



## **Attachment 1**

# **Responses to KIA, CIRNAC, and ECCC Comments on Sabina's Request to Modify Schedule I of 2AM-BRP1831**

**September 4, 2019**

# Table of Contents

---

Table of Contents .....	1-1
1. Response to Kitikmeot Inuit Association .....	1-1
2. Response to Crown-Indigenous Relations and Northern Affairs Canada .....	2-2
2.1 Effluent Pipeline and discharge rate (CIRNAC-1) .....	2-2
2.2 Monitoring (CIRNAC-2) .....	2-2
3. Response to Environment and Climate Change Canada .....	3-3

## 1. Response to Kitikmeot Inuit Association

---

Sabina thanks the KIA for their comments and for their agreement with the proposed changes to the monitoring frequency related to BRP-42.

In clarification, the monitoring associated with BRP-42 is proposed to take place on land, along the effluent release pathway, and prior to entry of the water into the ocean. The effluent release pathway has been identified based on an analysis of the surface topography as mapped in Figure B-02 of Attachment 2 of Sabina's application. The resultant proposed sampling location is depicted by a black circle in this figure.

As with other Water Licence monitoring stations, the exact monitoring location will be determined in the field and in consultation with the Inspector. This is in accordance with Water Licence 2AM-BRP1831 Part I Item 6, which states that "The Licensee shall establish the locations and GPS coordinates for all Monitoring Program Stations in consultation with an Inspector". The location selected will be the drainage downslope of the discharge point, upslope of the ocean, and closest to the proposed BRP-42 location. If there is ambiguity in the selection of the appropriate sampling location, additional Inspector input will be sought.

Sabina hopes this has addressed the KIA's additional requested clarification.

## 2. Response to Crown-Indigenous Relations and Northern Affairs Canada

---

### 2.1 EFFLUENT PIPELINE AND DISCHARGE RATE (CIRNAC-1)

The MLA Camp is intended to support seasonal use by a small complement of personnel during the operation of the winter ice road and receipt of the summer sealift. As such, domestic water use and greywater discharge is limited and analogous to that of a small exploration camp. As an example, during the 2019 summer season, when the MLA was opened for bulk fuel tank construction and receipt of the 2019 Sealift, camp water usage averaged 1.3 m<sup>3</sup>/day. MLA greywater is discharged directly onto the tundra via a small diameter flexible pipe; no erosion or channeling has occurred as a result of the 2018 or 2019 discharges. To prevent potential future impacts, Sabina will further diffuse flow and reduce channelization potential by placing an aggregate pad underneath the point of discharge.

### 2.2 MONITORING (CIRNAC-2)

Water Licences for greywater systems associated with small camps like the MLA camp typically only require monthly sampling of sewage effluent discharge. This has been the case for Sabina's activities for approximately 10 years (Goose Lake Exploration Camp (2BE-GOO1520), and MLA Pre-Development Type B Water Licence (2BE-GEO1520) and is common in exploration and construction camps. Given this standard, along with the limited scale of activities at the MLA and the observation that no erosion or channelization impacts have occurred to date due to this discharge, Sabina maintains that monthly sampling is sufficient. Additional mitigation (discussed in response to CIRNAC-1) will further reduce the potential for localized impacts. Sabina also notes that the KIA and ECCC have both indicated support for monthly sampling.

Sabina thanks CIRNAC for their comments and hopes the additional information provided addresses the requested clarification related to BRP-42.

### 3. Response to Environment and Climate Change Canada

---

For camps and effluent type generated at the MLA, the regulated monitoring as proposed in the Type A Water License (2AM-BRP1831) is more stringent than general monitoring requirements proposed for similar scale projects. Most camps of equivalent scope and scale, greywater (excluding blackwater) are not regulated but rather simply monitored. This is how greywater is managed presently and historically at Sabina's Goose Lake Exploration Camp (2BE-GOO1520), and how greywater was managed at the MLA under the pre-development Type B Water Licence (2BE-GEO1520). As mentioned in the CIRNAC response, the MLA Camp is intended to support seasonal use by a small compliment of personnel during the operation of the winter ice road and receipt of the summer sealift. As such, domestic water use and greywater discharge is limited and analogous to that of a small exploration camp. As an example, during the 2019 summer season, when the MLA was opened for bulk fuel tank construction and receipt of the 2019 Sealift, camp water usage averaged 1.3 m<sup>3</sup>/day.

Sabina reconfirms that the regulated monitoring parameters and updated compliance monitoring location should be changed to accurately reflect receiving environment guidelines adopted by the NWB and used in general practice in Nunavut. The terrestrial environment is part of the effluent treatment system and acceptable quality should be assessed just prior to entering the marine receiving water given that the overland flow path is predicted to potentially provide additional treatment (settling and potential wetland treatment).

Greywater will meet the ocean disposal at the marine environment consistent with the Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories (NWTWB 1992) (Guideline) adopted by the NWB, the effluent criteria for BOD and TSS in the marine "receiving environment" under mixed conditions for a bay or fjord with BRP- 42 location as proposed by Sabina.

Sabina re-iterates the commitments made in the NWB approved Water Management Plan for protection of the receiving environment and effective mitigation:

- Greywater from domestic use at the MLA will be pumped through an oil and grease separator prior to discharge to the tundra.
- Greywater will be discharged through a designated pipeline to a relatively flat, non-channelized area on the tundra in an area of low slope to minimize velocities, encourage sheet flow, and minimize channelization.
- The discharge will be directed towards gravel beds or rock to reduce water velocities as appropriate.
- To maximize attenuation, the expected flow path to the nearest receiving environment (Bathurst Inlet) will be greater than 1.5 km. This is due to the gently sloping topography extending to the west and north of the discharge location.

Sabina thanks ECCC for their agreement with the proposed changes to the monitoring frequency related to BRP-42.