

Disaster Preparedness & Recovery: McNeese State University's Frazar Memorial Library Handout of Resources and Tips

This handout and the PowerPoint presentation are available for your viewing and downloading pleasure at: <http://msugovdocsdept.pbwiki.com/Conference-Presentations> and click on "Texas Library Association".

Web Resources

Disaster Preparedness in Libraries

ALA's Disaster Preparedness & Recovery Guide:

<http://www.ala.org/ala/aboutala/offices/wo/woissues/disasterpreparedness/distrprep.cfm>

Emergency Preparedness: Hurricane Response & Recovery

<http://www.loc.gov/preserv/emergprep/hurricane.html>

Stanford University's Conservation OnLine: Disaster Preparedness & Response Guide

<http://cool-palimpsest.stanford.edu/bytopic/disasters/>

Mold

Emergency Salvage of Moldy Books and Paper Leaflet from Northeast Document Conservation Center

http://www.nedcc.org/resources/leaflets/3Emergency_Management/08SalvageMoldyBooks.php

Mold in the Library: Guide from the University of Delaware Library's Preservation Department

<http://www2.lib.udel.edu/Preservation/mold.htm>

Resource guide to mold from Stanford University's Conservation OnLine website

<http://cool-palimpsest.stanford.edu/bytopic/mold/>

Water

Emergency Salvage of Wet Books and Paper from the Northeast Document Conservation Center

http://nedcc.org/resources/leaflets/3Emergency_Management/06SalvageWetBooks.php

Wet Books in the Library: Guide from the University of Delaware Library's Preservation Department

http://www2.lib.udel.edu/Preservation/wet_books.htm



SALVAGE PROCEDURES: MOLD

NOTE: The following list of procedures was compiled by McNeese State University Library's Archivist, Kathie Bordelon, after a 1993 mold outbreak.

1. Determine what caused the mold and rectify that problem. (In the case of the great mold outbreak of 1993, the problem was that the pre-heater had been switched off. The pre-heater is the device that heats the air enough to dry moisture in it.)
2. Read up on the problem. Consult published sources.
3. Gather the supplies that will be needed. (Plastic sheeting, plastic buckets, rubber gloves, sponges, aprons, tables, book trucks, fans, hand-held portable vacuum cleaners, extension cords, and O-Syl, a disinfectant detergent obtained from the Biology Department.)
4. Enlist volunteers and set up a cleaning schedule.
5. Place plastic sheeting under the vents to clean them, if necessary. (Our janitorial staff removed the vent covers and cleaned them outside. The insides of the vents were vacuumed.)
6. Number the shelves. This is an important step in the clean-up process because it helps to get the books back on the right shelves. We placed two tags on each shelf. One tag remained on the shelf; the other tag went with the book truck when the books were taken off the shelf.
7. Begin vacuuming the books. Using the angled nozzle attachment rather than the brush attachment, vacuum the spines of the books while they are still on the shelf. The badly infected books should be taken down and the covers vacuumed as well. (We tried to have the vacuuming done in advance so that the team taking books down from the shelves would not have to wait on the vacuumers. In the areas least infected, the vacuuming step was omitted.)
8. Set up the cleaning area. Set up tables in a central location, and set up tables with the rotating fans on them around those tables. This will maximize the circulation of air.
9. Mix two tablespoons of O-Syl per one gallon of water. This makes a sudsy cleaning solution. Each table should have a bucket of the solution.
10. Set up rotation teams. One team should remove the books from the shelf, place them on a truck, take one number tag from the shelf and put it on the truck, and take the truck to a location close to the tables. When the books are cleaned and dried, this same team should load the truck, check the call number order, replace the books on the shelf, make sure the number tags match, and remove the tags from the truck and from the shelf (this indicates that the shelf of books has been cleaned).
11. Another rotation team should pick up a truck of books from where the first team has placed it. They should take the truck to a cleaning table and clean the books using the sponges and cleaning solution. The spines, fore-edges, and covers should all be wiped with the sponge. Those books with more mold may require cleaning inside the covers. The books should be placed on the table with the fanned open pages facing the rotating fans. The truck with the number tag still on it should remain by that table so that the first team will be able to load the books back on the same truck.
12. Periodically, wipe off the trucks and tables using the solution.
13. Wipe off the shelves with the solution when the books are removed for cleaning. Then the shelf will be dry when the clean books are returned.

Date: _____

Time: _____

Place	Current Temp	Current Relative Humidity (RH)	Max Temp	Max RH	Min Temp	Min RH
1 st Floor, Front lobby						
1 st Floor, Collection Mgmt.						
1 st Floor, Reference (Near the "D" section)						
1 st Floor, Stacks						
1 st Floor, Rodney Room						
1 st Floor, Holcombe Room						
2 nd Floor, Jenny Room						
2 nd Floor, Liz Room						
2 nd Floor, Serials Desk						
2 nd Floor, Book Stacks (back corner)						
2 nd Floor, Book Stacks (near Current Serials and elevator)						
3 rd Floor, Book Stacks (close to elevator)						
3 rd Floor, Book Stacks (back corner)						
4 th Floor, Stacks						
4 th Floor, Open area						

Remember to "reset" the Max and Min readings.

SALVAGE PROCEDURES: WATER DAMAGE

NOTE: The following procedures are adapted from the Library of Congress publication *Procedures for Salvage of Water-Damaged Library Materials*, 2nd ed., by Peter Waters (1979).

MINIMIZING FURTHER DAMAGE

1. Determine the source of the water and take steps to prevent further damage, if possible.
2. Mold can form on wet books within 24 to 48 hours after water damage occurs. To minimize the danger of mold, lower the temperature and humidity as much as possible (for example, by using air conditioning and portable dehumidifiers). Use portable fans to keep air circulating--dead air also invites mold growth.
3. Do not open or otherwise disturb wet books or other materials.
4. Canvass the local community to locate freezing and storage space and supplies, if needed. A small store of salvage supplies such as boxes and newsprint is kept in the storage closet near the staff elevator on the first floor. (Accessible with the #5 key kept at the Reference Desk.)

Basic supplies include:

- Plastic sheeting
- Plastic milk crates or cardboard boxes
- Grease pencils (for labeling boxes)
- Wax paper or freezer paper (for wrapping books)
- Plastic garbage bags
- Newsprint (unprinted)
- Paper towels (unprinted)
- Nylon filament/fishing line
- Fans and dehumidifiers

If cleaning is required:

- Large buckets or plastic trash cans
- Sponges
- Rubber gloves
- Aprons
- Source of running water

TRIAGE

5. If damage is widespread, determine which areas are most seriously affected, and then determine which areas are first priority for salvage. **REMEMBER THAT REPLACEMENT IS ALMOST ALWAYS CHEAPER THAN RESTORATION.**
6. Determining how badly soaked the books are will determine the salvage procedures. Thoroughly water-logged books will need the attention of a professional salvage firm, since they will probably require freeze-drying. Books with coated or filled papers (such as art books) will also need professional attention. Badly damaged books should be frozen as quickly as possible (for example, at a locker plant or other facility with a large freezer) in order to stabilize them. Freezing temperatures should be at least -20 degrees F, since rapid freezing will produce the smallest possible ice crystals and do the least damage to the book. Moderately wet books can be air dried.

CLEANING

7. If time and resources permit, it may be possible to clean mud-damaged books before freezing or drying. Closed books should be immersed, one at a time, in clean running water. Mud may be removed with a sponge, using a gentle dabbing action. Do not rub or brush books, as this may cause further damage. If mud cannot be removed using this method, it should be left to the attention of professionals.

PACKOUT

9. Organize teams to work together. It is probably best to have some teams work on packing and others on drying, to prevent confusion.

10. Remove the wettest books first. This will help lower overall humidity. If books are lying on the floor, remove these before starting on the shelves, in order to prevent injuries from falls. If books are lying open, remove them as found; do not attempt to close them or reshape them.

11. Wet books should be removed from the shelves and packed in small cardboard boxes (1 foot square) or in rigid plastic crates, such as milk crates. Pack books spine down and do not pack more than one layer deep. If freezing is anticipated, wrap a sheet of waxed paper around each book before placing it in the box, to keep the books from sticking together while frozen. Do not pack the books tightly. As a rule of thumb, always leave space for at least one more book in the box.

12. Keep books together and in order as much as possible. Label each box with its call number range. If call numbers are not visible or books are out of order, note the location where the books were found. Use grease-pencil for labeling, since it is water resistant and will not bleed onto wet books. Keep an inventory list of all boxes packed, so that items will be easy to locate in the future.

AIR-DRYING

13. Keep the work area as clean and dry as possible. Set up the drying area away from the water damaged area. Constantly remove all wet debris.

14. If books are not to be frozen, drying should begin immediately. To dry hardcover books, stand them upright on the head end. Open the covers slightly to support the book, but do not fan the leaves. (Pages should not be fanned unless books are relatively dry.) Pieces of styrofoam or sponge may be used to help support the books. Set the books on absorbent material such as newsprint or paper toweling. Replace the material as it becomes wet.

15. Some books may benefit from interleaving absorbent material about every 25 pages or so. Unprinted paper toweling or newsprint can be used for this purpose. Change the material as it becomes wet.

16. Volumes of 5 pounds or less may be dried on nylon fishing lines. Use at least three lines, one-half inch apart, and not more than 5 or 6 feet long. Carefully slip the book over the lines so that the pages hang down and the lines are resting in the inner folds of the pages. This is particularly helpful for restoring the spine to its convex shape. This method is not suitable for heavy or badly soaked books!

17. When books are almost dry, they should be closed and laid flat on a table, gently formed into their normal shape (with convex spine and concave fore-edge), and held in place with a light weight (such as a brick wrapped in foil or clean paper). Do not stack drying books on top of each other.

18. Keep air moving around the book-drying area. Use fans and dehumidifiers to help speed drying. If the weather is sunny and dry, slightly damp books could be laid on plastic sheets to dry in the sun.

19. Do not return any book to a shelving area until both the book and the shelves are completely dry. Shelves should be cleaned and disinfected to discourage mold growth.

CONSIDERATIONS FOR SPECIAL MATERIALS

Single Sheets

No attempt should be made to clean single sheets. If single sheets have clumped together, it is normally best to freeze them as they are. If single items must be separated for hand-drying, use the following procedure:

Dampen a sheet of polyester film and lay it on top of a wet pile of single sheets. The top sheet should stick to the film so that it can be gently peeled away from the pile. Lay the sheet, polyester side down, on a work surface. Cover it with dry polyester webbing, turn it over, peel away the film, and lay another piece of webbing over the sheet. These "sandwiches" can be hung over lines or laid flat to dry.

Microforms

(NOTE: The following procedures are adapted from *Disaster Planning and Recovery: A How-To-Do-It Manual for Librarians and Archivists*, by Judith Fortson (New York: Neal Shuman, 198?).)

Silver halide microforms: Once wet, rolled microfilm should not be allowed to dry before being reprocessed, since this can result in irreparable sticking or blocking of the film emulsion. If they cannot be treated immediately, the reels may be kept submerged in clean, cool water (below 65 degrees F) in a sealed, dark container for up to 72 hours. If mud or debris is present on rolled film, the film should be removed from its container and rinsed in clean, cold water before packing. If reels are relatively clean, leave them in their boxes, fill boxes with water, and pack them in a cardboard or plastic box lined with garbage bags. Tie or tape bags shut to seal.

If reprocessing is not an option, the film may be unrolled, rinsed in cool water, and laid on edge to dry, with care taken that the emulsion not touch any surface. A hardening solution of 1% formaldehyde may be used in the rinse water. When completely dry, the film should be rewound using a hand-cranked reel, and wiped on both sides with clean, soft, lint-free cloth as it is rewound.

If preservation of wet fiche is necessary, make sure the fiche are not allowed to air-dry in their paper sleeves, since sticking will result. Keep in mind that reproduction from masters is often cheaper than salvage.

Diazo and vesicular microforms: Diazo and vesicular film are also subject to water damage and should be checked for readability. They may be air dried if they have not already blistered or begun to delaminate. Follow the procedures for hand-drying silver halide film, given above.

**Government Documents
Hurricane Supply Kit
Checklist**

- Property stamps & inkpads
- Grey statistics/processing binder
- Office supplies (pencils, pens, paper clips, rubberbands)
- CD Jewel Cases
- Press board binders
- Manuals
- Contact Info Sheet
- Grad Student Time Sheet & Training Binder, Safety Manual
- Circulation supplies (barcodes, pockets, security tabs, etc)
- Barcode scanners
- Processing tray w/current year's shipping lists
- Book trucks
- One departmental computer