

Cultural Stewardship Program Conservator Hack: Reducing the Effects of Wildfires

By Jane Dalley, CSP Conservator

Although wildfires and grassfires usually affect rural and semi-rural museums, they can also occur in wooded urban greenspaces, as evidenced by last June's wildland fire in Charleswood (Winnipeg). Since you can't move your museum out of the way of a wildfire, I'd like to offer some suggestions on how to mitigate their effects.

Keep your eye on the weather and listen to the weather alerts. Dry weather and strong winds are ideal for the development and spread of wildfires and grass fires.

Embers are the most common wildland fire ignition source and they can travel up to .8 km (.5 mile) to land on – and ignite – combustible material such as buildings, outdoor artifacts, vegetation or debris. Embers can also enter a building through chimneys, windows, doors and roof vents.

Intense heat radiating from wildfires can cause exposed building components to reach their auto-ignition point without flames actually touching them. This can occur as much as 100 m (330 ft.) from forested areas and 30 m (100 ft.) from grassland. A zone of this size, free of timber, long grass, continuous vegetation and debris, can be created around museum buildings to protect them and reduce the chances of fire approaching close enough to cause damage. Trim trees that overhang buildings and trim lower branches 2 m (6 ft.) above the ground to create a fire break. Keep grass cut short and remove dead leaves and undergrowth from the grounds. Water the grounds regularly.

Exterior sprinkler systems are available for rural museum sites and can be used to wet exterior walls to reduce their flammability. These systems require a water supply and pump. A quick response system rated for 72oC (165oF) and installed 1.5 to 3 metres from a wall is recommended.

Even if there is no wildfire nearby, smoke can be carried thousands of kilometres by the wind before being deposited as ash and soot. These products pose a risk to both human health and artifacts. Sealing all doors and windows might not be enough to prevent fine particles from entering a building. If there are reports of wildfire smoke, collections can be boxed and/or covered for protection. The BC Centre for Disease Control has put instructions for making a home-made box fan air filter on their website: [BoxFanAirFilters.pdf](#)

If you have any questions about preventing the effects of wildfires, please email me at conservator (at) museumsmanitoba (dot) com
I would be happy to help.

The AMM Cultural Stewardship Program (CSP) is a program available to all AMM members (and non-members for increased fees) designed to help museums with preventive conservation. It covers everything from storage and packing to facilities and buildings; CSP is a perfect tool to help you with your conservation issues! CSP offers a wide range of services such as: artifact assessment, information sessions for your board, emergency preparedness, loan of

environmental and pest monitoring equipment, and one-on-one consultations to address your specific preventive conservation needs.

All CSP fees are being waived for Members until further notice to help reduce the impact of COVID-19 on museums.