

Public Information Package

Brooks Falls Small Hydro Electric Project

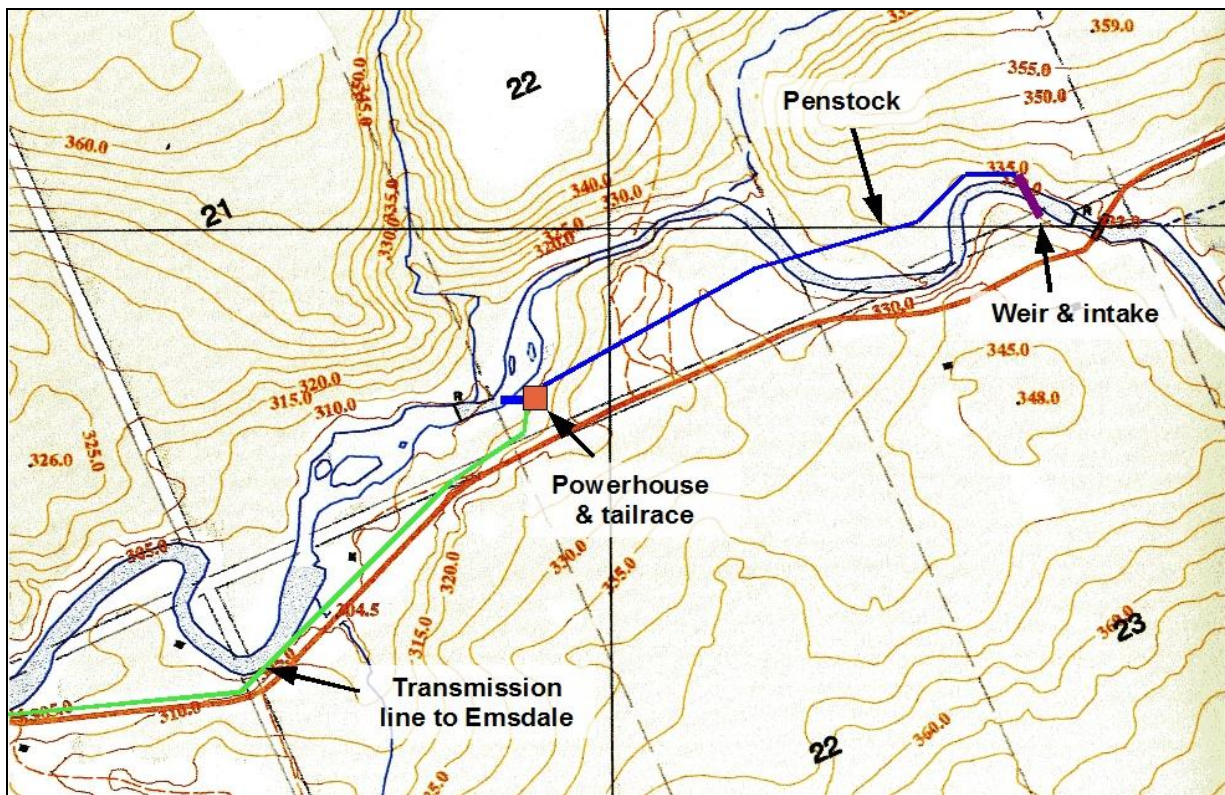
Background

There is currently a very good opportunity for a small scale hydro-electric facility on the Magnetawan river at Brooks Falls in Perry Township. The Ontario Green Energy Act makes it possible for small renewable energy projects to be economically developed – these projects have a much smaller environmental footprint than large scale projects, and also help reduce the need for coal fired power generation in Ontario. These small scale projects have the further advantage that they create and support short and long term jobs in communities all over the province, and in the case of this proposed project, will also enable local residents to share in benefits directly.

Project information

Over the course of the last two years a number of studies and environmental assessment work has been done to evaluate the site. It has been determined that the elevation drop and mean flow allow for a small scale hydro-electric facility of about 990 kW to be developed with minimal disruption of the aquatic environment or natural setting and site aesthetics at Brooks Falls. The small 990 kW run-of-river hydro power project being proposed would use only part of the water in the river for power generation and continue to allow the use of the park and visitors to enjoy the falls and natural beauty of the area. The project would be a true run-of-river project (which has the lowest environmental impact), i.e. there is no damming of the river or upstream water storage, just a low weir for directing some of the water into a pipe (referred to as a penstock) that leads to the “powerhouse” where the turbine and generator is situated. The same water is then released back into the river.

The map below indicates approximately where these components would be located.



The penstock from the intake weir to the powerhouse would be mostly buried and not visible for the most part, and for its entire length in the park. The powerhouse would be designed and constructed in as unobtrusive a way as possible and integrated into the landscape. The existing electrical grid is close by, and the connection would have no noticeable impact on the park.

Because the project would be run-of-river, it has to be adaptable to the various amounts of water flowing in the river during various times of the year. Only a short section of the river is proposed to be bypassed by the penstock. In this section, during periods of high flows, like in the spring and usually in the fall, it is unlikely that operation of the plant would even be noticed by any visitors. In the winter, when the park is seldom used, a lower amount of water would be flowing in this section – comparable to about the same amount as usually in the middle of the summer. During periods of low flows, like in the middle of the summer, or drought, if there is sufficient water, the plant will be operated at a much lower capacity, in order to still allow sufficient water flow in the river. Otherwise the plant will be temporarily shut down until the volume of water in the river increased sufficiently again, this is to continue to allow sufficient water not only for park visitors, but also importantly to continue to allow for a healthy aquatic habitat. It is also not technically viable to run the turbine at very low flows, so in other words, there is no scenario where the river would be “run dry”.

The entire project, during and after construction would take public safety into account, for example, the intake structure would be guarded by a secured screen and the powerhouse would be inaccessible to the public.

Benefits

While the project is not large, it would most certainly have a definitive positive effect on the local economy, from sourcing of materials, making use of the local expertise and workforce to the creation of long term operation and maintenance schedules, all would benefit the community directly. The landowners on whose property the project is built (that includes the Township) would also benefit from financial compensation. In addition, special provision will be made for local residents that which invest and share in the long term financial benefits from the project, by offering them a very favourable return on investment. The project would truly be of long-term value and present a lasting investment in the area, with the potential to really benefit the Township and whole community.

Contact

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