

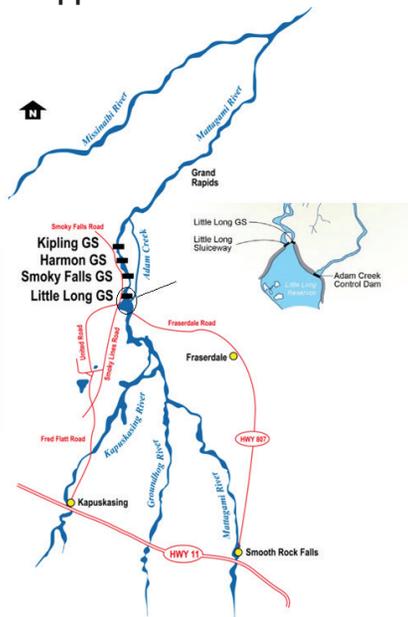


# Little Long Dam Safety Project

## Benefits

The Little Long Dam Safety (LLDS) Project will allow OPG to meet dam safety legal requirements, help avoid infrastructure and operational impacts to the four generating stations on the Lower Mattagami River and reduce impacts to the environment in the event of a very large scale flood.

This project will also provide local employment and commercial opportunities.



## Generating Stations

The Lower Mattagami River Hydroelectric Complex is comprised of four hydroelectric generating plants; Little Long Generating Station (GS), Smoky Falls GS, Harmon GS and Kipling GS. These facilities are located approximately 90 km north of the Town of Kapuskasing, Ontario, on the Lower Mattagami River and are owned and operated by Ontario Power Generation (OPG) and the Lower Mattagami Limited Partnership which is a partnership between Moose Cree First Nation and OPG.

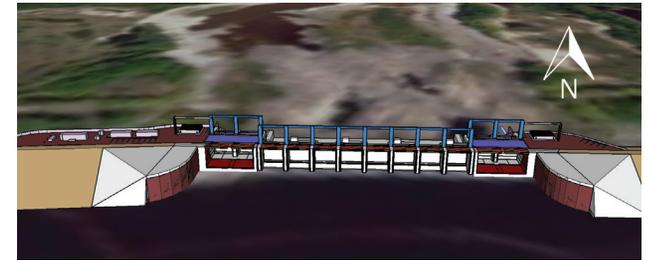
The combined stations have a capacity of 924 MW and operate as peaking stations. Smoky Falls GS was recently rebuilt as it was originally smaller than the other stations. This newly rebuilt station is also known by its Cree name, Kâpâškilehtek. A third unit was also added to each of the other stations to increase overall capacity of the complex. No modifications were made to existing spillway structures or dams during this redevelopment project.

## New Dam Safety Classification

In 2011, the Ministry of Natural Resources and Forestry (MNR) updated the Ontario Dam Safety Guidelines. These guidelines classify dams based on life safety, environment, cultural/ built heritage and property losses. As a result, the Hazard Potential Classification (HPC) has been updated by OPG to “very high” for Little Long Main Dam due to the high value of the potential property losses associated with the new generating units in the event of a very large flood.

## What is OPG Proposing to Do?

The new dam safety classification determines the appropriate Inflow Design Flood (IDF) discharge capacity for Little Long GS. The new IDF discharge capacity is calculated at 8,680 cubic meters per second (m<sup>3</sup>/s). However the current discharge capacity of the Little Long and Adam Creek Sluiceway structures is only 6,090 m<sup>3</sup>/s resulting in a discharge deficiency of 2,590 m<sup>3</sup>/s. The discharge capacity at Adam Creek will be increased in order to overcome this deficiency.



OPG has completed the preliminary engineering phase of the project. During this phase the project has determined that the preferred method to meet the new requirement is to add two new sluice gates on each side of the Adam Creek Sluiceway structure which currently has 8 sluice gates.

While there would be additional discharge capacity to help in the event of a very large flood, normal day to day operations would continue to be in compliance with the water levels and flows outlined in the Mattagami River System Water Management Plan. OPG will be adding more capacity to control the water but not more water.