

smartrek

Real-time Production Management at  
Érablière Pascal Thériault, in New-Brunswick.

**APPLICATION:** Sugar bush

**SURFACE AREA:** 30 hectares  
(60,000 taps)

**LOCALIZATION:** Saint-Quentin, NB

**COMMISSIONED:** 2013

**CONTACT:**

Pascal Thériault  
Owner  
(506) 745-8909

## CONTEXT

Pascal Thériault's maple syrup business began in 2008 when he tapped 8,000 maple trees from a 30-hectare public land in Saint-Quentin, New Brunswick. At the time, he had to bring the sap to a different site, where he would boil it in order to produce the syrup. The following year, he expanded his operations to add 15,000 trees, which were located at a significant distance from the first lot. As a result, he realized that monitoring three different sites was becoming increasingly difficult for him and his single employee.

That is why Mr. Thériault acquired his first Smartrek sensors from H2O Innovation in 2013, which he installed on his first lot of 8,500 trees. In 2014, his sugar bush expanded again with the addition of 22,000 trees on a third site. To facilitate his production management, he installed new sensors at strategic locations. As of the 2022 season, Thériault had six employees and 60,000 taps, and the water was piped underground to his own sugar shack, which he built in 2016.

## PROJECT CHALLENGES

Generally speaking, one of the greatest challenges that maple syrup producers face is ensuring that the tubing network is watertight, since leakage inevitably results in reduced yield. Managing leaks in a maple grove as large as Mr. Thériault's requires a considerable amount of manpower and time spent onsite to make sure the system is working properly and to deal with any problems that arise.

## SOLUTION

Given the labour shortage in Mr. Thériault's area and the size of his sugar bush, the patented Smartrek leak monitoring technology offered by H2O Innovation proved ideal for his needs. The sensors are strategically placed in the forest and collect data that is then transmitted via radio waves to an application that generates comprehensive and user-friendly reports. These reports, which are issued in real time, pinpoint the location of the leaks and make it easier for the employees to fix them.





### RESULTS



With the Smartrek system, walking through the whole maple grove to examine the tubing and find leaks is no longer necessary, since the owner can go directly to the source of the problem to solve it. This represents significant savings in both time and money for the maple syrup producer. Furthermore, the sensors allow Mr. Thériault to check the water level in the tanks and to start the pumps remotely should the need arise. He can even monitor the temperature inside his main building and start the generator remotely to avoid breakage due to freezing.

Beyond the performance benefits, the monitoring system provided by H2O Innovation offers unparalleled peace of mind, as the owner is able to track and control the entire network, including each main line and tank, even when he is hundreds of kilometers away from his sugar bush. Mr. Thériault considers that having over 300 Smartrek sensors installed has contributed to the growth of his company over the years and to the great success of his sugar bush, which had a record year for production per tap in 2022.

