

Salvage Plan

I. Building Assessment

a. Minimal building damage

- i. **Onsite evaluation:** If it has been determined that the building has minimal damage which can be patched or temporarily repaired, then staff may elect to keep the collection in the library building. Staff will begin evaluating the collection to determine which items are damaged and which are unaffected.
- ii. **Unaffected Items:** Staff will move any items/furniture that are unaffected from the damaged area(s) e.g. windows, roof, doorways to other parts of the building. Staff will use tarps to cover any material that may be hard to move from the damaged area(s) e.g. book cases, circulation desk, etc. Once items are moved to non-effected area(s), staff will try to close off the rooms e.g. computer lab, teen room, story time room, study rooms, etc. to help keep these items intact. Staff will periodically check the items moved to other areas for mold. If mold begins to grow, staff will need to decide if they want to move items to a new location and try to stop the spread or delete and discard the item.
- iii. **Damaged Items:** Staff will not move damaged items to areas storing unaffected items. Depending on the number of damaged items, staff will either move all damaged items to another area for evaluation, or evaluate them where they are found. Staff will then proceed to either salvage the item using one of the techniques below or delete the item. If staff are not able to delete the item in their circulation system, they will make a handwritten list of items to be deleted later and strip the item if necessary of library markings before throwing it away.
- iv. **Deleting items:** If possible, staff will review circulation counts of an item before deleting it to determine if the item should be replaced. If staff are not able to review a report due to immediate need to dispose of an item, then a record of the item's title, author, publication date, and ISBN number will be kept. Staff will use this record when determining which items should be replaced.

b. Moderate building damage

- i. **Onsite evaluation:** If the building has been deemed structurally sound, but sustained damaged that cannot be repaired quickly, then staff will make it their priority to move items offsite. If possible, a city building such as city hall, police or fire department, will be used to temporarily house the library's collection. If none of those options are available, the staff will try to coordinate with a local school, business or storage unit. The staff will ask other departments for city vehicles to transport the collection before renting vehicles.
- ii. **Unaffected Items:** Once undamaged items on the grab and go list have been removed from the building, the staff will make removing, transporting, and storing of undamaged items their top priority. To remove the collection, staff and volunteers will either pack books into boxes or use library carts to move books to waiting vehicles. Staff will keep documentation on where the collection is relocated. In general, all boxes or other containers must be labeled on all four sides. The contents of the box should be described appropriately (e.g., by shelf range, call number, cabinet, drawer, record group, series).
- iii. **Damaged Items:** Once all unaffected items are removed from the building, staff will then decide if they want to try and salvage or discard damaged items. Staff will either use one of

the salvage techniques onsite, or perform these options once the item is transported to the temporary storage area. Items that are in need of salvage will be stored in a separate area from non-affected items. It is also helpful to indicate the quantity of material, the type of damage, the priority ranking of the material, the salvage technique to be used (freezing, air drying, etc.) and the destination of the container. Please note that both salvaged and non-affected items will be examined regularly to ensure that mold has not started to grow.

- iv. **Deleting items:** Depending on the severity of the situation, staff will decide if they have the means to delete, strip, and record damaged items. If not, staff will simply dispose of the items without following those steps. In that case, staff will then have to do an inventory of undamaged items and items already checked out to determine which items were discarded. Once the inventory is complete, staff will do a batch delete of the items thrown away.

c. **Extreme building damage**

- i. **Onsite evaluation:** If the building has extensive damaged there is probably not much if any of the collection that can be saved. However, if staff are allowed to enter the building, they will try to retrieve grab and go items. Staff will then follow the above steps for collection salvage. If clearance is not given, staff will use one of the other city or a surrounding library's computer to run a report of currently checked out items. Staff will also send out emails and post on social media when and where patrons can return their checked out items. Staff will also run a report of all items in the collection and begin the process of determining which items will need to be replaced.
- ii. **Deleting items:** Staff will then decide if they want to batch delete all items not on the replacement list or currently checked out. They will move the records on the replacement list into a processing status and then edit the record once each item is replaced.

II. **Moving Techniques**

- i. If items are dry and undamaged, but in an area where they could become damaged, they should be moved to a safe area first. If placing items in boxes for transport, make sure that the item's location and call number sections are written on all four sides of the box. You may also use book carts to move books from shelves to another area in the library.
- ii. If the items are being removed from the library, make sure to put on the box label the library's name and address and where the items are going.
- iii. After moving non-damaged items, start packing items that have the least amount of damage (fire or water) as they will have a better chance of being salvage.
- iv. Items may be placed in cardboard boxes, crates, totes and other containers for transport. If the items are wet, make sure to line any cardboard boxes with trash bags to prevent them from becoming wet.
- v. Do not close an open wet book. Wet pages do not slide and closing it could cause pages to rip. Place the item flat in a box open at the place it was found. Put a layer of freezer paper or a rag before placing a book on top of it. Do not pack this box very tightly as wet pages will swell.
- vi. If books are closed and wet, place sheets of freezer paper around the cover and pack spine down in a box. Only fill the box one layer high.
- vii. If wet items are dirty and there is time, rinse them before packing. If not, they will need to be rinsed when they arrive at the drying location.

III. Damage Types

a. Water Damage

Water damage is a major hazard to books as it can dissolve glue, deform paper, warp binding, make ink run, and cause mold to grow. Mold damage on paper is difficult to remove. Wet books will start growing mold within 24 to 48 hours, especially if temperatures are warm. Thus, they will either need to be freeze or have the air drying process initiated within that timeframe. DO NOT handle wet books that have been in contaminated water e.g. sewer, but contact your local health authorities. Even if water is not contaminated, it may be beneficial to wear gloves when handling wet material.

b. Fire Damage

Collections that have been involved in a fire often also suffer water damage. Use the drying technique listed below in the salvage techniques. Problems that result specifically from fire include charring (either completely or just around the edges), smoke or soot deposits, and smoke odor.

IV. Salvage Techniques

Before implementing one of the salvage techniques, you need to assess the damage. Try to take pictures and video to document the damage for filing claims. Determine if salvage techniques can be used onsite or if the collection will need to be relocated. Decide in advance if additional help is needed and what material is required for salvage.

a. General Air Drying

Air-drying is best used for small numbers of damp or slightly wet books or documents. It is less successful for large numbers of items, items that are very wet, or bound volumes with coated paper. Remember that no drying method will undo the damage that has already been done. The materials will not look better after drying than they looked before drying began. However, some drying methods can minimize or prevent additional damage, and in general, the quicker collections can be dried, the less damage there will be.

- i. At a minimum, temperature must be below 70 degrees Fahrenheit and humidity must be below 50%.
- ii. **Do not** turn up the heat as this will not dry out the space and may cause mold growth.
- iii. The air should be kept moving at all times to accelerate the drying process and discourage mold growth. If you add fans, do not place books directly by the blowing air as it will cause the pages in the book to wrinkle.
- iv. Using dehumidifiers will reduce humidity levels and help to pull moisture out of the air, which should help with the drying process.
- v. **Do not** put the book in an oven or microwave to dry as it will over-dry, warp the book and cause adhesives in binding to melt.
- vi. Items can be laid out on tables and other flat surfaces, but try to raise items off the floor to allow air to circulate underneath.
- vii. **Do not** stack drying books on top of each other, and check frequently for mold growth, particularly along the gutter margin.

b. Soaking wet drying procedures

- i. Do not open, fan out the pages or remove book covers.
- ii. Carefully try to shake off excess water.

- iii. Place the book on its head (upright) on absorbent paper or cloths. Replace the cloths/paper when they become damp.
- iv. If the book is a paperback and will not stand on its head, use bookends to help it stand up for the draining process.
- v. If the book pages start to pull away from the spine from the weight of the water, keep flipping it over to its other end every 30 minutes.
- vi. Continue this process until there is no longer any water dripping from the book. Then proceed to moderately wet drying procedures.
- vii. If the book has glossy pages, shake off any excess water and go immediately to the steps in the next section.

c. Moderately wet drying procedures

- i. Carefully open the book and insert cut paper towels or unprinted newspaper where the front and back cover have contact with the book pages. Then place more paper towels or newspaper every 20 to 30 pages to absorb water.
- ii. If it is a glossy page book, a paper towel must be placed in between each page or they will stick together.
- iii. If it is a non-glossy page book, do not insert too many pieces of paper towels or newspaper as it may cause the spine to become distorted.
- iv. Lay the book on its side. As the towels become wet, replace them with dry ones and lay the book on its opposite side. You may also want to vary the location of the absorbent sheets at each exchange. Do this same process for both hardcover and paperback books.
- v. Take care during this process to keep the book square and in shape to help minimize binding damage and distortion.
- vi. Continue the process until the absorbent sheets are no longer wet, just damp, and move to the damp drying procedures.

d. Damp drying procedures

- i. Stand the damp book on its head and open the book, slightly fanning out the pages. Don't force the book open and do not set the books where air will flap the pages (this will cause wrinkling).
- ii. If it is a paperback book, you may hang it over fishing line to allow its pages to spread out.
- iii. Glossy page books may have the absorbent sheets removed. Fan out its pages to finish drying, but check to make sure its pages are not sticking together. If they are, add the absorbent sheets in between the pages.
- iv. Let the book stand (or hang) until it is thoroughly dry. This may take several days or weeks. Check the dryness of the book in several places, feeling down towards the spine.
- v. Once it is completely dry, manipulate the book in shape and place a press or weight on it for a few days or weeks.

e. Furniture drying procedure

- i. Drying of wood furniture and upholstered furniture should begin within 48 hours to prevent mold growth and both should be dried slowly.
- ii. Rinse off mud and remove cushions and other removable pieces.
- iii. Wrap upholstered items in cloths to air dry, but replace the cloths as they become damp.
- iv. Wood parts should be blotted with cloths and air dry slowly.

f. Freezing procedure

If you do not have the time or resources to start air drying wet books, you may want to freeze it. Freezing does not dry the book, but it will prevent further damage. Books may safely remain frozen for weeks or even months.

- i. Wrap the book in paper towels or unprinted newspaper and then seal it in a plastic freezer bag.
- ii. Place the book in a freezer, using the coldest freezer available.
- iii. Large quantities of wet books may be packed in a cardboard box. Place a sheet of waxed paper or freezer wrap between each book. Do not wrap the books individually.
- iv. To thaw the book, remove it from the freezer, but leave it in the plastic bag until it returns back to room temperature inside the bag.
- v. Once at room temperature, remove the book from the bag and discard the paper towels. Thoroughly dry the book according to the instructions in the drying procedures listed above.
- vi. If the freezers have regular automatic defrost cycles, they can dry out wet books. The books should not be wrapped in plastic to let the water evaporate. This process can take anywhere from weeks to over a year depending on the thickness and wetness of the book. Allow the wet book to drain before freezing it to help speed up the process.

g. Fire damage procedure

- i. If collections have been charred but are still readable, they can be microfilmed or photocopied if they are of value, but great care must be exercised because the paper may be extremely brittle.
- ii. General materials with smoke or soot deposits on the edges can also be sent to a library binder for trimming, or they can be cleaned in-house using natural latex sponges to remove the deposits.
- iii. Any rare, archival, or special collections materials should not be cleaned this way, however; a conservator should evaluate them.
- iv. For collections with a residual smoke odor, staff may try to remove the smell in-house by storing items in totes with either newspaper, baking soda, activated charcoal or kitty litter to absorb the smell. If there are large amounts of items with smoke smell, then professional companies that specialize in deodorization may be hired.

V. Cleaning Techniques

a. Dry cleaning

If books become dirty from the building damaged, but are not wet, use one of these techniques to remove dirt.

- i. Brush the dirt off pages using a toothbrush, paint brush or dry cloth. A wet cloth or Clorox wipe may be used on plastic covers only.
- ii. Use a gentle vacuum cleaner to remove dirt from hard to reach places. If you do not have a gentle vacuum, then put a cloth over the vacuum hose to reduce suction.
- iii. Use an Absorene Dirt Eraser, Absorene Book Cleaner, or Clean Cover Gel to remove dirt from book covers and pages.

b. Wet cleaning

If books are already wet and dirty, you can either clean the book once it dries, or while it is still wet.

- i. Hold the book shut and place it under clean running water. Do not open the book while it is underwater and avoid rubbing or brushing a wet book. Use a sponge or rag to gently wipe away mud with a dabbing motion.
- ii. Do not try to clean stains or pages while the book is wet.
- iii. If you do not have running water, set up bins in a line with water. Dunk the book in the first bin and work your way down the line until the book is only being dunked in clean water.
- iv. Then follow the soaking drying procedure before trying to clean the book further.

VI. Coordinating Volunteers

Depending on the type of work needed for the salvaging the building/collection, you may need to coordinate volunteers. Staff should go over the practices listed in this plan with those volunteering and make sure they know how to properly perform the work to ensure that the situation is not made worse. If the task is too much for staff and volunteers to handle, a professional cleaning company may need to be hired.

This salvage plan was created after referencing the following resources:

Haley, Caitlyn. (2018). *Red River Regional Library Disaster Plan*.

Harlan Hatch Library, Preservation Division. University of Michigan. (2002). *How to Salvage Wet Books*.