

MANITOBA SEVERE WEATHER WARNING WORKING GROUP  
FINAL REPORT

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**JANUARY 2008**

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## **BACKGROUND, TERMS OF REFERENCE, MEMBERSHIP AND ACTIVITIES**

### ***Background***

Between June 22-24, 2007, a severe weather system resulted in impacts across a wide area of southern Manitoba. This storm system resulted in tornadoes that destroyed four homes at Elie and one in the RM of Argyle, in addition to causing widespread damage in an area extending from southwestern Manitoba to the Whiteshell region along the Ontario border. Following this event, Hon. Steve Ashton, Minister responsible for Emergency Measures, asked the Association of Manitoba Municipalities (AMM) to co-chair a Working Group to investigate lessons-learned from recent severe weather emergencies in Manitoba and make recommendations on ensuring people and agencies are better prepared in the event of severe weather emergencies. The members of the Working Group include:

- Joe Masi, Executive Director, Association of Manitoba Municipalities (co-chair)
- Jeremy Angus now replaces Brock Holowachuk, Senior Planning Officer, Manitoba Emergency Measures Organization (co-chair)
- Paul Anderson, Customer Relationship Manager, Science, Technology, Energy and Mines
- John Irwin, Regional Director, Manitoba Conservation
- Rob Paola, Environment Canada
- Anne-Marie Palfreeman, Environment Canada
- Chuck Sanderson, Executive Director, Manitoba Emergency Measures Organization

### ***Terms of Reference***

The Terms of Reference for the Working Group established its focus, which was to “review the system for issuing severe weather warnings in Manitoba and the

mechanisms in place for municipalities to respond to these warnings,” and “make recommendations on improving the dissemination of severe weather warnings and the emergency response activities resulting from severe weather warnings.”

The Severe Weather Working Group has met three times since it has been convened, and has examined the sequence of events around severe weather emergencies including the August 2006 Gull Lake-eastern Manitoba tornado system, and the June 2007 severe weather system in southern Manitoba. The Group has focused on improvements that can be made in notification, response, and preparedness for severe weather of all sorts, and has made a number of recommendations for action.

### ***Towards a National Public Alerting System***

While there are several steps that the Group urges be considered, it is also important to recognize the national context of issues around emergency public alerting. Canada is one of the few industrialized nations that does not have a national system to warn people at imminent risk of being harmed by an emergency or disaster. While there is one province and a small number of municipalities with a public alerting system, this is a critical gap when evaluating the adequacy of severe weather warnings. In recent years, there has been growing focus on the implementation of such a system, notably including statements from the Premiers at the Council of the Federation, and the Senate Standing Committee on National Security and Defence. Without diminishing the opportunity and importance of immediate measures to improve preparedness for severe weather emergencies, the development of a national system for public alerting is the most critical need in improving the preparedness around severe weather emergencies.

## **AREAS FOR CONSIDERATION**

In reviewing events related to recent severe weather emergencies in Manitoba, the Working Group identified the following themes as requiring attention in order to improve preparedness for future events of this nature.

### ***Dissemination of alerts and subscription to existing alerting systems***

While there are few existing public alerting systems in Manitoba, they are not widely subscribed to. The result is that for situations where the public is being warned, the warnings are not widely received and do not result in swift action. Improving subscription to alerting systems such as Environment Canada's Weatheradio system in the broadest sense possible would significantly improve the response to imminent threats. As a component of this, improving subscription among first response and emergency management agencies and institutions (such as schools) would improve the opportunity to spread the warning through a community at risk.

Consideration is being given to using Weatheradio as a resource for 'all-hazard' emergency alerts; improving the reach of the Weatheradio system might result in an improved general public alerting capacity if the system is made available for warnings about a threat to public safety.

### ***Public education***

When people become aware of severe weather, their response does not reflect the caution and alarm that is appropriate for such a severe hazard. Most severe weather conditions necessitate immediate action to protect life safety, and too often people at risk are found to be watching the weather rather than taking protective action.

Associated with this concern is that many people seem to misunderstand the language used around severe weather warnings, and this may contribute to a less-than-appropriate level of alarm. There are significant differences between a Severe Weather Watch and a Severe Weather Warning, but these differences do not seem to be reflected in how they are understood by much of the public.

### ***Emergency planning***

Severe weather is an emerging hazard for Manitoba. The Climate Change Task Force Report in 2000 anticipated an increase in the frequency and severity of severe weather events in Manitoba, and called for emergency management and planning capacity to be strengthened in response. Severe weather hazards will evolve and become a more prominent risk in each of the province's regions. Over time, it is likely that emergency managers will develop, through practice and experience, a similar comfort around these hazards as many now have when facing a more common emergency such as an overland flood. Providing greater attention to severe weather events in emergency preparedness is a more appropriate approach to building response capacity.

## RECOMMENDATIONS

### *Dissemination of alerts and subscription to existing alerting systems*

1. **Consider options to improve the subscription to Environment Canada's Weatheradio system.** The Working Group urges particular attention to making Weatheradio available for first response and emergency management organizations, and institutions such as schools and medical facilities. While the broadest possible subscription to Weatheradio is desirable, focusing on these groups will provide an opportunity to spread warnings more widely in their communities and activate response plans in advance of an event.
2. **Supplement Environment Canada's weather watcher volunteer numbers with local emergency managers.** Environment Canada has a network of volunteers across Manitoba who report to them on weather, and also confirm local conditions when requested. Local emergency managers can be encouraged to become supplementary volunteer weather watchers for Environment Canada, thus bolstering the number of volunteers across the province significantly. Local emergency managers are trained from an all-hazard perspective and can be relied upon to contact Environment Canada and bring those conditions to their attention quickly and accurately.

### *Public education*

3. **Build public education campaigns that emphasize the actions required in response to a severe weather threat.** While there seems to be a good understanding around identifying severe weather, providing focus on the appropriate actions is critical to ensuring people are in the safest possible conditions when a threat materializes.

4. **Focus on education in schools.** Programs such as fire and life safety have shown the importance of teaching children about what to do during an emergency. This not only results in better actions when they themselves are at risk, but it has been shown that children bring this information home and educate their parents about the same actions. The implementation of any materials in the classroom should be consistent with broader public alerting materials.
  
5. **Provide education on Environment Canada's system for warnings.** At the November 2007 Association of Manitoba Municipalities conference, Environment Canada made a presentation on how they generate alerts and the difference between a Severe Weather Watch and a Severe Weather Warning. Providing this information in all public information materials will re-enforce the difference between these alerts, and explain how each requires different action.
  
6. **Provide severe weather education for first responders and emergency managers.** As severe weather threats evolve in ways that may be unique for each region of the province, first responders and emergency managers will be responsible for dealing with the preparedness, response and recovery from these events. Manitoba Emergency Measures Organization's training program provides a good venue to deliver general information on severe weather threats and regionally-specific concerns.

### ***Emergency planning***

7. **Strengthen the overall level of community emergency planning.** The Working Group sought information from a number of states in the U.S. Midwest that have dealt with severe weather such as tornadoes on a fairly



routine basis. Their advice is that the development of event-specific plans is not recommended, but they do encourage the general improvement of emergency plans from an all-hazard perspective. At the community level, generally improving the level of emergency planning results in an improved response capacity for severe weather emergencies along with a broad range of other emergencies. As well, updating the training component for local emergency managers and coordinators to reflect the proper response and action to these new severe weather challenges increases their capacity to respond.

Manitoba has adopted an all-hazard planning approach for municipal emergency planning, and an option to build on these plans is the implementation of a recognized standard for emergency planning as a requirement for local emergency plans.

8. **Enhance institutional emergency plans to address severe weather emergencies.** Many institutions such as schools, daycares, and personal care homes have developed emergency response plans that deal with specific hazards such as an active shooter. Expanding these plans to address severe weather emergencies has the potential to reduce the most severe impacts of such events, specifically loss of life.