## **Review Comment Table**

Board:	MVLWB
Review Item:	De Beers Gahcho Kue Project - Draft Water Licence v.2 (MV2005L3-0015)
File(s):	MV2005L2-0015
Proponent:	De Beers Canada Inc - Gahcho Kue
Document(s):	Gahcho Kue Draft Water Licence (1 MB)
Item For Review Distributed On:	May 23 at 13:17 <u>Distribution List</u>
Reviewer Comments Due By:	June 10, 2014
Proponent Responses Due By:	June 17, 2014
Item Description:	The purpose of this draft Water Licence v.2 is to allow parties to comment on Board staff's suggested conditions.  These draft materials are not intended to limit in any way the scope of parties' closing arguments, which are due to be submitted to the Board June 24 (interveners) and June 30 (proponent).  The Board is not bound by the contents of the draft Licence and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all parties.  Board staff would like to advise reviewers of the following:  1. Board staff has made a conscious effort to ensure that all Measures in the Report of Environmental Impact Review that are within the Board's jurisdiction are implemented through conditions in the draft Licence.
General Reviewer Information:	In addition to the email distribution list, faxes were sent to the Akaitcho fax distribution list.
Contact Information:	Angela Love 867-766-7456 Jen Potten 867-766-7468 Rebecca Chouinard 867-766-7459

## **Comment Summary**

De I	e Beers Canada Inc - Gahcho Kue (Proponent)			
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	Water License Conditions Conformity Table Aligned with Parties	Comment (doc) (Submitted after Due Date) (Submitted after Due Date) Please see attached conformity table for the MV2005L2-0015 Water License conditions with Parties comments and recommendations and De Beers' responses.  Recommendation n/a		
Den	inu K'ue First Nat	tion: Louis Balsillie		
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	General File	Comment (doc) The Deninu Kue First Nation (DKFN) has reviewed the Draft Type A Water Licence v.2 (MV2005L2-0015) for the Gahcho Kue Mine dated May 23, 2014. We have the following comments: Recommendation GENERALFILE		
2	Water Licence	Comment In regard to the filing of annual reports (e.g., Annual Water License Report, AEMP Annual Report) to meet certain conditions of the water lilcense, as mentionedin in our intervention at the public hearings on May 7, 2014  Recommendation we request that these reports be submitted by March 31st of the year following the monitoring period	June 17: De Beers requests that the reporting timeframe remain as requested; that being May 1st of each year. This would allow for final data to be compiled and engagement prior to final submission to the Board.	
3	Water Licence	Comment Schedule 5 of the draft license identifies several monitoring programs and plans to be implemented as part of the license. We note that there is	June 17: De Beers is in agreement with the wording as is currently drafted in the draft Water Licence.	

		standard terminology regarding informatino about responses to monitoring results which states: - For each Action Level, a description of how exceedances of the Action Level will be assessed and generally, which types of actions may be taken for the Action Level exceeded.  Recommendation Since this license imposes the conditions that DeBeers Canada Inc. must adhere to, we recommend stronger language be applied for the above statement where it occurs in the license. As such we recommend the following changes: - For each Action Level, a description of how exceedances of the Action Level will be assessed and <i>specifically</i> , which types of actions <i>will</i> be taken for the Action Level exceeded (emphasis added).		
4	Water Licence	is not indicated in the second draft. <b>Recommendation</b> We therefore ask for clarification on what the term of the water license for the Gahcho Kue Project will be.	June 17: De Beers recommends that the term of the water licence be twenty (20) years. De Beers has filed the Type A Water Licence following Ministerial Approval of the MVEIRB Report of Environmental Impact Review, which approved the Gahcho Kué Project subject to Measures, Developer Commitments and Follow-up Programs. De Beers requested a term of twenty (20) years which is consistent with the MVRMA regulations 73.02 (2) (2) A Licence issued under subsection (1) may be issued for a term (a) of not more than 25 years, in the case of a Type A Licence that is in respect of a class of undertakings prescribed by the regulations or a Type B	

			Licence; or (b) of not more than the anticipated duration of the appurtenant undertaking, in the case of a Type A Licence other than one described in paragraph (a).	
Env ID	ironment Canada Topic	: Sarah-Lacey McMillan  Reviewer  Comment/Recommendation	Proponent Response	Board Staff Response
5	General File	Comment (doc) EC's cover letter Recommendation		
1	Part A. Definitions	Comment The NWT Waters Act was repealed on April 1st, and replaced by the territorial Waters Act (and its federal provisions rolled into the Mackenzie Valley Resource Management Act.) Recommendation For clarity, it may be useful to reference the definition of Act as "Waters Act S.N.W.T. 2014"	<b>June 17:</b> De Beers is in agreement with this recommendation.	
2	Part A. Definitions	Comment Overburden is defined as including materials that overlie waste rock.  Recommendation EC recommends rewording this definition as follows: Overburden - the materials (i.e., lake-bottom sediments and/or till) that overlie the host (or country) rock and kimberlite deposits.	<b>June 17:</b> De Beers is in agreement with this recommendation.	
3	Part G. Item 31	Comment This section references the requirement for acute toxicity testing as described in Part A of the Surveillance Network Program (SNP). There is no reference in Part A to acute bioassay tests, although the footnotes to Part B. include the sublethal tests at end-of-pipe for discharges to Lake N-11 and Area 8.  Recommendation EC		

(De Beers 2014), the significance recommends adding reference to the Rainbow Trout and Daphnia threshold for water quality magna acute bioassay tests in the includes a finding of acute SNP. lethality to fish at the edge of the mixing zone. Although toxicity testing is not currently planned at these stations, it is anticipated that acute testing of rainbow trout and Daphnia magna would be included at the edge of the mixing zone if concurrent or two consecutive sublethal test results (i.e., sublethal toxic effects) were obtained in the laboratory toxicity tests performed with Ceriodaphnia dubia and Pseudokirchneriella subcapitata on end-of-pipe samples. References to the methods for acute toxicity testing that would be applied, if required as part of the SNP, are EPS 1/RM/13 – Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout (Environment Canada 2007); and EPS 1/RM/14 - Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Daphnia magna (Environment Canada 2000). Annex A -Comment Lakes D2 and D3 will June 17: De Beers do not agree Surveillance be dyked, and with the rise in with this recommendation. As Network water levels will become the raised lakes lie outside of the Program: Part B. effectively one lake. With the "controlled area", monitoring Site Description impoundment, there will be under the AEMP is and Monitoring short-term potential effects appropriate. Construction of the Requirements which include sedimentation and diversion dykes will be erosion (covered by Schedule 5) undertaken in the winter and but also medium term effects as appropriate mitigation will be water levels rise (such as floating provided to minimize the risk of

effects to the lakes to be raised,

subsequent freshet period. The

particularly during the

peat mats or permafrost erosion)

and/or longer term effects

around the methylation and

		uptake of mercury. As there may need to be operational decisions and approvals with the involvement of the Inspector, SNP monitoring of water and sediment quality is more appropriate than having this fall under the AEMP (which can pick up biological monitoring).  Recommendation EC recommends SNP stations be added for water impoundment areas as appropriate.	proposed monitoring schedule, as per the AEMP Design Plan (De Beers 2014), focuses on Lakes D2 and D3 as they are considered representative of the diverted lakes, and includes hydrology (e.g., continuous water level monitoring), water and sediment quality, lower trophic organisms, and fish tissue chemistry monitoring components.	
Fish	eries and Oceans	Canada: Kelly Eggers		
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
	withdrawal		June 17: De Beers can clarify that water withdrawal is planned from Area 8 and Lake N11, each of which supports fish and fish habitat. Therefore DFO's recommendation is supported as the intent is to protect fish and fish habitat.	

		single waterbody which supports fish and fish habitat.		
GN	WT - Environmen	t and Natural Resources: Central E	mail GNWT	
ID	Торіс	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
10	General File	Comment (doc) ENR Comments and Recommendations Recommendation		
1	Topic 1: Scope	Comment Comment(s): A Board Staff comment indicates that the scope is tied to a table in the Updated Project Description. The paragraph in the licence references the Updated Project Description, but not the specific table.  Recommendation Recommendation(s): 1) Include specifics on the table that is being referred to, i.e. Table x.x, Section Y.	June 17: De Beers reviewed the intervention and presentation on reclamation security bonds submitted by the GNWT-ENR. De Beers has provided the following updates to the security payment and installment amounts. De Beers proposes the following Reclamation Security Payment and Schedule (Attachment 1).	
2	Topic 2: Part C and Schedule 2 (Security)	Comment Comment(s): Schedule 2 includes provision for scheduling payment of security installments. GNWT provided recommendations on the timing of security payments during the public hearing.  Recommendation  Recommendation(s): 1) GNWT recommends that the first payment amount be scheduled in conjunction with construction. The total construction liability could be scheduled as two equal payments over the two year construction period: one occurring prior to starting construction and the second prior to year 2. 2) GNWT recommends the next payment be required prior to mining and milling, which is expected to be year 1 of operations. 3) GNWT	June 17: 1) De Beers agrees with the GNWT-ENR that the first security payment should be scheduled in conjunction with construction and that the total liability for the LUP and WL could be scheduled as two equal payments over the two year construction period (upon issuance of the LUP and WL and by June 1, 2015): one occurring prior to starting construction and the second prior to Year 2. 2) De Beers agrees with the recommendation that the next payment be required prior to mining and milling, which is expected to be Year 1 of operations. 3) De Beers agrees that the next payment be scheduled for Year 4 of operations, which is expected to coincide with the end of mining	

		recommends the next payment be scheduled for year 4 of operations, which is expected to coincide with the end of mining in the Hearne Pit.	in the Hearne Pit.	
3	Topic 3: Part E Clause 8	Comment Comment(s): As worded, this clause is unclear. The clause should be re-worded to clarify whether a revised Standard Operating Procedures (SOP) is to be submitted annually or in response to changes to the approved SOP or at the request of the Board.  Recommendation  Recommendation(s): 1) Clarify the intended timing.	June 17: De Beers does not have a specific response to this comment; however, De Beers do not agree with the requirement of a Verification Program as part of the SOP referred to in Part E, Items, 6, 7, and 8 of the draft Water Licence. The monitoring described in detail under the Geochemical Characterization Plan (De Beers 2014) fulfills the Verification Program requirements. This is appropriate in this Plan because modifications and recommendations as a result of monitoring would be captured in annual report and plan updates.	
4	Topic 4: Part F Clauses 2 and 3	Comment Comment(s): These clauses refer to modifications under Part G, Item 1. GNWT expects that the reference should be to Part F, Item 1.  Recommendation  Recommendation(s): 1) Confirm the reference.	<b>June 17:</b> De Beers is in agreement with this recommendation.	
5	Topic 5: Part G Clauses 4 and 5	Comment Comment(s): Clause 4 refers to a Construction Water Management Plan which is to be in place to address the Dyke Construction and Drawdown phases of the project. Clause 5 refers to an Operational Water Management Plan which shall be in place 60 days prior to discharge from the Water Management Pond. The transition from one phase to the next is not clear, i.e. when does	June 17: De Beers recommend that Areas 3 and 5 of Kennady Lake become the water management pond upon commencement of milling and the first production of processed kimberlite, which is initiated at the end of Year -1; this would denote the start of the operations phase. Up until that point, the mine would be in the construction phase.	

		Kennady Lake cease being Kennady Lake and become a Water Management Pond. A clear transition point should be determined. Recommendation Recommendation(s): 1) The Water Licence Reasons for Decision should clearly define when it is anticipated that Kennady Lake becomes the Water Management Pond.		
6	Topic 6: Part I Clause 2	Comment Comment(s): Clause 2 requires the Licensee to adhere to the AEMP Design Plan submitted April 16, 2014 until a revised plan is approved by the Board. A revised plan should be submitted for Board approval soon after Licence issuance.  Recommendation  Recommendation(s): 1) A revised AEMP Design Plan should be submitted for Board approval within 30 days of the Licence issuance.	June 17: De Beers does not agree with this recommendation. De Beers has submitted a final version of the AEMP Design Plan, which has been updated to include feedback received through the Water Licence permitting process, as well as from the three workshops conducted in March 2013, February 2014 and March 2014. Additionally, De Beers has committed to the forming an AEMP Working Group that will contribute, and provide feedback, to the AEMP process moving forward.	
7	Topic 7: Schedule 6, Clause 1. c) iv.	Comment Comment(s): This clause requires a description of procedures to analyze and interpret data including integrating the results of individual monitoring streams. Weight of evidence analysis is identified as a potential method. ENR agrees with the general intent of this clause, but notes that different methods are available for integrating the results of different lines of evidence. Whatever methodology is chosen, it is key that the analysis does not lose sight of the	monitoring results from the	

implicit management goals for the ecosystem. For example, the CCME's guiding principle for developing long term exposure guidelines is protecting all the species all the time. CCME guidelines derived using an SSD approach assumes that 95% of the species will be protected to a no effect level and that low-level effects could occur on the most sensitive species. Selecting CCME guidelines implies this level of protection and management is desired for the exposure area. Weight-of-evidence evaluations often place greater emphasis on larger changes to abundance or community structure in exposed ecosystems than on surface water chemistry or toxicity. This can result in misleading results because the inherent variability in natural systems means that changes in the abundance of individual species or the structure of communities can only be detected when large changes occur in the receiving environment. Therefore, analyses and interpretation of monitoring data should focus on the most sensitive indicators of effects, rather than relying exclusively on a weight-of-evidence. The GNWT feels that specifically referring to a "weight of evidence approach" may limit the analytical methods that are used by the proponent, and would prefer that reference to a specific method is not used.

quality or sediment quality results, or species composition of plankton or benthic invertebrates, are considered in the evaluation of change and effect.

## Recommendation

Recommendation(s): 1) Remove the portion of the sentence â€Âœsuch as a weight-of-

		evidence analysis†. This is something that should be reviewed and approved as part of the AEMP development process.		
8	Topic 8: SNP 01	Comment Comment(s): Physical parameters are only measured twice during drawdown of Kennady Lake - once at the beginning of the discharge period and once on the final day of discharge. Weekly monitoring occurs for water elevation in "Lake N11". GNWT notes that daily inline monitoring will occur for physical parameters during discharge into N11 (SNP 02). Nevertheless, GNWT believes that more frequent monitoring should also be conducted at SNP 01 within "Lake N11" during dewatering to ensure that mixing is occurring as predicted and the water quality objectives are being achieved. GNWT recommends weekly monitoring for pH, TSS and turbidity.  Recommendation Recommendation (s): 1. Include weekly monitoring for pH, TSS and turbidity during drawdown of Kennady Lake.	June 17: The SNP schedule in the Board's draft Water Licence provides for daily end-of-pipe (SNP 2 and SNP 4) monitoring during construction (and operations) of 'physical' water quality parameters, which includes DO, pH, conductivity, temperature, TSS, and turbidity. Additionally, a station in the water management pond (SNP 6) provides for monthly monitoring during construction (and operations) of these parameters, in addition to other water quality chemistry parameters. As a result, De Beers do not support this recommendation because it is believed that the monitoring as proposed is sufficient to address the dewatering monitoring concerns raised by ENR and is consistent with other mining requirements in the NWT.	
9	Topic 9: SNP 03	Comment Comment(s): Physical parameters are only measured twice during drawdown of Kennady Lake - once at the beginning of the discharge period and once on the final day of discharge. Weekly monitoring occurs for water elevation in "Area 8". GNWT notes that daily inline monitoring will occur for physical parameters during discharge into Area 8 (SNP 04). Nevertheless, GNWT believes that more frequent monitoring	June 17: As per the response to ENR Recommendation 8.	

		should also be conducted at SNP 03 within "Area 8" during dewatering to ensure that mixing is occurring as predicted and the water quality objectives are being achieved. GNWT recommends weekly monitoring for pH, TSS and turbidity.  Recommendation Recommendation(s): 1. Include weekly monitoring for pH, TSS and turbidity during drawdown of Kennady Lake.		
Luts	sel K'e Dene First	Nation - Chief or Wildlife, Lands ar	nd Environment: Mike Tollis	
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	General File	Comment (doc) General Topic Recommendation		
2	General	Comment The position of the Lutsel K'e Dene First Nation (LKDFN) has not changed and we have still yet to give our consent to the Gahcho Kue Project. It was upon direction from the membership of the First Nation that staff should not engage in any consultation for this project, and true to that direction, LKDFN staff have not been participating in the water license or land use permit applications. Though the position of the community may change in the future, as of now, we have yet to be consulted and still do not support De Beers opening another mine on the Lockhart River Watershed. It is clear from the recent environmental assessment for the Snap Lake Water License Amendment that De Beers has great difficulty achieving water	June 17: De Beers has extended a number of opportunities to the Lutsel K'e Dene First Nation (LKDFN) to engage and provide input on the Gahcho Kué Project Water Licence and Land Use Permit. However, the LKDFN has declined to participate in these opportunities. These opportunities, which were the same opportunities that were extended to the five other Aboriginal Communities, included: 2013 and 2014 Spring Community Visits, 2013 Site Visits, AEMP Workshop (March 2013, February 2014, March 2014), Fish Out Workshop (March 2014) and Wildlife Updates (February 2014 and April 2014). When LKDFN responded that the community was not available on the dates offered, De Beers sent follow-up letters	

indicating that they would

change the dates to better

license limits, and in general,

complying with water licenses

issued by the Land and Water Board. This is cause for significant community. De Beers will concern from the LKDFN that the Board is considering granting the company another water license, after such serious failures to comply with the one they currently hold. We want to see that progress is being made at Snap Lake to conduct a cleaner operation before we allow a company that had spills totaling over 12,000L of hydrocarbons in 2 months of this year get another permit to work on the same watershed. As the project seems to be proceeding contrary to the wishes of the First Nation, we find it necessary to point out the concerns of the LKDFN as points for the Board to consider when reviewing these permit applications. First, this license cannot be the standard water license that is granted to proponents with only minor site specific alterations. We believe for the protection of this sacred watershed, there must be conditions set that learn from the failures of the previous license. For example, a letter from the Snap Lake Environmental Monitoring Agency (SLEMA) raised concerns in 2009 about elevated levels of certain effluents in the water seeping into the underground, and it wasn't until 2011 that the company claims they realized there were higher than predicted levels, and no action has been taken even until now in 2014. No mitigations were placed into effect and now the company is

accommodate LKDFN continue to extend these opportunities to LKDFN and will send information on the Project. With respect to concerns raised about Snap Lake, there is a separate Environmental Assessment and Permitting Process for that Mine. Specific to the concern regarding groundwater for Gahcho Kué, De Beers undertook groundwater monitoring as part of the Hydrogeology Baseline Report presented the 2010 **Environmental Impact** Statement. In addition, based directly on concerns from the LKDFN regarding connection between Kirk Lake and Fletcher Lake (Hoarfrost Watershed), **Environment Canada established** a hydrometric station to assess connection. The data, captured in the 2013 Hydrology Supplemental Monitoring Report has been submitted to MVLWB, and is publicly available on **Environment Canada's** website. Moreover, De Beers undertook an assessment on the potential impacts on Lady of Falls as part of the impact assessment including the closing statements for the Environmental Assessment. The assessment indicated that there would be no measurable changes to either the Hoarfrost Watershed or Lady of Falls. Assessment on groundwater, hydrology, and water quality form part of the evidence that was considered in the MVEIRB Report of EIR and

looking to increase discharge limits instead of invoking strong mitigation measures for protection of the water. We request of the Board that timelines be set on mitigation strategies coming into effect, as the response of "studies are being undertaken" is not sufficient for this site and its proximity to the Lady of the Falls spiritual site. Second, we request that no limits, even site specific limits be set above aquatic health or drinking water quality guidelines. It was clear in the Snap Lake review that De Beers does not view "drinking water quality" in the same light that LKDFN views the same term. When we mentioned water being of drinking water quality, we mean it in the way that we can dip a cup into area 8 or Lake N11 and drink the water without chlorination or any other treatment. Third, that the Board seriously consider stronger enforcement under the Mackenzie Valley Land Use Regulations (MVLUR) section 35.1 (d), that failure to comply with the conditions of the permit be met with written notice from the Board of non-compliance and consideration of suspension of the water license. Too often has the Snap Lake mine been out of compliance with their water license without repercussion, so what is the message that is being sent about water licenses? If noncompliance is acceptable then why issue the water license or require a security posting? LKDFN

Reasons for Decision (July 2013). De Beers remains hopeful that LKDFN members will be provided the opportunity from their leadership to participate in future community visits, site visits, workshops and meetings so that their concerns can be expressed and De Beers has the opportunity to address those concerns in monitoring and management plans and or other information sources. De Beers submitted a draft Spill Contingency Plan (November 28, 2013; an update will be submitted on or before June 30, 2014) that defines the response, monitoring and reporting of spills. De Beers will follow the regulations with respect to spill reporting.

believes that water license limits and conditions are set for the protection of the land and water from significant adverse impacts, and going beyond the limits set in a water license constitutes grounds for significant impacts, and therefore there should be repercussions for failure to meet these criteria. With the chronic failure of Snap Lake to comply, we are not setting the bar too high for the same company with a new water license, and we don't think the Board should put faith in De Beers' ability to accomplish the limits set in the water license. Lastly, LKDFN had disagreement with the company during the environmental impact review about surface and groundwater flows. As part of the groundwater monitoring program, we want to see comprehensive groundwater flow diagrams showing the distribution and movement of groundwater. We expect this to be included in the hydrogeological description. For the land use permit, condition 42 mentions spill reporting, and as spills are a regular occurrence at Snap Lake, we request of the Board that the parties to the assessment receive notification as soon as possible after a spill. This request focuses on transparency and ensures effective communication with the incidents that happen on the territory. We do not intend that this be an onerous process, simply carbon copying the parties on the letter or email would

suffice. Further with regard to spills, the permit mentions an activity associated with the project to be a landfarm, but there are no further conditions set on it. By the nature and significance of the spills at Snap Lake, we would request that there be a timeline for the establishment of the landfarm, also considering there was a landfarm promise by De Beers for Snap Lake that hasn't come to realization yet. The landfarm should be developed to federal and territorial guidelines. These recommendations and requests come out of a very brief overview of the water license and land use permit drafts. LKDFN reiterates that we do not support the project at this time, and certainly are not in favour of granting De Beers a second water license, when they have so much difficulty complying with the one they currently hold. For any further information, please contact the undersigned. **Recommendation** See above