



TIP SHEET

Emergency Preparedness

Written by:
Jane Dalley, Heritage Consulting

Introduction

Modern emergency management is based on the principles of Risk Assessment, Prevention, Response, and Recovery. There is also a direct connection between effective prevention/mitigation planning and long-term, sustainable recovery from disasters. The current MAS Tip Sheet [Risk Assessment for Collections](#)¹ already outlines the process to assess risks and suggests strategies for mitigating them. This Emergency Preparedness Tip Sheet offers additional suggestions and resources for all four principles.

Risk Assessment & Mitigation

Incidents of high-water levels are increasing, whether from overland flooding or torrential rain. The Canadian Disaster Database recorded 41 disaster incidents in Saskatchewan over the past 23 years. Twenty-two involved floods or severe thunderstorms with eight involving wildfires.

For these reasons alone, talk with your insurance company about what is and what is not covered by your insurance policy, and maintain regular communication with your insurance adjuster. The Saskatchewan Flood Damage Reduction Program (FDRP)² provides cost share funding for implementing proactive flood damage prevention or reduction measures for urban municipalities (cities, towns, and villages) and rural municipalities (hamlets) that face a risk of suffering recurrent flood damage in the future.

Flood mapping can identify areas that are at-risk for overland flooding from nearby rivers, lakes, and streams. Although not as widespread in Canada as in other countries, it is becoming more common. The Saskatchewan Water Security Agency's flood mitigation measures currently include flood mapping for 20 high-risk communities throughout Saskatchewan. The FloodSmart Canada website has flood plain maps for every province and territory and currently displays a flood map for Moose Jaw and a Flood Risk Area map for Prince Albert. The site also contains a link to flood prevention and mitigation information courtesy of an insurance company.

The Saskatchewan Water Security Agency³ publishes a flood forecast beginning early in spring. It includes a colour-coded map that is updated regularly, since the risk of flooding can change daily, according to the temperature, rainfall, rate of snow melt, and permeability of the ground. The Saskatchewan Public Safety Agency's (SPSA) Emergencies and Response⁴ page provides a list of active emergencies and useful links.

1. Museums Association of Saskatchewan, "Risk Assessment for Collections," 2022, https://saskmuseums.org/wp-content/uploads/2023/02/MAS-Tip_Sheet_4_-_Assessments_for_Collections_-_March_2022.pdf

2. Water Security Agency, "Flood Damage Reduction Program", accessed 14 November 2023, <https://www.wsask.ca/water-programs/flood-damage-prevention/>

3. Water Security Agency, accessed 14 November 2023, <https://www.wsask.ca/>

4. Saskatchewan Public Safety Agency, "Emergencies and Responses," accessed 14 November 2023, <https://www.saskpublicsafety.ca/emergencies-and-response>

Rainfall may be possible to predict but its effects are not. There are four distinct ecozones in Saskatchewan and the effects of heavy precipitation vary within each one according to its climate, soil cover, drainage patterns, vegetation cover, and precipitation-evaporation cycle. Grey infrastructure – dams, dikes, and retention ponds – are used to modify the effects of excess precipitation on a large scale.

It is possible to use green infrastructure on a smaller scale to absorb rainfall and prevent water from overwhelming the capacity of sewers and drains. Vegetation borders (willow bushes) will help slow down and filter excess water. Rain gardens composed of hardy plants in small depressions can be used to absorb excess water. Bioswales are a larger form of a rain garden that can be used to manage runoff from large impervious areas such as parking lots or roads. A roadside ditch is a simple bioswale. Whether you implement green infrastructure or not, keep in mind that proper building drainage or plumbing maintenance is also required!

Dry weather and strong winds can favour the development of wildfires and grass fires in rural locations and also urban areas with wooded greenspaces. The US-based National Fire Protection Association (NFPA) has published #1140 [Standard for Wildland Fire Protection](#).⁵ It addresses the prevention, mitigation, preparation, and suppression of wildfires, through assessment of wildfire ignition hazards and development of wildfire-safe land use practices. The NFPA also publishes codes and standards for the protection of cultural resource properties,⁶ for the installation of sprinkler systems and for the prevention of fire during construction/renovation.

Being aware of a nearby emergency situation increases the chances of a successful response. There are several free cellphone apps that will send an alert in the event of an emergency. Some also provide suggestions for response.

SaskAlert is Saskatchewan's Emergency Public Alerting program used to alert the public in real-time of an emergency situation including weather events that pose a danger to life and safety.

Disaster Alert provides real-time current global disaster information on an interactive map and will send cellphone alerts from a list of pre-selected emergencies types, for up to five locations.

Alertable Emergency Alerts sends alerts when disasters and hazards e.g., severe weather, floods, tornados, wildfires, earthquakes, and bio-hazards occur in pre-selected locations. It is linked to the Canadian Alert Ready System and provides alerts, background information, and suggestions for response.

Red Panic Button allows you to send a distress call from your phone's GPS coordinates, and a link to Google Maps using SMS or email, to a previously specified contact list of up to six people.

Be Ready, the Canadian Red Cross app, lists common hazards - house fires, floods, power outages, and even earthquakes – and provides information on the risks and help in making a plan. The app is tied to the Weather Network and can monitor and track weather developments, allowing users to prepare their homes and families – or museums – for disasters. It provides information on preparing for different emergency situations and how to take action when a disaster strikes.

5. National Fire Prevention Association, *NFPA 1140: Standards for Wildland Fire Protection*. 2022, accessed 14 November 2023, <https://www.nfpa.org/codes-and-standards/1/nfpa-1/4/nfpa-1140>

6. National Fire Prevention Association. *NFPA 909: Code for the Protection of Cultural Resource Properties - Museums, Libraries, and Places of Worship*. 2021. Accessed 14 November 2023. <https://www.nfpa.org/product/nfpa-909-code/p0909code>

Response, Salvage & Recovery

A disaster response plan is written and implemented to manage the effects of hazards that cannot be avoided, reduced, accepted, or transferred. There are many disaster planning publications available and several are listed in the Resource section to assist museums in undertaking the creation of a disaster plan.

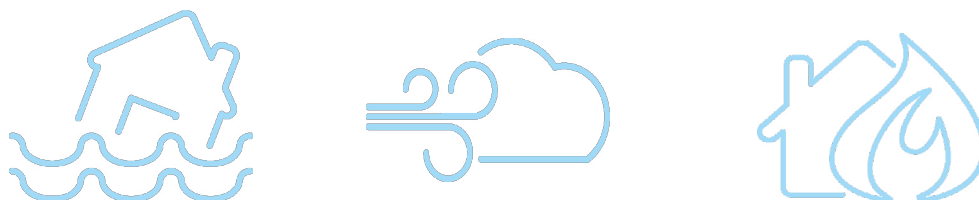
[Be Prepared – Guidelines for Small Museums for Writing a Disaster Preparedness Plan](#)⁷ takes a practical step-by-step approach to disaster planning. It was created by the Australian Heritage Collections Council and is meant for small museums. It can be downloaded free of charge. The Field Guide to Emergency Response is a comprehensive handbook for responding efficiently and effectively to different types of disasters. It includes online links to checklists and training videos. Its companion tool, the Emergency Response and Salvage Wheel, is a concise, portable 2-sided wheel that outlines the stages of disaster response on one side and lists salvage procedures for different types of artefacts on the other. Both are available for purchase through the American Institute for Conservation's online shop. The Supplementary Resources from the Field Guide are available for download/viewing free of charge.

The Getty publication [Building an Emergency Plan: A Guide for Museums and Other Cultural Institutions](#)⁸ is a comprehensive step-by-step guide that is available for download free of charge in English, French, and Spanish. The University of Washington has an extensive list of resources for disaster preparedness and response on its library's Research Guide page.⁹ Information from the SPSA emergency planning page¹⁰ can be used in a museum's plan.

A disaster event can affect a museum and the community in which it is located. Consequently, a response plan has to take into account the fact that staff and volunteers included for a museum's disaster response plan may be busy sandbagging their homes, moving their livestock, or under evacuation orders. Since a museum often offers much to the community – school programs, volunteer opportunities, student employment opportunities, a civic history point, a place to meet – it could ask the surrounding community for support in preparation of the plan. Suppliers, cold storage facilities, heavy equipment, contractors, and restoration companies could be asked to support the plan, as well as volunteer/paid fire departments, the RCMP, local/tribal police forces, and Neighbourhood Watch groups.

Every city, town, village, and municipality is required to have an emergency plan. It may be possible for a museum's plan to be incorporated into the governing authority's larger plan and in return, act as a community resource or information hub during an emergency. This creates a beneficial reciprocal arrangement and also reduces competition for resources and contractors.

It can be difficult to think of recovery when actively responding to a disaster. It is important to develop a recovery/business resumption plan ahead of time so that the museum can resume some operations, with or without a building and with or without access to collections. One option is to arrange for an alternate satellite location and/or collection storage in advance. It may be possible to offer programs from a storefront or virtually. Make these plans for both short (months) and long-term (years) scenarios.



7. Heritage Collections Council, *Be Prepared: Guidelines for Small Museums for Writing a Disaster Preparedness Plan*, 2000, accessed 14 November 2023, <https://blueshieldaustralia.org.au/wp-content/uploads/2018/03/CAN-Be-Prepared.pdf>

8. Valerie Dorge and Sharon L. Jones, *Building an Emergency Plan: A Guide for Museums and Other Cultural Institutions*, The Getty Conservation Institute, 1999, accessed 14 November 2023, https://www.getty.edu/conservation/publications_resources/pdf_publications/emergency.html

9. University of Washington, "Research Guides - Preservation: Disaster Preparedness & Response," University Libraries, accessed 14 November 2023, <https://guides.lib.uw.edu/c.php?g=342245&p=2305085>

10. "Emergency Declaration and Management Planning" Saskatchewan Public Safety Agency, accessed 14 November 2023, <https://www.saskpublicsafety.ca/communities/emergency-declaration-and-management-planning>

Conclusion

An emergency only becomes a disaster if it overwhelms your capacity to respond effectively and recover. Carrying out risk assessment and implement mitigation strategies will provide a foundation for Response and Recovery plans. Including these as well as response and recovery strategies in your emergency plan will exponentially increase your museum's chances of surviving a disaster.

Please remember that human safety is always the first priority in an emergency.

References

- "Alertable - Emergency Alerts." PEASI. Accessed 14 November 2023. <https://alertable.ca/#/>
- "Disaster Alert." Pacific Disaster Centre (PDC Global). Accessed 14 November 2023. <https://disasteralert.pdc.org/disasteralert/>
- Dorge, Valerie and Jones, Sharon L. *Building an Emergency Plan: A Guide for Museums and Other Cultural Institutions*. The Getty Conservation Institute. 1999. Accessed 14 November 2023. Los Angeles, CA: Getty Conservation Institute. 1999. Accessed 14 November 2023 https://www.getty.edu/conservation/publications_resources/pdf_publications/emergency.html
- "Emergency Declaration and Management Planning" Saskatchewan Public Safety Agency. Accessed 14 November 2023. <https://www.saskpublicsafety.ca/communities/emergency-declaration-and-management-planning>
- FloodSmart Canada. "Know Your Risks: Use Flood Maps and Apps to Learn About Your Flood Risk." Accessed 14 November 2023. <https://floodsmartcanada.ca/floodplain-maps/>
- Heritage Collections Council. *Be Prepared: Guidelines for Small Museums for Writing a Disaster Preparedness Plan*. 2000. Accessed 14 November 2023. <https://blueshieldaustralia.org.au/wp-content/uploads/2018/03/CAN-Be-Prepared.pdf>
- Museums Association of Saskatchewan. "Risk Assessment for Collections." 2022. https://saskmuseums.org/wp-content/uploads/2023/02/MAS- Tip_Sheet_4_-_Assessments_for_Collections_-_March_2022.pdf
- National Fire Prevention Association. *NFPA 909: Code for the Protection of Cultural Resource Properties - Museums, Libraries, and Places of Worship*. 2021. Accessed 14 November 2023. <https://www.nfpa.org/product/nfpa-909-code/p0909code>
- National Fire Prevention Association. *NFPA 1140: Standards for Wildland Fire Protection*. 2022. Accessed 14 November 2023. <https://www.nfpa.org/codes-and-standards/1/nfpa-1/4/nfpa-1140>
- Public Safety Canada. "The Canadian Disaster Database." Government of Canada. Last modified 10 November 2022. Accessed 14 November 2023. <https://www.publicsafety.gc.ca/cnt/rsrscs/cndn-dsstr-dtbs/index-en.aspx>
- "Red Cross launches new app to help Canadians keep themselves and their families safe during emergencies." Canadian Red Cross. 01 May 2016. Accessed 14 November 2023. <https://www.redcross.ca/about-us/media-news/news-releases/red-cross-launches-new-app-to-help-canadians-keep-themselves-and-their-families-safe-during-emergen>
- "Red Panic Button." Accessed 14 November 2023. <https://www.redpanicbutton.com/>
- "SaskAlert." Government of Saskatchewan. Accessed 14 November 2023. <https://emergencyalert.saskatchewan.ca/>
- Saskatchewan Public Safety Agency. "Emergencies and Responses." Accessed 14 November 2023. <https://www.saskpublicsafety.ca/emergencies-and-response>
- University of Washington. "Research Guides - Preservation: Disaster Preparedness & Response." University Libraries. Accessed 14 November 2023. <https://guides.lib.uw.edu/c.php?g=342245&p=2305085>
- Water Security Agency. Accessed 14 November 2023. <https://www.wsask.ca/>
- Water Security Agency. "Flood Damage Reduction Program." Accessed 14 November 2023. <https://www.wsask.ca/water-programs/flood-damage-prevention/>

Additional Resources

The Canadian Disaster Database (CDD) provides detailed, searchable information on more than 1,000 natural, technological and conflict events (excluding war) that have happened since 1900 in Canada, or from abroad if they have directly affected Canadians: <https://www.publicsafety.gc.ca/cnt/rsrscs/cndn-dsstr-dtbs/index-en.aspx>. Accessed March 31, 2023.

The Saskatchewan Public Safety Agency (SPSA) has a page on emergency planning for individuals and communities. The information can be adapted for institutional plans and will also provide insights for working with your local municipality:

- <https://www.saskpublicsafety.ca/at-home>. Accessed November 14, 2023;
- <https://www.saskpublicsafety.ca/communities>. Accessed November 14, 2023.

The Saskatchewan Water Security Agency's (WSA) annual forecast for the upcoming spring runoff includes a coloured map showing potential flood risk for all of Saskatchewan as of a certain date: <https://www.wsask.ca/news/2023-spring-runoff-forecast-for-saskatchewan/>. Accessed November 14, 2023.

Information on Saskatchewan Ecozones can be found from The Encyclopedia of Saskatchewan's entry on "Ecozones and Ecoregions": https://esask.uregina.ca/entry/ecozones_and_ecoregions.html. Accessed November 14, 2023.

Guidelines from the Government of Canada for the "Emergency Preparedness for Farm Animals" can be useful for heritage sites with animals: <https://www.getprepared.gc.ca/cnt/rsrscs/pblctns/frm-nmls/index-en.aspx>. Accessed November 14, 2023.

Resources from the American Institute for Conservation and the Foundation for Advancement in Conservation include:

- The Field Guide to Emergency Response, which can be ordered from <https://store.culturalheritage.org/site/index.php?app=ecom&ns=prodshow&ref=FAIC-2>, Accessed November 14, 2023;
- The supplementary forms and online videos can be accessed at: <https://www.culturalheritage.org/resources/emergencies/disaster-response-recovery/fieldguide>. Accessed November 14, 2023;
- The Emergency Response and Salvage Wheel is an invaluable resource and can be ordered from: <https://store.culturalheritage.org/site/index.php?app=ecom&ns=prodshow&ref=FAIC-1>, Accessed November 14, 2023.

We gratefully acknowledge
the support of...

