

INDIANA HISTORICAL SOCIETY COLLECTIONS ADVISOR

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MANAGING WATER RISKS IN COLLECTION AREAS

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Nearly every disaster is ultimately a water disaster. Whether a fire put out with water from hoses, a flood or a leaking roof the potential damage to the collection caused by water is the same. While water presents a constant threat to museums, melting snow and spring rains this time of year can bring with them their own particular set of water problems. So how can you mitigate this risk to your collection?



[Flood in Aurora, Indiana.](#) (Jay Small Postcard Collection, Indiana Historical Society)

ASSESSMENT

The first step to mitigating the risk of uninvited water in the collection is to take a thorough look at all potential entry points of water. While there are some instances where you can merely react, such as the aforementioned fire hoses, performing an assessment allows you to identify risks and thus prepare in advance. Go through each area of the museum and look for possible water sources. Are collections stored on upper levels with nothing but a roof above? Are there old, poorly sealed windows that could let in water during a driving rain? What about water pipes running through the storage areas? Are collections stored in a below-ground room? Even if there have never been problems in these areas, they are important to note in a full assessment of the water risks to the collection. It is better to prepare for a leaking roof that never happens than be caught off-guard when it does, whether caused by age or natural disaster.



ONLINE RESOURCES

[NPS Museum Handbook Chapter 4: Museum Collections Environment](#)
(National Park Service)

[Preservation Brief 39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings](#)
(Sharon C. Park, AIA, National Park Service)

[Moisture in basements: causes and solutions](#)
(University of Minnesota Extension)

UPCOMING TRAINING AND PROGRAMS

[Writing a Powerful Case for Support](#)
April 10 -
GrantStation webinar.

[Exploring Old Loans: A Quest for Resolution](#)
April 1 -
Connecting to Collections Care webinar.



[Canvassing for Eisenhower](#). (Larry Foster Collection, Indiana Historical Society)

PREPARATION

After you have identified the potential risks of water entry into the collection, it is time to prepare for what happens if the water does come. Having a simple water disaster kit on hand can help tremendously. Consider keeping a plastic tub of supplies near major collection areas. Tubs might include towels to sop up water and plastic sheeting to drape over collection items. Other things to have on hand are a wet-dry vacuum to clean up minor issues, fans to help dry out the space, and dehumidifiers to keep the relative humidity, and thus mold growth, under control in the immediate aftermath. Keep important phone numbers accessible, such as the plumber, roof repair, and even the electrician. Knowing who to call to help you repair the problem quickly is imperative to ensuring the minor water issue remains just that, minor. While a dehumidifier and fans will not solve your water issues, they, like the other items mentioned here, can provide short-term solutions to buy time and lessen the long-term effects of minor water issues as the larger issue is identified and fixed. If the larger issue is not addressed, however, they are merely helping you fight a losing battle.



[Three Sisters Clothing Store Opening: Basement Level.](#) (Larry Foster Collection, Indiana Historical Society)

PREVENTION

There are certain things you can do to help prevent harm to collections if water emerges. If collection items are stored in the basement, make sure items are stored a few inches above the floor. Consider storing items less susceptible to water damage (such as ceramics, glass or earthenware) on lower shelves and putting other items higher up (such as paper, textiles or metals). Furniture can be raised up with blocks of wood or on a platform. While these measures might not prevent damage in severe flooding situations, they can prevent damage from minor incidents like water seeping in after a hard rain.

Similarly, if collections are stored on a top level with the potential of a roof leak, keep items on upper shelves in Sterilite tubs. Suspending thick plastic tarps at the ceiling or under water pipes can help catch small drips so they can be identified before causing a larger problem. Covering storage shelves with muslin curtains can provide some protection against minor water infiltration from above while still allowing the water from fire hoses or sprinklers to reach items in the event of a severe disaster.



[Cataract Falls and Mill, Eel River.](#) (Jay Small Postcard Collection, Indiana Historical Society)

Also consider building-wide preventative measures. Occasionally having the building professionally inspected, such as through a historic structures report, can help identify potential upcoming issues. A roof that is coming to the end of its useful life, bricks that need repointed or improperly sealed windows can eventually lead to water infiltration. Other things to look for are landscaping and dirt that direct water towards, rather than away, from the building's foundation. Clearing gutters and downspouts regularly can also prevent water coming in after heavy rains due purely to water needing somewhere to go. Water travels the path of least resistance, so if the gutters are clogged that might mean water running down the side of the building and finding its way in through minor cracks in window seals. Fill cracks and gaps in the structure, and consider blocking chimneys to stave off water. Some of these steps equally keep water and pests out while keeping heat and cold in.

Many museums employ technology to help mitigate risks of minor water disasters. Using water-level and moisture sensors can provide a quick notification that water is present in an unoccupied area and a sump pump can keep water out of the basement. Sometimes, however, the best preventative measures are simply being aware of the museum. Having staff or volunteers consistently looking in on often un-visited storage areas, checking the windows and roof for leaks after it rains or making sure preventative technology is functioning can all go a long way in preventing minor water disasters. Look for early signs of possible moisture. An increasing relative humidity or the appearance of certain pests can indicate increased moisture in the area. Similarly efflorescence (white lines on porous surfaces caused by salt deposits left behind by water) on walls indicates water coming into the area.

Although it is impossible to predict all possible water disasters and prevent any from ever happening, there are many preventative measures museums can take to manage their risks of such events. Take some time this spring before the next heavy April shower to make sure the collection safely makes it to May with all of those flowers.

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