

# DE BEERS

GROUP OF COMPANIES

Angela Love  
Regulatory Officer  
Mackenzie Valley Land and Water Board  
7th Floor, 4922 48th St.  
PO Box 2130, Yellowknife, NT  
Canada | X1A 2P6

April 17, 2018

Dear Ms. Love:

**Re: Request for Increased Water Allowance – Schedule 3 Water License (MV2005L2-0015)**

De Beers Canada Inc. (De Beers) respectfully requests a change to the annual water withdrawal allowance specified within MV2005L2-00015, Schedule 3, Part D, Item 1b from 27,000 m<sup>3</sup> to 35,000 m<sup>3</sup>.

Specifically, De Beers is requesting the following:

Schedule 3 Part D: Water Use Item 1b	
Existing Clause	The annual quantity of fresh Water withdrawn referred to in Part D, item 2 of this Licence shall not exceed the following: b) 27,000 (twenty-seven thousand) cubic meters (m <sup>3</sup> ) annually, during the operational phase of Operations; and
Requested Clause	The annual quantity of fresh Water withdrawn referred to in Part D, item 2 of this Licence shall not exceed the following: b) <b>35,000 (thirty-five thousand)</b> cubic meters (m <sup>3</sup> ) annually, during the operational phase of Operations; and
Rationale	The Gahcho Kué Mine operates with a higher staffing level than anticipated. This volume is required to support the current and projected camp occupancy.

The same Schedule change as described above was earlier requested as part of a Water Licence amendment application submitted to the Board on March 16, 2018, which is currently available for public review. In support of the Water License amendment, an engagement record was also

DE BEERS CANADA

# DE BEERS

GROUP OF COMPANIES

included as Appendix A to the Environmental Screening Report and can be found on the Public registry at the following link:

[http://registry.mvlwb.ca/Documents/MV2005L2-0015/MV2005C0032%20MV2005L2-0015%20-%20De%20Beers%20Gahcho%20Kue%20-%20Amendment%20-%20Environmental%20Screening%20Assessment%20-%20March%202019\\_18.pdf](http://registry.mvlwb.ca/Documents/MV2005L2-0015/MV2005C0032%20MV2005L2-0015%20-%20De%20Beers%20Gahcho%20Kue%20-%20Amendment%20-%20Environmental%20Screening%20Assessment%20-%20March%202019_18.pdf)

No comments have been posted on the application to date. De Beers has not received any concerns or objections from any parties regarding the requested increase in water withdrawal allowance.

## **Why is De Beers requesting this separately from the Water Licence amendment submitted in March?**

De Beers applied for the same withdrawal increase request as part of the Water Licence amendment on March 16, 2018. The Board released the draft workplan for the processing of the amendment application on April 13, 2019. That workplan indicates that the decision date for the Water Licence amendment will occur in November of 2018. Based on current water withdrawal rates, the Mine will exceed the annual allotment for withdrawal from Area 8 by August 2, 2018. In other words the Mine will utilize its 2018 fresh Water allotment before the amendment can be approved. Because the water use is located in a schedule and not in the body of the water licence, this change does not require an amendment to the licence. Therefore, De Beers is requesting an adjustment to the water withdrawal allotment at this time. The same change will also be included in the amended Water Licence once it is issued in November 2018.

## **How does this volume compare with what is approved?**

The water licence allowed for 60,000 m<sup>3</sup> to be drawn from Area 8 annually during construction, (Schedule 3, Part D, Item 1a). Construction took place over two years, and in each of those years used less than 65% of the annual fresh Water allotment: in 2015, only about 36,000 m<sup>3</sup> of freshwater was used for potable water and in 2016 approximately 39,000 m<sup>3</sup> was used. The Water Licence also stipulates that the allowable volume of water withdrawal would decline to 27,000m<sup>3</sup> per annum during operations (Schedule 3, Part D, Item 1b). During the first full year of operations (2017) water usage was 26,428 m<sup>3</sup>

## **Why do you need more water?**

Gahcho Kué Mine employs more people than expected. The operational water withdrawal volume was originally based on the assumption that the camp workforce would be approximately 170

DE BEERS CANADA

# DE BEERS

GROUP OF COMPANIES

people during operations. During the first full year of Operations (2017), the average camp occupancy was actually 310 people. Camp occupancy during the remainder of Operations is anticipated to range between 278 and 339 people, with periodic increases as project or contract work proceeds. The maximum camp capacity is approximate 430 people. Because we have more people working at the mine site, we require more water.

## **Will any additional infrastructure be required?**

No. No additional infrastructure is required to accommodate the additional water usage. The existing potable water system in Area 8 will continue to be utilized. The camp water intake has screens installed at the intake cage as per DFO requirements. Applicable Best Management Practices from DFO are adhered to at site, including the DFO protocol for water withdrawals (DFO 2010).

## **What are the environmental effects of this change?**

The camp intake volumes remain small in comparison to mean daily outflow volumes for median conditions predicted for Area 8 during operations. On an annual basis, the withdrawal volume of 35,000 m<sup>3</sup> compares to the estimated median Area 8 runoff volume of 1,012,000 m<sup>3</sup>, or approximately 3%. This volume is offset further by downstream flow augmentation, which sees water transferred from Lake N11 to Area 8 during June, July, and August in at least three out of four years during operations. Annual flow augmentation volumes range from 795,000 m<sup>3</sup> (natural dry years) to 2,117,000 m<sup>3</sup> (natural wet years).

Potable water supply from Area 8 is a small annual supply volume compared to the volume of Area 8 and predicted outflows during construction and operations. The change to the annual requirements of water from Area 8 during operations from 27,000 to 35,000 m<sup>3</sup>/y to meet potable water demand is expected to result in a change in water level in Area 8 that would be within the range of natural variability and difficult to measure through monitoring. This change in camp intake water volume will have negligible residual effects to surface hydrology, fish, and culture.

## **How are you monitoring the environmental effects of this water intake?**

Water withdrawals are tracked under the Surveillance Network Program (SNP) as per Water Licence requirements, and water levels and flows from Area 8 are monitored under the Aquatic Effects Monitoring Program (AEMP). The AEMP includes a Trigger Action Response Plan with defined low action levels and management responses. Should this water intake increase lead to a triggering of a low action level, De Beers will report it as per the AEMP and water licence requirements.

DE BEERS CANADA

1601 Airport Road NE, Suite 300, Calgary, Alberta, T2E 6Z8

T: 403 930 0991 | F: 587 349 7329

[www.debeersgroup.com/canada](http://www.debeersgroup.com/canada) | [info.canada@debeersgroup.com](mailto:info.canada@debeersgroup.com)

# DE BEERS

GROUP OF COMPANIES

## Conclusion

De Beers respectfully requests approval of this increase in water intake, following a regular public review, prior to July 19 to allow for approximately 2 weeks buffer ahead of the predicted run-out date of August 2<sup>nd</sup>. This change will have negligible residual environmental effects which will be entirely manageable within the existing Aquatic Effects Monitoring Program and Surveillance Network Program as per our approved Water Licence.

Should you have any questions, comments, or require further clarification, please contact me by email [Sarah.McLean@debeersgroup.com](mailto:Sarah.McLean@debeersgroup.com) or by phone at 867-688-9227.

Sincerely,



Sarah McLean,  
Environment and Permitting Manager  
De Beers Canada Inc.

DE BEERS CANADA