

interconnexion

Brookfield Renewable's Lièvre Region **Newsletter**

Summer 2019

A makeover for the Dufferin dam

Two centuries of industrial and economic activities is what shapes the history of a community! And in the Buckingham sector, two structures bear witness to this rich history the Dufferin hydroelectric generating station on the east side, and the dam of the same name on the west side.

As early as the 1820s, the site was home to two sawmills built by Americans who had emigrated from Massachusetts. Over the years, a pulp mill was added, along with a crosscutting plant to process logs that had been floated down the river. A large wooden dam already existed for the pulp mill in the beginning of the 1900s.

As time passed and technology advanced, the sawmills vanished in the 1930s, followed by the pulp mill and the crosscutting plant. Today, the site is occupied by the Dufferin hydroelectric station built in the late 1950s and its concrete dam, located parallel to the Brady Bridge.

Since the beginning of the summer, workers have been busy with the second phase of repairs to complete the refurbishment of the dam. Completely new, the dam will have a lifespan of many additional decades.

This project is part of an investment program for major works, which will guarantee the safety and sustainability of the structures in compliance with today's standards.



The dam and the sawmill on the eastern bank of the Lièvre, in about 1930, the site of present-day Maclaren Park. *Credit : Société d'histoire de Buckingham*

PROTECTING THE ENVIRONMENT

Great care went into the planning process of the project to reduce the impact of the work on the neighbourhood. The environmental protection measures governing the site are also very strict.

"Biologists will be on site to transfer any fish present when the work zone is drained," explains Mathieu Nadeau, an engineer with Brookfield Renewable. "By pumping out the water, workers will be able to work in dry conditions, and the water will also

be filtered before it is returned to the river. In addition, the same rocks will be used to build the temporary dykes for both phases, thereby avoiding hundreds of trips by incoming and outgoing trucks."

With their long history of producing clean energy, the Dufferin dam and hydroelectric station will continue to be an asset for the region for many years to come.

Historical information:
Société d'histoire de Buckingham
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A VISIT THAT LEFT A LASTING MARK

Credit : Société d'histoire de Buckingham, collection Jean Bastien

In the summer of 1876, Lord Dufferin, Canada's Governor General, accompanied by his wife, Lady Dufferin (see photo), visited the Lower Lièvre. They travelled several kilometres up river in a coach and then boarded a small steamer for High Falls. In their honour, the name "Dufferin" was given to the falls and later, to the dam built at the same location.





For more information, visit www.cobali.org or call 819-440-2422 to speak to a member of the COBALI team who will be happy to answer your questions on aquatic ecosystems.

The Lièvre safe from Asian carp?

Voracious and invasive, Asian carp have disrupted the ecology of numerous waterways along the Mississippi River in the United States. The four species of Asian carp that have colonized these rivers and lakes overtake them to the detriment of native species that were living there in harmony.

The grass carp, one of the four species of Asian carp, has been observed in some locations along the Saint Lawrence River. Last year, the government asked watershed organizations, including COBALI, to identify obstacles that the carp could potentially cross in Quebec's main waterways, in order to assess the risk of invasion by this species.

The good news is that the Lièvre is not under threat. The rapids and dams near Masson, at the mouth of the river in the Ottawa River, are practically impassable, regardless of the time of year. The region's lakes and rivers are therefore safe from this ecological invader, unless it is unwittingly introduced by a pleasure boat.

To report a carp sighting: <https://mffp.gouv.qc.ca/la-faune/especes/envahissantes/carpes-asiatiques/>



Charles Tisseyre with the Cobali team
Photo credit: COBALI

Forum *On s'adapt'eau climat!*

Flooding, heavy rains, freeze-thaw cycles, warmer water temperatures and the transformation of wetlands: climate change has very real consequences. In addition to countering them, it is now essential that we mitigate their impacts and adapt to these changes.

This was the spirit in which COBALI held its forum *On s'adapt'eau climat! Outaouais-Laurentides* in Mont-Laurier on May 23, attracting more than 300 people. The event, whose honorary president was the well-known journalist Charles Tisseyre, presented a portrait of the region's climate up to 2050 horizon and identified avenues for adapting to current and future climactic changes.

"It's not enough just to talk about climate change: we need to act," asserts COBALI's general manager, Janie Larivière. "We have brought together municipal representatives, scientists, elected officials and public stakeholders to address these questions, which will directly affect us and future generations." www.cobali.org/forum2019 or [facebook.com/OBVcobali](https://www.facebook.com/OBVcobali)

2018-2023 ACTION PLAN

COBALI has revised and updated its Master Water Plan, which serves as a roadmap for ensuring the protection and promotion of water-related resources. It includes an action plan for 2018-2023 that addresses four main issues:



Eurasian water milfoil is a threat to many waterways in the region.

WATER QUALITY

- Reduce sources of pollution
- Promote and apply good citizen practices in various areas of activity (municipal, forestry, farming, etc.).
- Support local players in taking concrete measures and acquiring knowledge



The spring flooding in 2017 and 2019 highlighted the risks posed by climate change.

WATER QUANTITY

- Limit risks associated with flooding
- Establish strategies for adapting to climate change
- Promote tap water for drinking



Wetlands represent immense ecological wealth. These environments offer ecological goods and services to the population thanks to the resources and functions they maintain.

ECOSYSTEM

- Encourage the conservation and restoration of wetlands and water environments
- Limit the impact of invasive species
- Support re-establishment of endangered and declining species



The region's waterways are heavily used, and invasive species can enter new lakes via pleasure boats and trailers.

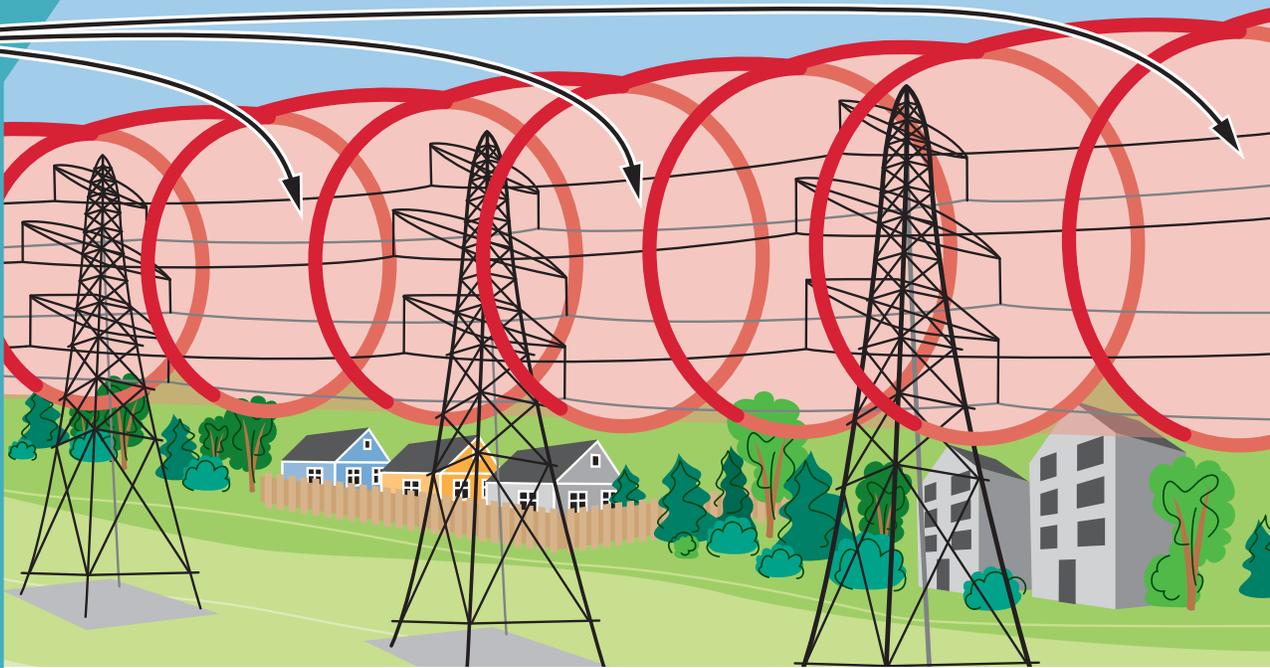
ACCESSIBILITY AND SOCIAL ASPECTS

- Encourage harmonious cohabitation on lakes and rivers
- Prevent the introduction of invasive aquatic species, in particular by ensuring that watercraft travelling on several waterways are cleaned



Warning: DANGER!

Brookfield Renewable operates power lines that cross the municipalities of Val-des-Monts, Notre-Dame-de-la-Salette and l'Ange-Gardien, as well as the Buckingham and Masson sectors of the city of Gatineau. Their voltage is 120,000 V —a thousand times higher than an ordinary electrical outlet. If you live, work or travel near these power lines, you should be aware of basic safety information.



Safe DISTANCE



Electricity always seeks out **the shortest pathway** to the ground. It can travel along the string of a kite, a tree branch, a ladder, a truck's boom crane or any other object that comes into contact with or is in the proximity of power lines, without even touching them.

Any object **less than five metres** from a power line could give you an electric shock that could be lethal.



DANGER zone

Electrical arcing can occur when a person or object approaches a power line, even without making direct contact. The current could make the leap and electrocute you.

The pale red zone in the illustration shows the five-metre danger zone around electrical wires in all directions. **Keep your distance!**

REMEMBER...



Kites, drones and remote-controlled airplanes can get dangerously close to power lines. Talk to your children about suitable places to use these items.



Use great caution when installing and using **scaffolding and ladders**, since they conduct electricity.



High-powered spray guns can produce impressive continuous jets of water. Exercise caution when using them near electrical installations.



Smoke from a campfire contains particulate that can conduct electricity. Never build a fire under power lines.



CALL 911

immediately if you see a severed power line, a damaged tower or an object touching a line. Never approach it.



CHECK FIRST!

If you are planning to trim or cut down trees or use heavy equipment less than 30 metres from Brookfield Renewable's high-voltage lines, take all the necessary precautions. Before you start, call **819-986-4628** or write to infolalievre@energiebrookfield.com.

INFO LA LIÈVRE

Keep informed!

If you have any questions or comments about Brookfield's Lièvre region operations, call Info La Lièvre at 819-986-4628, 1-877-986-4364 (toll free) or send us an email at infolalievre@brookfieldrenewable.com.

YOUR QUESTIONS AND FEEDBACK ARE ALWAYS WELCOME! For more information on water levels, visit us at www.lievriverpower.com.



A dynamic community partner, one project at a time



The dams on the Lièvre are designed and maintained to be safe and to be able to handle much more water than the 2019 runoff.

Another heavy—and exceptional?—spring runoff

This spring, municipalities and shoreline residents in many sectors of the Lièvre River's watershed saw waters rise much higher than normal for the second time in three years, and even the third straight year in the northern part of the watershed.

For an idea of the scope of the phenomenon in 2019, at the height of the freshet, the water in the Lièvre River equaled more than 18 Olympic-sized swimming pools flowing into the Lac du Poisson blanc reservoir every minute. A maximum average runoff is still an impressive 10 swimming pools per minute. The peak for 2019 was nearly double the average runoff!

Like every spring, the Lac du Poisson blanc, Kiamika and Mitchinamecus reservoirs held back huge quantities of water to protect the people living downstream, from the Lower Lièvre to the Montreal region, including Notre-Dame-du-Laus, Notre-Dame-de-la-Salette and L'Ange-Gardien. The reservoirs play a crucial role in protecting against floods. In drier periods, they maintain the current in the river and mitigate severe droughts.

Neighbours help each other out. This is the spirit that guides Brookfield Renewable's donations program in the communities where it operates. Every year, 40 to 50 organizations in the Lièvre Valley, active in healthcare, education, the environment and community life, obtain financial support from the company to contribute to the region's vitality and quality of life.

Many organizations have benefited from Brookfield Renewable's support for over 10 years. Examples include Carrefour culturel ESTacade (Gatineau and L'Ange-Gardien), Club des



Roxane's world

Roxane is a typical 16-year-old teenage girl, bursting with energy and smitten with her boyfriend, Alex! She is also the heroine of a workshop to prevent violence in teenage relationships between teenagers.

The Roxane project by the Maison d'Hébergement Pour Elles Des Deux Vallées in the Lower Lièvre offers teens an immersive experience. Along an 11-metre-long structure, they follow the development of a teen couple's relationship, identifying signs of violence in the process. Then, specialized youth workers invite them to discuss and reflect further on the question.

"If we want to eliminate violence, we need to show that it's not normal and to promote equality in couple relationships," says Annick Brazeau, executive director of the Maison d'Hébergement. "We want to change things and focus on prevention."

Brookfield Renewable is one of the key partners in this multi-year initiative, which will be presented to Secondary 4 students in the region's schools. Eight shelters in the region are taking part in the project.

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laboueurs de Notre-Dame-de-la-Salette, Centre Ressources Jeunesse (Notre-Dame-du-Laus), the Association des coureurs en canot de la Lièvre (Mont-Laurier), Hormisdas-Gamelin secondary school (Buckingham sector) and Ressource Jeunesse in Val-des-Bois and Bowman.

Through agreements offered for free, Brookfield Renewable also makes its land available to municipalities and their residents, including Maclaren Park and several cycle paths in the Lower Lièvre, as well as the site of the municipal water supply intake in Val-des-Bois.



Artist Denis Marceau created the work *Vague et vent de changements* during the 2017 symposium in Plaisance. This year, he is one of the distinguished guests in Val-des-Bois.

L'énergie de la Lièvre: an art symposium in Val-des-Bois

The summer season will end with a bang this year in Val-des-Bois. The Centre d'action culturelle of the Papineau RCM will be presenting a large outdoor public art project from August 31 to September 8.

Eight artists have been invited to participate in the onsite Art Symposium, whose theme is "L'énergie de la Lièvre." The works they create from the ground up will be permanently installed along an itinerary near the community centre. The theme is a tip of the hat to the site's impressive history and geography.

"This exceptional event will bring artists together with the public," says Émilie Laverdière, the Centre d'action culturelle's executive director. "Residents will even have an opportunity to make their mark by taking part in creating a work in the heart of the village, reflecting who they are. We'll really delve into daily life in the community."

Brookfield Renewable is one of the sponsors of this event, which reflects the new vitality in the sector around the Val-des-Bois community centre, opened in 2018.

Don't miss it!

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