Interested Party:	AANDC	**No.:** 1
Subject:	Alternatives Assessment	

Reference to Application: Appendix A, Section 6.1, Page 16

Comment:

Sabina's proposal contains a consideration of alternatives to the various site preparation activities (Appendix B; section 6.0, page 16-18) and, in most cases, lists the criteria that were used to evaluate alternatives. However, the Proponent did not present a coherent analysis of the various alternatives nor the rationale for selecting a given option based on the stated criteria of predictions of a project's impacts on vegetation, thus non-mention of survey methods makes it difficult to evaluate Sabina's assessment of impacts of the project activities on vegetation.

Apart from an insufficient alternatives analysis, there was no consideration of alternatives for some of the SPWs such as the all weather road and Rascal Lake stream outflow realignment. As an example, for the all-weather road, the Proponent used very generic statements such as; its layout reflects best practices for avoiding sensitive areas, such as archaeology sites, rare plants and lichens, special landscape features, and wildlife habitat features such as nesting sites and dens (Appendix A, section 6.1 page16) to support the proposed trajectory of the all-weather road, without mentioning other alternative trajectories against which proposed layout was compared in order to arrive at their decision.

AANDC recommends that Sabina provides a more detailed analysis of alternatives (all-weather road, all weather airstrip extension, Rascal Lake outflow stream realignment, and operation of a temporary laydown area), clearly explaining what criteria and rationale were used to select the proposed alternatives as well as those alternatives that remain viable.

Sabina Response:

All activities proposed in the SPW application are consistent with the larger project assessed in the DEIS. Alternatives were assessed in detail in the DEIS under the criteria listed in Volume 2, Section 4.1. The same criteria were applied to alternatives discussed in the SPW application. For the sake of brevity, however, alternatives were discussed only as much as required to explain why the alternative was preferred. The SPW application identifies those project components that are low environmental impact and also provide the most benefit to the project schedule. The following provides more detail to support these alternatives:

Airstrip extension:

Due to the remoteness and isolation of the Goose Property, air transportation is an essential component for servicing passengers and cargo to the site. The air transportation alternatives considered an ice airstrip / open water float plane access on Goose Lake, a 1524 metre all-weather airstrip to support year round access for Hercules sized aircraft, a much larger airstrip to support year round access for Boeing 767 sized aircraft.

Ice airstrips and open water float access alone do not provide enough capacity to service site preparation activities. Further, the lake cannot be utilized during the shoulder seasons. The construction of an airstrip to accommodate a Boeing 767 was deemed excessive and uneconomical for this project. Thus the 1524 m airstrip option was selected based upon technical feasibility, project logistical demands and cost.

Rascal Lake outflow realignment:

Lengthening the existing airstrip that supplies the Goose Camp will result in the embankment crossing Rascal Stream East (RSE). This presented Sabina with two alternatives for assessment: a) maintaining the existing RSE alignment by installing a series of culverts beneath the airstrip; b) realigning the Rascal Lake outflow such that it is all conveyed along its western branch (RSW) through Gander Pond, and into Goose Lake.

Maintaining the RSE would minimize disturbance to the fish habitat downstream of the airstrip in the nearterm. However, the lower reach would be intersected by the development of the Goose Main open pit and the fish habitat would be lost at that time. Further, a diversion channel would be required on the south side of this open pit to direct flow through a haul road culvert to another discharge location in Goose Lake.

Culvert crossings through the airstrip have the potential for partial thawing of the permafrost surrounding the culvert. This could result in differential settlement and water management issues within the airstrip berm.

Realigning the RSE towards the RSW became the recommended alternative to convey the Rascal Stream to Goose Lake. This recommendation is based on minimizing the risk of differential settling of the airstrip, reducing the requirement for diverting flow around the Goose Main pit, reducing the risk of the Goose Main open pit flooding, and negating the installation of a number of culverts. Further, by conveying all of the Rascal Lake outflow to RSW, the increased volumes into this branch will generate new low flow fish habitat to offset the loss of habitat from RSE. This would occur early in the Project life, thus affording ample opportunity for further monitoring and mitigation as outlined in Appendix K.

All-weather road and TLA:

The all-weather road is required as it links the Goose Property with the proposed Umwelt quarry. Its layout reflects best practices for avoiding sensitive areas and it follows an alignment that Sabina proposes for later development. Alternative trajectories for the proposed all-weather road were not assessed as it is Sabina's intention to reduce the overall area of disturbance and cost, by widening the alignment utilized by larger vehicles servicing the Project.

The location of the Temporary Laydown Area (TLA) was also chosen to minimize area disturbed. While the TLA layout does indeed reflect best practices for avoiding sensitive areas, it also falls within the footprint of the proposed future Marine Laydown Area (MLA).

Interested Party:	AANDC	**No.:**	**2**
Subject:	Water and Sediment Quality		

Reference to Application: Appendix B, Section 8.5.2.1, Page 52

Comment:

The NIRB's requirements for impacts assessment are outlined in section 6, sub-section 4, page 9 of the Draft Guide 9. According to this section of the guide, an application for a 12.10.2 (b) exception should include: a detailed account of any impacts to the environment which may result from the exploration and/or development activities and whether such damage can be effectively prevented, mitigated or reversed. In addition, it should also include detailed management and monitoring plans updated to reflect realities of the proposed SPWs as well as remediation plans that reflect the timing and life cycle of proposed activities.

In reviewing the proposal, AANDC observed that presentation of baseline concentration data for potentially problematic metals (Al, As, Cr, Cd, Cu, etc) in freshwater bodies and/or sediments was fragmentary. The baseline summary section contained numerous generic statements such as: Metal concentrations in lakes are generally low, and tend to be lower in the summer than in winter; baseline water quality data are available from southern Bathurst Inlet from 2007, 2008, and 2012 to 2013; baseline sediment quality data are available from the area from 2007 to 2013, amongst others (Appendix B, section 8.5.2.1, page 52).The report assumes a "generally good rock mass quality" however, substantiating information is not provided, despite the fact that two seasons of geotechnical data collection programs are referenced. The geotechnical characterization of the host rock formations underlying the mine design, particularly for mine stability, would typically be based on the results of field and laboratory testing programs referred to in the text; however such data is not provided. This information is required for the review as any instability of the proposed mine structures has significant potential to create unintended adverse environmental impacts.

a) In order to facilitate the assessment of impacts of SPWs on water and sediment quality, it is recommended that the Proponent clearly presents baseline metal concentrations, projected levels, and benchmark (CCME or equivalent regulations/guidelines) used for determining impact significance.

Sabina Response:

The following provides the specific references for baseline information related to water quality, sediment quality and metals concentrations. This is provided in the DEIS:

Volume 6 Freshwater, Appendices:

- Appendix V6-3A. 2010 Lake Water and Sediment Quality Baseline Report.
  - Appendix 2. Water Quality Data from the Back River Project Study Lakes, August 2010.
  - Appendix 3. Sediment Quality Data from the Back River Project Study Lakes, August 2010.
- Appendix V6-3B. Back River Project: 2011 Freshwater Baseline Report.
  - Appendix 3.2-1. Lake Water Quality Analytical Results, Back River Project, 2011.
  - Appendix 3.3-1. Stream Water Quality Analytical Results, Back River Project, 2011.
  - Appendix 3.4-2. Lake Sediment Quality Analytical Results, Back River Project, August 2011.

    - Appendix 3.5-1. Stream Sediment Quality Analytical Results, Back River Project, August 2011.
- Appendix V6-3C. Back River Project: 2012 Freshwater Baseline Report.
    - Appendix 3.2-1. Lake Water Quality Analytical Results, Back River Project, 2012.
    - Appendix 3.3-1. Stream Water Quality Analytical Results, Back River Project, 2012.
    - Appendix 3.4-1. Lake Sediment Quality Analytical Results, Back River Project, August 2012.
- Appendix 3.5-1. Stream Sediment Quality Analytical Results, Back River Project, August 2012.

Interested Party:	AANDC	**No.:**	**3**
Subject:	Water and Sediment Quality		

Reference to Application: N/A

Comment:

The Proponent has not provided sufficient detail on sewage management during SPWs. The absence of such information makes it difficult to assess the potential water quality impacts that may result from the use and discharge of water during the various site preparation activities. AANDC will like to note that although Sabina has committed to providing more details in the FEIS on the waste water management strategy including sewage effluent…. [PHC 18 (AANDC TC 15)], we believe that the potential impacts of sewage effluent and/or grey water generated during proposed SPWs on water quality still needs to be analyzed in order to allow for development of appropriate mitigation measures.

b) AANDC recommends that the Proponent provides an analysis of the impacts of sewage effluents/grey water on water quality and propose appropriate mitigation measures as well as monitoring plans.

Sabina Response:

The SPW will utilize the same exploration camps with the same maximum camp occupancies, and the same approach to sewage treatment, as currently utilized. These systems are inspected at least annually by the AANDC water licence inspector and are subject to monthly and annual reporting requirements under relevant Type B Water Licences. As Sabina was not asking for any changes to the current approved sewage discharge an assessment of effects was not deemed necessary.

Interested Party:	AANDC	**No.:**	**4**
Subject:	Water and Sediment Quality		

Reference to Application: Appendix B, section 8.5.2.2, page 53

Comment:

In analysing the potential effects of construction and site preparation infrastructure use on water quality, the Proponent identifies runoff and dust deposition as potential effects pathways and goes further to state that: some in-water or near-water activities required during site preparation also carry the potential for effects on water quality (Appendix B, section 8.5.2.2, page 53) without further elaborating on these activities.

c) AANDC recommends that the Proponent identifies the "in-water or near-water activities that could potentially impact water quality and propose specific mitigation measures.

Sabina Response:

The main in-channel activity is the realignment of Rascal Creek, which is assessed in detail in Appendix K. Mitigation measures are also described in detail. Other in-channel activities include the installation of culverts at stream crossings along the road. These are identified on Figure 5.0-2 in Appendix B. The crossings will be installed during winter, which will minimize effects due to in-channel works. Mitigation measures to be undertaken during culvert installations are described in Section 8.6.3.1 of Appendix B.

Interested Party:	AANDC	**No.:**	**5**
Subject:	Water and Sediment Quality		

Reference to Application: N/A

Comment:

The design of quarry A as free-draining; allowing water from the quarry to drain into low-lying areas and eventually into the stream that connects Gander Pond, is problematic as there are no water management structures in place. Although the Proponent plans to sample runoff from the quarry in order to compare this runoff to water quality criteria, there are no contingencies in place to deal with any potential exceedances of quarry runoff discharge criteria.

d) AANDC suggests that the Proponent commits to managing quarry A pit water (e.g. by constructing ditches to divert runoff to a containment area such as a sump or a settling pond) in order to minimize potential impacts to downstream water bodies due to the release of potentially contaminated quarry pit water (TSS, dissolved metals, low pH) .

Sabina Response:

Sediment basins/traps will be provided to mitigate the potential flows that may leave the quarry at levels that exceed water quality discharge criteria.

Interested Party:	AANDC	**No.:** 6
Subject:	Quarry Rock Characterization and ARD/ML Potential	

Reference to Application: Appendix B, section 8.5.2.2, page 53

Comment:

The Proponent has presented some data on geochemical characterization of rock from the proposed Goose and Umwelt quarries and concluded that material from the chosen locations is suitable for use in construction because of its limited potential for ARD (Appendix B, section 8.5.2.2, page 53). AANDC notes that only 16 of the 73 samples (i.e. ~22%) subjected to static testing were representative of material within the potential Umwelt quarry area. Sabina's analyses showed that 3 of the 16 representative samples have an uncertain ARD potential while one is PAG. Without conducting further kinetic testing to ascertain ARD potential it would be prudent for the Proponent to assume that 25% of greywacke samples (3 with uncertain ARD potential and 1 PAG) could potentially be acid generating.

a) AANDC suggests that the Proponent commits to continued testing of quarry rock during excavation to confirm ARD/ML potential in order to ensure that acid-generating rock is not used in the construction of the all-weather air strip, road or related site preparation infrastructure.

Sabina Response:

Sabina acknowledges that there is value in completing additional confirmatory testing during quarrying activities to ensure that potentially acid generating rock is not used in construction. Given that there will be limited laboratory capabilities and equipment available during site preparation activities, Sabina is considering two options for additional confirmatory testing prior to construction. The first is to collect additional samples for offsite testing a minimum of two months ahead of quarrying activities to further delineate areas that might have ARD potential. The second is to collect blast-hole cuttings during quarrying and to complete net acid generation "NAG" tests - either at the site or at an off-site laboratory in Yellowknife in sufficient time to identify and delineate any areas with ARD potential before they are excavated for use in construction. Sabina commits to submit a detailed protocol for the confirmatory testing program 60 days prior to construction.

Sabina would also like to clarify that none of the 16 samples that are representative of the potential Umwelt quarry area are PAG. One sample has an NP/AP ratio of 1.02, and therefore plots very close to the boundary between uncertain and PAG, and two plot within the uncertain range. All other samples are classified as NPAG or low S.

Interested Party:	AANDC	**No.:** 7
Subject:	Quarry Rock Characterization and ARD/ML Potential	

Reference to Application: Appendix F, section 6.1.1, page 10

Comment:

In the Quarry Management Plan the Proponents states that the greywacke would be suitable to use as construction material in conjunction with the gabbro as incidental ARD generated by the greywacke could be neutralized by the gabbro (Appendix F, section 6.1.1, page 10) without stating a rationale for the use gabbro as an acid neutralizing agent.

b) AANDC recommends that the neutralization potential of the envisaged gabbro material as well as the greywacke/gabbro ratio that would be used be presented in order to facilitate assessment of its utility as a neutralizing agent.

Sabina Response:

As described in the response to AANDC-6, Sabina will complete additional characterization to identify areas of the greywacke within the Airstrip Quarry that are PAG. Therefore, it will not be necessary to rely on alkalinity provided by weathering of the gabbro to maintain neutral pH conditions.

Interested Party:	AANDC	**No.:** 8
Subject:	Vegetation	

Reference to Application: a) Appendix B, Section 8.4.2.1, Page 27; b) N/A; c) Table 8.4-3 (S1S2) and text on page 29 (S2S3)

Comment:

Sabina stated in the current proposal that terrestrial ecosystem mapping (TEM) and rare plant surveys were conducted in 2012 within the vicinity of Goose Camp and the MLA (Appendix B, section 8.4.2.1, page 27) and goes further to describe the plant species identified during the field surveys, without mentioning which specific vegetation field survey methodologies / techniques were used to collect these data. It is generally known that the choice of field survey methodology can potentially affect the accuracy of predictions of a project's impacts on vegetation, thus non-mention of survey methods makes it difficult to evaluate Sabina's assessment of impacts of the project activities on vegetation.

In assessing the impacts of dust on vegetation, Sabina reports observing Siphula ceratites (a rare lichen) once within the area potentially impacted by the all-weather road and twice within the 500m buffer around quarries but then goes further to infer that these species might not be impacted by dust from SPWs because it does not occur within the footprint of the proposed activities. AANDC believes that this species might be impacted by dust as it has been found to occur within the alteration zone.

a) AANDC requests that Sabina provides details of the vegetation survey method(s) used in order to facilitate evaluation of the accuracy of the vegetation effects assessment presented.
b) AANDC recommends that the Proponent commits to re-evaluating the impacts of dust on this species and continued monitoring for any adverse effects.
c) There appears to be some inconsistency in the S-ranking for Siphula ceratites in Table 8.4-3 (S1S2) and the text on page 29 (S2S3). Sabina needs to rectify this apparent inconsistency.

Sabina Response:

a) The specific vegetation field survey methodologies/techniques used throughout the terrestrial ecosystem mapping (TEM) and rare plant surveys can be found in DEIS Volume 5 Terrestrial Environment, Chapter 4: Vegetation and Special Landscape Features.

b) Sabina is not proposing further evaluation of the potential impacts of dust on vegetation, nor further monitoring of dust effects on vegetation given the scope of these proposed works. The pathways of effects were considered in detail in the DEIS. The DEIS did not identify any significant effects, and as such, no significant effects are anticipated for the SPW as a subset of the larger project.

   Sabina has provided specific measures for dust mitigation in various locations of this application (e.g. Appendix B, Sections 8.2.2, 8.4.2.3; Appendix F, Quarry Management Plan, Table 6.1; and locations in Appendix G, Transportation Management Plan). These measures are aligned with the *Environmental Guideline for Dust Suppression* (Nunavut Department of Sustainable Development, Environmental Protection Service 2002). The Type B Water Licence application requests that 70 m^3/day is allocated for dust suppression and road material compaction.

c) The S-ranking for Siphula ceratites is S1S2; the text on page 29 should reflect this.

Interested Party:	AANDC	**No.:**	**9**
Subject:	Impact Assessment Methodology		

Reference to Application: Appendix B, Table 8.1-1, Page 20

Comment:

In reviewing Sabina's proposed 12.10.2(b) exception application, AANDC observed that Sabina did not present sufficient detail on the methods/techniques used for impact prediction and significance determination. Although the Proponent identified potential effects of various project components on VECs/VSECs (Appendix B, Table 8.1-1 page 20), there is no mention of the magnitude of impacts or the level of significance of the identified effects, making it difficult to evaluate if the proposed mitigation measures are sufficient. Furthermore, only direct project impacts on VECs seem to have been assessed, with no consideration of potential indirect/secondary and cumulative impacts. Although some of the proposed site preparation activities might generate non-significant impacts on VECs (e.g. Caribou habitat) when examined individually, there is the possibility that these impacts, when combined with those from the larger Back River project and /or foreseeable future projects in the LSA could potentially generate significant effects.

a) AANDC recommends that Sabina elaborates on the methods (qualitative or quantitative) used to assess the impacts of various activities on identified VECs/VSECs, the magnitude and direction of effects, mitigation measures and the significance of residual impacts.

Sabina Response:

a) The SPW application presents a list of planned activities which are a subset of the main project assessed in the DEIS. There were no significant effects identified in the DEIS. Therefore, a formal assessment of effects was not undertaken in the SPW application. Instead, the SPW application focuses on which of the effects assessed in the DEIS will occur.

Interested Party:	AANDC	**No.:**	**10**
Subject:	Impact Assessment Methodology		

Reference to Application: (1) Table 8.1-1(Appendix B, page 20); (2) Appendix B, page 68-70

Comment:

(1) Little information has been provided on Sabina's public consultation approach and assessment of the socio-economic impacts for the activities proposed in the current 12.10.2(b) exception application. Socioeconomic impacts of the proposed activities are only presented in Table 8.1-1(Appendix B, page 20) of the current submission thus making it difficult to assess how socio-economic impacts factored into the analysis.

(2) Furthermore, although section 11.0 (Appendix B, page 68-70) discusses Sabina's approach to public consultation and engagement for the larger Back River project, it is silent on the public concerns raised about the current exception application. This goes contrary to the provisions of section 6, sub-section 6 of NIRB Guide 9. AANDC would like the NIRB to note that the Department submitted technical comments (AANDC TC# 28 and 29) regarding Sabina's public consultation and engagement during review of the DEIS of the larger Back River project to which Sabina committed to providing access to all primary documents used during public consultation in the FEIS (PHC #37). As noted above, Sabina did not provide any evidence of public engagement related activities to the 12.10.2(b) application.

Sabina Response:

Sabina has undertaken a comprehensive public consultation and engagement program for the Project, further details on which are presented in DEIS Volume 3. Through this process, the public has been provided with information on Project plans through various means (e.g. public and stakeholder meetings, digital and printed media, a community relations office in Cambridge Bay, other forms of community outreach) and been given numerous opportunities to comment on these plans. Comments made in all formal meetings for the Project have been captured in Sabina's public consultation and engagement database, and all key issues and concerns raised by the public have been summarized in DEIS Volume 3.

While Sabina's proposed site preparation activities have not yet been reviewed in detail with local communities, exploration updates, Project development timelines (including those for site preparation activities), and summaries of proposed construction activities have been provided on numerous occasions. Presentations and other outreach materials that include this information are publically available on the Project website (http://backriverproject.com/) for review. Public comments have generally been focused on the overall operation and closure of the mine rather than on site preparation activities. However, communities have clearly stated that environmental impacts (especially those pertaining to caribou, fish and water quality, and mine tailings and contaminants) are to be minimized throughout the Project lifecycle and that a comprehensive environmental management and monitoring program should be developed. Community members also expressed the strong desire for Project-related employment and training opportunities to be provided to Kitikmeot residents (especially youth) as soon as possible. It was additionally noted that Sabina's past practice of routing Kitikmeot-based employees through Yellowknife should be avoided as it leads to issues pertaining to substance abuse,

absenteeism, and family instability. Sabina's responses to all key issues and concerns raised by the public are summarized in DEIS Volume 3.

Opportunities for additional public feedback on proposed site preparation activities will be provided over the course of Sabina's 2015 public consultation and engagement program. For example, more detailed information on site preparation activities will be provided in PowerPoint presentations scheduled to be delivered in each of the Kitikmeot Region communities and Yellowknife in mid-2015. Any public feedback received will be documented in meeting notes and added to Sabina's public consultation and engagement database, as was done previously. It should also be noted that the Kitikmeot Inuit Association (KIA) has been consulted on all aspects of the Project, including the elements that fall under the current site preparation application. Likewise, the KIA and local communities will continue to be kept informed of Project developments moving forward.

Interested Party:	AANDC	**No.:**	**11**
Subject:	Monitoring Measures		

Reference to Application: Appendix F, section 7.1, page 13; Appendix H, section 3.8, page 14

Comment:

The proposed monitoring measures for wildlife and water quality are generally adequate. However, in its quarry management plan, Sabina acknowledges that during periods of high runoff, water flowing from heavy equipment, ammonia from blasting residues, and metals but then goes further to state that runoff from the quarries will meet the quarry runoff discharge criteria (Appendix F, section 7.1, page 13) without mentioning how this determination was made, nor the contingencies to deal with discharge criteria exceedances. Furthermore, Sabina's Abandonment and Reclamation Plan states that there are no water management ponds associated with the site preparation works (Appendix H, section 3.8, page 14), so it is difficult to envisage how proposed monthly monitoring of water quality will prevent potential contamination of surface water bodies during high runoff periods if there are no water management ponds.

a) AANDC suggests that the Proponent considers incorporation of water management ponds to serve as temporal water storage areas in cases where runoff water quality exceeds discharge criteria.

Sabina Response:

All potentially deleterious runoff from the quarry will first be routed to a sump. The text in Section 7.1 then states that "Any water accumulating in sumps will be sampled as part of ongoing monitoring and allowed to discharge to the environment if it meets water licence criteria. The results of sampling will be submitted to appropriate regulatory parties in accordance with permit requirements."

Interested Party:	AANDC	**No.:**	**12**
Subject:	Monitoring Measures		

Reference to Application: N/A

Comment:

Sabina has proposed only two years of post-closure monitoring in the scenario where the larger Back River project is not authorized to proceed (No-go alternative), without giving a rationale and justification for this time frame. Compared to the 25 years post-closure monitoring for mine sites and contaminated sites in Nunavut, the proposed two years may be too short to reliably determine the stability of waste rock piles, landfills, and associated structures that could potentially be left behind at closure of the SPWs. AANDC had earlier commented that the five year post-closure monitoring time frame for the larger Back River project was too short and recommended that the Proponent commits to re-evaluating and justifying the duration of post closure monitoring that will realistically be required (AANDC TC # 25). Sabina concurred to this request and committed to re-evaluating and providing additional justification on the duration of post-closure monitoring that will be required based on the new Mine Closure Reclamation Plan submitted as part of the FEIS (PHC #301).

b) AANDC requests that the Proponent provides further rationale and justification for their determination that a two-year post-closure monitoring program is adequate. (See NIRB Direction in Guide 9, section 6, sub-section 4, bullet #3 page 9).

Sabina Response:

Sabina has proposed a two year post-closure monitoring period based on the relatively modest potential effects anticipated with the site preparation works. The reference to 25 years for mine sites and contaminated sites is not relevant in this case as the activities associated with the proposed SPW are more in line with advanced exploration project, not full mine development. It is understood that if conditions change (i.e. the larger project proceeds), the length of the post-closure monitoring period will be extended to reflect these works. This duration will be provided in the FEIS Mine Closure Reclamation Plan addressing the closure requirements of the overall Back River Project.

The NIRB's Draft Guide 9 sub-section referenced above, states: A remediation plan which reflects the timing and lifecycle of the exploration and/or development activities. This plan should address a “no-go” alternative and include the associated mitigation or remediation measures that must be taken if the related project does not proceed.

To satisfy this requirement, Sabina has provided an Abandonment and Restoration (A&R) Plan (Appendix H) that provides “remediation” for the proposed works, should the related project not proceed. It is our intent that this plan would supersede the 2012 A&R Plan currently in place for our existing permits and licences.

Interested Party:	AANDC	**No.:**	**13**
Subject:	Conclusions		

Reference to Application: N/A

Comment:

The issues identified in comments 1-5 make it difficult to affirm or refute conclusions in the 12.10.2(b) application. AANDC, however, acknowledges the difficulty involved in collecting detailed information at this stage of the assessment and believes that the Proponent can improve upon the current assessment and conclusions regarding assessment of impacts of proposed site preparation works (SPWs) on identified VECs (e.g., water and sediment quality, vegetation, caribou, etc) by incorporating the aforementioned suggestions and implementing adaptive management and monitoring approaches.

Sabina Response:

Sabina believes that it has presented the appropriate level of detail in the SPW application to assess whether or not the activities can be exempted under NLCA Article 12.10.2. However, the company is open to discussing specific information needs further with AANDC if it believes specific information is required to support its recommendation to NIRB.

Interested Party:	AANDC	**No.:**	**14**
Subject:	Methodologies		

Reference to Application: Appendix B

Comment:

AANDC is unable to make a determination regarding the appropriateness of methodology utilized in the 12.10.2(b) application given that there was scant information on the methodologies and/or techniques used for impact prediction and significance determination, baseline vegetation surveys, amongst others. Although a summary of the interactions between VECs/VSECs and various site preparation activities is present on page 20 (Appendix B), it is difficult to understand how the Proponent arrived at the determination of negative but mitigable or non-mitigable as well as the significance of residual impacts. Furthermore, the prediction of potential effects of various SPW activities on VECs/VSECs appears to have been done qualitatively, which suggests that pathway assessment might have been done in a subjective manner.

AANDC suggests that the Proponent provides more discussion regarding their impact assessment approach highlighting methods/techniques used to predict impact direction and magnitude, mitigation measures, significance of residual impacts as well as impact reversibility.

Sabina Response:

All activities proposed in the SPW application are consistent with the larger project assessed in the DEIS. The pathways of effects were considered in detail in the DEIS. The DEIS did not identify any significant effects, and as such, no significant effects are anticipated for the SPW as a subset of the larger project.

Interested Party:	AANDC	**No.:**	**15**
Subject:	Quality and presentation of the information in the package.		

Reference to Application: Example: Figure 5.0-2 (Appendix B, page 6)

Comment:

The maps provided in the project description do not give much detail, making it difficult to distinguish between infrastructures already in place and those for the proposed SPWs. Figure 5.0-2 (Appendix B, page 6) for example, is of insufficient topographic detail to allow for assessment of the proposed placement of culverts along proposed access roads and the ability of the planned locations and culvert numbers to adequately minimize water back-up during peak flows.

a) AANDC recommends that the Proponent improves upon the quality and level of detail presented on maps. For maps depicting proposed access roads and air strip extension, it is suggested that the Proponent produces topographic maps. (See NIRB Direction in Guide 9, section 6, sub-section 1, Bullet #5, page 8).

Sabina Response:

Sabina respectfully disagrees that insufficient detail has been provided on figures. It should be noted that much of the existing exploration camp infrastructure will be used during the SPW. SPW activities are described in detail in Appendix B, so the text in conjunction with the figures should be adequate to understand the scope of activities proposed. Crossings where culverts will be installed are shown on the main Site Preparation site plan (Figure 5.0-2 in Appendix B). Given that culverts will be installed in winter, it is not clear what additional detail would be required to consider potential impacts from culvert installations.

If there are specific aspects that AANDC would like illustrated better, we are open to discussing these aspects, and potentially providing this detail.

Interested Party:	AANDC	**No.:**	**16**
Subject:	Quality and presentation of the information in the package.		

Reference to Application: Example: Figure 5.0-2 (Appendix B, page 6)

Comment:

The 12.10.2(b) application contains limited baseline data and although such information might well be present in cross-referenced DEIS documents, the lack of details on specific location makes it difficult to find referenced information. For example, the Proponent referenced Rescan 2012a, 2012b, 2012c, 2013a, 2013b, and 2014a as sources of further information but does not specify where in the DEIS documents and appendices this information could be found. Furthermore, the absence of summary tables for baseline datasets as well as projected changes makes it hard to visualize project induced changes and effects.

b) In order to minimized excessive cross-referencing, it is recommended that the proponent endeavors to include tabulated summaries for baseline data, projected changes, and benchmarks (ifavailable) used in determining impact significance. The specific locations of referenced material should be provided in situations where cross-referencing of DEIS is unavoidable. (See NIRB Direction in Guide 9, section 6, sub-section 4, bullet #2, page 9).

Sabina Response:

Sabina appreciates AANDC's comment. Efforts were made to keep the SPW Application concise and easy to read and review. While detailed references to sections in the DEIS were not provided, the comprehensive DEIS has an excellent search tool that can be used to identify the detailed information, if and as required. Sabina believes however, that the scope of SPW is straight-forward and relatively minor and therefore the potential effects are modest and are adequately described in the SPW application.

Interested Party:	AANDC	**No.:**	**17**
Subject:	Project Rationale		

Reference to Application: Appendix B, Section 2.0

Comment:

Section 2.0 of the SPW proposal entitled Rationale for application for exceptions (Appendix B, page 2) does not provide a clear rationale to support the push for commencement of proposed activities prior to the larger Back River project review. Rather, this section discusses the NIRB's Guide 9 directives which address circumstances under which the NIRB may grant exceptions to proceed with exploration and/or development activities for a related project which is undergoing review. Although it might be inferred from some components of the proposal the SPWs are needed in order to ensure that project meets its time lines, the Proponent has not provided strong arguments to support this position. Furthermore, Sabina has stated in many of the supporting documents that the SPW will consist of the positioning of equipment, consumables and fuel at the Project sites, the quarrying of aggregate for construction, and the establishment of basic infrastructure such as a section of all-weather road and an extended airstrip at the Goose Property.

None of the proposed activities pertain to exploration or continued baseline data collection. Without a strong rationale as to why these activities cannot wait until the larger Back River project review is completed, it is difficult to assess the need for this exception application at this time of the review.

AANDC recommends that Sabina revises section 2.0 of the current submission to clearly state reasons why the proposed SPWs should be allowed to proceed now and not after the larger Back River proceed has been reviewed and a project certificate granted.

Sabina Response:

Sabina understands that NLCA Article 12.10.2 was written to allow proponents to proceed with select activities of a project ahead of full approval, provided that NIRB determines that these activities are suitable to proceed because they present lesser effects that are reversible. Sabina believes this article was written in consideration of the short seasonal window to mobilize and construct a project, and the inherent additional cost that presents to proponents in developing a major project. The activities proposed in the SPW application are those that Sabina believes are low impact and will present the greatest advantage in terms of developing the project in a reasonable timeframe.

Interested Party: AANDC	No.: 18
Subject:	

Reference to Application: Appendix H(page 6); Table 2 in Sabina letter to the NIRB (Re: Follow up to Application for Activities considered Allowable as Exceptions to the NIRB Review per NLCA 12.10.2) dated October 20, 2014.

Comment:

Although NIRB Guide 9 clearly distinguishes between exception and exemptions, Sabina appears to be mixing up these terminologies in many instances within the 12.10.2(b) application. For example, in Appendix H(page 6), Sabina states that; the SPW is expected to undergo an environmental screening by NIRB, seeking an exemption or exception from review while in Appendix B (page 1) they state that; Sabina is seeking either exemption or "exception from review" be granted for activities required during two years of site preparation. Furthermore, in its letter to the NIRB (Re: Follow up to Application for Activities considered Allowable as Exceptions to the NIRB Review per NLCA 12.10.2) dated October 20, 2014 to show that precedent exists for activities to be exempted from review, Sabina compiled a list of activities (Table 2) that have been granted exemption or exception by the NIRB. However, all the highlighted projects/activities are 12.4.3 exemptions from screening and not 12.10.2 exceptions. All these suggest that the Proponent might be mistaking 12.4.3 exemptions for 12.10.2 exceptions.

AANDC requests that the Proponent addresses the mix-up in terminology (exemption vs exception) clearly stating that they are applying for an exception and not an exemption from screening, given that the SPWs have already undergone a part 4 screening and referred for part 5 review under NLCA.

Sabina Response:

Sabina acknowledges the inconsistencies identified by AANDC. It was Sabina's intent that the SPW Application be considered as an exception from review under NLCA Article 12.10.2. In building its case for why the SPW application should be allowed to proceed under an exception from review, Sabina highlighted the large number of activities proposed in the SPW application that have already been screened by NIRB (i.e., exempted from screening) as a way of demonstrating the low impact of the proposal.

Interested Party:	AANDC	**No.:**	**19**
Subject:	Permanence of proposed infrastructure		

Reference to Application: Appendix B, Table 7.0-1

Comment:

In section 7.0 (Appendix B, Table 7.0-1), Sabina considers four activities (quarry construction and operation, all-weather airstrip extension, Rascal Lake outflow stream realignment and construction and operation of an all-weather road) to be permanent and the remaining two (ice road and water use & construction and operation of a TLA) as temporary. AANDC agrees with Sabina's classification for all proposed SPWs, except for TLA whose classification as a temporary structure to be decommissioned at the end of the exploration phase of the Project seems to go contrary to the reasoning and Sabina's explanation that the TLA would be established on the footprint of the MLA and used for storage of fuel, material and equipment for future activities (i.e. construction and operation of the larger Back River project). It is thus not clear whether Sabina intends to decommission the TLA and then reconstruct the MLA on the same area or simply transition from TLA to MLA- a more logical approach. If the second option is true, then the TLA will be temporary only if the larger Back River project is not authorized. In the case where the project is approved, the TLA will transition into the MLA and should be considered permanent.

AANDC suggests that Sabina clarifies its classification of the TLA as temporary infrastructure.

Sabina Response:

The TLA consists of modest activities, mainly unloading and storage of materials. Swamp mats will be used to minimize ground disturbance, and double-walled tanks are being used rather than permanent steel tanks, so that the equipment and materials staged at the TLA could be removed from site with relative ease if the main project did not proceed. Therefore, the TLA activities are classified as "temporary". The TLA area is within the MLA but does not overlap in footprint - this is because materials and equipment stored at the TLA will be used (in part) to build the MLA.

Interested Party:	AANDC	**No.:**	**20**
Subject:	Reversibility of Potential Impacts		

Reference to Application: N/A

Comment:

After AANDC's review of Sabina's 12.10.2(b) application documents, it is evident that most vegetation loss due to proposed SPW would be irreversible even after implementation of Sabina's A&R plan considering that the Proponent has stated that: active revegetation of the site as part of closure is not planned given the cold climate setting of the Project as well as the precedent established for closure in Nunavut.

It should be noted that AANDC recommended during the review of DEIS for the larger Back River project that Sabina commits to reconsidering active revegetation in it's A &R plan and Sabina committed to include the potential for re-vegetation research in the Preliminary MCRP in the FEIS (PHC #302).

Furthermore, Sabina has provided no analysis of the reversibility of impacts of the SPW in the 12.10.2 (b); thus making it difficult to assess of the reversibility of impacts of SPWs on the identified atmospheric, terrestrial, freshwater and marine environment VECs as well as human environment VSECs.

AANDC suggests that Sabina assesses the reversibility of impacts of the SPWs on various VECs/VSECs, highlighting expected time frames for VECs/VSECs recovery.

Sabina Response:

Sabina does not believe that discussing the reversibility of all VECs is necessary given the limited scope of these proposed activities. For example, with respect to revegetation, it is generally accepted that (1) active revegetation in this climate is challenging and not well understood; and (2) that natural revegetation will occur but slowly over the span of decades. It is also intuitive that the loss of vegetation associated with the SPW is inconsequential on the scale of the regional study area assessed as part of the overall Project.

Sabina has provided a more detailed analysis of the stream realignment due to the larger potential for adverse residual effects. For example sedimentation/erosion effects were evaluated in Table 5.3-1 of Appendix K (Fisheries Assessment of Rascal Stream). Each of the potential residual effects were deemed reversible as spawning, rearing and migration should re-establish naturally with no intervention once freshet removes any suspended matter. Further, Arctic Grayling have a highly adaptable life history that allows for flexibility in its spawning, rearing and foraging locations which can occur in lakes, streams and rivers.

Interested Party:	AANDC	**No.:**	**21**
Subject:	Alteration of Baseline Conditions		

Reference to Application: N/A

Comment:

AANDC believes that authorization of the proposed site preparation activities (construction of the TLA, extension of the airstrip and RSE realignment, quarrying activities, all-weather roads) to proceed concurrently with the part 5 review could potentially alter baseline conditions and interfere with accurate assessment of the environmental and socioeconomic impacts of the larger Back project currently under review. Furthermore, failure to collect sufficient background before commencement of proposed SPWs could make it difficult to use post-EA monitoring data to evaluate accuracy/efficiency of mitigation measures.

AANDC recommends that the Proponent commits to collecting all baseline data needed for assessing the environmental impacts of the larger Back River project currently undergoing a part 5 review prior to commencement of site preparation works, if approved.

Sabina Response:

Sabina has already collected the bulk of the baseline information required to support the environmental review of the main project. Therefore, the SPW will not interfere with baseline data collection for the main project.