

# Adapting to Climate Change: Flooding Memramcook



Figure 1:  
Location of Memramcook

## The Area

Memramcook (pop. 4831 in 2011) is located in southeastern New Brunswick near the confluence of the Memramcook River and the Petitcodiac River. The village is inhabited primarily by people of Acadian descent and is comprised of several adjacent communities.

Memramcook is called the “Berceau de l’Acadie”, which translates to “cradle of Acadia”. Long inhabited by the Mi’kmaq, the site saw the arrival of the Acadians in 1700. It saw its major growth, both culturally and politically, in the 18<sup>th</sup> and 19<sup>th</sup> centuries. The preservation and renaissance of the Acadian culture in Maritime Canada began in Memramcook largely as a result of the intervention of the seminary/collegiate at College St-Joseph – one of the founding colleges of the Université de Moncton. College St-Joseph, the first Francophone university in the Maritimes, opened its doors in the village in 1864.

Memramcook has a solid economic base with a number of agriculture and agrifood manufacturing firms, a varied retail sector and ever-growing tourism infrastructure. Memramcook is also home to the

Athène Learning Centre, where specialized language education (in French and English) is offered to the public and government officials.

## Climate Change and Community Vulnerability

With its rural setting and picturesque valleys, the village of Memramcook is experiencing residential growth. Its location in close proximity to the cities of Dieppe and Moncton offers residents a high quality of life with various cultural and recreational amenities.

However, increasing residential development has created pressures on natural habitats. In addition, exposure to extended tidal shorelines and cases of inadequate drainage has caused issues the Village recognized it must deal with. In 2008, the community developed a Green Plan, which highlighted numerous areas of concern. Consultation was held throughout the community and recommendations were made in the areas of water quality, air quality, agricultural land use, forestry and green space, reduction of nuisances (odours), recycling, snow removal, municipal equipment purchases, energy conservation, integration of municipal services and others.

## Local Climate Change Addressing Adaptation Needs

Key climate change issues identified in Memramcook include: road infrastructure at risk from storm surges, and major drainage issues due to the existing system of dykes and low lying roads adjacent to both the Petitcodiac and Memramcook rivers which are susceptible to flooding when heavy rainfall is combined with high tides. To address these issues, a

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Figure 2: Memramcook valley.

### Village de Memramcook

project was designed to: identify sensitive natural habitats and biological corridors; identify flood prone areas within the village; identify information gaps; and produce layered mapping. With the help of the Beaubassin Planning Commission and researchers from University of New Brunswick, hydrological mapping was initiated. At the time of this case study, further work is being undertaken to identify infrastructure at risk areas.



Figure 3: Wet-areas map: cartographic depth-to-water (DTW, from 0 to 1 m), depicting areas likely subject to inland flooding. Also showing extent of sea level rise by contours.

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## Next Steps and Opportunities

The data and mapping produced will provide planners as well as village staff with guidance on establishing policy and regulations relating to the vulnerable areas in and around the village. Community members will be engaged in the mapping and decision-making. The results produced in the Memramcook area will help provincial departments with major infrastructure decisions.

## For More Information

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