HAMMOND REEF GOLD PROJECT
RESPONSE TO COMMENTS ON FINAL EIS/EA

COMMENT – T-8

Source: Canadian Environmental Assessment Agency

Summary of Comment

The analysis of impact to aquatic habitat sub-account is not clear. There are several indicators that could be potentially useful for inclusion in the multiple accounts analysis, notably the area of streams instead of the length of streams, the number of fish species and the size of the fish population that are going to be impacted by project footprint. The impact to downstream area due to a dam failure should be assessed in a separate sub-account.

Proposed Action

Consider additional indicators as mentioned in the previous column.

Indicate the source (reference or supporting document) of the metrics used for various indicators in the Aquatic Habitat sub-account.

Reference to EIS

Appendix 4.1 Mine Waste Disposal Alternatives Assessment Version 2

Response

Throughout the Draft EIS/EA Report review process, several indicators were added to the assessment based on direct review and comments from Environment Canada. Following a meeting between Canadian Malartic Corporation, Golder and the Government Review Team on July 23, 2013 regarding the Mine Waste Alternatives Assessment, the list of indicators for use in the multiple accounts analysis was expanded. The proposed indicators for assessment of the potential impact to the aquatic habitat were expanded to include:

- Number of streams crossed by the tailings pipeline (for assessment of the Tailings Management Facility (TMF);

- Number of streams crossed by the haul road (for assessment of the Waste Rock Management Facility (WRMF); and

- Area of streams and water bodies impacted.

The proposed list of indicators was sent to representatives from Environment Canada (EC) for review and comment. In their review comments, EC suggested the following indicators be added to the assessment:

- Permanent streams impacted;

- Ephemeral streams impacted;

- Indirect impacts such as downstream flow reductions;

- Number of fish-bearing lakes affected; and

- Area of fish-bearing lakes affected.

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In accordance with EC's request, these new indicators were added to the aquatic habitat assessment.

The indirect impacts resulting from downstream flow reductions are implicitly considered within the existing aquatic habitat indicators by considering a stream or lake 'impacted' if its watershed was reduced by 25% or more by the proposed alternative.

Evaluation by fish species and population was not included because it was not requested as an additional aquatic habitat indicator by Environment Canada.

The definition of permanent/ephemeral streams was obtained from Table 7-1 of the Hydrology TSD. The fish bearing classification of the lakes was obtained from Table 2-6 of the Aquatic Environment TSD. The lake areas were measured based on the available site hydrography.

In terms of stream width, in many instances, streams were not distinguishable during baseline surveys or did not have defined channel bed/banks to support width measurements. Therefore, the evaluation of stream by stream length was selected because stream width data was not available for all streams.

The assessment of impact to downstream habitat due to a dam failure is not assessed in the 'potential impact to the aquatic habitat' sub-account. It is addressed in the 'dam hazard classification indicator' under the technical account which considers the potential environmental impact due to failure.

Canadian Malartic Corporation met with Environment Canada, shared our list of proposed indicators and modified these indicators based on Environment Canada's requests. It is considered that the indicators presented in the Final EIS/EA Report for the 'aquatic habitat' sub account reasonably capture the potential for impact to aquatic habitat by the mine waste facilities. A sensitivity analyses was carried out to evaluate potential for bias in the account, sub-account and indicator weighting and the preferred alternative did not change for either the TMF or WRMF through this analysis.

Golder Associates