



AGNICO EAGLE

June 18th, 2016

Manager of Licensing, Nunavut Water Board
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Subject: Management Plan submission prior to new construction

Madam, Sir,

Agnico Eagle Mines Meadowbank Division is required under Part D Item 5 of NWB Type A Water License 2AM-MEA1525, to *"submit for approval, at least thirty (30) days prior to new construction, a Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering. The Plan shall include a protocol to monitor and maintain Water levels in Third Portage Lake, Second Portage Lake and Wally Lake within natural variation"*.

Please find attached the Addendum to the *Water Quality Monitoring and Management Plan for Dike Construction and Dewatering* (Version 4, March 2010) to reflect monitoring to be conducted starting July 20th 2016 (pending regulatory approval) as part of Phaser Lake dewatering activities.

Should you have any questions please do not hesitate to contact the undersigned.

Regards,

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ADDENDUM



Project Name:	Meadowbank Gold Project	
Plan / Version:	Water Quality Monitoring and Management Plan for Dike Construction and Dewatering	Version 4
NIRB Requirement:	Project Certificate No. 004	Condition: not applicable
NWB Requirement:	2AM-MEA-1525	Condition: Part D, Item 5
Addendum:	Version 4; March 2010	
Section Change	Specify: Update or New	Details
Section 5	Update	<p>WATER QUALITY MONITORING AND MANAGEMENT DURING DEWATERING ACTIVITIES</p> <p>In the summer of 2016, Agnico Eagle plans to dewater Phaser Lake to allow for mining activities to occur in Phaser and BB Phaser pits. During dewatering activities, there is potential for sediments to become suspended as exposed substrates slump. Suspended sediments could then enter the water pipe(s) and be discharged to Wally Lake. In addition, the discharge itself could disturb the bottom sediments in the lakes and lead to increased levels of suspended sediments. The following plans will mitigate against possible problems with suspended sediments and other key parameters (i.e., pH and aluminum) during dewatering:</p> <ul style="list-style-type: none"> • Intake pipe(s) will be located at a sufficient distance from shore (minimum 10 meters) and, to the extent possible, in areas with highest water depth. • The discharge will be located in areas of Wally Lake where there is deep, low-value habitat. <p>Monitoring during dewatering will be primarily focused at the water intake pumps or at the outlets of the water treatment plant, but will</p>

		<p>also include the receiving environment of Wally Lake. Unlike monitoring during dike construction, where turbidity was used solely as a real-time surrogate for estimating TSS (see Section 4), turbidity measurements will be used two-fold: as a surrogate for TSS (using an established site-specific relationship) and directly as an indicator of water clarity.</p> <p>Dewatering Locations</p> <p>Three locations will be used to dewater Phaser Lake (see Figure 1). First of all, pumping will be conducted at location 1 to dewater basin 1. When the water level will reach elevation 138m, basins 2 and 3 will be separated from basin 1. Water intake will then be transferred to location 2 and pumping will continue in basin 2. At elevation 137.4m, basins 2 and 3 will be separated. Dewatering will finally be conducted at location 3 to complete dewatering of basin 3.</p> <p>Water will be discharged to the Vault Attenuation Pond (Figure 2). At this location a Water Treatment Plant (WTP) is installed to treat the water if needed. The WTP will be used when the water quality monitoring from the Vault Attenuation Pond, including water from Phaser Lake, indicates the water does not meet the license criteria. The WTP will be bypassed when the water quality monitoring indicates the license criteria are being met; in this event water will be discharged directly to Wally Lake.</p> <p>Standard Operating Procedure for Monitoring And Management During Dewatering</p> <p>The Standard Operating Procedure (SOP) for monitoring and management of suspended sediments and other key parameters during dewatering is shown in Figure 12 (version 4, March, 2010). Of mention, the SOP strives for proactive prevention and mitigation of problems. Monitoring will be conducted under the direction of Agnico Eagle's Environmental supervisor on-site. All monitoring results will be included in the</p>
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		<p>Monthly Monitoring Summary Report.</p> <p>LAKE LEVEL MONITORING DURING DEWATERING ACTIVITIES</p> <p>In addition to the monitoring and management of suspended sediments, a hydraulic monitoring plan has been developed to monitor the following components:</p> <ul style="list-style-type: none"> • Water levels in Wally Lake will be monitored on a weekly basis while dewatering activities are occurring; and • Outlet erosion inspections to monitor outlet stability, including potential erosion and/or ice damming within the outlets. <p>Wally Lake water levels will be surveyed at a location of sufficient distance from the outlets to limit potential lake level drawdown effects. Lake water levels will be monitored weekly during the freshet and ice-free period, and weekly during the ice-up period, dependent of the ice conditions and worker safety.</p>
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Figure 1. Water intake locations for Phaser Lake Dewatering

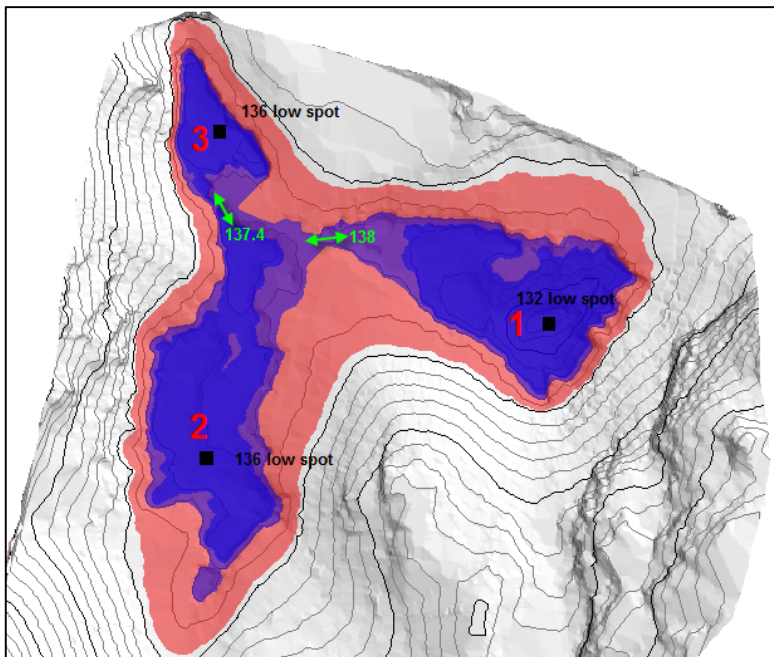


Figure 2. Phaser Lake Dewatering Area

