



# SHERBROOKE

Protecting communities from extreme heat by providing various cooling options

*By Sophie Guilbault*

## THE SCIENCE

Ensuring the availability and accessibility of cooling options to cope with hot temperatures is very important during extreme heat events. Bearing in mind that not all members of a community have access to cooling systems in their homes, it is important that municipal leaders identify easy-to-access cooling stations that can be used by the public during heat waves. These cooling options can take multiple forms and cities can benefit from identifying a wide range of alternatives for residents to get away from the heat. For instance, public buildings with air-conditioned systems, public pools, beaches, and splash pads can be considered as possible cooling options by municipalities.

## THE TRIGGER

Sherbrooke is a city located in the Eastern Townships region of Quebec. A study conducted in the region a few years ago found that health risks were increasing significantly for inhabitants of the region when the temperature reaches or exceeds 31°C during the day and 18°C at night for at least two days in a row. Following the publication of this study, the City of Sherbrooke implemented two main actions. First, the city developed urban heat island mapping to identify which areas of the city were the most at risk of being affected by extremely hot temperatures. Second, Sherbrooke established a Heat Alert and Response System to help protect the public during heat waves.

## THE APPROACH

The City of Sherbrooke established a comprehensive Heat Alert and Response Plan called the Extreme Heat Intervention Plan (Plan Particulier d'Intervention – Chaleur Extrême, 2012). The plan presents a wide variety of actions and initiatives developed to ensure the safety of Sherbrooke's residents during extreme heat events. For instance, the city evaluates its capacity to respond to increased electricity demand, works with 9-1-1 to evaluate the nature of the calls received, and works with parks employees to remind them of measures to take if they were to intervene with people suffering from conditions caused by extreme heat. The plan also has a strong focus on ensuring the availability of cooling spaces for individuals across the city. When a heat alert is issued, a system is in place to check that air conditioning systems are fully functioning in municipal buildings. Those buildings with working air-conditioning systems become identified by *la mission service aux sinistrés* as cooling centres when possible, and buildings with dangerously high temperatures are temporarily closed for safety purposes. The City of Sherbrooke's plan also highlights the need to ensure that cooling systems are functioning properly and makes staff specialized in repairing air conditioning systems available on call. Furthermore, the city ensures that vulnerable groups of the population have free transportation and paratransit to access cooling centres.

The city also arranges to keep splash pads, pools, and other water bodies accessible during extended hours. When the extended opening of these facilities happens, a special protocol directed by *la mission direction stratégique* is also in place to provide



**Figure 11:** The public pool at Parc Victoria in Sherbrooke is one of many public pools open to the public during heat events. (Source: André Guilbault)

temporary lighting equipment for splash pads and pools that need it in order to stay open later in the evening. *La mission eau potable* is responsible for conducting additional water quality testing at public pools on extremely hot days and increased security is provided around specific parks and swimming pools.

An organization called *mission communication* provides information on the location of cooling stations through press releases, the city's website, and social media. In addition, the city's municipal health network communicates with seniors' homes that do not have active cooling systems to inform them of the cooling station locations and transit options to get there.

When the City of Sherbrooke developed its emergency plan, staff visited each of the city's parks and noted if they were equipped with water fountains, washrooms, showers, benches, tables, covered or shaded areas, splash pads, pools, beaches, and air-conditioned spaces. As part of its heat response, the city's communication group promotes the use of these cool spaces during extremely hot days.

## THE OUTCOME

Since its implementation in 1998, the Extreme Heat Intervention Plan has been activated once, in 2010. During the alert, a cooling station was opened in one of the

city's libraries in combination with extended hours at local pools, beaches, and splash pads for three consecutive days. Local public transit authorities also assisted with the transportation of vulnerable individuals to cooling centres.

## **A WORD FROM SHERBROOKE**

When asked for his thoughts on the City of Sherbrooke's Extreme Heat Intervention Plan, Stéphane Simoneau, Director of Fire Services at the City of Sherbrooke, responded that the city was able to develop and implement a high-quality plan because of good cooperation between the regional health authority, Sherbrooke public safety and the municipality. "It is important to have constant communication and collaboration between these different entities to ensure successful activation of the plan during extreme heat events," said Mr. Simoneau.