June 4, 2007

Mr. Andrew Mitchell, Project Manager
Wolfden Resources Inc.
401-1113 Jade Court
Thunder Bay, Ontario, P7B 6M7

Via fax: (807) 345-0284
Via email: andrew.mitchell@wolfdenresources.com

Re: Wolfden Resources High Lake Mine Project Proposal ('project')

Dear Mr. Mitchell:

The Nunavut Impact Review Board (NIRB or Board) would like to acknowledge the letter dated May 30, 2007, from the Honourable Jim Prentice, Minister of INAC to the NIRB. In that letter, Minister Prentice has directed the Board to do several things, including:

- Conduct a Part 5 Review of the Wolfden project;
- Assess Intervener Funding needs;
- Consult and finalize scope.

To move this project forward, the Board has commenced its review of this project by making the following procedural decisions:

- First, in accordance with the instructions in this letter, and to carry out the Part 5 Review, the Board anticipates a Technical Meeting and Pre-Hearing Conference (PHC) to be scheduled approximately by **August 1, 2007**.

- Second, in preparation for the PHC meeting, the Board will be sending staff into the communities of Kugluktuk, Taloyoak, Gjoa Haven, Kugaaruk, Umingmaktok, Bathhurst Inlet, and Cambridge Bay, to: (a) advise them of the Minister's decision and NIRB's response, and (b) to seek citizens' comments regarding the scope of this project.

- Third, by copy of this letter to all federal agencies, and based on the Minister's instructions, NIRB is also asking these agencies for their views on the *proposed* Scope of Project. Please see the attached document, Appendix A - NIRB's Assessment of the Wolfden High Lake Project. This document has been developed through the commenting process by the NIRB and interested parties and includes all comments received to date on the scope of this project.

- For the information of all parties, the proposed scope will be the basis for NIRB community consultations referred to above, as well as the basis for final comments on the project scope by any agency. Once the Scoping is finalized by NIRB, the Board believes the most efficient

way to ensure the coordination of federal environmental assessment processes is for INAC, as the key federal authority, to concur with the Scope set by NIRB. NIRB believes this is consistent with previous comments made by INAC. The final deadline for Scoping comments is **June 25, 2007.**

Further, the Board would like parties who seek Intervener Funding to provide reasons for such funding, including an explanation of the following:

- How they have attempted to pool resources with parties of similar interests;
- How they are not the subject of additional funding (e.g. government funding);
- How their contribution is unique;
- How their contribution meets the goals of the NLCA (e.g. s. 12.2.5); and
- Other criteria that the Board will forward shortly.

The deadline for these intervener funding requests is also **June 25, 2007.**

Previously, NIRB provided an opportunity for parties and the public to comment on the adequacy of Wolfden's project submission to meet the requirements of an impact statement under Article 12.5.2 and NIRB's Ten Minimum EIS requirements. All comments received to date can be found on the NIRB ftp site at:

http://ftp.nunavut.ca/nirb/NIRB_SCREENINGS/ACTIVE_SCREENINGS/06MN082-Wolfden_High_Lake/1-SCREENING/02-DISTRIBUTION/COMMENTS/ .

Generally, NIRB agrees that the proponent's project proposal qualifies as a *draft* EIS (DEIS) subject to the following prerequisites:

- Receipt of residents' comments and NIRB's final decision on Project Scope (NIRB's decision is expected one week after the deadline for final scoping comments), and

- Wolfden providing supplemental information to address deficiencies previously identified by parties through the commenting process. Parties will then have the opportunity to review any supplemental information submitted by Wolfden.

Once Wolfden provides the additional information to the satisfaction of the Board and the scope is finalized, the Board intends to waive the preparation of EIS Guidelines and enable Wolfden to file the revised project proposal as a *draft* EIS. Once NIRB has accepted the draft EIS, the Board will then set the Technical Meeting/PHC date for what we anticipate should be around August 1, 2007. The results of that meeting, subject to the Board's directions and Wolfden's ability to respond, will be the decision to file a Final EIS (FEIS). Again, once NIRB has accepted the FEIS, only then will they set the date for the final hearing. It is anticipated at this time that this will occur 90 days following acceptance by NIRB. If all goes well, and this is subject to Wolfden meeting the above-noted requirements, the final hearing could take place in November 2007.

On one other matter, the Minister asked the Board to appoint a Senior official to work with INAC and the CEA Agency to develop a practical means to carry out federal EA requirements, through the NIRB process. To NIRB this means there will be no duplicate reports and no duplication of process. The Board welcomes this direction and in fact has already directed its Executive Director to set up meetings with these officials to ensure that this project is reviewed in both a fair and timely manner, thereby meeting the Minister's expectations.

If you have any questions, please do not hesitate to contact me at 867 983-4603, or sbriscoe@nirb.nunavut.ca.

Yours truly,

Stephanie Briscoe
Executive Director

Attachments: Appendix A - NIRB's Assessment of the Wolfden High Lake Project

Cc: The Honourable Jim Prentice, PC, QC, MP
The Honourable Gary Lunn, PC, MP
The Honourable Loyola Hearn, PC, MP
The Honourable Lawrence Cannon, PC, MP
The Honourable Paul Okalik
Mr. Paul Kaludjak
Mr. Jean-Claude Bouchard
Wolfden High Lake Distribution List

APPENDIX A
NIRB's Assessment of the Wolfden High Lake Project

Based on Nunavut Land Claims Agreement (NCLA) and the Nunavut Impact Review Board's 10 minimum Environmental Impact Statement (EIS), the following lists present the Nunavut Impact Review Board's (NIRB) guidelines for an EIS.

A) Nunavut Land Claims Agreement – Article 12 (Section 12.5.2 a through j)

a) project description, including the purpose and need for the project;
b) anticipated ecosystemic and socio-economic impacts of the project;
c) anticipated effects of the environment on the project;
d) steps which the proponent proposes to take including any contingency plans, to avoid and mitigate adverse impacts;
e) steps which the proponent proposes to take to optimize benefits of the project, with specific consideration being given to expressed community and regional preferences as to benefits;
f) steps which the proponent proposes to compensate interests adversely affected by the project;
g) the monitoring program that the proponent proposes to establish with respect to ecosystemic and socio-economic impacts;
h) the interests in lands and waters which the proponent has secured, or seeks to secure;
i) options for implementing the proposal; and
j) any other matters that NIRB considers relevant.

B) NIRB's 10 minimum EIS Requirements:

1. Statement of Consultation Principles and Practices
Pre-project consultations with locally affected persons must meet or exceed usual consultation practices in Canada. When at all possible, information about the project must be distributed and comments collected with a view to resolving any differences. Discussions should include, but not be limited to, land uses, policies, resource uses, archaeological areas, infrastructure, and terrain sensitivities. Inuit cultural concerns must be highlighted throughout. All comments from the public must be summarized, documented, and presented in the EIS.

2. Definition of Project
A definition of the project must include a discussion of any connected or down the- road related projects in order to reveal the primary purpose and better understand complex or multi-staged related proposals.

3. Statement of Project's Purpose
Based on the concepts of the precautionary principle and sustainable development, an EIS must contain a statement explaining the need for, and the purpose of the project. Where further economic development is needed for a given area, the Board expects the deficiencies in the economic status quo to be stated.

4. Anticipated Impacts Analysis
A comprehensive impact assessment must be carried out which includes, but is not limited to, environmental effects that are likely to result from the project in combination with other projects or activities that have been, or will be, carried out. Anticipated impacts include short and long-term, direct and indirect, positive and negative, cumulative, socio-economic, archaeological and cultural impacts. This element of the EIS must include a mitigation analysis that explains how the impacts could be avoided, minimized, cured, eliminated, or compensated.

5. Cumulative Effects Analysis (CEA)
Cumulative effects must be analyzed for all Part 5 Reviews. A project proposal causes a cumulative effect if, when added to other projects in the region, or projects reasonably foreseeable in the region, will cause an additive effect. A comprehensive examination of all cumulative effects must be included in an EIS.

6. Significant Effects Analysis
The Board must be advised of the significant impacts of the project. This should be based upon:

a. the project setting, taking into account the location's unique ecosystemic characteristics; and,

b. the severity of the impacts, taking into account public health, land use plans, protected areas, habitat, or species, public concern, etc.

Ultimately, the Board will decide which effects are significant and report to the Minister accordingly.

7. Project Alternatives
This requirement includes, but goes well beyond, alternative means of carrying out the project that might be economically and technically feasible and the environmental effects of those alternative means. This assessment must include the "no-go" or "no-build" alternative, as well as the "preferred" alternative. The "no-go" alternative is not only a potentially stand-alone option; it also serves as a baseline for comparison with other development alternatives that might reasonably be proposed in the circumstances.

8. Sustainability Analysis
The EIS must contain an analysis of the ability of renewable resources affected by the project to sustain current and future generations in Nunavut and Canada.

9. Monitoring or Post-Project Analysis (PPA)
The purposes of a PPA are to:

a. measure the relevant effects of projects on the ecosystemic and socioeconomic environments of the Nunavut Settlement Area;

b. determine whether and to what extent the land or resource use in question is carried out within the predetermined terms and conditions;

c. provide the information base necessary for agencies to enforce terms and conditions of land or resource use approvals; and,

d. assess the accuracy of the predictions contained in the project impact statements.

10. Transboundary Effect Analysis
Where relevant, an EIS must include an assessment of all significant adverse ecosystemic or socio-economic trans-boundary effects.

11. Any other matters deemed necessary such as (based on Parties' comments):

i. the environmental effects of malfunctions of accidents that may occur in connection with the project, at any stage; and mitigation measures to help lessen any potential impacts;

ii. an evaluation of specific measures that are technically and economically feasible and that would mitigate any significant adverse environmental effect of the project;

iii. an evaluation, including proposed mitigation, potential design strategies, and determination of significance, of the environmental effects of any changes to the project that may be caused by a change in the environment; and,

iv. the need for and requirements of any follow-up program with respect to the project, in order to verify the accuracy of the environmental assessment of the project and determine the effectiveness of mitigation measures taken to mitigate adverse environmental effects.

Initial Review of the Wolfden High Lake Project Proposal on the Adequacy of the Project Proposal as an Impact Statement

The Wolfden High Lake Project Proposal (High Lake) was submitted to NIRB in November 2006. Wolfden requested that the project proposal submitted be considered as an environmental impact statement (EIS) pursuant to section 12.5.2 of the NLCA. The documents were provided to Parties and it was requested from Parties to provide comments on the scope of the project proposal, from the perspective of each Party's jurisdiction, whatever that may be, without prejudging a Minister's decision on the project. NIRB requested that Parties use the Wolfden's Terms of Reference as the basis of the scoping comments. The following section provides the scoping of the project proposal based on an internal review of the project and on all comments from Parties.

High Lake Project Proposal Components

The following is a description of the physical works, undertakings in relation to those works and physical activities that constitute the High Lake Project Proposal. These components of the Project Proposal have the potential to cause significant adverse effects on the ecosystem, wildlife, or Inuit harvesting activities.

a. **Gray's Bay Dock**, temporary components including:
Two barge landing sites; mooring points; construction camp; fuel/oil storage; fuel dispensing and uploading; maintenance garage; power generation; lay down area; and explosives and detonator storage.

b. **Gray's Bay Dock**, operational components including:
Quarry and borrow sources; dock (concrete superstructure) and dredging activities, including the degree and extent of dredging; lay down areas (dock and container); equipment, concentrate storage; fuel/oil tank farms; fuel dispensing and uploading; maintenance garage; office complex; power generation; waste water holding tank; potable water storage tank; roads and utility lines; explosives and detonator storage; permanent accommodation; water and waste treatment facilities; water, waste and sediment management structures; communication lines; helicopter pad; infrastructure and equipment used to load and unload ships.

c. **Mobilization and Shipping** including:
Vessel and routing options and mobilization of equipment and supplies; ice breaking activities.

d. Winter Road from Gray's Bay to High Lake Mine Site including:
Earthmoving, excavation, and grading; water withdrawal; navigable water crossings; and temporary camps used to construct the road.

e. All Weather Road from Gray's Bay to High Lake Mine Site including:
Waterway and/or diversion structures; infilling; navigable water crossings; quarry and borrow sources; temporary explosives magazine(s); laydown and granular stockpile areas; temporary camp(s) used to construct the road.

f. Sand Lake Airstrip including:

1450 m airstrip with future expansion to 2000 m; construction camp, tank farm; generators; wastewater treatment; freshwater intake; all associated navigational aids and infrastructure.

g. **High Lake Mine Site** including:
A/B Zone (pit and underground); D Zone (pit and underground); West Zone (underground); permafrost management; mineral processing; power generation; mine site roads and utilities; ore storage; backfill stockpile; waste rock storage; tailings impoundment; tailings line and emergency catch basins; water, waste and sediment management structures; lime dosing; water supply; camp(s); buildings; lay-down area; sewage; solid waste management; landfill; landfarm; incinerator; fuel storage; explosives storage and manufacture including packaging facilities and magazines and support facilities to be included in a "licensed factory"; quarrying and borrow sources; workforce; stream flow diversions and alternative watercourses; and alterations to watercourses.

h. Borrow Sources including:
Quarries, gravel pits and waste rock piles; equipment and activities related to stripping, excavation and crushing of aggregate; stockpiles; access roads; and waste rock and debris.

Scoping List for the Wolfden High Lake Project Proposal

Given the Project Proposal components listed above in a-h, the following issues and concerns were identified that should be considered and assessed in a review, relative to the Proposed Project. Please note that the following includes comments received from parties on January 12, February 9, and March 19, 2007.

Project Design

- Geology of the entire Project footprint
- Mine/Quarry design and construction
- Solid Waste Management
- Closure and reclamation planning and estimates for security
- Effect of climate change on the project design including mine waste management
- Effect of thermal status of High Lake on general containment strategy
- Effects of the environment on the Project
- Spatial scope of the environmental effects assessment encompassing the Project footprint
- Temporal scope of the environmental effects assessment associated with the Project corresponding to the anticipated lifespan of the works associated with the Project
- Construction, operation and decommissioning of proposed explosives mixing and/or packaging facilities and magazines and support facilities to be included in a "licensed factory" to be located at the mine site as defined by the *Explosives Act*
- All navigable water crossings along the winter and all-season roads, facilities and infrastructure at or in Grays Bay, and various structures associated with the development of the mine site and processing facilities
- Alternatives to, and alternative means of the Project

Atmosphere including climate change, air quality and noise factors

- Uncertainty related to climate change predictions

- Effect of climate change on the environment
- Effect to air quality due to changes in concentrations of air contaminants from project activities including potential increased levels of dust, acid and nitrogen that may be deposited to the landscape from release of particulate matter and gaseous emissions from project activities
- Increased atmospheric noise levels from project activities at the mine site, Gray's Bay dock and along the all season road
- Increased marine noise levels from project activities at Gray's Bay dock

Hydrology and Hydrogeology

- Changes in surface water quantity (lake levels, stream levels, stream flows) from project activities such as dam construction, water withdrawal, water deposition in High Lake, impoundments around High Lake, and water diversions of various lakes
- Changes in flows and levels of streams from diversion of streams
- Changes in quantity and direction of runoff and a change in channel regimes from construction and operation of mine facilities
- Changes in groundwater quantity and flow from underground mining in West Zone ore deposit
- Changes to groundwater quantity due to deep groundwater connection between proposed tailings impoundment area and the Kennarctic River
- Potential for acid rock drainage (ARD)-related alteration of groundwater during underground mining below permafrost in the West Zone
- Changes to navigability of watercourses

Groundwater Quality

- Changes in groundwater quality from underground mining in West Zone ore deposit
- Changes to groundwater quality due to deep groundwater connection between proposed tailings impoundment area and Kennarctic River
- Changes in groundwater quality from deposition of tailings and mine inflows into High Lake
- Changes in groundwater quality from closure and post closure of the open pits and underground mines

Surface Water and Sediment Quality

- Changes in surface water quality and sediment quality in surrounding lakes and watercourses from runoff from the High Lake mine site and the all season road
- Changes in water quality in Kennarctic River from permanent diversions of water from one basin to another
- Effects to surface freshwater quality as a result of the deposition of tailings and mine inflows into High Lake, ARD from waste rock and ore stockpiles, nutrient input from blasting and sewage treatment, suspended sediment as a result of construction activities, and accidents and malfunctions
- Effects of seepage from High Lake, during operations and after closure, as a result of shallow seepage (through or under the proposed dams), and deep groundwater movement (taliks), on the Kennarctic River, Granite Lake (L4) and Lake L15
- Changes to sediment characterization and water quality in the Kennarctic River from discharge of High Lake water to the Kennarctic River during dam construction and by various subsequent releases during mine operations and closure activities

Freshwater Aquatic Organisms (including fish as defined in the *Fisheries Act* and aquatic species at risk) and Habitat

- Effect on freshwater fish and aquatic life from any changes to surface and ground water quality, quantity or physical habitat that results from the construction, operation, maintenance or reclamation of the project (as defined in the High Lake Project Proposal Components, items a through h)
- Direct or indirect changes to fish, fish habitat, aquatic life and aquatic species at risk due to project activities

Marine Water and Sediment Quality Factor

- Effect on marine water quality and sediment quality from activities in the marine environment at the Gray's Bay dock during construction, operations, and through activities associated with shipping
- Effect on marine water and sediment quality from onshore activities

Marine Fish and Fish Habitat

- Direct or indirect changes to marine fish and marine fish habitat from project activities at Gray's Bay, including those causing sedimentation, turbidity, or accidental spills
- Effects on marine fish and marine fish habitat from blasting, construction and operation
- Effects on marine fish and marine fish habitat from proposed shipping routes

Marine Mammals and Marine Habitat

- Effect on marine mammals in Gray's Bay from project activities in Gray's Bay dock
- Effect on marine mammals in Grays' Bay from project activities in Gray's Bay area
- Effect on marine mammals due to proposed shipping routes
- Direct or indirect changes to the marine environment and marine habitat as a result of the proposed shipping activities

Wildlife and Wildlife Habitat
(including but not limited to: species at risk and migratory birds, polar bear and caribou habitat, Critical Wildlife Areas, Migratory Bird Sanctuaries, key marine habitat sites for migratory birds, important bird area sites, International Biological Programme sites, Wildlife Areas of Special Interest, and Protected Areas)

- Effect on wildlife behaviour, distribution, and abundance from direct and indirect loss of habitat from presence of infrastructure, project activities, and sensory disturbance
- Effect on wildlife population size from direct mortality to wildlife from project activities including all season road construction and operation
- Effect on health of individual animals and wildlife abundance from project activities that release contaminants
- Effect of shipping activities on sensitive wildlife and wildlife habitat
- Effects on musk-oxen, moose, and wolves due to project activities
- Effects on bearded seal as a result of shipping and activities associated with the dock facility at Gray's Bay

- Effects on the Bathurst caribou, Dolphin and Union caribou, and Peary caribou due to project activities and potential cumulative effects with other past, present and reasonably foreseeable projects in the area
- Changes to the migration of the Dolphin and Union caribou due to potential interaction of the project, including timing of shipping and changes to ice regimes
- Changes to the movement of the Peary Caribou across the Peel Sound, Franklin Strait and Bellot Strait coinciding with the timing of shipping and changes to ice regimes as a result of ice breaker supported shipping
- Effect on migratory birds as a result of habitat loss and disturbance at the proposed site facilities, roads, airstrip, dock and shipping routes
- Potential disturbance to waterfowl and seabirds nesting in coastal areas along the proposed routes as a result of wake effects

Landforms and Soils

- Effect on abundance and distribution of uncommon or valuable landforms associated with soils from surface disturbances during construction, including all season road construction as well as operational mining activity
- Effect on stability, abundance and distribution of permafrost sensitive landforms from surface disturbance activities during construction, including all season road construction as well as operational mining activity
- Potential shoreline erosion as a result of wake effects and related water quality and habitat disturbance impacts

Vegetation

- Effect on abundance and diversity of vegetation from project activities causing surface disturbance
- Effect on vegetation diversity from introduction of exotic invasive plants to the region
- Effect on vegetation health from dust and air emissions

Human and Ecological Health

- Effects on human health, through air quality, drinking water quality, atmospheric noise levels and traditional foods
- Potential impacts on worker health and safety, particularly with respect to working in explosives magazines and factories

Socio-Economic

- Socio-economic impact and benefit analysis
- Effect on socio-economic environment from employment, education and training, business opportunities, community economic development, infrastructure, royalties and taxes, social issues, community services, institutional capacity, renewable resources, and cultural sustainability
- Effect on health and community wellness

Archaeological

- Effect on archaeological resources from ground disturbing project activities

- Direct and indirect effect on archaeological resources from increased number of people using the area

Cumulative Effects

- Effect on direct or indirect wildlife habitat loss
- Effect on population levels of wildlife Valued Ecosystem Components (VECs) resulting from changes to distribution, abundance, and behaviour through direct habitat loss and indirect changes to habitat, and increased mortality
- Effect on distribution and abundance of marine mammals from shipping activities
- Effect on labour force and employment, business and contracting, training and education, drug and alcohol abuse, harvesting activities, and archaeology
- Comprehensive examination of the cumulative effects over a larger area on all VECs

Accidents and Malfunctions

- Risk from accidents, such as spills, and malfunctions of project components
- Hazardous materials handling and storage
- Dangerous Goods, Fuel and Explosives
- Emergency Response and Preparedness
- Occupational Health and Safety
- Natural hazards including: extreme weather events; natural seismic events; fire and slope instability

Transboundary Effects

- Transboundary effects due to the proposed shipping route

Traditional Knowledge

- Definition of TK
- Methodology used to collect TK
- Format used to communicate with communities
- Composition of participants
- Location and type of information provided
- Summary of the TK collected
- How TK used in different stages of project preparation
- How past TK used in the preparation of the project

Monitoring/Post Project Analysis

- Effectiveness of measures taken to mitigate adverse environmental impacts
- Verification of predictions made in impact statements
- Closure and reclamation planning and estimates for security