

EMERGENCY CONSERVATOR HACK FOR JULY 2, 2020

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The Province of Manitoba has ordered the evacuation of people and livestock downstream from the Rivers Dam on the Little Saskatchewan River ([Rivers Dam Media Bulletin](#)). The heavy rains of the last few days may breach the dam and cause flooding in the RMs of Riverdale, Whitehead and Cornwallis as well as the City of Brandon. The Whitemud River could overflow its banks in the Arden and Gladstone areas. The Province has engineers on site at the Rivers Dam and is ready to open the Portage Diversion. Even so, a dam failure or another heavy rain could put many museums in danger of overland flooding, or water infiltration due to a rise in the water table.

Water is one of the biggest threats to heritage sites and overland flooding in particular can contain contaminants, fertilizers, pesticides and animal feces. Even clean water can become a health hazard if it sits undrained for more than a few days. When floodwater recedes or is pumped out, it leaves mud, detritus and dampness in its wake. Dampness can result in mould on historical artifacts, which cannot be easily cleaned. If basement dampness occurs due to a high water table, it can create an environment conducive to mould and affect any artefacts stored in a basement or below grade.

Historic buildings can be more difficult to dry due to their age and type of construction. There may not be exterior drainage or interior drains; damaged sections of horsehair/plaster walls cannot be cut out as easily as drywall; and wood floors can warp. Buildings that are not dried properly can pose health hazards such as mould and structural instability, and may need to be torn down.

The AMM is ready to assist any affected museums, free of charge for Institutional members, through the Cultural Stewardship Program. (Jane Dalley: 204.223.3056 and conservator@museumsmanitoba.com). The best approach is to be proactive and begin planning **now** to avoid costly damage and loss of irreplaceable artifacts.

1. Ask yourself and your Board the following questions:

- How will your security, fire department and available staff/volunteers function in the event of a flood?
- Does your insurance cover flood damage to buildings? To collections?
- Is there an evacuation plan for your collections?
- Do you have a backup location where collections can be stored?
- What will you do while waiting for the floodwater to recede? Is it possible to open a satellite location?
- What is your plan for business resumption?

2. Reduce the potential for water damage in your museum:

- Check the drainage system (storm sewer) on your street and if it is blocked, report the condition to the town or RM, or try to unblock the sewer. If you live in a rural area, check culverts and other waterways and remove any blockages if it is safe to do so.
- Make sure any sump pumps are working properly. Make sure backup batteries are fully charged.
- If you can't remove artifacts from a basement or first floor, elevate them off the floor or move them to the upper floors of the museum.
- Store important papers in watertight containers in a safe place, preferably with you.
- Follow directions from your local authorities and monitor the situation in your area.

3. If you suspect water infiltration in your basement or crawlspace:

- Monitor levels of relative humidity in basement storage areas. The AMM has a limited number of drum hygrothermographs that it can lend. These devices provide a continuous visible recording of temperature and relative humidity.
- If relative humidity reading is above 65% and stays there for more than three days, there is a risk of mould developing. Use fans, dehumidifiers and portable heaters in the area to get the air moving and dry it out.
- If you see mould growing, contact your local health department for advice. Refer to the Canadian Conservation Institute's Note [Mould Outbreak - An Immediate Response](#)

4. If you have water in your basement or crawlspace:

- If the water is clean, drain it out if possible, using a submersible pumps followed by Wet/Dry Shopvacs, and mops. **Wear protective clothing including gloves and a mask.**
- If you have artefacts sitting in water, locate a suitable secure storage place before moving them such as a school gymnasium, a community centre, a dry outbuilding or a clean, dry upper floor. Put down something absorbent such as old blankets or towels. Have fans and dehumidifiers running.
- Keep in mind that waterlogged artefacts can be heavy. The glues used for older furniture can give way when wet. The bottom can fall out a wet cardboard box. Ceramics and glass can be slippery. Make sure that you have plenty of volunteers to help move artefacts to a drier place.
- Maintain intellectual control by copying information off waterlogged boxes and labels and keeping it with the artefacts.
- Paper based artefacts (books, documents) and textiles can be bagged and frozen until there is time to safely air-dry them.
- Keep checking the artefacts for mould until they are completely dry (several days). Do not return artefacts to a previously-wet space until it is thoroughly dried out. This may take several days or even weeks.

5. Stockpile supplies:

For salvage

- Polyethylene sheeting
- Unprinted newsprint and/or blotting paper
- Polyethylene bags
- Tape
- Towels and blankets
- Disposable masks and gloves
- Handcarts
- Two-wheel hand trucks
- Milk crates or standard-size boxes

For recovery and clean-up

- Detergents/Bleaches/Disinfectants/
Cleaning powders
- Brooms/Mops/shovels
- Sponges or rags/Buckets
- Water hoses
- Plastic bags
- Large window or floor fans
- Dehumidifiers
- Portable water pump
- Wet/dry Shop Vac