

## PROJECT NOTICE

*If there is a discrepancy between the French and the English version, the French version will prevail.*

### 2.1 Project title

City of Pointe-Claire Public Shoreline Stabilization Program

### 2.2 Subject projects under the *Regulation respecting the environmental impact assessment and review of certain projects*

This project is subject to an environmental impact assessment procedure under paragraph 1, article 2, Division II, Schedule 1 of the *Regulation respecting the environment impact assessment and review of certain projects* given that the project exceeds the 500-metre limit for the distance over which dredging and filling work can be carried out in the two-year floodplain of a lake.

Work of this nature was already carried out over a distance of approximately 350 linear metres between 2010 and 2019, and shoreline stabilization work is required along almost the entirety of the City of Pointe-Claire's public shorelines, that is, approximately 3,500 additional metres.

### 2.3 Short project description and variants for carrying out the work

The City of Pointe-Claire is situated along Lake Saint-Louis. The City of Pointe-Claire's public shorelines are mostly artificial and have been modified many times in the past (walls, rockfill, filling, gabions, etc.).

The public shorelines have been monitored since 2008, which revealed that approximately 3,500 metres of these shorelines are unstable, eroded or deteriorated and require stabilization work. The shorelines were last monitored in 2019. This included identifying and doing a preliminary design for stabilization interventions required for each section of eroded, unstable or degraded public shoreline. The interventions will focus on soil bioengineering, beach development and nourishment, and vegetated rockfill.

The identification and preliminary design of these interventions was based on monitoring of the public shorelines since 2008, the modeling of Lake Saint-Louis in 2017 and the ichthyological study of the entire City of Pointe-Claire sector in 2019 and 2020. The detailed design of the interventions could also take into account the inventory of exotic invasive species on the shorelines conducted in 2021.

While each intervention will be different in order to take into account the heterogeneous nature of each section of shoreline, the stages will be similar:

- Surveying the site;
- Characterizing the soils, which should be managed in accordance with the laws and regulations in effect;
- Creating a directory of existing trees and vegetation, to be protected and conserved as much as possible during the work;
- Carrying out the work itself, including dredging and filling shorelines, although this will be minimized as much as possible. Soil bioengineering, vegetated rockfill, and beach development and nourishment will be the prioritized stabilization techniques;
- Managing exotic invasive species (possibility of starting this stage in the preliminary project phase);
- Planting new indigenous trees and vegetation at the end of the work in order to increase biodiversity and the ecological value of the environment;
- Developing new habitats for fish, where conditions permit. The City of Pointe-Claire wishes to create as many fish habitats as possible, in order to increase the biodiversity and ecological value of the environment.

The project seeks to stabilize the public shorelines of the City of Pointe-Claire in order to preserve and restore its natural character. The project includes increasing the biodiversity and ecological value of the targeted environments, an important aspect for the City of Pointe-Claire.

## 2.4 Objectives and justification of the project

The main reasons for carrying out the project are as follows:

- Marked deterioration, instability and erosion of public shorelines since 2008
- Poor ecological value of the environment
- Known presence of contaminated soils in public shorelines
- Known presence of exotic invasive species along public shorelines

The main objectives of the project are as follows:

- Stabilize the public shorelines.
- Increase the ecological value and biodiversity of the environments targeted by this work.
- Depollute the areas targeted by this work.
- Limit the presence of exotic invasive species in the areas targeted by this work.

## 2.5 Related activities

Some of the sections where the stabilization work is required include stairways and water accesses. The interventions will be designed to preserve these stairways and accesses as much as possible.

Chemin du Bord-du-Lac-Lakeshore, which runs along the shoreline, requires work, primarily with respect to pavement, sidewalks and curbs, which need to be rebuilt at about the same time as the public shoreline stabilization work. Certain pipes may have to be replaced (this requires more study). A painted bike lane will be added during the road work.

### PROJECT SITE AND TIMETABLE FOR CARRYING OUT THE WORK

#### 3.1 Identification and location of the project and its activities

Name of the municipality: City of Pointe-Claire

Name of the regional municipality county or counties (RMC): Communauté métropolitaine de Montréal

Land use: Parks

Geographic coordinates in decimal degrees of the central point of the project:

Central or start point of the project:            Latitude: 45°25'42.67"N    Longitude: 73°49'49.13"W

End point of the project (if applicable) :        Latitude: 45°26'42.62"N    Longitude: 73°46'44.21"W

### 3.2 Description of the project site

#### Physical environment

The work sites are bordered by Lake Saint-Louis, which is a widening of the St. Lawrence River southwest of the Island of Montréal. Lake Saint-Louis is situated between L'Île-Perrot and Lachine, and is fed by the Great Lakes and the Ottawa River.

Lake Saint-Louis' shorelines have been modified by urban development, particularly starting in the 1950s. Water levels were managed under the International Joint Commission that manages the Great Lakes. In the 1960s, there was significant filling and stabilization of the shorelines, principally through rockfill. Modelling of the behaviour of Lake Saint-Louis on City of Pointe-Claire territory showed that these anthropic modifications accentuated shoreline erosion. Wave action is the prime source of shoreline erosion. This phenomenon is active along all of the shorelines (public and private) of the City of Pointe-Claire, and is most significant in the Baie de Valois sector.

The City of Pointe-Claire's public shorelines are characterized by banks dominated by steep sloping (slopes greater than 65%) and average sloping (slopes ranging from 30% to 65%).

#### Biological environment

Shoreline vegetation varies from one section to the next, but is mostly comprised of shrubs and trees. The dominant species are willow (*Salix sp.*), box elder (*Acer negundo*), stag-horn sumac (*Rhus typhina*), common hackberry (*Celtis occidentalis*) and Virginia creeper (*Parthenocissus quinquefolia*). Several ash (*Fraxinus sp.*) also populate the shorelines. These trees have been treated for emerald ash borer or cut down to curtail the spread of this insect. Certain ornamental species are also very present along the shorelines, mostly black chokeberry (*Aronia melanocarpa*), Chinese elm (*Ulmus parviflora*) and silver poplar (*Populus alba*).

The inventory of exotic invasive species along shorelines conducted in 2021 revealed the presence of buckthorn, wild parsnip, common ragweed, common water reed, poison ivy, comfrey, Japanese knotweed and black locust.

A request for verification sent to the CDPNQ in November 2021 revealed that no special-status plant species is found on the City of Pointe-Claire's public shorelines.

A request for verification sent to the CDPNQ in 2014 revealed the presence of seven special-status wildlife species within a 3-km radius of the area where the work is planned. These species are: brown snake, northern map turtle, spiny softshell turtle, grass pickerel, river herring, channel darter and loggerhead shrike. A new request was sent to the CDPNQ in November 2021 in order to update this inventory.

During the ichthyologic study conducted in 2019 and 2020, there was no capture or observation of any species at risk likely to be found in Lake Saint-Louis, which is particularly surprising for the bridle shiner. Rearing habitats qualified as good were identified in half of the sampling stations (11 stations out of 24). The results of the study suggested the presence of a walleye spawning area and a mooneye spawning area on the territory, given the capture of several juveniles during the year.

The *Forêt ouverte* database shows that Lake Saint-Louis is an aquatic bird gathering area.

#### Human environment

The sections requiring shoreline stabilization work are bordered by Chemin du Bord-du-Lac-Lakeshore. There is a lot of traffic on this road since it is the only access road in the sector for certain buildings. Sections of Chemin du Bord-du-Lac-Lakeshore are located in the 10-metre riparian strip of Lake Saint-Louis.

The project site includes single-family houses, condo buildings, seniors' residences, a CHSLD, an elementary school, the Stewart Hall Cultural Centre, churches, parks, park chalets, a canoe and kayak club and a nautical

club.

The nearest Indigenous community is Kahnawake, located on the south shore of Lake Saint-Louis.

Thirty-four storm sewer outlets empty into Lake Saint-Louis.

The entire area where the work is planned has high archeological potential.

#### Ownership of the land where the work will be carried out

Seventy-five percent of the sections of shoreline where the work is planned is City of Pointe-Claire property. The remaining 25% is institutional or government property. The City of Pointe-Claire already maintains these sections of shoreline, and agreements will be concluded with the owners of these sections prior to execution of the work.

#### Special features of the sites where the work will be carried out

The sections where the work is required are zoned "Parks," which will be maintained after completion of the work. The environments targeted by the work are water environments and will remain so. The shorelines will keep their present vocations after completion of the work. Their ecological value will be enhanced, and the environmental role of the shorelines will be greater after completion of the work. There are no buildings located on the sections of shoreline targeted by the work. Certain park chalets are located in proximity to the worksites, but are not directly in the area where the work will be carried out.

### **3.3 Timetable for carrying out the work**

The City of Pointe-Claire would like to complete its public shorelines stabilization program within a maximum timetable of 10 years, if the funds required are approved by City Council. The City of Pointe-Claire plans to separate the interventions into three batches of work, to be executed based on the priority of the intervention. A request for authorization will be submitted to the MELCC for each batch of work.

The main stages planned for the work are set out below. The dates indicated are approximate and are still subject to approval by City Council for the funds required to complete the work.

- Impact study: June 2022 to June 2023
- Submission of the impact study to the MELCC: June 2023
- Public consultations, if required: as soon as possible following submission of the impact study to the MELCC
- Design of the interventions for the first batch of work: January to August 2024
- Submission of the application for authorization for the first batch of work to the MELCC: September 2024
- Call for tenders for execution of the first batch of work: January to March 2025
- Execution of the first batch of work: August to December 2025
- Design of the interventions for the second batch of work: January to August 2026
- Submission of the application for authorization for the second batch of work to the MELCC: September 2026
- Call for tenders for execution of the second batch of work: January to March 2027
- Execution of the second batch of work: August to December 2027
- Design of the interventions for the third batch of work: January to August 2028
- Submission of the application for authorization for the third batch of work to the MELCC: September 2028
- Call for tenders for execution of the third batch of work: January to March 2029
- Execution of the third batch of work: August to December 2029

### **3.4 Site plan**

Add to Appendix III a topographical or cadastral map of the project site and, if applicable, a site plan of the work or the activities in an appropriate scale indicating, in particular, the infrastructure in place in relation to the work site.

#### 4. DESCRIPTION OF THE MAIN ISSUES<sup>1</sup> AND THE ANTICIPATED IMPACT OF THE PROJECT ON THE RECEIVING ENVIRONMENT

##### 5.1 Description of the main project issues

###### Physical environment

The main project issues affecting the physical environment involve the predominantly average and steep bank slopes, the disrupted aspect of the environments and the erosion caused by wave action.

These three issues must be taken into consideration during the design of the work and the development of the plans and specifications. The bank slopes could complicate access to the work site. The environmental disruption pertains to the presence of contaminated soils that needs to be determined, managed according to the regulations in effect, and partially or completely replaced with new soil, which will have an impact on cost. Wave erosion complicates the design of the work and must be a key design criterion.

###### Biological environment

The main project issues affecting the biological environment pertain to the presence of exotic invasive species on the shorelines, the presence of fish spawning areas and habitats along the shore, the presence of special-status wildlife species on or close to the work sites and the fact that Lake Saint-Louis is an aquatic bird gathering area.

Based on their nature and the extent of the colonies, exotic invasive species must be addressed prior to or during the work, according to the most appropriate methods. It is likely that it will only be possible to control rather than eradicate certain species.

The periods of work should be determined based on wildlife, plant and ichthyological presence on or near the work sites. Compensation and the creation of habitats for fish or other wildlife species should be developed. The City of Pointe-Claire plans to compensate each lost habitat, site conditions permitting, and is seeking a positive habitat outcome at the end of the project.

###### Human environment

The main project issues affecting the human environment pertain to traffic management, the proximity of homes to the work area, the presence of storm sewer outlets in the work area and the archeological potential of the area where the work is planned.

As noted in Section 3.2, Chemin du Bord-du-Lac-Lakeshore borders all of the sections of shoreline where the work is required. This road is narrow and often the only access to several buildings. Local traffic will have to be maintained during the work and emergency services must be able to access all buildings at all times. Traffic management will have to take these aspects into account, while ensuring workers' safety.

Noise caused by the work will affect the residents living close to the work area. The municipal noise by-law must be respected at all times. Information meetings will have to be held to inform residents of the work, as well as the nature and reason for the work. Communication campaigns will also have to be developed.

The presence of storm sewer outlets in the work area must be taken into account during the design of the work and the development of the plans and specifications.

During the excavation work, an archeologist must be present to provide archeological supervision.

##### 5.2 Description of the main anticipated impacts of the project on the receiving environment

###### Physical environment

The anticipated impacts of this project on the physical environment are mostly positive. One of the project's main objectives is to stabilize the public shorelines and limit their erosion. Following completion of the project, the public shorelines will be more stable and offer a safer environment.

Moreover, by removing the contaminated soil and replacing it with new soil, the environment will be less polluted and healthier for the wildlife and plant life following completion of the project.

<sup>1</sup> **Issue:** A major concern for the government, scientific community or the population, including Indigenous communities affected, the assessment of which could influence the government's decision on whether or not to approve the project.

It will sometimes be necessary to encroach on the riparian strip of Lake Saint-Louis during the work. Depending on the sectors, there will be gains or losses to the shoreline. The reshaping of the bank and easing of the slopes might modify the high-water mark in certain locations.

#### Biological environment

The anticipated impacts of this project on the biological environment essentially pertain to habitat quality and the ecological value of the shorelines once the work is complete. These impacts are mostly positive.

The work could cause suspended materials to enter Lake Saint-Louis. The necessary protection measures will be implemented to limit this impact. Once the work is complete, since the shorelines will be stabilized, suspended materials entering Lake Saint-Louis will be reduced compared with the existing situation. The final impact of the work on the quality of water and aquatic environments is positive.

The execution of the work will also disrupt vegetation on the shore and the habitats present there. Considering that the work includes managing exotic invasive species and planting indigenous vegetation, the final impact of the work on wildlife habitat and plant cover will be positive.

The City of Pointe-Claire's objective is to have a positive outcome for wildlife and ichthyological habitats once the work is complete. Moreover, the project also seeks to increase the ecological value of the shorelines. Both of these objectives will have positive impacts on the biological environment.

#### Human environment

The anticipated impacts of this project on the human environment mostly pertain to the management of nuisances during the work (noise, dust and traffic). These impacts will be occasional and will resolve once the work is complete.