

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 5100 000 002/001
MVLWB File: MV2019X0007 /
MV2007L8-0031



September 3, 2019

via email

Kimberly Murray
Regulatory Specialist
Mackenzie Valley Land and Water Board
7th Floor, 4922 48th Street
P.O. Box 2130
Yellowknife, NT X1A 2P6

Dear Kimberly Murray:

RE: MV20019X0007 / MV2007L8-0031 – CIRNAC/GNWT – Giant Mine Remediation Project – Environment and Climate Change Canada Response to Technical Meeting Information Request

Environment and Climate Change Canada (ECCC) is providing a response to the additional questions issued by the Mackenzie Valley Land and Water Board (MVLWB) in reply to ECCC's information request response, submitted August 8, 2019. To address the additional questions an amended version of the original IR response is attached.

ECCC's response and specialist advice is provided based on our mandate, specifically in the context of the *Metal and Diamond Mining Effluent Regulations* under the *Fisheries Act*.

Please contact Gayle Hatchard at 780-951-8754 or gayle.hatchard@canada.ca should you require more information.

Sincerely,

Andrea McLandress
Regional Director, Environmental Assessment Program
Prairie and Northern Region – Environmental Protection and Operations Directorate

Attachment(s): GIANT – Information Request – ECCC Response and Follow-up - 2019-09-03

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)
Gayle Hatchard, A/Senior Environmental Assessment Coordinator



Table 1: Information Request

#	Subject	Information Request
2	MDMER requirements of the Giant Mine Remediation Project Site	<p>There are areas within the Giant Mine Remediation Project boundary that were not used directly for mining operations but have been historically affected by aerial deposition from mining operations. Is seepage and surface water runoff from these undeveloped areas considered 'effluent', under the Metal and Diamond Mining Effluent Regulations (MDMER)? If so can ECCC confirm what, if any, seepage and surface water runoff would be subject to the MDMER</p> <p>August 9, 2019: MVLWB – Follow-up inquiry</p> <p>Would an undeveloped area that has historically been affected by aerial deposition from mining operations be considered "disturbed"? How would it be determined what would specifically be considered "adjacent" to a work or undertaking that is or has been used in connection with a mining activity?</p>
ECCC Response		
<p>The Giant Mine is subject to the <i>Metal and Diamond Mining Effluent Regulations</i> (MDMER). ECCC understands that there are questions related to the application of the MDMER from undeveloped areas within the project boundary.</p> <p>Part 1, General interpretation of MDMER defines Metal Mine as:</p> <ul style="list-style-type: none"> • metal mine means any work or undertaking that is designed or is used, or has been used, in connection with a mining, milling or hydrometallurgical activity to produce a metal or a metal concentrate or an ore from which a metal or a metal concentrate may be produced, as well as any cleared or disturbed area that is adjacent to such a work or undertaking. It includes any work or undertaking, such as a smelter, pelletizing plant, sintering plant, refinery or acid plant, if its effluent is combined with the effluent from a mining, milling or hydrometallurgical activity whose purpose is to produce a metal or a metal concentrate or an ore from which a metal or a metal concentrate may be produced. <p>Part 1, General interpretation of MDMER defines Effluent as:</p> <ul style="list-style-type: none"> • effluent means any of the following: <ul style="list-style-type: none"> ○ (a) hydrometallurgical facility effluent, milling facility effluent, mine water effluent, tailings impoundment area effluent, treatment pond effluent or treatment facility effluent other than effluent from a sewage treatment facility; or ○ (b) any seepage or surface runoff containing any deleterious substance that flows over, through or out of the site of a mine. (<i>effluent</i>) <p>The regulations apply to metal mines that deposit a deleterious substance into surface waters as per Subparagraph 2(1)(a)(ii) of the MDMER:</p> <p>"(ii) deposit a deleterious substance in any water or place referred to in subsection 36(3) of the Act;"</p>		

Subsection 36(3) of the *Fisheries Act* refers to:

“... water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water”

Accordingly, if the undeveloped area is disturbed and is adjacent to a work or undertaking that is or has been used in connection with a mining, milling or hydrometallurgical activity, then this area would be considered part of the mine under the MDMER and seepage and surface water runoff from these undeveloped areas would be considered ‘effluent’ under MDMER if they contain a deleterious substance and reach waters frequented by fish. In the present case, if the undeveloped area has not been disturbed or cleared, it would therefore not be considered to be part of the mine. It should be noted that any seepage or runoff that is not subject to the MDMER would nonetheless be subject to the general prohibition under the *Fisheries Act*.

In response to the MVLWB’s follow-up inquiry of August 9, 2019 it should be noted an undeveloped area that has historically been affected by aerial deposition from mining operations would not be considered “disturbed”. A “disturbed area” includes any area where there has been physical work on the land. Under the MDMER, “metal mine” includes any cleared or disturbed area that is adjacent to any work or undertaking (as defined in the Regulations). Adjacent is understood to mean contiguous, being in actual contact, or touching along a boundary. To be considered part of the “metal mine”, an area adjacent to a work or undertaking would: 1) be cleared or disturbed; and 2) be contiguous to the work or undertaking.

In addition, ECCC notes that if the Giant Mine becomes a Recognized Closed Mine (RCM) the owner would continue to be subject to the general prohibition of the *Fisheries Act*. The requirements for becoming a RCM do not include any stipulations on volumes of water to be managed or discharged; the requirements are set out in Section 32 of the MDMER as follows:

32 (1) An owner or operator who intends to close a mine shall

- (a) provide written notice of that intention to the Minister of the Environment;
- (b) maintain the mine’s rate of production at less than 10% of its design-rated capacity for a continuous period of three years starting on the day on which the written notice is received by the Minister of the Environment; and
- (c) conduct a biological monitoring study during the three-year period referred to in paragraph (b) in accordance with Division 3 of Part 2 of Schedule 5.

(2) If the owner or operator has complied with all of the requirements set out in paragraphs (1)(a) to (c), the mine becomes a recognized closed mine after the expiry of the three-year period referred to in subsection (1).

Additional regulatory requirements would apply to any mine that becomes a RCM (sections 2 and 33 of the MDMER).