



Sécurité civile
Montréal

Incident and Feedback Report 2017 Floods

Making Montréal a Flood-Resilient Community



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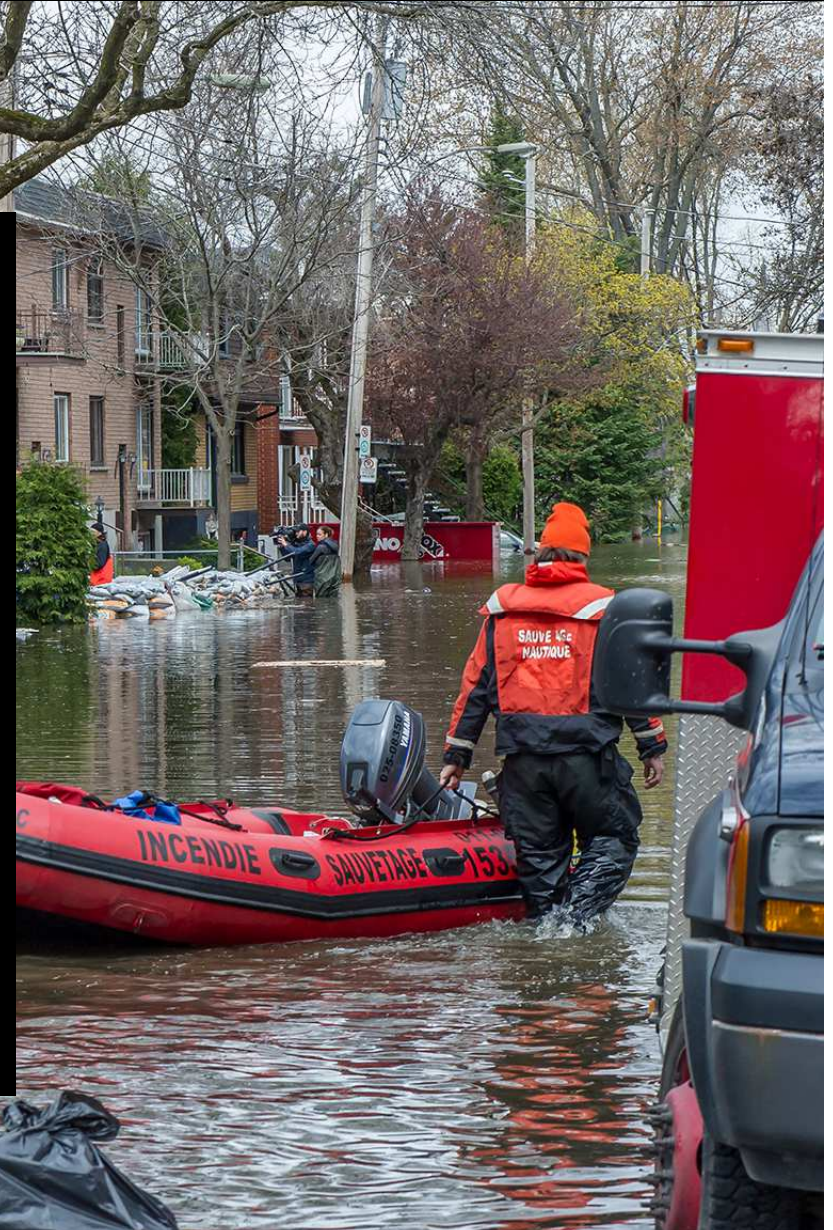
March 20, 2018—Commission de la sécurité publique

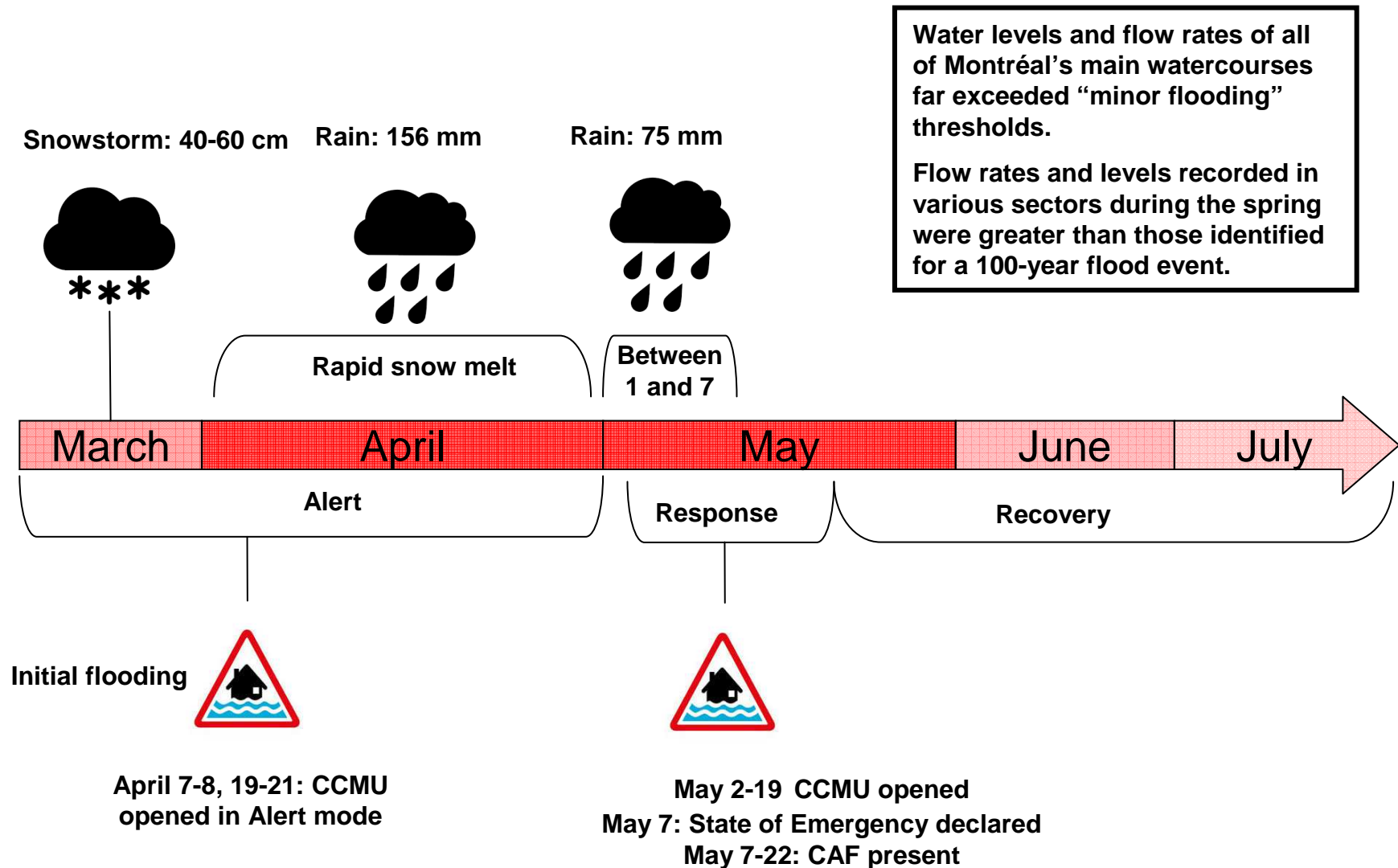


Sécurité civile Montréal

Introduction

- Worst disaster since 1998 ice storm.
- Montréal wants to apply lessons learned from these events and enhance Montréal's preparedness.
- Montréal has launched a multiagency planning process to mitigate or avoid disasters.
- Emergency measures are overseen through a shared management process.







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Impact and Consequences

Human

- 1,100 victims
- 430 flooded homes
- 36 families still in hotels*



*Canadian Red Cross

**Service des finances, Ville de Montréal

Infrastructural

- 9.7 km² of flood zones
- 42 businesses hit
- Many roads and bridges closed
- Some schools and daycare centres closed
- A fire station and a police station closed
- Relocation of Pierrefonds-Roxboro public works department.

Financial**

- \$8.014 M in unbudgeted spending





Positive Elements

- Rapid deployment of civil protection structure (operational responders—public works and emergency services), including the Centre de coordination des mesures d'urgence).
- Creation of borough (COUA)/municipal (COUV) emergency operations centres.
- Dedication and involvement of personnel.

Areas for Improvement

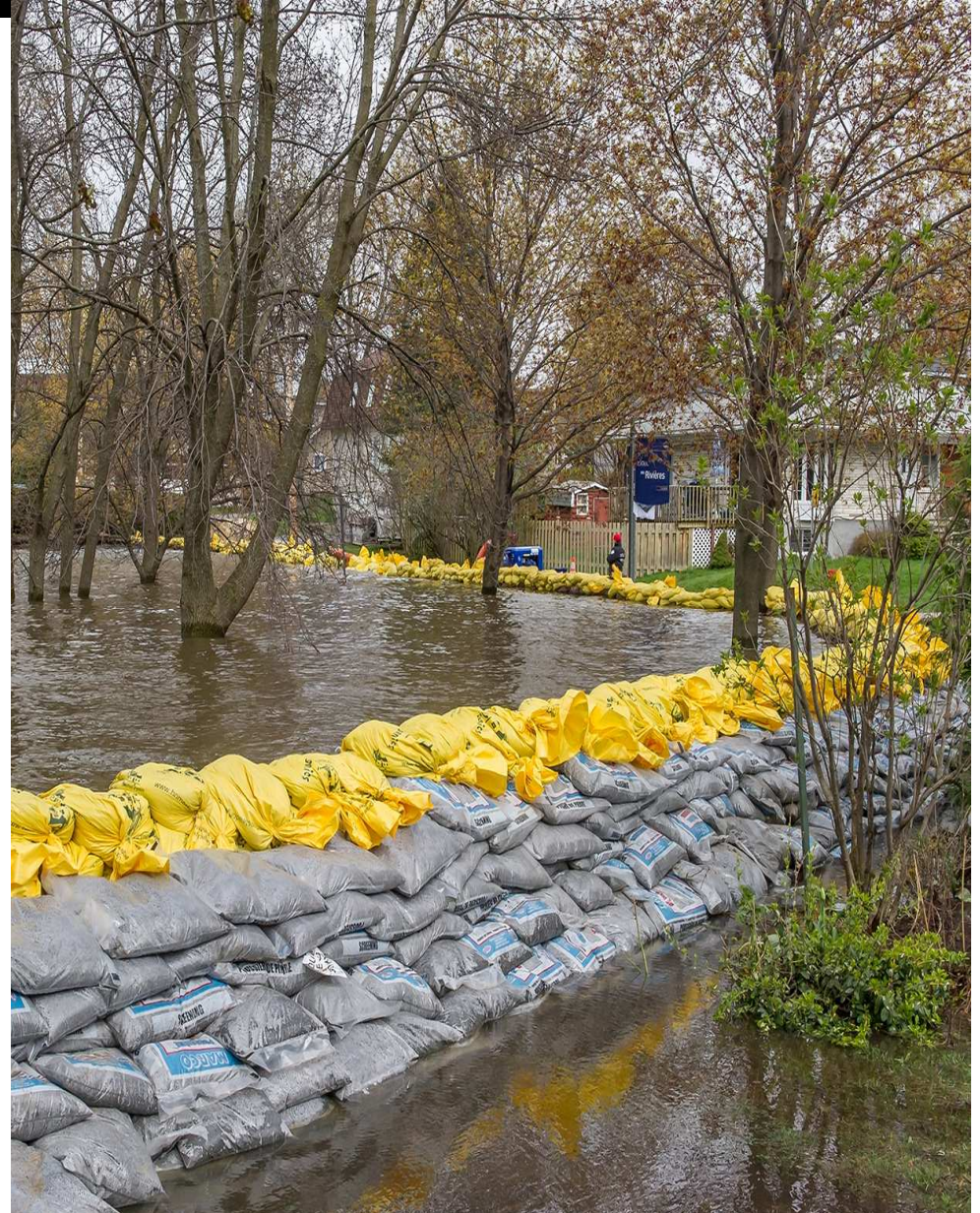
- Management of land and infrastructure in flood zones (better sense of vulnerability).
- Alignment of coordination structures.
- Communication with public.
- Forecasting water levels and associated impact.





Improved Knowledge of Risk

- Coordinated and updated mapping of flood zones.
 - Formulate a method with partners.
 - Finalise hazard maps.
- Develop evolving risk maps to quantify vulnerabilities and adapt accordingly.





Launch Strategic Planning of Mitigation Measures, Resilient Construction Standards and Green Infrastructure

- Coherent and concerted assessment of the value and feasibility of building permanent dykes.
- Review of internationally favoured solutions.
- Environmental impact assessments for identified measures.
- Integrated implementation plan consistent with hydrological, environmental and social stakes.



Mitigate Risk Through Strategic Land Planning

- Define flood plain development policy and identify long-term solutions to risk.
- Ensure pooled expertise to reduce vulnerability of networks and essential infrastructure (telecom, power, etc.).





Minimise Vulnerability, While Boosting Preparedness of Public and Corporate Citizens

- Pursue efforts to increase public preparedness.
- Support and enhance preparedness of corporate citizens (commerce and places of business).





Upgrade our Emergency and Preparedness Plans

- Update the Montréal agglomeration's civil protection plan.
- Optimise coordination of emergency services at disaster sites.
- Ensure managerial accountability for the preparedness of respective missions.





Improve Operational Planning

- Revision of flood response plan (Plan particulier d'intervention – Inondations).
 - Review water and flow forecasting mechanisms.
 - Clarify responsibilities for recovery.
 - Improve procedures for inspecting homes and enabling residents to return to them.
- Upgrade temporary dyke deployment plan.





Improve Communications with Disaster Victims

- Create a specific flood communications plan.
- Establish a strategy for keeping track of at-risk individuals.
- Develop an approach for managing needs, along with donations and volunteer services.
- Add redundancy to the 311 service.
- Ensure 311 coverage for the entire agglomeration.



Improve Support to Organisation

- Create a relief plan at the start of the event.
- Encourage resource sharing among departments, boroughs and coextensive municipalities.



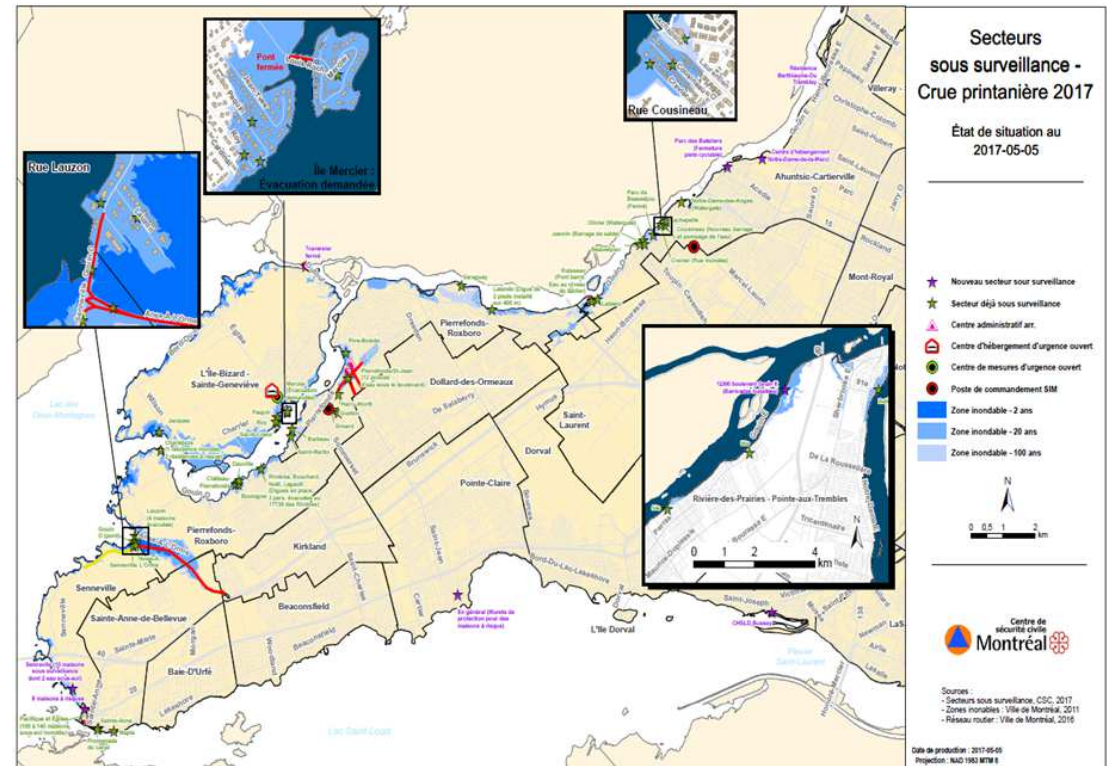
Report and Action Plan with 46 Recommendations and Actions:

- Tracking the implementation of recommendations to be applied by the Direction de la sécurité civile et de la resilience.
- 26 actions involve responsibilities of different municipal departments.
- 4 completed actions.
- Timeline through to 2020 for certain actions.



Updated/Expanded Maps

- Mapping of flood zones using 2017 data.
- Production of hazard maps.





Temporary Dyke Implementation Plan

- Plan better coordination of dyke installation by sector and water level.
- Evaluate and study various alternatives for equipment.
- Establish a rapid response unit under the SIM (fire department) (container with specific equipment).





Specific Flood Communications Plan



Ville de Montréal
@MTL_Ville

Abonné

[#inondations] Avant de réintégrer votre domicile, vérifier fonctionnement : système de chauffage, électricité, avertisseur de fumée.



08:11 - 16 mai 2017

- Launch of a prevention/awareness campaign.
- Door-to-door campaign in flooded sectors and distribution of leaflets by SIM (fire department) prevention officers (April 2018).
- Development of new strategies for public communications during flooding: booths, presence in public places, etc.



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Conclusion



The impact of climate change will rise in coming years.

We should learn from our experiences and work proactively to prevent or mitigate impacts to make Montréal a flood-resilient agglomeration.