ROSEMÈRE

THE TOWN OF ROSEMÈRE'S URBAN FORESTRY PLAN: IMPROVING THE RESILIENCE OF ITS TREE CANOPY

In July 2021, Habitat was hired by the Town of Rosemère to guide it through certain aspects of its urban forestry plan. The study carried out presents a portrait of the urban forest as well as an evaluation of its resilience based on its diversity and vulnerability to various threats and disturbances. Habitat also suggested a planting strategy to achieve the long-term conservation and enhancement objectives of Rosemère's urban forest. An interactive map was developed to visualize the characteristics of the urban forest and public trees in the Town.

© Photo of a black maple in Rosemère | C. Roy

TREE CANOPY

41,7 %

canopy index on the entire territory

Corresponds to the surface area of shade on the ground that the trees provide on a given territory.

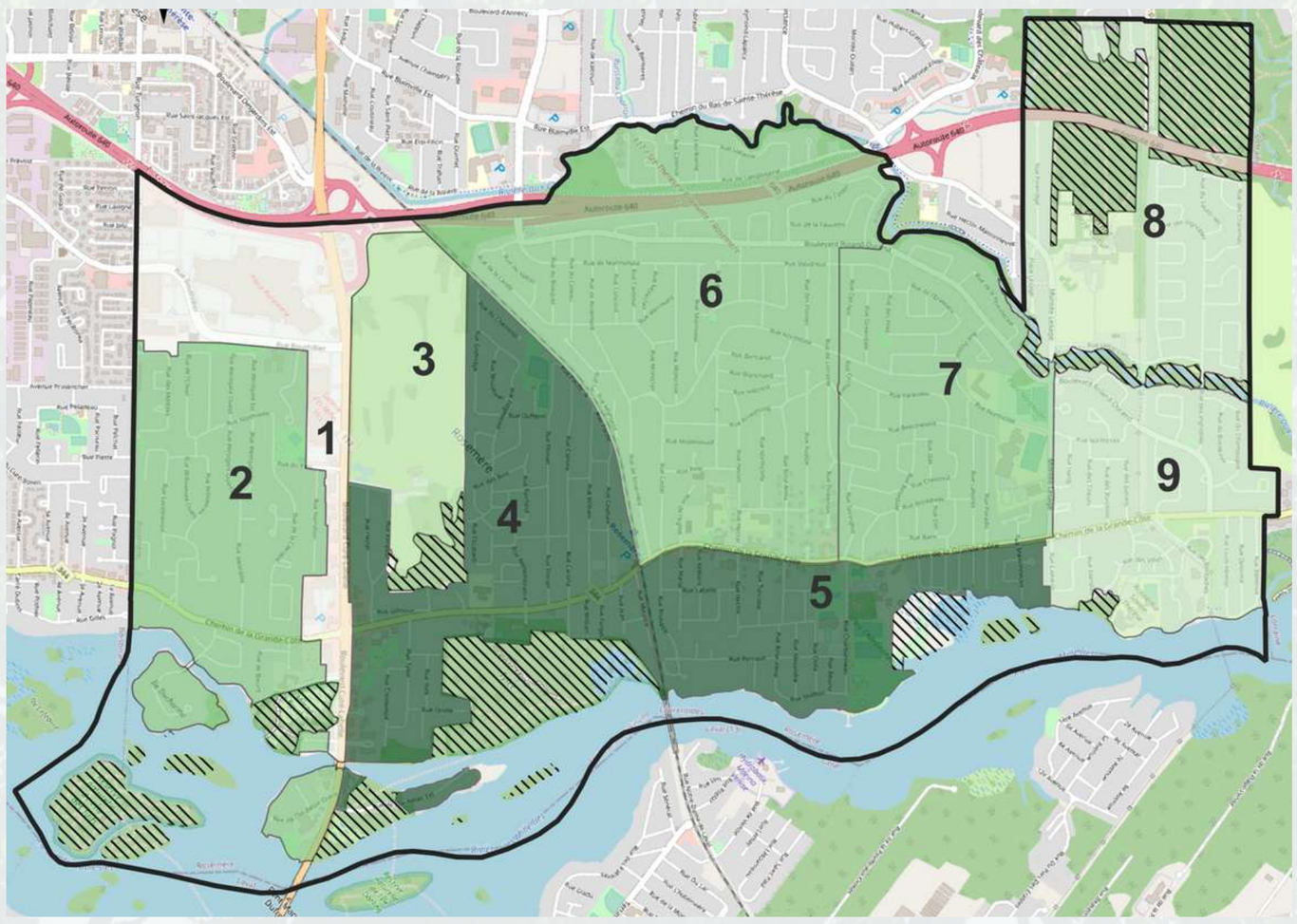


Figure 1: Canopy index classes (2019) for each of the 9 arboreal sectors in the Town of Rosemère, excluding wooded areas (>1 ha)

5th municipality of over 10,000 residents in the CMM with the highest canopy index.

As in many other municipalities, the tree canopy percentage varies between sectors of the Town; therefore, certain sectors should be prioritized for tree planting.

Canopy data : © Communauté métropolitaine de Montréal, 2011-2019

WOODLANDS

50,000

tons of carbon stored

$9.8 M

Estimated economic value

43%

of woodlands contribute to flood risk mitigation

$339 000

A number of woodlands with great functional diversity are developed (trails), protected or in the process of being protected (111 ha).

Functional diversity is related to the **biological characteristics** of the trees (drought tolerance, wood density) that influence their functioning and responses to disturbance. A functionally **diverse urban forest is a resilient forest** in the face of the various threats and climate change.

ANALYSIS OF THE PUBLIC TREES

8,746
public trees studied

107
tree species

62%
of the trees are represented by 10 species

30%
of inventoried trees are silver maple and red ash (low functional diversity)

ECOSYSTEM SERVICES PROVIDED BY PUBLIC TREES

5,752 m³/year	1.13 metric tons/year	179 metric tons/year	3,824 metric tons
of runoff water avoided	of air pollution removal	of CO_2 sequestered	of carbon stored
$2,600/year	$23,000/year	$9,400/year	$739,200

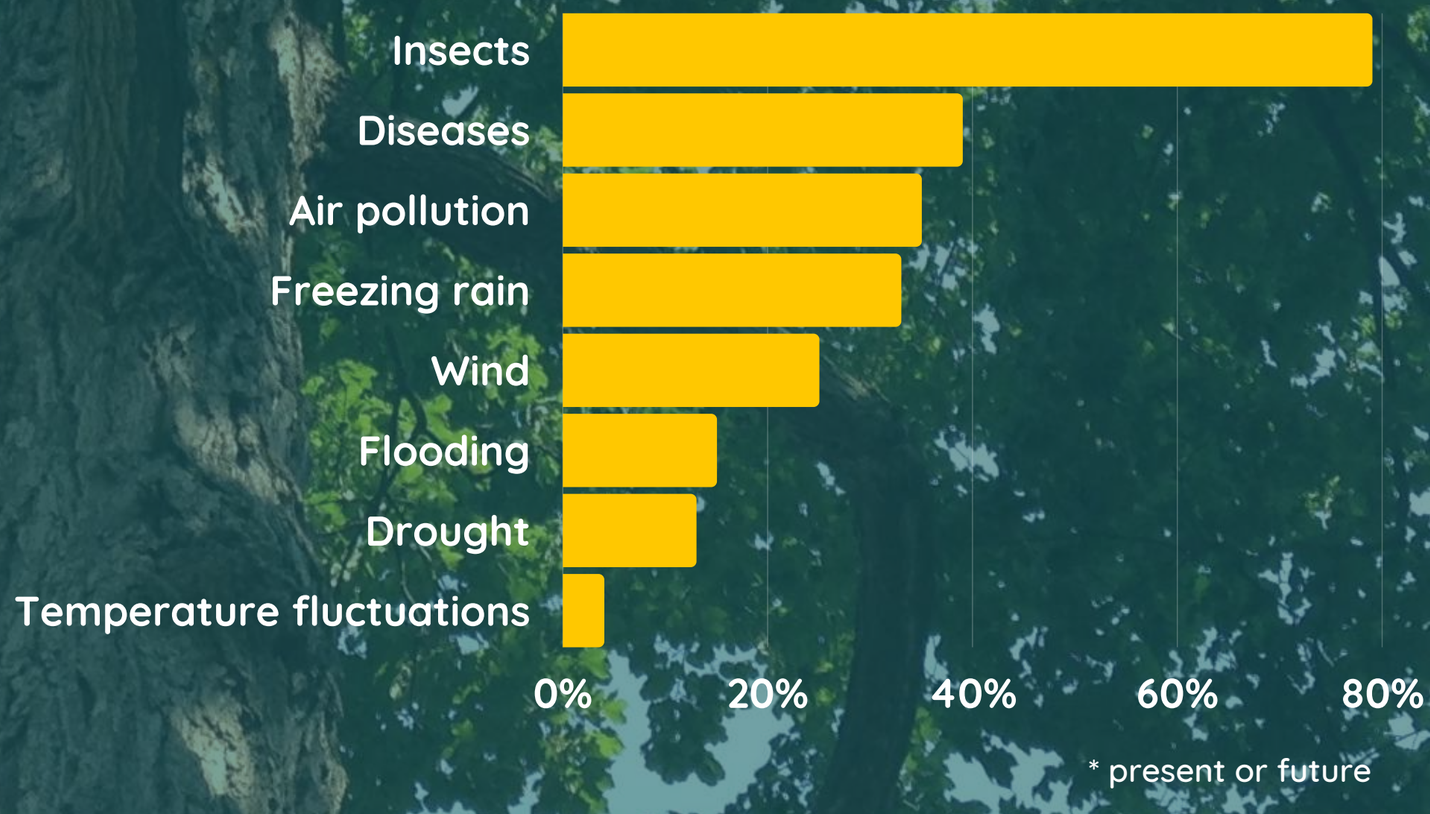
Saving achieved / damage avoided

FUNCTIONAL DIVERSITY

Of the existing territory

Plantings of the past 5 years

VULNERABILITY OF TREES TO VARIOUS STRESS FACTORS



* present or future

PLANTING STRATEGY

- Direction 1: Resilience of the urban forest to global change.
  - Objective 1: To ensure that all sectors of Rosemère have a diversified canopy at the specific, functional and structural levels in order to maintain the production of ecosystem services over time.
- Direction 2: Access to a high canopy index that is well distributed throughout the territory.
  - Objective 2: To ensure that all Rosemère residents have access to a high canopy index.

    Town-wide canopy target: 45% by 2045
  - Objective 3: To reduce the area and intensity of urban heat islands.