Hamlet of Grise Fiord Application for Type B Water Licence

Executive Summary

Prepared 08 December 2025 by Worley Consulting

The Hamlet of Grise Fiord (Hamlet) is submitting an application for a Type B water licence for the construction of a prefabricated pedestrian bridge across Airport River. At the proposed crossing, the high-water mark of the river exceeds 5 m in width and will therefore require a water licence under the *Nunavut Waters Regulation*. The bridge will provide safe and long term access across Airport River and reduce existing impacts from the temporary culverted crossing, as well as avoiding exposure to winter polar bear activity along the shoreline. The project site is located on Hamlet land, approximately 200 m upstream from the main bridge. No negative effects on neighbouring persons or property are anticipated.

The majority of flow in Airport River is from snow melt and runoff, with peak flows occurring in July and August and low or negligible flows from October to early May. Airport River is not fish-bearing based on community knowledge. The proposed crossing will not affect existing water rights. The Hamlet's drinking water supply is currently sourced through collection of snow-melt water from surrounding watersheds.

Construction impacts are anticipated to primarily result from potential erosion and sedimentation due to vehicle transits within the riverbed area and the installation of cellular metal bin foundations below the high water mark. Water usage will be minimal and limited to concrete production if pre-cast foundations are not used. Construction waste will potentially be comprised of wood used for concrete forms and inert non-hazardous wastes from packaging. Mitigation measures to mitigate impacts to downstream water quality will include:

- In-stream construction activities will take place during low flow conditions;
- All equipment and fill materials will be clean and free from deleterious substances, and will be operated from backshore, above the ordinary high water mark;
- Where in-stream vehicle transits or access is required, construction activities will make use of the existing earthen crossing to minimize vehicle impacts to the riverbed;
- A spill response and emergency response plan will be in place;
- Erosion and sediment control measures such as silt fences will be installed where required.

Construction is expected to commence in late August and be completed during the 2026 construction season. Construction duration is expected to be 3 – 6 weeks following the sealift delivery of materials but the Hamlet is seeking a three-year term to account for potential schedule delays.