Interested Party:	EC	**No.:**	**1**
Subject:	Water Quality		

Reference to Application: Appendix K - Fisheries Assessment Stream Alignment

Comment:

Under Appendix K – Fisheries Assessment Stream Alignment detailed monitoring methods are provided for a number of parameters to ensure that the realignment is functioning effectively over time. These parameters include stream flow and water and sediment quality, among others. EC notes that monitoring for erosion at the western outlet of Rascal Stream has not been included in the monitoring. As this stream network will be experiencing increased flows due to the realignment there is potential for erosion at the outlet.

Monitoring for erosion at the western outlet of Rascal Stream be included in the monitoring plan.

Sabina Response:

Monitoring for erosion (sediment quality) at the western outlet of Rascal Stream is included in the monitoring plan. Please see Appendix K, Table 6.3-1 (Proposed Sampling Stations between Rascal and Goose Lake).

Interested Party:	EC	**No.:**	**2**
Subject:	Water Quality		

Reference to Application: Appendix G, Section 2.3

Comment:

Transportation Management Plan, Section 2.3 - Site Preparation and Construction Activities indicates that Sabina intends to complete the majority of the construction activities pre-thaw, however, construction of the all-weather secondary road can be completed post-thaw and the ephemeral stream crossing s will be built as the road reaches each crossing location. Although the streams crossed on the secondary all-season road are ephemeral, they do lead into fish bearing waters at Goose Lake, therefore, erosion, sedimentation and TSS are issues that should be mitigated during their construction.

Wherever possible, any road construction involving culverts and stream crossings is completed pre-thaw to avoid sedimentation, erosion, and total suspended solids. Any construction done post-thaw should include additional mitigation measures to prevent erosion and stability issues.

Sabina Response:

Section 3.3 of the Transportation Management Plan (Appendix G) notes that culvert installations will be undertaken during the winter program. Other mitigation measures to be undertaken during culvert installations are described in Section 8.6.3.1 of Appendix B.

Interested Party:	EC	**No.:** 3
Subject:	Water Quality	

Reference to Application: Appendix F - Quarry Management Plan, Section 3.1.4

Comment:

Water Management indicates that Quarry A will be free draining and the runoff from the quarry will drain to a lower lying area and eventually to a stream. Runoff, if present, will be sampled and compared to the quarry runoff criteria. This water management strategy differs from that of the proposed Umwelt quarry. Although the report indicates that runoff from the quarry will be sampled it is unclear as to how the runoff will be collected if the quarry is to be free draining into the receiving environment. It is unclear why this water management strategy differs from the proposed water management, involving a sump method of collection, at Umwelt quarry.

Any runoff be collected, sampled, and compared to criteria prior to discharge to the environment.

Sabina Response:

This inconsistency will be rectified and captured in an updated version of the management plan 60 days prior to construction. All potentially deleterious runoff from the quarry will be routed to a sump which will be tested for water quality and either treated prior to discharge, or discharged directly if it meetings criteria.

Interested Party:	EC	**No.:**	**4**
Subject:	Geotechnical		

Reference to Application: Appendix J

Comment:

Relevant static testing data from the Umwelt quarry area are summarized in Appendix 1. Figure 3 is a plot of the neutralization potential (NP) versus acid potential (AP) for the upper greywacke showing results for all of the samples from the Umwelt and Llama deposit areas, with circles depicting the samples that are specifically representative of the potential quarry areas located on either side of the Umwelt mineralization trend.

The generally low AP suggests that this material is not likely to be an appreciable source of acidity. NPs were also very low indicating limited pH buffering capacity. Based on these results, approximately 67% of samples are classified as non-PAG or as having a low sulphur content (AP<5), 27% are classified as having an uncertain potential for ARD (NP/AP=1 to 3), and 5% are classified as potentially acid generating (PAG; NP/AP<1).

As stated previously, 16 of the upper greywacke samples are considered to be representative of the potential quarry area. The majority of these are classified as non-PAG or low sulphur material, and three samples are classified as having an uncertain potential for ARD. Only one of these samples has an AP greater than 10 kg CaCO3 eq/t, again, indicating that this material is unlikely to be an appreciable source of acidity.

A look at Figure 3, and the samples (depicted with circles) representing the potential quarry area, indicates that there are several samples that fall within uncertain area though in the low sulphur (low S) area. It is always prudent to treat the samples in the uncertain region with caution and in some cases the mitigation applied to them is similar to PAG samples. It should also be noted that even with low sulphur content; the rocks may generate acid with time if there is little or no acid neutralization material. Any samples that fall in the uncertain region area with low sulphur be treated similarly as samples in the PAG region.

Sabina Response:

SRK has completed an initial assessment of the kinetic test data, NAG test results and mineralogy for this project and has confirmed that low S samples with NP/AP ratios between 3 and 1 are not-PAG. This information will be presented in the FEIS. However, if required, a memo presenting these results could be provided in advance of FEIS submission.

Interested Party:	EC	**No.:**	**5**
Subject:	Geotechnical		

Reference to Application: Appendix B, Figure 5.0-1 "Overview of Area Subject to Site Preparation Activities"

Comment:

Please be aware that when the mine become subject to MMER that the MLA will be subject to the s.36(3) of the Fisheries Act and not MMER. This is because MLA located at the south end of Bathurst Inlet is not part of the mine site and, for that reason, the requirements of the MMER, which apply only to the mine site are not germane to the operations at the MLA.

Sabina Response:

Thank you for the clarification.

Interested Party:	EC	**No.:** 6
Subject:	Wildlife and Species at Risk	

Reference to Application: N/A

Comment:

Sabina identifies direct habitat loss and disturbance for migratory birds as potential effects of the site preparations activities. As a mitigation measure, Sabina proposes to conduct ground clearing outside sensitive periods where possible. Sabina provides few details and does not commit to conducting land-clearing outside the migratory bird nesting period. As commented in Sabina's DEIS, EC would like to remind the Proponent that land clearing activities conducted during summer have a high potential of incidental take of migratory birds. EC is responsible for implementing the Migratory Birds Convention Act and the Migratory Birds Regulations. Paragraph 6(a) of the Migratory Bird Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. The inadvertent harming, killing, disturbance or destruction of migratory birds, nests and eggs is known as incidental take. Incidental take, in addition to harming individual birds, nests or eggs, can have long-term consequences for migratory bird populations in Canada, especially through the cumulative effects of many different incidents.

To prevent detrimental effects on migratory birds, nests and eggs and help maintain sustainable populations of migratory birds, Environment Canada recommends that proponents know their legal obligations; avoid engaging in potential destructive or disruptive activities in key sensitive periods and locations; and develop and implement appropriate preventative and mitigation measures to minimize the risk of incidental take. In the proposed project area, migratory birds may be found nesting from mid-May until mid-August; it is important to note that breeding periods may vary from year to year due to climatic conditions and some species may nest outside the dates provided if conditions are favourable. If avoidance is not possible, EC recommends that scientifically sounds approaches be used to determine the likelihood that migratory birds, their nests or eggs are present in a particular location and where further investigation is required to determine the presence of breeding birds, an area search for evidence of nesting be undertaken using non-intrusive search methods to prevent disturbance.

If there is indication of nesting or nests containing eggs or young of migratory birds are located or discovered, all disruptive activities in the nesting area should be halted until nesting is completed. Any nest found should be protected with a buffer zone appropriate for the species and the surrounding habitat until the young have naturally left the vicinity of the nest (see Table 1). Moreover, if there are migratory bird nests where work is proposed, options like avoiding, adapting, rescheduling or relocating activities that could disturb or destroy the nests should be considered. EC encourages Sabina to use the setback distances in the following table (see EC comments, pg 4) to establish buffer zones to protect any nests found or indicated nests. EC also recommends the success of these mitigation measures be provided in annual wildlife monitoring reports. EC encourages Sabina to consult Environment Canada's Incidental Take web page and the fact sheet "Planning Ahead to Reduce the Risk of Detrimental Effects to Migratory Birds, and their Nests and Eggs" at: www.ec.gc.ca/paom-itmb/ to obtain further information on how to protect migratory birds and their nests and eggs when planning or carrying out project activities.

Sabina Response:

Sabina would like to thank Environment Canada for these useful comments. All legal obligations and permit conditions will be adhered during any works conducted on our Properties.