Northwest Territories Lands

April 30, 2014

VIA EMAIL

Richard Binder
Coordinator
Environmental Impact Review Board
107 Mackenzie Road, Suite 204
P.O. Box 2120
Inuvik, NT
X0E 0T0

Dear Mr. Binder,

Comments and Recommendations on Draft Terms of Reference for the Beaufort Sea Exploration Joint Venture Drilling Program (File Number: 09/13-01)

On February 28, 2014, the Environmental Impact Review Board (EIRB) requested the Government of the Northwest Territories (GNWT) to review a draft of the Terms of Reference (TOR) for the environmental impact assessment and review of the Imperial Oil Resources Venture Limited subject-noted project (the Project).

Please find the result of GNWT review attached, where all GNWT departments with responsibilities related to the Project considered the draft TOR. The attachment includes comments and 22 total recommendations from the departments of Lands; Environment and Natural Resources; Education, Culture and Employment; and, Health and Social Services; as well as from the Housing Corporation and Prince of Wales Northern Heritage Center.

GNWT supports the principle of “one project, one assessment” and encourages the EIRB and the National Energy Board to work together to develop process solutions that minimize duplication while respecting the requirements of the Inuvialuit Final Agreement and the *Canadian Environmental Assessment Act*, 2012.

GNWT looks forward to continued and active participation and dialogue with parties and the EIRB in the environmental impact assessment and review of the Project.

If you have any questions, please contact me at shafic_khouri@gov.nt.ca or (867) 873-7905.

Sincerely,

Shafic Khouri

Shafic Khouri
Project Assessment Analyst

Attachment:

GNWT Comments and Recommendations on Draft Terms of Reference
Draft WWHPP and WEMP Guideline Definitions

Attachment:
Government of the Northwest Territories
Comments and Recommendations on Draft Terms of Reference

Environmental Impact Assessment and Review of the Imperial Oil Resources Venture Limited Beaufort Sea Exploration Joint Venture Drilling Program

File Number: 09/13-01

April 30, 2014

Northwest Territories Lands

Abbreviations and Acronyms

EA	9nvironmental impact assessment and review
EIRB	Environmental Impact Review Board
EIS	Environmental Impact Statement
GNWT	Government of the Northwest Territories
IORVL	Imperial Oil Resources Venture Limited
NEB	National Energy Board
NWT	Northwest Territories
TOR	Terms of reference
Project	Beaufort Sea Exploration Joint Venture Drilling Program

1. Introduction

This submission represents Government of the Northwest Territories (GNWT) comment and recommendation on the 28 February 2014 draft of the Terms of Reference (TOR) for the Imperial Oil Resources Venture Limited (IORVL) proposed Beaufort Sea Exploration Joint Venture Drilling Program (the Project) environmental impact assessment and review (EA).

2. Comments and Recommendations

Comment:

Clearly numbered sections and sub-sections in the final TOR will allow parties to clearly reference appropriate components in their future reviews.

Recommendation #1:

GNWT recommends sections, sub-sections, bullets and numbering in the final TOR for purposes of reviewers being able to clearly reference appropriate components during future EA phases such as conformity and information requests.

Comment:

The Project description indicates that IORVL expects to apply for a land use permit, a water licence and other related approvals as late as 2018. If onshore facilities/activities will be required, early identification of possible required Project sites in the EA process will help clarify regulatory approval requirements. It is essential that onshore activities are fully assessed during the current EA process to reduce the likelihood that future applications for onshore activities could trigger an additional assessment process.

Early identification will determine possible industrial past uses and identify existing factors such as sumps, pilings, or other existing infrastructure. Early identification will help determine land availability for proposed Project uses, where, for example, existing footprints may be more attractive, ready for development, and therefore of optimal choosing for Project sites.

Early identification of current and/or planned onshore facilities/activities will also serve to strengthen required cumulative effects assessments (p. 11, second last bullet, Details on the cumulative effects assessment).

Recommendation #2:

GNWT recommends the final TOR require IORVL to identify, as early and thoroughly as possible, all required onshore facilities and activities, and consequent use of territorial lands and waters, including discharge of waste, for the proposed Project.

Comment:

New onshore developments, like camps, laydown areas, etc., as well as dredging of harbours, can affect heritage resources and should be included in the baseline discussion of this topic.

Recommendation #3:

GNWT recommends the last bullet under the topic "Human environment baseline information" (p. 8) be changed from "marine components" to "marine and onshore components".

Comment:

In GNWT comments submitted to the Environmental Impact Screening Committee for the Project, it was noted that archaeological sites should be considered as sensitive components of the environment when planning for accidents and malfunctions that could affect the shoreline.

Recommendation #4:

GNWT recommends the third line, last bullet, page 10, be changed from "social, economic or cultural elements" to "social, economic or cultural (including heritage resource) elements" in the final TOR.

Comment:

There appears to be insufficient socio-economic information relating to the human environment as follows:

- Regional and community demographics, mobility;
- National, regional and local/community economies;
- Education, training and skills;
- Subsistence, sport, and commercial harvesting;

- Land use, protected areas and special management areas;
- Cultural and heritage resources;
- Human health and community wellness;
- Socio-cultural patterns and cohesion;
- Infrastructure and institutional capacity; and
- Employment and workforce.

Recommendation #5:

GNWT recommends the final TOR require IORVL to provide the specific information outlined in the bullets above.

Comment:

The definition of "human environment" includes "socio-economic conditions, which are the components of an individual, family or community's economic activity, social relations, well-being and culture[,]" (p. 18). However, the scope of this definition does not appear to be fully applied throughout the draft TOR, including when referring to the objective of sustainable development. The objective of sustainable development, as defined, is to "achieve a balance between preserving environmental integrity, ensuring social equity and improving economic efficiency."

Recommendation #6:

GNWT recommends the wide-spanning definition of human environment, as defined in the appendix of the draft TOR, be applied and expanded upon throughout the final TOR, in order to clearly outline the elements of its incorporation in the Project Environmental Impact Statement (EIS).

Comment:

Human baseline information, with a socio-economic focus, as opposed to only a bio-physical one, enables a more complete assessment of the potential effects of the project. Human baseline information includes employment, training, education, economic development, business opportunities, and health and community well-being, and is used to predict and

evaluate the effects at the local, regional, territorial, and national level as appropriate and relevant.

The training initiatives as currently outlined in the draft TOR appear to be limited to individuals working directly on the development, wildlife monitors and inspectors, and spill response. It is expected the Project will bring additional education, training, employment and economic development opportunities locally, regionally and territorially. Further information regarding these topics will support program planning to support the readiness of a northern workforce.

The provision of this information for each stage of the Project, and the inclusion of input from the public during the EA process, will help improve the understanding of all parties.

Recommendation #7:

GNWT recommends the final TOR require the following:

- Human baseline information from a socio-economic perspective;

- Training initiatives and employment opportunities during all phases of the Project for both offshore and onshore. This may include a list of all jobs associated with the Project, anticipated training and education requirements, and job classification (e.g., management, professional, skilled, semi-skilled or trainable); and

- Presentation of socio-economic considerations at each stage of the Project.

Comment:

Resource development and the resulting migration of people arriving from outside the territories, as well as from community-to-community migration, directly impact the availability and accessibility of housing. The lack of housing that may be created by resource development has broad effects: acting as a labour market deterrent, contributing to housing price inflation on already high housing costs, and exacerbating housing needs for those unemployed or under-employed. Planning for the provision of available housing during Project years may facilitate the recruitment and retention of Project staff and lessen cost impacts and availability of housing for current residents.

Recommendation #8:

GNWT recommends the final TOR require IORVL to address the number of people anticipated to move into areas seeking employment and accommodation as a result of the Project.

Accompanying details on the anticipated effects of such in-migration on overall cost of living, but more specifically, housing, should be included. This information could be added in the Human Environment baseline information section (p. 8).

Comment:

GNWT has concerns on the health and social systems of the NWT regarding capacity and procedure if an accident requiring emergency medical attention were to occur.

Recommendation #9:

GNWT recommends the final TOR require IORVL to provide information on predicted impacts to the health and social systems of the NWT, particularly those related to emergency evacuations.

Comment only:

GNWT is confident most of the major wildlife issues of concern relevant to its mandate will be adequately captured in the EIS if IORVL follows the TOR, Environmental Impact Review Board Environmental Impact Review Guidelines, and National Energy Board (NEB) Filing Requirements for Offshore Drilling in the Canadian Arctic, as is currently required in "Scope of Factors and EIS Requirements" (p. 3).

Comment:

The physical baseline information section does not include baseline information for existing air quality (bullet 3, p.7, Physical environment baselines information; Information Required Regarding Baseline Data; Environmental and Impact Assessment).

Recommendation #10:

GNWT recommends the final TOR require IORVL to provide air quality information as a component in the above-noted physical baseline information section and/or bullet.

Comment:

IORVL will be including the sources, quantities, and frequency of Project-related emissions of greenhouse gas, nitrogen oxides, sulphur oxides and volatile organic compounds. This list does not mention other possible parameters of concern, such as fine particulate matter or air toxics (bullet 2, p. 9, Details on the effects on the physical environment, Information Required Regarding the Impact Assessment including Cumulative Effects, Environmental and Impact Assessment).

IORVL indicates they will conduct validated dispersion modeling if there will be a notable increase in ship activity over current activity levels as a result of the Project. GNWT notes that without dispersion modeling it will be difficult to assess the atmospheric environment. Therefore, validated dispersion modeling should be conducted of all emission sources related to the Project, including development, operations, shipping, spills management, waste management practices, etc. The modeling should also include other emission sources in the study area to address cumulative effects, in order to appropriately represent predicted air quality and deposition expectations.

Recommendation #11:

GNWT recommends the final TOR require IORVL to conduct a comprehensive air quality assessment, which includes sources, quantities and frequency of emissions associated with the Project, including, but not limited to, development, operations, shipping, spills management, waste management practices, and other emission sources (i.e., cumulative effects) in the study area. The parameters should include, but not be limited to, greenhouse gas, nitrogen oxides, sulphur oxides and volatile organic compounds, PM2.5, and air toxics. Dispersion and deposition modeling should be conducted in order to estimate ambient air quality concentrations and expected deposition loads.

Comment:

IORVL indicates it will outline the plans and procedures for spill removal, in-situ burning, and use of spill-treating agents such as dispersants and chemical herders (sub-bullet 6, p.14, Information required, Factors, Preparedness and Response). GNWT notes in-situ burning is an inefficient method of combustion and, ultimately, is a form of shifting the contamination from water to air, rather than eliminating it. A detailed air quality assessment is required to understand the effects of such a proposed practice, considering the presence of additional chemicals (herders), the by-products associated with incomplete burning, the residual matter

left on ice or in marine environment, etc. A worst-case scenario should be considered as part of this assessment. This analysis would be integral in the net environmental benefits analysis (NEBA) for the selection of appropriate spill countermeasures

Recommendation #12:

GNWT recommends the final TOR require IORVL to conduct an air quality assessment to account for a worst-case scenario for an in-situ burn, including quantities of emissions associated with the burn. The parameters should include, but not be limited to, greenhouse gases, nitrogen oxides, sulphur oxides and volatile organic compounds, PM2.5, and air toxics. Dispersion and deposition modeling should be conducted in order to estimate ambient air quality concentrations and expected deposition loading, and residual by-products in the marine environment.

Comment:

The wave regime of the project area should be included in the "Physical environment baseline information" section (p. 7) under possible natural hazards potential and implications for spill clean-up and containment.

Recommendation #13:

GNWT recommends the final TOR require IORVL to consider, but not be limited by, the wave regime of the Project in relation to the natural hazards potential.

Comment:

The first full sentence at the top of page 9 states the "assessment shall focus primarily on the biophysical and socio-economic values affected by the development." However, the assessment of biological values is of equal importance to biophysical and socio-economic values.

Recommendation #14:

GNWT recommends the EIRB rewrite the first full sentence at the top of page 9 to include mention of biological values in addition to the values already included.

Comment:

Requirements for impact assessment on "the biologic and biophysical environment" (bullet 3, p. 9, Information required regarding the Impact Assessment including cumulative effects) focus on the marine environment, but should be expanded to include impacts on the terrestrial environment and terrestrial wildlife from construction, operation and closure of shore-based facilities.

Recommendation #15:

GNWT recommends the EIRB expand the section of the TOR dealing with Project effects on the biological and biophysical environment to require IORVL to provide information on impacts on the terrestrial environment and terrestrial wildlife from construction, operation and closure of shore-based facilities.

Comment:

GNWT interprets the draft TOR for impact assessment on "the biologic and biophysical environment" to be broad enough to require an assessment on the impacts of ice breaking on sea ice habitat, polar bear movements, foraging, and denning and population trend as a potential impact pathway.

Recommendation #16:

GNWT recommends the final TOR require IORVL to assess the impacts of ice breaking on sea ice habitat, polar bear movements, foraging, and denning and population trend, as a potential impact pathway.

Comment:

The first sub-bullet, under the bullet "Details on the effect on the biologic and biophysical environment" (p. 9), emphasizes that the effects of increased vessel traffic needs to be included in the assessment of potential effects on the marine environment. The inclusion of the dredging in this bullet would help emphasize the importance of its potential effect on the marine environment as well.

Recommendation #17:

GNWT recommends the EIRB re-write the first sub-bullet, under the bullet "Details on the effect on the biologic and biophysical environment" (p. 9), as follows in the final TOR: "The potential effects on the marine environment, including the effects of increased vessel traffic and dredging."

Comment:

IORVL indicates dredging of the Tuktoyaktuk harbour may be required for the Project (p. 2). The draft TOR require baseline data be provided on the sediment regime, particularly in dredging and filling areas, as well as a description characterizing sediments in relation to areas to be dredged or used for dredge soil disposal (p. 7).

Recommendation #18:

GNWT recommends the final TOR require IORVL to provide a full and descriptive dredging plan for the Tuktoyaktuk harbour and surrounding area, in addition to baseline sediment data.

Comment:

The draft TOR does not specifically mention the management of wildlife attractants, attraction of wildlife (e.g., polar bears) to drill ships and vessels or the open water leads created by them, human-wildlife interactions, or wildlife awareness and wildlife safety training for personnel. These elements should be included in the description of prevention measures, mitigation and monitoring.

Recommendation #19:

GNWT recommends the final TOR require IORVL to describe, in the context of prevention measures, mitigation and monitoring, the management of wildlife attractants, attraction of wildlife (e.g., polar bears) to drill ships and vessels or the open water leads created by them, human-wildlife interactions, wildlife awareness and wildlife safety training for personnel.

Comment:

In the last sub-bullet, under details on cumulative effects assessment (p. 12), a follow-up program is required only when verifying the accuracy of assessment concerning the effectiveness of mitigation measures for certain cumulative effects. The same requirement is not mentioned for project-specific effects. Both project-specific and cumulative effects should have associated follow-up programs.

On page 12, the last sub-bullet under the bullet "Details on the cumulative effects assessment" only says "certain" cumulative effects require the development of follow-up programs. The use of the word "certain" makes this a very board statement and open to interpretation as to which cumulative effects require follow-up.

Recommendation #20:

1) GNWT recommends the final TOR require IORVL to develop both project-specific and cumulative effects follow-up programs to verify the accuracy of its effects assessment or the effectiveness of associated mitigation measures, where such effects are deemed potentially significant or about which there is uncertainty.

2) GNWT recommends EIRB re-write the last sub-bullet under the bullet "Details on the cumulative effects assessment" on page 12 as follows: "Develop a follow-up program to verify the accuracy of the assessment or the effectiveness of mitigation measures for project-specific and cumulative effects that are potentially significant or about which there is uncertainty."

Comment:

In several instances (p. 9 and p. 11), the draft TOR focus on Project emissions to the atmospheric environment, but do not specifically mention discharges to the marine environment, such as ballast water, grey water, sewage, deck wash, etc., from drilling rigs and vessels. It is unclear if drill rigs are included in marine traffic or if discarded waste and litter (p. 9) capture all substances that would be discharged into the marine environment.

Recommendation #21:

GNWT recommends the final TOR explicitly require IORVL to consider discharges to the marine environment from drill ships and other vessels, as they may have impacts on the marine food chain.

Comment:

GNWT has concern on Project impacts to polar bear subpopulations, their prey and sea ice habitat from shipping, drilling and related activities; on Project impacts to terrestrial wildlife from construction, operation and closure of shore-based facilities, management of wastes and wildlife attractants, human-wildlife interactions and wildlife safety; and, on spill contingency planning measures to protect wildlife and their habitat. Concerns may be addressed through the development of wildlife and wildlife habitat protection plans and follow-up wildlife effects monitoring programs.

Recommendation #22:

GNWT recommends the final TOR require IORVL to provide wildlife and wildlife habitat protection plans and follow-up wildlife effects monitoring programs (see attached draft guideline definitions for these plans and programs). This is in line with the draft TOR, which requires IORVL to describe plans to prevent damage to wildlife and its habitat and to avoid disruption of harvesting activities as a result of the Project (p. 17).

Attachment:

Government of the Northwest Territories

Draft Guideline Definitions for the Wildlife and Wildlife Habitat Protection Plan and Wildlife Effects Monitoring Program

Environmental Impact Assessment and Review of the

Imperial Oil Resources Venture Limited

Beaufort Sea Exploration Joint Venture Drilling Program

File Number: 09/13-01

April 30, 2014

Northwest Territories Lands

Northwest Territories Environment and Natural Resources

Wildlife & Wildlife Habitat Protection Plan and Wildlife Effects Monitoring Program Guidelines

Department of Environment and Natural Resources
WILDLIFE DIVISION

DISCLAIMER

These guidelines are intended to assist developers in managing and monitoring wildlife and wildlife habitat. They are also intended to provide direction and a consistent approach for regulatory authorities with a mandate for environmental protection. Consideration of these guidelines should be supplemented by local research, traditional knowledge, and professional expertise and advice obtained from appropriate regulators.

These guidelines do not replace acts, ordinances, regulations or the terms and conditions of regulatory authorizations. Although every attempt has been made to provide up-to-date information, it remains the proponent's responsibility to obtain the most recent information related to wildlife and wildlife habitat, to ensure all regulatory requirements have been met, and to undertake appropriate consultation with territorial and federal government departments and Aboriginal groups.

ACRONYMS

EIA	Environmental Impact Assessment
EA	Environmental Assessment
CEA	Cumulative Effects Assessment
EIR	Environmental Impact Review
GNWT	Government of the Northwest Territories
LSA	Local Study Area
PDA	Project Development Area
RSA	Regional Study Area
SOP	Standard Operating Procedure
VEC	Valued Ecosystem Components
WEMP	Wildlife Effects Monitoring Program
WWHPP	Wildlife and Wildlife Habitat Protection Plan

1. INTRODUCTION

1.1. PURPOSE

The Government of the Northwest Territories (GNWT) promotes and supports the sustainable use and development of natural resources to protect, conserve and enhance the Northwest Territories environment for the social and economic benefit of all residents. This responsibility is shared with Aboriginal, federal, territorial, and municipal governments, boards and agencies and every resident of the Northwest Territories.

The GNWT is responsible for the conservation of wildlife resources, which can include collection of baseline information; assessing and monitoring the status of wildlife; wildlife habitat; species at risk; wildlife health; assessing impacts on wildlife from human activities; and, regulating wildlife protection and use.

The GNWT is aware of concerns that have been raised by land users, communities and the general public regarding environmental stressors both natural (e.g., forest fire) and human-induced (e.g., industrial development, harvesting, etc.). The GNWT acknowledges these concerns, and that the cumulative effects of these stressors has contributed to increased pressure on wildlife and wildlife habitat in the Northwest Territories (NWT). The GNWT recognizes that continued management and monitoring are necessary to determine and then minimize cumulative effects on wildlife species and their habitat.

The GNWT maintains that wildlife and wildlife habitat protection and effects monitoring should take place as an active collaboration between developers, Aboriginal, territorial and federal governments, Aboriginal organizations, wildlife co-management partners, other affected parties and neighbouring jurisdictions as appropriate.

1.2. WILDLIFE AND WILDLIFE HABITAT PROTECTION PLAN (WWHPP) AND WILDLIFE EFFECTS MONITORING PROGRAM (WEMP)

The GNWT has developed guidelines that will assist proponents in the development of an operational Wildlife and Wildlife Habitat Protection Plan (WWHPP) and a Wildlife Effects Monitoring Program (WEMP). Together, the WWHPP and the WEMP address both local and larger-scale wildlife objectives and are intended to prevent and/or reduce the potential individual and cumulative effects of development on wildlife and wildlife habitat.

The WWHPP and WEMP are intended to be separate, stand-alone documents that are tailored to the nature and scale of each project. Early engagement with the GNWT is encouraged to promote pre-project planning by identifying and addressing environmental

effects at the initial stages of project development. Following these guidelines when drafting a WWHPP and WEMP will facilitate a more efficient and timely review during environmental impact assessment[1] and regulatory processes by addressing wildlife and wildlife habitat protection objectives in a transparent and consistent manner. The guidelines should be viewed as a living document that will be updated and improved in response to operator and regulator experience, comments and suggestions.

1.2.1 Wildlife and Wildlife Habitat Protection Plan (WWHPP) Definition:

The WWHPP outlines the steps necessary to protect personnel, wildlife and wildlife habitat within the Project Development Area (PDA)[2], also commonly described as a project's direct "footprint." A WWHPP is a management tool to develop and implement clear procedures for employees and contractors in the field, to promote due diligence and to ensure compliance.

An effective WWHPP should include:

- Guidelines to reduce or prevent the potential for interaction between people and wildlife to ensure human safety;
- Guidelines to reduce or prevent any direct impacts from the project to wildlife and/or wildlife habitat;
- Day-to-day standard operating procedures (SOPs) that detail protocols to be used in the field as they relate to wildlife and wildlife habitat;
- Method(s) of data collection, monitoring, and reporting that will be used to document the implementation of mitigation measures, response to wildlife incidents, and any other relevant wildlife observations;
- A description of training and education for employees and contractors on guidelines and SOPs for wildlife issues;
- Links to other management plans with mitigation measures that are relevant to wildlife (e.g. Waste Management Plan, Spill Respone Plan); and,
- An adaptive approach to revising practices and procedures to reflect changing site conditions, activity levels or lessons learned in order to continue to mitigate potential effects on wildlife and wildlife habitat.

Data obtained through implementation of a WWHPP should be used to track impacts and to improve management practices within the PDA. Some information may also be

[1] The term 'environmental impact assessment' is meant to encompass preliminary screenings, environmental assessments, environmental impact reviews or joint panel reviews.
[2] "**Project Development Area**" or "**PDA**" means the land or water area covered by the Project. This includes direct physical coverage (i.e., the area on which the project physically stands) and direct effects (i.e., the disturbances that may directly emanate from the project, such as noise), and is commonly described as a project's direct "footprint."

incorporated into a regional scale monitoring program (e.g., tracking of on-site wildlife mortalities).

1.2.2 Wildlife Effects Monitoring Program (WEMP) Definition

Whereas a WWHPP describes the mitigation measures that will be implemented to reduce local project impacts to wildlife and wildlife habitat, a WEMP encompasses effects monitoring at a Local Study Area (LSA)[3] and Regional Study Area (RSA)[4] scale during the life of the project. In effect, it is a follow-up program as defined under the *Mackenzie Valley Resource Management Act* and *Canadian Environmental Asssement Act, 2012*. A follow-up program is meant to evaluate (1) the soundness of an Environmental Assessment (EA) or Environmental Impact Review (EIR) for a proposed development; and/or (2) the effectiveness of mitigation measures or remedial measures imposed as conditions of approval of the proposal.

The specific contents of a WEMP will depend on the scope of the project, but in general terms, the WEMP is intended to provide details about larger-scale monitoring objectives and methods (e.g., monitoring wildlife species threatened by potential increases in harvester access due to project roads). For example the WEMP could (i) describe a program to test impact predictions made by a developer during a project's environmental impact assessment or the effectiveness of mitigation techniques employed during the construction, operation, closure and post-closure phase of a project, (ii) describe a developer's participation in existing regional wildlife monitoring programs implemented by the GNWT and/or other developers[5], and/or (iii) describe support for wildlife research programs led by other parties that address issues of shared concern.

Early engagement by the developer and ongoing dialogue with the GNWT and other parties is encouraged to ensure WEMP objectives, methods, and deliverables are appropriate.

An effective WEMP should:

1. Identify and address outstanding wildlife concerns following an environmental impact assessment;

[3] "**Local Study Area**" or "**LSA**" means the area surrounding and including the Project Development Area, where there is reasonable potential for immediate environmental and human impacts due to ongoing project activities;

[4] "**Regional Study Area**" or "**RSA**" means the area where there is the potential for large-scale impacts on wildlife and wildlife habitat, including cumulative effects, and that will be relevant to the assessment of any wider-spread effects of the project. For example, the regional study area may be defined by the range of of a wildlife species of concern.

[5] An example of a collaborative regional-based monitoring at a scale appropriate to the species is documented in *Joint Regional Grizzly Bear DNA Proposal, 2012* (Rescan 2012).

2. Be focused on key Valued Ecosystem Components (VEC) and other species of importance that are typically found in or near the area surrounding the project;
3. Be conducted within a study area that is appropriate to the proposed predictions for the project VEC;
4. Have clear objectives and testable predictions, questions or hypotheses;
5. Define the metrics that will be used to measure progress towards an objective or to test predictions, questions or hypotheses;
6. Demonstrate that survey design, methodology, sample size, analysis and reporting will adequately meet the objectives of the monitoring program;
7. Identify any underlying assumptions that may affect interpretation and validity of results;
8. Use tested standardized protocols/methods/approaches that are in use by other development projects so that monitoring results can be combined at a regional scale;
9. Be developed and reviewed in collaboration with Aboriginal partners, government, regulatory agencies, and other affected parties including other project proponents as appropriate; and
10. Be developed such that monitoring and mitigation techniques can be revisited and revised pending new information (e.g., developed using an adaptive management framework). Any changes made to methodologies should be made in consultation with appropriate parties in order to ensure consistency with other monitoring programs.

The results of the WEMP are to be used to support adaptive management approaches, if needed, and to contribute to cumulative effect assessment (CEA), if appropriate. Results from a well-designed WEMP can also be used to inform guidelines associated with future development projects in the Northwest Territories.