

The Town of Canmore, Cougar Creek Debris Flood Retention Structure Project  
Supplemental Information Request 2

Water Act File No. 00384210  
NRCB Application No. 1601

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## Acronyms

The following acronyms are used in this Supplemental Information Request.

EIA	Environmental Impact Assessment
SIR	Supplemental Information Request

## 1 General

### 1. Supplemental Information Request 1, SIR37, Page 3-9

The Town of Canmore indicated in the SIR response on page 3-9 that Piikani Nation and Tsuut'ina Nation were provided a summary of rare plant observations on the Project site. Upon review of the bi-monthly consultation reports, it appears that the Blood Tribe was also provided the summary document. This occurred on March 18, 2016.

- a. Were any other First Nations provided a summary of rare plant observations on the Project site?

### 2. Supplemental Information Request 1, SIR37, Page 3-9

The Town of Canmore indicated in the SIR response document on page 3-9 that *consultation meeting and site visits occurred before the completion of the environmental assessment*, therefore, information about the potential for direct loss of rare plants and traditionally used species was not explicitly communicated. The Town of Canmore has also agreed to provide each First Nation community with project updates *at key points during the EIA review process* (Section 3.2.1, Page 3-3).

- a. Explain whether any First Nation has brought up any questions or concerns regarding the potential direct loss of rare plants and traditionally used species since the submission of the environmental assessment. Will the mitigation measures be communicated to the First Nations who originally inquired about rare and traditionally used plant species?

## 2 Water

### 2.1 Hydrogeology

### 3. Supplemental Information Request 1, SIR63, Page 5-5

- a. Explain the rationale for considering river hydraulics in the assessment of the hydrology component.
- b. Confirm what methods were used in the hydrology, hydraulic and geomorphic analyses. In addition, provide more detailed information about the approaches, assumptions and results of the hydrology, hydraulics and geomorphic assessments to help gauge the impacts of the project.

### 3 Terrestrial

#### 3.1 Wildlife

4. **Supplemental Information Request 1, SIR 141, Page 6-60**

- a. Given the high degree of public recreational use of the area, describe the effects of human use on wildlife use amongst the Cougar Creek mitigation, and how those effects will be mitigated to allow wildlife use of the area?

### 4 Incidents, Malfunctions and Retention Structure Safety

5. **Supplemental Information Request 1, SIR155, Page 8-1**

The Town of Canmore states that *There are only five parcels that are available for development in the Cougar Creek area... This increase in residential units in the area would increase the population... by less than 0.5%.*

- a. Clarify how many residences could be associated with the five “parcels”.
- b. Clarify whether “the area” is the potentially inundated area, the town area, or the alluvial fan.

6. **Supplemental Information Request 1, SIR159, Page 8-6**

The overall project footprint is shown on Figure 4.1-2.

- a. Was construction access of the tunnel option included in the project footprint? If so, explain where this information is located within the EIA. Explain how the project footprint of the tunnel option includes construction access, stockpile areas, and any other areas that will be disturbed. If the tunnel option was not included in the project footprint explain why this was left out.

7. **Supplemental Information Request 1, SIR164, Page 8-22**

**Supplemental Information Request 1, SIR183, Page 8-50**

The Town of Canmore states that there would be three effects of the sediment and debris conveyed during a dam breach event: higher impact forces, debris deposition, and increased potential blockage of culverts. The Town of Canmore states *the potential inaccuracy of the model [i.e., ignoring these effects] does not affect the classification.*

- a. Clarify whether the debris deposition and culvert blockage could also produce higher flood levels and greater inundation extents. If so, clarify whether those effects are considered in the consequence classification. Discuss whether application of a safety factor to the calculated depths or inundation limits may be appropriate to account for the potential inaccuracy of the model.

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**8. Supplemental Information Request 1, SIR167, Page 8-29**

The preparation of the Geotechnical Design Basis Memorandum (90% Design Stage) preceded the tunnel option therefore it does not make any reference to the tunnel. There are horizontal drill holes however these are limited in number and do not appear to intercept the tunnel alignment.

- a. Confirm whether the review board, who suggested the tunnel option, concurs that the existing data and information is sufficient for design purposes.

**9. Final Terms of Reference, Incidents, Malfunctions and Retention Structure Safety, 7[G]**

- a. Provide information on the potential downstream effects of a dam failure beyond the Town of Canmore. Potential effects to downstream municipalities and additional stakeholders, such as the Stoney Nakoda Nation and the Bow River Basin Council, should be added to cover off their concerns. If no concerns are expected, make the statement.