



NEGUAC MUNICIPAL CLIMATE CHANGE ADAPTATION PLAN

Public Consultation



November 2021



Why a climate change adaptation plan?

The Neguac community is currently threatened by significant coastal flooding risks and several areas are facing erosion problems (Figure 1). The Municipality worries about the safety of its constituents and the potential damage to its infrastructure in the wake of a flood on its territory. Therefore, it wishes to protect itself with a climate change adaptation plan.

Climate change is a phenomenon of long-term climate shifts on our planet. The earth has always been subject to varying changes in climate, but human activity such as land use and fossil fuel combustion have significantly expedited the rate of change. The augmentation of both air and sea temperatures have resulted in increased glacier thaw, which in turn feeds ocean water expansion with an associated rise in sea and tide levels. By 2100, it is expected that the average sea level in the Acadian peninsula will rise by 70cm. This increase, combined with a loss of ice cover and an intensification of both the strength and occurrence of storm events, will significantly increase coastal erosion and increase the frequency of coastal flooding events. Thus, it is necessary to anticipate greater risks to public safety and more important damage to infrastructure (such as bridges, sewer systems, etc.) as well as to public and private buildings.



Figure 1: Zones at risk of erosion and flooding for the Néguaac area.

The process leading up to the adaptation plan

Néguaac is one of many communities within the Acadian Peninsula to contribute to the AP Adaptation Project¹. The objective of this project is to develop, on a regional scale, a plan to minimize the risks associated with flooding and erosion. With this goal in mind, la municipalité has followed a thorough process to evaluate risks and identify actions (Figure 2) that could be enacted to minimise their impact.

¹ To learn more about the PA Adaptation Project, you may consult their website at:

<http://www.adaptationpa.ca>

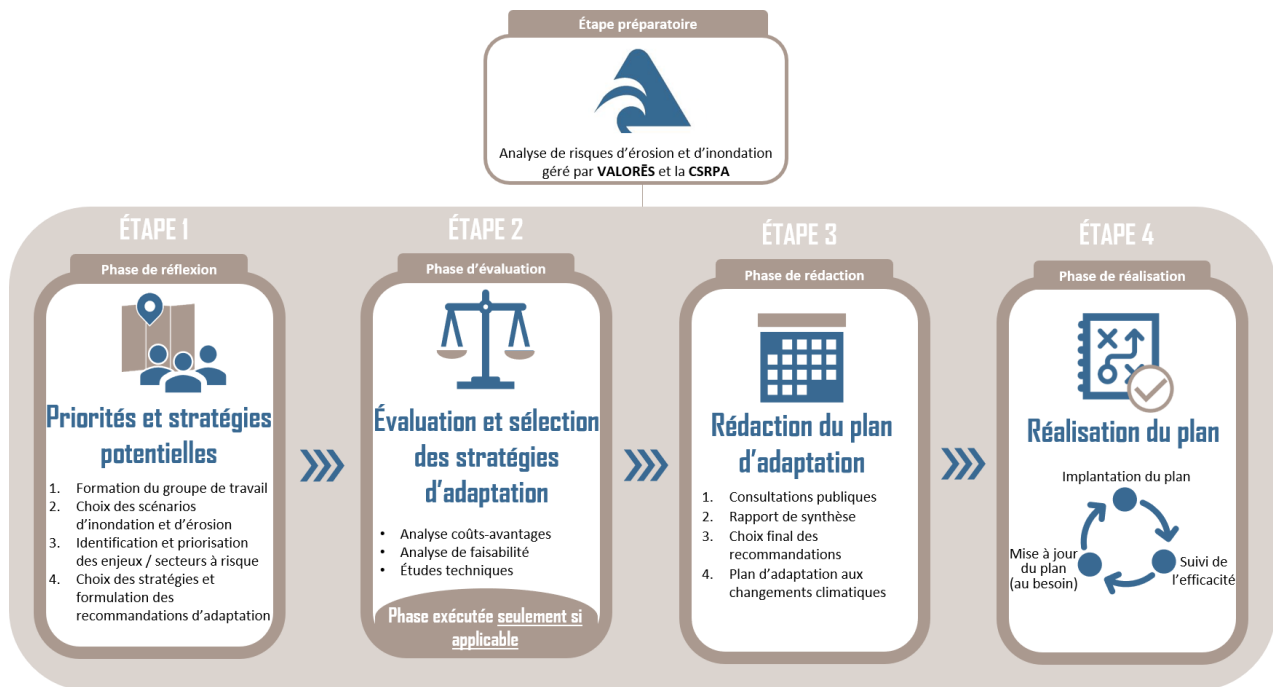


Figure 2: AP Adaptation Project process.

The preparatory stage does not involve the Municipality. It is undertaken by the Valorès research institute (Shippagan), the APRSC, and their collaborators. This step consists of elaborating flood and erosion scenarios and to evaluate the risks they pose to infrastructure such as roads or buildings). This step is crucial, because it allows the identification of present and future risks to the municipality.

Once the risks are identified, Valorès approaches the Municipality in order to begin the first step of the project; the reflection phase. During this step, a working group consisting of citizens proposes which flood and erosion scenarios should be used for urban planning, classify and divide the territory into various risk zones using a map, and proposes actions to be undertaken for each in order to mitigate predicted damage.

Step 2, the evaluation phase, consists of conducting further study into any actions that would require considerable funds or effort from the Municipality. A feasibility analysis is one of the types of studies done during this phase. The final choice of solutions will be based upon the advantages and disadvantages identified. It should be noted that this step is facultative and is only undertaken if necessary.

Step 3 consists of the redaction of the climate change adaptation plan. The Neguac municipality is currently in the midst of this process. During this stage, the propositions of the working group are submitted for public opinion. All citizens are invited to public consultations in order to give feedback before the municipality makes the final choice of actions.

Once selected, the plan is redacted and its implementation is mapped out. Efficacy is measured and corrections will be made, if needed, during the upcoming Phase 4, the implantation phase.

Risks and stakes identified during phase 1 of the process

A total of six primary zones are at risk of erosion and flooding in Neguac. They consist of Lower, Central and Upper Neguac (sectors A, B, and E), The Wharf Sector (C), the School Sector (D), and the Île-aux-Bois Sector (J). Sectors are outlined on Figure 3.

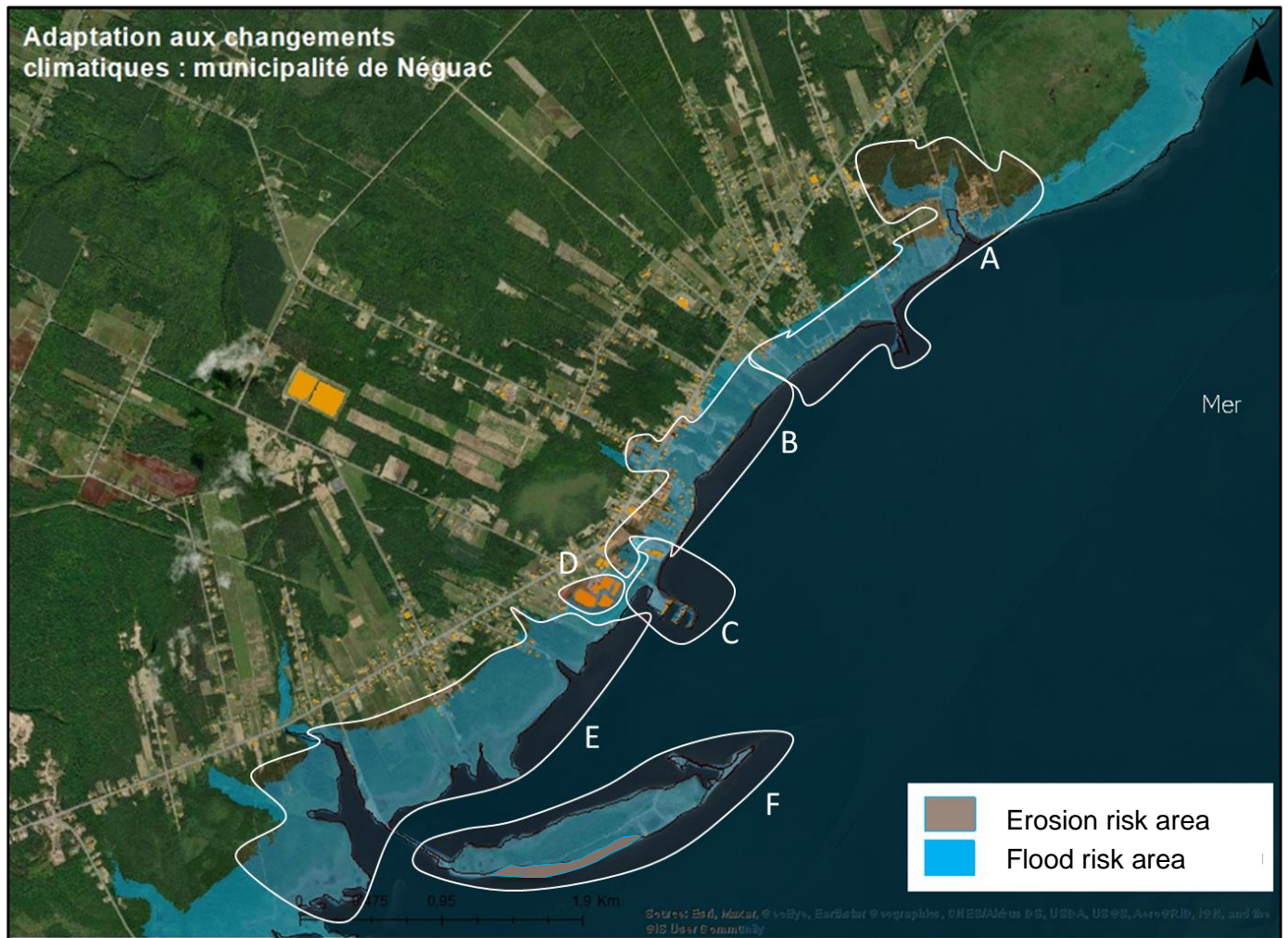


Figure 3 : Zones at risk of erosion and flooding in Neguac

Table 1 describes in detail the stakes and natural phenomenon specific to each threatened sector, as well as their geographic positioning within the municipality.

Tableau 1 : Description des secteurs à risque de Neguac et des éléments à risque qui s'y trouvent.

Secteurs	Vagary ²	Affectations	Location ³	Stakes ⁴
A	<ul style="list-style-type: none"> • Flooding • Erosion 	<ul style="list-style-type: none"> • Coastline — Résidentiel 	<ul style="list-style-type: none"> • Lower-Neguac 	<ul style="list-style-type: none"> • Residences • Cabons • Municipal streets (Rodolphe, Patrick, Des Chalets street, Girouard) • Old wharf • Routes (Eddie, Armand, Des Pins, and Sullivan street) • 3 pumping stations
B	<ul style="list-style-type: none"> • Flooding 	<ul style="list-style-type: none"> • Coastline — Résidentiel 	<ul style="list-style-type: none"> • Central Neguac 	<ul style="list-style-type: none"> • Residences • Legion building • Routes (de la Mer, Otho, Ferdinand, Grégoir, Fairisle, and De l'Église street) • Funeral home • Dental clinic • Rental cabins and secondary residences • Route 11 • Businesses (Garage, Convenience store) • Historical site • Retirement home
C	<ul style="list-style-type: none"> • Flooding 	<ul style="list-style-type: none"> • Coastline — Industrial 	<ul style="list-style-type: none"> • Wharf Sector 	<ul style="list-style-type: none"> • De l'Église street • Neguac Wharf • Fish processing plant • Pumping station
D	<ul style="list-style-type: none"> • Flooding 	<ul style="list-style-type: none"> • Coastline — Institutional 	<ul style="list-style-type: none"> • School Sector 	<ul style="list-style-type: none"> • School • Sports fields (baseball, volleyball, soccer, tennis, track & field) • Theatre
E	<ul style="list-style-type: none"> • Flooding • Erosion 	<ul style="list-style-type: none"> • Coastline — Residential 	<ul style="list-style-type: none"> • Upper Neguac 	<ul style="list-style-type: none"> • Legresley, Val, and Joseph streets • 2 Pumping stations • Garages • Residences
F	<ul style="list-style-type: none"> • Flooding • Erosion 	<ul style="list-style-type: none"> • Tourism associated developments 	<ul style="list-style-type: none"> • Île-aux-Foins 	<ul style="list-style-type: none"> • Cantina • Public toilets • Lighthouse • Boardwalk • Joseph alley • Playgrounds • Parking lot • Gazebo

² A vagary is an unpredictable natural phenomenon that may cause damage, injury or even death.

³ Based on municipal zoning

⁴ Elements that may be impacted by erosion or flooding

Actions proposed by the working group

The adaptation strategies being evaluated by the municipality (proposed by the working group) are diversified and complimentary: From zoning and regulations to communications, emergency measures, protection, elevation and adaptation.

ZONING AND REGULATIONS

The Municipality plans to adopt new zoning and regulations to regulate activities in at-risk areas. The proposed measures are:

- A **retraction zone** where no new construction would be allowed due to the risk posed by erosion (Figure 4);
- An **accommodation zone** where the ground floor of the building would have to be built above the predicted water line due to the risk posed by flooding events (Figure 4).



Figure 4: New proposed zoning — A retraction zone (formed by wetlands and the erosion zone) and an accommodation zone (composed of areas at risk of flooding)

COMMUNICATION

The Municipality plans to reach out to owners and residents of existing buildings of threatened areas with methods to reduce their exposure.

In addition, the Municipality plans to transmit flood provisions concerning Route 11 to the Department of Transportation, so that they may consider the flood line during potential renovations.

The Municipality also proposes to transmit information regarding flood predictions to the Francophone North-East School District so that they are informed of the risk to their infrastructures.

EMERGENCY MEASURES

The Municipality plans to suggest to residents and school administration to create personal emergency measures plan in order to be ready in the event of a flood.

The Municipality proposes to ensure that all retirement homes have their own personal emergency measures plan, as well as evacuation plans, in the event of a flood.

The Municipality proposes to shut down circulation on sections of road flooded by storm water.

PROTECTION

The Municipality proposes to restrict flooding and erosion protection methods of the Île-aux-Foins zone to soft management techniques such as vegetalization.

ELEVATION AND ADAPTATION

The Municipality wishes to recommend that the buildings on Île-aux-Foins be renovated by adapting them to rising sea levels.

The Municipality proposes to maintain the Île-aux-Foins boardwalk after the 2022 renovations, and eventually rebuilding it on stilts in order to adapt it to sea level rise.

The Municipality wishes to request that the Port Authority plan to elevate all electrical systems, as well as all chemical, combustible, or hazardous materials, above flood predictions during any future renovations.

Goal of the consultation

The council wishes to give the opportunity to all citizens to share their opinion on the actions proposed by the working group, in order to make the best decisions for the constituents of Neguac.

Therefore, the purpose of the consultation is to inform you and gather your opinions, as citizens, regarding The Municipality de Neguac's climate change adaptation plan. It is not necessary to be a specialist, as citizens know a lot about their community. Your views will be heard and respected.

How to participate

To share your opinions, you have several options, which include:

- **Answer the paper questionnaire in your postal package;** and then drop off your completed questionnaire at the reception of the municipal building or send it by mail to the address indicated below;
- **Or Fill out the online questionnaire,** accessible from the Municipality's website, (www.neguac.com), and Facebook pages, or on the Facebook page of the AP Adaption Project;
- **Or send a letter, either by email (info@neguac.com) or through the post** to Municipality of Neguac, 1175 Main street, Neguac, NB E9G 1T1.

You have until November 31st to transmit your opinion. After this date, it will be up to the discretion of the council to take further opinions into consideration when making the final decision.

After the consultation

Once your comments have been received and considered, the Municipality will make changes to the proposed actions if necessary. Afterwards, the details of how and when the actions will be implemented will be specified and the final version of the plan will be drafted and adopted by the Council. The final version of the plan is expected to be completed by spring 2022.