

WHAT TO DO IF...

Your Library Has a Flood or Water Disaster

What are the time-critical issues in dealing with wet books?

Mold will begin to bloom on wet paper in as little as 72 hours after exposure and will spread rapidly unless the books are dried and the humidity in the area where they are shelved is reduced to below 55% relative humidity (RH). The pages of wet books with glossy, clay-coated paper will stick together as they dry forming a single block of stuck pages unless the pages are separated and dried by interleaving them with paper towels to wick out the water.

What should I do first?

- Work with the local first responders and safety officers from your campus or city to ensure that it is safe to return to and work in the library.
- If your library has a disaster response and recovery plan, follow these local procedures first.
- Ensure that the library's HVAC climate control system is working normally. This will help reduce the chance of a mold outbreak and help wet materials dry faster.
- Assess the extent of the overall damage to the collection. Make a note of how many floors, shelf ranges, or areas of the building have wet materials. Note damage to historic, special collection, or high-demand collection items. The number of books affected by the disaster will be a factor in deciding whether they can be dried in house or will need to be sent to a commercial disaster recovery service.
- Email fdlpoutreach@gpo.gov about your situation, and if applicable, follow the guidance on *What to Do If Your Library Has Unplanned Access Restrictions*.
- Establish who is in charge of directing the work of staff and volunteers working to recover the collection. This may be someone who is more familiar with the collection and disaster recovery procedures rather than the library director or staff supervisor.
- Select a spokesperson who will respond to questions about the disaster from members of the media. Inform staff and volunteers to direct questions from the media to the official spokesperson if appropriate.
- Assemble library staff and volunteers who will set up the work area and recover the collection. Brief them on any safety issues with the building and the procedures for assessing, drying, and documenting damage to collection materials.
- Set up a work area with tables or clean and dry floor space where you can work with the books and prop books upright for drying. Additional electrical power may be needed for work lights and electric fans to circulate the air. Extension cords for this power should be routed on a dry floor so that they won't become a shock or tripping hazard.

How do I assess and recover wet books and other collection materials?

Begin by assessing damage to historic, special collection, or high-demand collection items. Rubber gloves should be worn when handling wet books, especially if the books are wet from flood water or if the books are covered with mud or other debris from damage to the building. Books and other collection materials will be wet in varying degrees from damp to soaked.

Soaked: *Books that were completely submerged in water or books where water has completely penetrated the cover boards and pages.*

Books that are soaked will not dry in normal humidity conditions before they begin to mold. For this reason, they should be packed for shipment to a commercial freezer either by prior arrangement or through a [disaster recovery service](#).

Wet: *Books with water staining to the text block, binding, folder, or pages more than one half inch in from the edges, but are not soaked.*

Paper towels or unprinted newspaper can be used to interleave between the pages of wet books. Interleave approximately every 16 pages, starting from the back of the book, turning pages carefully. Do not interleave too much or the spine will become concave and the volume distorted. A good rule of thumb is to insert no more than one-third of the number of text pages. Close the book gently and place it flat on several sheets of paper towels or newspaper. Change the interleaving paper frequently. When the book is slightly wet, stand the book upright to finish drying. This is especially critical for books with clay coated paper that will stick together if allowed to dry without interleaving.

Slightly Wet: *Books with water staining to the text block, binding, folder, or pages no more than one-half inch in from the edges.*

Damp: *Books that feel cool to the touch, but do not have visible water staining.*

If the book is damp or slightly wet, the book may be stood on end and fanned open slightly in a space with good air circulation, but again, do not aim fans directly at the books. To minimize distortion of the edges of the text block, place volumes in a press or press under a board with a weight just before drying is complete. Paper or cloth-covered bricks work well for weights.

Dry: Books that are dry should also be removed from the affected area until all standing water is removed and the humidity is lowered. If left untouched on shelves, these books will soak up the high humidity in the air and may begin to mold.

Cleaning Books: Books that are soaked to wet and covered with mud or debris can be rinsed in clean water. Fill three tubs with clean water. Hold the book tightly shut in your hands. With the spine of the book turned away from you, quickly pass the book through the water lifting it out so that the spine of the book leaves the water first. An additional quick pass in the second and third tub of water may be needed. This technique allows the water to flow over the book while preventing dirt from getting between the pages. Change the water in the tubs frequently.

Use fans to keep the air moving at all times in the area where the books are drying. This will accelerate the drying process and discourage mold growth. Aim the fans to direct the airflow parallel to the drying volumes to avoid damaging fragile pages.

Take extra care to be sure that the books are completely dry before returning them to the shelves to avoid a later mold outbreak.

Contact GPO's Preservation program at preservfedinfo@gpo.gov if you have any questions about developing a disaster response and recovery plan for your library or if you have questions about this information sheet.