

Muskrat Falls Generation Project Stakeholder Update

Managing Safety, Ice and Debris at the Muskrat Falls Generation Facility

Over the coming month, work will take place to install a Log, Ice, and Safety Boom in the river about one kilometre upstream of the Muskrat Falls facilities. We've prepared some information to help explain what the boom is and why it is required to be installed.

What's a boom and what does it look like?

The boom will have yellow floating pontoons connected to a series of chains, cables and anchors spanning across the river about one kilometre upstream of the facility. It serves three main purposes:



Safety: It's a barrier to keep river users a safe distance from the potential dangers around the spillway, guide them safely to the north side of the river, and provide a visual warning as river users approach the facilities.

Ice Management: During winter freeze up it will help create an ice cover on the river upstream of the facility, preventing ice from flowing through the spillway and forming an ice dam in the river downstream of the facilities.

River Debris: It catches debris (branches, logs) in the river upstream of the facility, enabling it to be removed safely before heading through the spillway and downstream.

Why must the water level in the reservoir be raised to install the boom?

This step is being taken to ensure the safety of the workers who are installing the boom in the river. Raising the water level in the reservoir reduces the speed of the river flow, and a minimum water level of 21.5 m is required to undertake this work safely.

When will the boom be installed and how long does it take to install?

For workers' safety, the boom cannot be installed until water levels upstream of the Muskrat Falls facility reach at least 21.5 m above sea level. Installation of the boom across the river will take about four weeks. This work is expected to begin by the end of September 2017.

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The boom wasn't installed last fall. Why does it need to be installed this winter?

While the boom installation was scheduled for last fall, it was not completed as planned. The boom is an important safety measure that will prevent the creation of an ice dam below the site. It will also protect the site from water and ice build up that could damage the facilities over the winter. Formation of the ice dam has raised water levels around the construction site in previous years, and if this happens it could put facilities at the construction site at risk of being flooded. Installation of the boom is the best mitigation for this risk.

How does the boom protect the site during the winter?

During the start of winter freeze up the boom helps support the formation of an upstream ice cover that ultimately protect the facilities from the potential of ice and water damage.

Here's how that's done: each year, a natural ice dam forms downstream of Muskrat Falls. As temperatures get colder and ice is naturally added to the downstream ice dam, this could cause ice and water to back up in the river and into the powerhouse, cofferdam and spillway areas. If this happens it could cause significant damage to the facilities and also put workers at a safety risk. By installing the boom, this will help form an ice cover upstream of Muskrat Falls, reducing the size of the ice dam below the falls, as well as eliminating the risk of water backing up into the facilities and causing damage.

How does the boom remove the logs from the river?

As the Muskrat Falls reservoir continues to be created, logs and other debris may travel downstream in the spring, summer and fall with the flow of the river. The boom will be in place to collect the debris before it flows past the spillway structure and into Lake Melville. Equipment will then be used to pull the logs and material out of the river safely.

Once installed how long will the boom stay in place?

The boom is a permanent piece of equipment and is part of the safety requirements for the ongoing construction and operation of the Muskrat Falls facilities. Booms are standard pieces of safety equipment for hydroelectric sites.

Contact Us

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CONTACT US

For more information or to speak to a member of our team, contact us:

1-888-576-5454

lowerchurchill@nalcorenergy.com

 Twitter: @nalcorenergy

 Facebook: facebook.com/nalcorenergy