

February 23, 2011

*Via email*

Mr. Bobby Bedingfield  
Fish Habitat Biologist  
Eastern Arctic Area, Iqaluit Office  
Fisheries and Oceans Canada

Dear Bobby Bedingfield,

**Re: AEM Response to DFO Comments, No Net Loss Plan- Meadowbank Airstrip Extension**

Agnico-Eagle Mines Ltd.-Meadowbank Division (AEM) received a letter from Fisheries and Oceans Canada (DFO) entitled *DFO Comments, No Net Loss Plan- Meadowbank Airstrip Extension, dated January 28, 2011, NU-10-0043*. AEM appreciates the timely response from the DFO and the constructive feedback provided in the letter. The following are AEM's response to the respective DFO comments.

*DFO Comment 1. Section 1.2.1 generally describes that due to Transport Canada safety regulations and dimensions of the pit it was decided to extend the airstrip to the north into Third Portage Lake instead of to the south (inland). It is preferable to minimize the amount of infilling of fish habitat that will occur as a result of this project. Please describe in greater detail the rationale for extending the airstrip into Third Portage Lake, taken into consideration the requirements of the appropriate safety regulations and the current proximity of the pit to the airstrip?*

As indicated in Figure 1: Drawing No 620.G-001 Airport Design for Boeing 737 and AWR Option, AEM engineers and airstrip extension consultants- Expair International, have designed the proposed airstrip to extend to the south 50.3 m, which is approximately 100.6m from the pit opening, the closest distance in consideration of the airstrip structural design, construction of the all weather private access road and Transport Regulations. Transport Canada Regulations (TP 312, Section 3.1.7), *recommends end safety areas at each end of the runway*. Accordingly, the minimum length of the airstrip to accommodate a Boeing 737-200-17 is 6400 ft long with safety areas at each end of the airstrip. Based on the regulations, the engineering staff began designing the airstrip by extended the airstrip as far to the south (towards the pit) as possible, however given the location, present alignment and due to the safety regulations of the Meadowbank airstrip, there still remains a need for extending the airstrip into Third Portage lake.

*DFO Comment 2. Section 6.2 describes the numerous variables that will be monitored prior to connecting Dogleg Pond and Dogleg Pond North. A pre-construction baseline survey will be used to compare against a post construction monitoring program, which*

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*has been designed to identify deviations from baseline conditions. What will be the monitoring characteristic (s) that will be used to determine if no net loss has been achieved and there has been a measurable increase in productive capacity of the fishery resource after the two ponds have been connected?*

As stated in Section 6.2, water chemistry and limnology parameters will be collected monthly and will be compared to Dog leg pond south and a reference pond. Similarly, ecological parameters such as phytoplankton, zooplankton and benthos data will be collected in August of 2011 and follow-up studies will continue from 2012 until 2014. As discussed with DFO representatives, it is unfeasible to define *apriori* a measurable increase in productivity using these chemical and ecological parameters without having a complete baseline data set (including reference ponds). The key determinants for success will be to establish a measure of habitat suitability based on future water quality and ecological monitoring at Dogleg pond as compared to the reference and most importantly, the monitoring will focus on providing evidence that lake trout are accessing the north portion of Dog leg pond. This will primarily be achieved by setting hoopnets (live traps) and/or completing short gill net sets on the margins of the connecting channel in 2012 to 2014.

*DFO Comment 3. The NNLP for the extension of the airstrip did not include detailed design drawings for the extension of the airstrip or the associated compensation project to connect Dogleg Pond and Dogleg North Pond. Construction activities for the airstrip and pond connection should only proceed after detailed design drawings have been submitted to DFO for review. Will you be providing detailed design drawings?*

&

*DFO Comment 6. The report states that a channel will be excavated in the ground between the two ponds, and no further substrate will be added. What type of substrate is the ground composed of between Dogleg Pond and Dogleg North Pond?*

&

*DFO Comment 8. Please describe how the excavated connection between Dogleg Pond and Dogleg North Pond be will be constructed to provide enhanced fish habitat for lake trout? Please include these specifics in the detailed design drawings that will be required to be submitted to DFO prior to construction of the airstrip.*

Construction drawings for the airstrip extension will be provided to the DFO following detailed geological and ground surveys that are planned prior to the construction. As well, ground surveys are planned for Dogleg connecting channel in 2011. Once the surveys are completed there may be a better idea of the existing ground conditions and subsequently may provide information on the substrate composition of the connecting channel. As described in the report, the principal function of the channel is to provide access to Dogleg north pond. As such, the substrate of the channel was not decisive for the habitat valuation nor for the future success of the habitat compensation, however detailed construction drawings (which will incorporate the information collected from the

ground survey) will be provided to the DFO prior to the construction of the dogleg connecting channel.

*DFO Comment 4. Section 1.2.2 states that if necessary, turbidity curtain will be installed to protect the receiving environment during the open water season. S.36(3) of the Fisheries Act prohibits the release of a deleterious substance, such as sediment, into fish bearing waterbody. DFO recommends that measures, such as the use of turbidity curtains to enclose the in-water work area, be implemented to minimize the migration of elevated total suspended solids (TSS) within Third Portage Lake. Please describe the measures AEM will be implementing to mitigate the release of sediment into fish bearing waters during construction of the airstrip.*

*&*

*DFO Comment 5. It would be valuable to conduct TSS monitoring outside of the turbidity curtain to ensure that the curtain is effectively containing any sediment that may be mobilized during construction activities. At the time of construction, the lake will be covered with ice and a visual inspection of the “zone of influence” of the sediment plume will not be possible. Please provide a methodology of how this TSS monitoring will be performed.*

AEM has developed a *Water Quality Monitoring Plan: Airstrip Extension* based on the 2008 and 2009 in-water dike construction water quality monitoring and mitigation. This plan outlines the strategy for reducing TSS inputs and monitoring during on-ice and open water construction. This document will be submitted to the Nunavut Water Board and at that time will be forwarded to the DFO.

*DFO Comment 7. The NNLP plan mentions that drilling and blasting may be required to excavate the connection between Dogleg Pond and Dogleg North Pond. When using explosives in or near fish habitat, please refer to the DFO Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (DFO, 1998). It should be noted that DFO Eastern Arctic recommends using 50 kPa as the threshold for instantaneous pressure change (IPC) in order to prevent physical damage to fish, when using explosives during the frozen conditions.*

The recommended threshold of 50 kPa is followed for all blasting near fish habitat at Meadowbank and will be followed for the construction of the connecting channel.

*DFO Comment 9. The design and placement of rock on the exterior of the airstrip extension within Third Portage Lake should be done in a manner that enhances and creates fish habitat. Please include design information stating how the rock will be placed in the detailed design drawings which will be required to be submitted to DFO prior to construction of the airstrip.*

As stated above, AEM will provide detailed construction drawings of the airstrip extension. As stated in the report, AEM will ensure that non-potentially acid generating rock will be used for the airstrip extension and to enhance the structure and reduce the introduction of fines, AEM will use a rock selection process that will ensure that rock containing greater fines will not be used for the airstrip extension construction. Similar to bay-goose construction, a shovel will be used to place selected, coarse material from the pit along the face of the airstrip that will ultimately provide additional fish habitat. This placement method will provide the airstrip extension habitat with substrate and characteristics similar to the bay-goose and east dike faces. Habitat monitoring in 2009 indicated that the east dike face provided suitable habitat for fish<sup>1</sup>.

Should you require any further information or questions please contact the below via email or by telephone.

Regards,



Stéphane Robert  
[Stephane.robert@agnico-eagle.com](mailto:Stephane.robert@agnico-eagle.com)  
819-763-0229  
Environment Superintendent

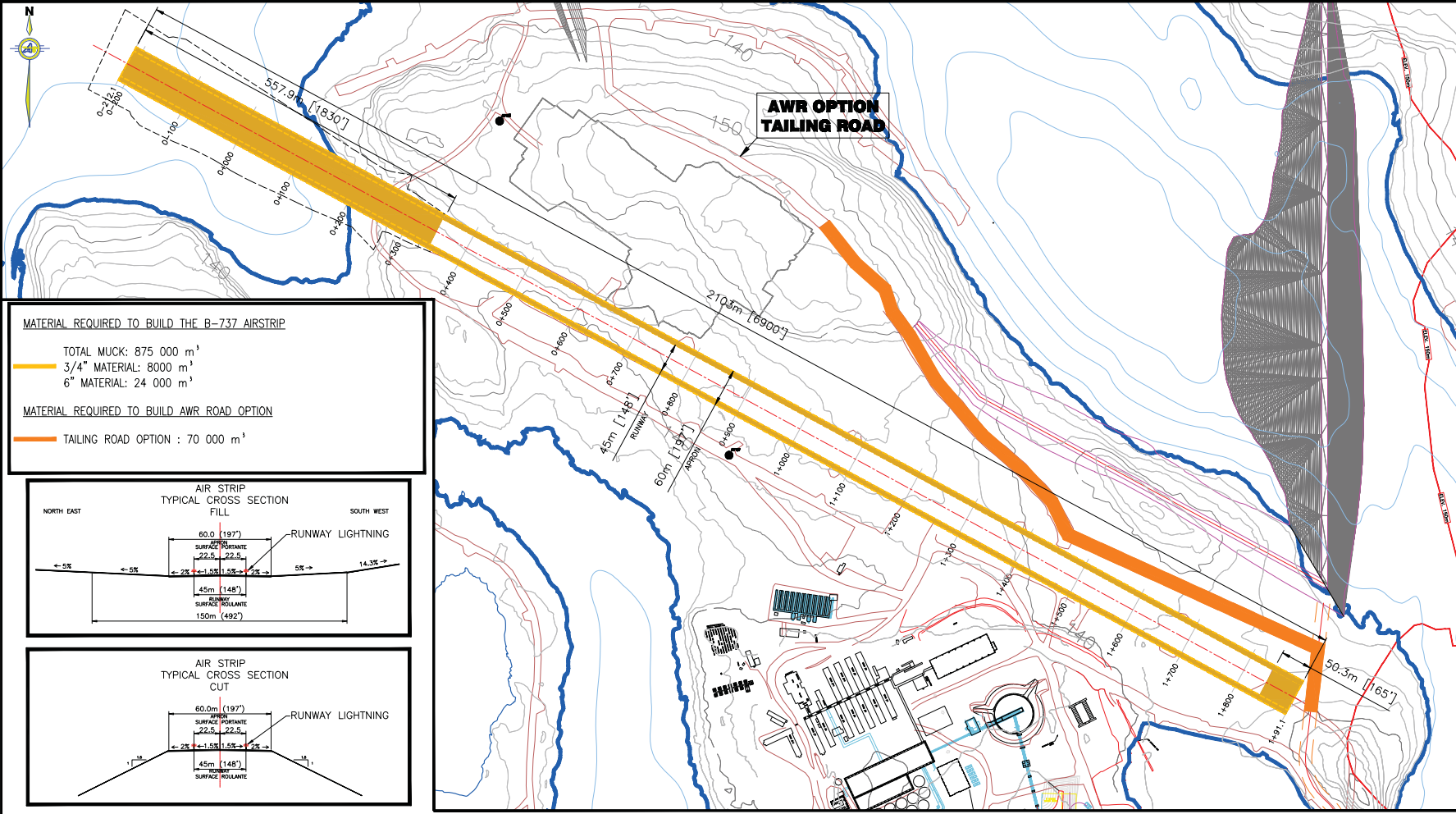


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Environment Biologist

CC: Derrick Moggy, Habitat Team Leader, Eastern Arctic, DFO

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<sup>1</sup> In 2009, habitat monitoring studies using acoustic sonar, observation and gill nets along the East dike and in high value habitat areas in Second Portage Lake indicated a greater catch per unit effort near the east dike compared to reference areas (AEM, 2009. Appendix F5-AEMP Habitat Compensation Monitoring 2009).

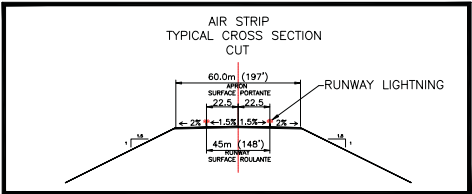
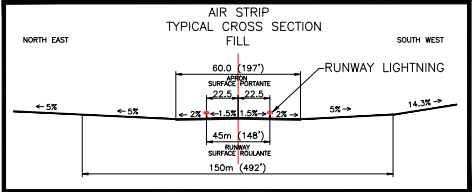


**MATERIAL REQUIRED TO BUILD THE B-737 AIRSTRIP**

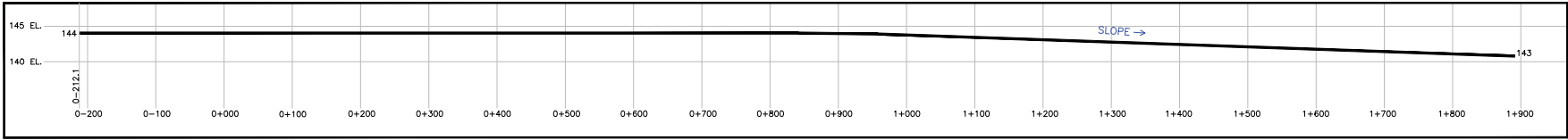
TOTAL MUCK: 875 000 m<sup>3</sup>  
3/4" MATERIAL: 8000 m<sup>3</sup>  
6" MATERIAL: 24 000 m<sup>3</sup>

**MATERIAL REQUIRED TO BUILD AWR ROAD OPTION**

TAILING ROAD OPTION : 70 000 m<sup>3</sup>



PLAN VIEW - AIRPORT DESIGN  
ECH: 1:3000



LONGITUDINAL VIEW  
ECH: NA

**KEY PLAN**

**GENERAL NOTES**

**REFERENCE DRAWINGS**

NO	DATE	DESCRIPTION	BY	APP. CLIENT
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02	18/10/2008	FOR DISCUSSION	FB	
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**REVISIONS**

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**AGNICO-EAGLE MEADOWBANK DIVISION**

**AGNICO-EAGLE - MEADOWBANK DIVISION**

**AIRPORT DESIGN FOR BOEING 737 AND AWR ROAD OPTION**

**DRAWN BY: F. BLANCHETTE** **DATE: 31/08/2008**

**CHECKED BY: J. BELANGER** **DATE: 31/08/2008**

**APPROVED BY:**

**SCALE: N.T.S.** **DATE: 31/08/2008**

**DRAWING NO. 620-G-0001**

**PROJECT NO. OF** **REVISION** **SHEET**

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