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Your file *Votre référence*  
EIR0607-001

December 21<sup>st</sup>, 2012

Mackenzie Valley Environmental Impact Review Panel  
#200 Scotia Centre  
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**Via e-mail to:**  
[chubert@reviewboard.ca](mailto:chubert@reviewboard.ca)

**RE: Fisheries and Oceans Canada – Final Comments for the DeBeers Canada Gahcho Kué Mine Project**

Fisheries and Oceans Canada (DFO) would like to thank the Mackenzie Valley Environmental Impact Review Panel for the opportunity to participate in the environmental impact review for the proposed Gahcho Kué Diamond Mine project.

Please find attached our final comments following the public hearings. DFO has provided a summary of considerations and remaining recommendations related to issues raised in our technical submission (October 22<sup>nd</sup> 2012), in our public hearing presentation (December 7<sup>th</sup> 2012) as well as other issues discussed at the hearings related to fish and fish habitat.

We trust that our comments and recommendations will be helpful to the Board in their deliberations.

Sincerely,

Dale Nicholson  
Regional Director, Ecosystems Management  
Fisheries and Oceans Canada  
Central and Arctic Region

cc Julie Dahl, Fisheries and Oceans Canada  
Larry Dow, Fisheries and Oceans Canada  
Bev Ross, Fisheries and Oceans  
Kelly Burke, Fisheries and Oceans

**Fisheries and Oceans Canada  
Final Written Comments  
Mackenzie Valley Environmental Impact Review Panel  
DeBeers Canada – Gahcho Kué Mine  
December 21<sup>st</sup>, 2012**

Fisheries and Oceans Canada (DFO) is pleased to provide the following comments to the Mackenzie Valley Environmental Impact Review Panel for the environmental impact review of the DeBeers Canada Gahcho Kué Mine Project.

DFO is participating in the environmental impact review of the Gaucho Kué Diamond Mine project as a regulator as well as an expert advisor to the Panel on potential physical impacts of the development on fish and fish habitat. DFO's primary focus in reviewing proposed developments in and around Canadian fisheries waters is to ensure that works, undertakings and activities are conducted in a manner that complies with the applicable provisions of the *Fisheries Act*.

Below is a summary of recommendations related to DFO's mandate based on: review of submitted documents; information provided at numerous meetings with the Proponent; information heard at the Community sessions November 30<sup>th</sup> and December 3<sup>rd</sup>; and, intervenor presentations at the Environmental Impact Review Panel hearings of December 5-7, 2012. Also noted below are the considerations DFO included in their review of this project. Further information regarding these considerations and recommendations can be found in the hearing transcripts and DFO's Technical submission dated October 22, 2012.

Considerations

Within its presentation on December 7, 2012 DFO made note of several project-related components for which the Proponent has made commitments and/or for which DFO has noted an expectation that these items will be addressed, namely:

- baseline information collection including reference lakes;
- dyke construction management plan inclusion of best management practices;
- diffuser mitigation and monitoring;
- early re-vegetation planning within Interim Closure and Reclamation Plan;
- definitions of important terms such as permanent; and,
- measurable environmental objectives for operations and closure to be developed and defined

DFO has requested several plans and documents in support of our review of the project and will work with the Proponent to ensure these documents are revised or received as requested: data related to overwintering habitats, No Net Loss plans, downstream flow mitigation, and stream habitat impact assessment. As well, DFO will work with the Proponent toward an Aquatic Effects Monitoring Program (AEMP) that meets the Proponent responsibilities under the *Fisheries Act*.

## Recommendations

DFO acknowledges that the Proponent has undertaken an Alternatives Analysis to assess various approaches to carrying out the mine plan. As proposed, the project will impact Kennady Lake due to the requirement for construction of perimeter and internal dykes, water drawdown, basin draining, and open pit mining. With respect to the isolation and drawdown of various basins in the lake, DFO presented recommendations and supporting rationale at the public hearings, Dec. 5-7, 2012, for alternative mining approaches, with the intent of minimizing operational impacts and closure efforts. The following recommendations are to help ensure that the project could occur while effectively managing environmental effects related to DFO's mandate.

- 1) DFO recommends that the Proponent be required to provide a revised tabulated summary of the pre-impacted study area streams including a detailed description of the existing substrates within these streams as requested in DFO's Technical Submission dated October 22, 2012, to assist in assessment of fish habitat loss and to inform development of the AEMP.
- 2) DFO recommends that the Proponent be required to assess impacts to stream and lake habitat from changes in drainage patterns due to the loss of connection to Kennady Lake from perimeter dykes and reversal of flows. This will inform the No Net Loss Plan and the AEMP.
- 3) DFO recommends that water withdrawal limits, and water level thresholds be established and monitored as part of the AEMP, in order to protect lake habitats from potential negative effects from water withdrawal and water discharge.
- 4) DFO recommends that the Proponent be required to include use of best management and standard practices (such as use of silt curtains) for dyke construction and identify contingency actions within their Sediment Management Plans for Dyke Construction.
- 5) DFO recommends the Proponent undertake further analysis of the option of maintaining Area 7 and if possible undertake the mine plan in such a way that Area 7 is maintained as functioning fish habitat throughout the life of mine, in order to minimize overall negative effects of the project on the environment, to decrease the input of sediment to the northern basins, and to increase the likelihood of successful rehabilitation of Kennady Lake at closure.

The Proponent has suggested that lake sediments in the northern basins, to be utilized for water management during operations, will remain unchanged in terms of composition and depth such that habitat function can be readily restored at closure. In addition to the Proponent's plan to utilize *in situ* flocculation to reduce impacts from sediment discharge within the northern basins, thereby minimizing the input of total sediment to the northern basins during drawdown and operations would improve the likelihood of successful rehabilitation of Kennady Lake at closure.

- 6) DFO recommends the Proponent be required to assess and implement best management practices and standard practices to further mitigate the input of sediment to fish habitat in particular, the transfer of sediment laden waters during drawdown of the southern basins.

## Additional comments

### *Comments raised at the Public Hearings*

DFO heard that aboriginal representatives have concerns regarding baseline information and monitoring, and fish-out procedures. These items are also important to DFO and can be addressed through the development of the regulatory tools and the AEMP should the project proceed.

DFO has considered input from aboriginal parties in the review to date and will continue to consult with potentially affected aboriginal communities in the development and implementation of any authorizations.

The Panel staff had questions related to DFO's thoughts whether closure objectives were achievable with respect to the re-establishment of Kennady Lake. DFO believes that the overall objective is achievable however, these objectives need to be clearly defined and parameters for success need to be set including timeframes, and measurable characteristics to be achieved.

### *Ni Hadi Yati*

DFO has been involved and currently provides expert advice, where possible, to the various monitoring agencies established in the Mackenzie Valley. DFO often requires monitoring related to mitigation effectiveness and success of habitat compensation efforts, specific to fish and fish habitat impacts, through conditions prescribed within a *Fisheries Act* Authorization. DFO, through the Land and Water Board process, works with other parties to review and ensure terms and conditions of permits, licences and authorizations are complimentary and do not duplicate monitoring requirements. DFO has a strong interest in ensuring that interested parties and regulators have a coordinated and consistent approach to reviewing and assessing project-specific monitoring requirements. DFO fully expects that should a new monitoring agency be created, that DFO would take a similar role and assist where and if possible. DFO looks forward to hearing more details around this initiative.

### Conclusion

Thank you for the opportunity to have input into this process. DFO looks forward to hearing the outcome of this Environmental Impact Review and will continue to work with the Proponent and affected parties toward minimizing the effects on fish and fish habitat from this project if approved.