
Chute-Bell Hydropower Facility : Improvement of discharge capacity

Chute-Bell hydropower facility location

The Chute-Bell hydropower facility is located on the Rivière Rouge, in Grenville-sur-la-Rouge.

Commissioned in 1915 by Hawkesbury Electric Light and Power, the facility includes a run-of-river generating station that has two generating units with an installed capacity of 11.1 MW and a weir equipped with an inflatable crest.



Background

During the 2019 spring flood, the Rivière Rouge attained a record hourly flow rate of 990 m³/s. Water inflow projections indicated that the facilities would be facing a safety check flood. Hydro-Québec thus informed the Ministère de la Sécurité publique.

To ensure the safety of residents, the decision was taken to evacuate a few dozen homes as a preventive measure. To prevent the recurrence of a similar situation in the future, Hydro-Québec will carry out major work in fall 2019 and winter 2019-2020 to improve the discharge capacity of Chute-Bell's existing structures.

Project

The solution selected is to discharge about 90 m³/s of water from the generating units. Complementary work will also be carried out:

- Installation of anchors on part of the weir's crest
- Removal of a concrete wall
- Removal of the upper portion of the inflatable crest's anchor wall
- Excavation of bedrock on the right bank

Project schedule

Exploratory work – Left and right banks: Fall 2019

Civil work – Right bank: Fall 2019 – Winter 2019-2020

Work in the generating station: Fall 2019 – Winter 2019-2020

If work in the generating station is completed before the 2020 spring flood, and if water flow permits it, the inflatable crest will be removed.

Anticipated impacts to surrounding areas

Drilling, rock excavation, and concrete demolition work may result in increased noise levels. All work should be completed by March or April 2020.

The work will be carried out weekdays, between 7 a.m. and 6 p.m., although weekend work may be required on an exceptional basis to meet deadlines or perform specific tasks.

Required government authorizations

Provincial authorizations

- Ministère de l'Environnement et de la Lutte contre les changements climatiques
 - *Environment Quality Act*: Section 22
 - *Dam Safety Act*: Section 5
- Ministère des Forêts, de la Faune et des Parcs
 - *Act Respecting the Conservation and Development of Wildlife*: Section 128.7

Federal authorization

- Fisheries and Oceans Canada
 - *Fisheries Act*: Section 35

For information

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