- Applicable regulations and regulatory framework

*Locations:* Fort Simpson Topic-Specific General Hearing – May 17 - 18, 2006

Norman Wells Topic-Specific General Hearing – August 21 - 22, 2006

Inuvik Topic-Specific General Hearing – **March 13, 2007**

**Topic-Specific General Hearing – Timber Harvesting – Time and place to be determined**

Open General Hearings as listed in the Schedule

### **Topic 13. Responding to Socio-cultural Impacts**

This hearing session will address the potential direct and indirect impacts of the proposed Mackenzie Gas Project on human health, community and personal wellness, and the local and regional capacity of people and institutions to assess and respond to these impacts. Submissions on determinants and indicators of health and well-being, and on socio-cultural monitoring and follow-up programs, are best directed to Topic 14 – Environmental (Socio-cultural, Economic and Biophysical) Management Plans, Monitoring and Follow-up Programs.

Matters for discussion should include:

- Impacts of Project-related employment and income on community demographics, mobility, and family life, including child and elder care
- Impacts of Project-related employment and income on alcohol and drug use, family violence, gambling, incarceration, and related social problems
- Impacts on the household economy including the role of subsistence and non-wage activities.
- Impacts on social programs and health and protection services
- Impacts on community/family capacity, resilience and support systems (social capital)
- Government policies and commitments as they relate to Project activities and direct and indirect impacts

Particular attention will be given to Project-related impacts on social and cultural patterns and cohesion, and the capacity of people, communities and institutions to respond and adapt to Project-induced social, cultural and economic change. Consideration will be given to the potentially variable effects of the proposed Project on specific components of community and regional populations, particularly with respect to age, gender, status, occupation, and income.

The Panel is aware that these are matters of wide-spread concern in the Project area. These concerns have been frequently expressed in community and general hearings to date, and the Panel expects that such concerns will continue to be expressed in the remaining community and general hearings. The purpose of this session is not to restate these concerns, but to provide evidence of their extent, nature, and causes; evidence of the extent to which the proposed Project might exacerbate or alleviate them; and evidence-based recommendations for dealing with these matters. The Panel is mindful that socio-economic impacts are largely unregulated and often difficult to monitor. The Panel is also mindful that discussions and negotiations are on-going with respect to socio-economic agreements, and access and impact benefits agreements, that are intended to deal with social and cultural impacts in whole or in part, and further that Canada has recently enacted legislation to provide funding to address potential social impacts of the MGP (the Mackenzie Gas Project Impact Fund (MGPIF)).

The Panel is particularly interested in receiving submissions from the GNWT on those matters within its jurisdiction, and from the regional aboriginal organizations that will have primary responsibility for regional planning exercises to determine regional priorities and priority projects associated with the MGPIF.

With regard to existing social and cultural patterns and cohesion, and personal, community, and institutional capacity, presentations by the Proponent and Interveners should include consideration of the following questions:

- What are the current status and trends with respect to these matters in the NWT at regional and community levels without the Project? What quantitative and qualitative evidence is there to support such assessments? How does the situation in the NWT compare with neighbouring or comparable jurisdictions?
- What are the key sources or causes of existing problems in the NWT? Will existing problems be exacerbated or alleviated by the proposed Project? What would be the basis for making such an assessment? How is it possible to distinguish between Project and non-Project effects?
- What is the capacity of the GNWT and of communities in the Project Area to address potential Project-related impacts? What are their current strengths and vulnerabilities? What needs to be put in place at the territorial government level, and at the community level? What is the proven effectiveness of existing policies and programs? What needs to be changed?
- How do the agencies and organizations that will have primary responsibility for regional planning exercises associated with the MGPIF currently assess needs and priorities for action? How will they assess proposed projects for their likely effectiveness, and how will they evaluate the outcomes of those projects that receive funding from the MGPIF?

The Panel will not consider evidence on matters related to the Connecting Facilities or the territory in which the Dene Tha' First Nation have or have asserted aboriginal or treaty rights.

*Location:* Inuvik Topic-Specific General Hearing – February 12, 13 and 14, 2007

Open General Hearings as listed in the Schedule

### ***Theme 6 – Project Alternatives, Cumulative Impacts, and Net Effects and Trade-offs after Enhancement, Mitigation and Follow-up***

The topics included under this theme are broad in scope. They are intended to consider the information presented in previous sessions and address Project alternatives and Project design options; future development scenarios as they relate to the assessment of cumulative impacts; environmental management plans, contingency plans, monitoring and follow-up programs; and the net contributions of the proposed Mackenzie Gas Project to environmental sustainability.

These sessions will address the overall impacts of and justifications for the proposed Project in light of the general sustainability framework set out in the 18 July 2005 Joint Review Panel

determination of sufficiency to proceed to the hearings. The Panel will also consider the application of sustainability criteria in the evaluation of the net contribution of the proposed Project in comparison with alternatives, in light of the proposed design and implementation features, and expected success of mitigation and enhancement efforts and continuing uncertainties. Particular attention will be paid to the main lasting impacts (benefits, opportunities, adverse impacts, costs, risks, etc.), their nature, severity, certainty and distribution (over time, among places, and among interests). These sessions will also examine the justifications offered for the trade-offs involved. The Panel urges the Parties to the greatest extent possible to substantiate their submissions with supporting evidence that is provided to the Panel and to limit comments based on unsupported opinion and conjecture. Statements of interest and concern by the Parties should be presented at Open General Hearings.

#### **Topic 14. Environmental (Biophysical, Socio-cultural and Economic) Management Plans, Monitoring and Follow-up Programs**

This topic will be divided into two sessions for organizational purposes to address related themes and matters in the biophysical and human environments and Project interactions with related Valued Environmental Components identified in the EIS and supplementary submissions.

Matters for discussion should include:

- How the proposed Project has been designed and would be constructed and operated to alleviate or minimize the effects of accidents, malfunctions, and unforeseen impacts
- Preparations for accidents and malfunctions, including emergency preparedness and emergency response plans
- Liability and financial security for accidents and malfunctions
- Proposals for and commitments to biophysical environment management and protection plans and agreements
- Proposals for and commitments to biophysical environmental monitoring and follow-up regimes
- Proposals for and commitments to socio-cultural and socio-economic monitoring and reporting, socio-economic plans and agreements, and follow-up regimes
- Follow-up plans, including compliance and inspection
- Contributions and effectiveness of existing socio-economic and biophysical environmental monitoring and follow-up regimes, including the NWT Cumulative Impacts Monitoring Program, and the NWT Cumulative Effects Assessment and Management Strategy and Framework
- Evaluating the implementation and effectiveness of management plans, monitoring programs, and follow-up programs

With regard to the matters listed above, further guidance for discussion may follow pending the outcome of the hearings in Themes 1 - 5.

The Panel will not consider evidence on matters related to the Connecting Facilities or the territory in which the Dene Tha' First Nation have or have asserted aboriginal or treaty rights.

*Location:* Inuvik Topic-Specific General Hearing:  
Biophysical Environment (14a) – March 15 - 16, 2007

Yellowknife Topic-Specific General Hearing:  
Socio-cultural and Economic Environment (14b) – March 19 - 20, 2007

Open General Hearings as listed in the Schedule

## **Topic 15. Cumulative Impacts**

This hearing session will consider overall potential cumulative impacts of the proposed Project and possible future development scenarios. The focus of discussion is the range of possible scenarios that the Panel should consider in its review of the assessment of cumulative impacts and the previously filed information on cumulative impacts that could inform identification of scenarios under discussion. A purpose of defining future development scenarios is not to predict the future, but to facilitate identification of areas of current uncertainty, planning for future conditions and potential impacts about which there is concern, and the development of appropriate approaches to adaptive management.

With regard to these matters, further guidance for discussion may follow pending the outcome of the hearings in Themes 1 - 5.

*Location:* Topic-Specific General Hearing – Time and place to be determined

Open General Hearings as listed in the Schedule

## **Topic 16. Sustainability and Project Contributions**

On the basis of previously filed information and evidence, hearing presentations and submissions should address the question of whether Northerners will be better off as a result of the Mackenzie Gas Project, whether net benefits are sustainable, and the distribution among individuals and communities of the costs and benefits of the proposed Project.

Matters for discussion should include:

- Need for, purposes of, and alternatives to the proposed Project, and alternative means of carrying out the Project as described in the EIS and supplementary filings, and submissions by Interveners
- Summary and comparison of adverse impacts, costs, and risks, and of benefits and opportunities, and their distribution in the short and long term and among different interests (governments, private sector companies, communities, individuals)
- Contributions from socio-economic agreements and access and benefits agreements
- Whether or not Project contributions and benefits are sustainable
- Trade-offs among anticipated gains and losses
- Identification and justification of trade-offs within particular areas (e.g. economic gains from taxes and royalties versus added costs and expenditures, or immediate

gains versus longer term sustainability), and among the Valued Environmental Components

- Judgment on overall sustainability questions

With regard to the matters listed above, presentations and discussion by the Proponent and Interveners should include consideration of the following questions:

- Is the Project and the gas it will transport needed more now (taking into account the probable effect of the Project on other hydrocarbon activities in the Northwest Territories and the expected use of the extracted and transported gas) than it might be in the future?
- What are the alternatives to the Project, including not proceeding with the Project now, and are their effects to be more beneficial or less beneficial and to have higher or lower risks in the Project area and larger region?
- Is the end of the Project (and associated activities including revenue flows) likely to leave future generations in the communities of the Project area and in the NWT with better prospects or worse prospects than they would have had without the Project? How might these prospects be different if some alternative were pursued instead of the Project as proposed?
- What practical means are available to extend the life of the Project or more generally to extend the life of hydrocarbon extraction, transportation and related activities in the Project area?
- Are the ecological systems, conservation, and traditional use areas surrounding the communities in the Project area and larger region likely to be generally in better or worse condition after the Project is over?
- What might be the overall effects on the maintenance and enhancement of livelihood capacities (e.g., available resources, applicable skills, education, knowledge of the land) and opportunities, including long term livelihood diversity and security in the communities of the Project area and the larger region?
- What might be the positive and negative effects on community well-being and the social determinants of health – including livelihood security, diversity of opportunities, self-reliance, physical health, community solidarity and commitment, intergenerational relations, the distribution of employment and influence, cultural preservation and evolution, and social status – during pipeline construction, during operation and after decommissioning (taking into account the effects of associated and induced projects and activities as well as those of the Project itself)?
- What are the best estimates of induced and otherwise likely additional hydrocarbon exploration, extraction and transportation activities in the region, during and beyond the expected lifetime of the Project and how might these affect the boom-bust effects of the Project?
- What are the possibilities that the Project will trigger major consequential changes in the Project area and what are the implications for these changes once the Project is over?
- Might any boom-bust effects during and after Project construction and during and after Project operation (taking into account associated and induced projects and activities as well as the Project itself) have significant positive or negative effects

- beyond the Project area and adjacent region?
- Will the end of the Project leave deficiencies and problems that would have to be assumed by Canada, other governments or authorities beyond the Project area?
  - Given the temporary economic intensity of the Project construction, the longer but still limited period of hydrocarbon extraction and transportation, and the similarly limited period of associated revenue flows, what bridging efforts are planned by the proponent, the communities of the Project area, authorities in the larger region, and/or the Canadian government to ensure that the immediate and medium term Project benefits and opportunities will be used to secure lasting gains for the Project area and larger region?
  - What longer term possibilities for sustainable livelihoods are anticipated and what programs and other initiatives are planned by the Proponents, by the GNWT and by aboriginal organizations to establish firm bridges to such livelihoods (in addition to dealing with existing concerns and with concerns anticipated during the life of the Project)? How might the anticipated or potential programs and other initiatives be affected by different assumptions about the size, direction and timing of revenue flows? How might these prospects be different if some alternative were pursued instead of the Project as proposed?

With regard to these matters, further guidance for discussion may follow pending the outcome of the hearings in Themes 1 - 5.

*Location:* Topic-Specific General Hearing – Time and place to be determined

Open General Hearings as listed in the Schedule

## **Topic 17. Recommendations**

The purpose of this hearing session is to provide an opportunity for the submission of final commitments and recommendations, including any approval conditions, proposed by the Parties, and an opportunity for comments thereon. In addressing the matters within the Panel's mandate, Parties must state explicitly and clearly articulate any conditions of approval or general recommendations that they are proposing to the Panel and that, assuming their implementation, would shape the Project. Such proposed conditions and other recommendations must be included in each Party's written presentation on this Topic, for advance distribution to other Parties in accordance with the Panel's *Direction on Procedures for Hearings*. The oral hearing on this Topic will therefore serve as the opportunity for Parties to comment solely on the written recommendations of each other. Because all Parties will have reviewed the submissions to this hearing, the oral hearing is **not** an opportunity to provide a summary of a Party's own recommendations. The Parties will also be subject to questioning by the Panel and by one another on the subject of their prefiled written recommendations.

*Location:* Topic-Specific General Hearing – Time and place to be determined

## **Topic 18. Net Contribution of the Project and Closing Remarks**

The purpose of this hearing session is to provide an opportunity for a comprehensive review of the information, evidence and recommendations that have been submitted to the Panel in order to assess the Project's net contribution (including the distribution of costs and benefits) and including judgments on questions of sustainability that have been identified in previous sessions. The Panel's assessment of the Net Contribution of the Project will focus on the Project as it would be built and operated if it were subject to any specific regulatory conditions that the Panel might recommend and as if any other Panel recommendations were to be adopted and implemented.

The last session of the public hearings will be reserved for Parties' closing remarks and comments on final submissions that have been received by the Panel. The Panel will require that Closing Remarks be filed in writing 20 days prior to the date of the hearing. Presentations at the oral hearing will be restricted to a brief summary of the pre-filed Closing Remarks and will provide an opportunity for Parties to comment on the written Closing Remarks of each other. The Parties may be subject to questions of clarification from the Panel if required, but will not be subject to questioning by one another.

Parties who wish to file written Closing Remarks but who do not propose to attend the oral hearing must comply with the same filing deadline.

At the end of the oral hearing for Closing Remarks, subject only to filings that may be required to comply with any undertakings that are still outstanding at that time, the record of the Panel's proceedings will be closed and any filings or submissions received thereafter will not be posted to the registry or be considered by the Panel.

*Location:* **Topic-Specific General Hearing – Time and place to be determined**

### ***Further Information***

For further information about the Joint Review Panel's hearing topics, hearing locations and to register to present at the public hearings, please contact:

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