DURICK LIBRARY

DISASTER PREPAREDNESS PLAN

Last Updated Next Scheduled Update: Feb 2016
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LIS Administrative Reserve: Durick Library Disaster Preparedness Plan  
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Introduction to the Plan

The Durick Library Disaster Preparedness Plan was prepared by the Durick Library Disaster Task Force and is intended to serve as guide for collection management and recovery in the wake of small, medium and large-scale disasters affecting the Durick Library on the campus of Saint Michael’s College. It is designed to be used in coordination with the Saint Michael’s College Emergency Plan and, as such, is devoted primarily to collection recovery. It does include some emergency planning, but those plans are drawn directly from the Saint Michael’s College Emergency Plan. In the event of a medium or large-scale disaster, the Saint Michael’s College Emergency Plan will go into effect. In the event of a medium or large-scale disaster, collection recovery will take place only after Saint Michael’s College officials give authorization to proceed.

The plan is organized into a body and includes many appendices. The appendices often include information found in the body, but provide more in-depth coverage of particular topics. Appendices can be updated independent of the body.

The entire document will be reviewed annually, and necessary changes made. Special care should be given to personnel and priority changes.

Responsibility for review and updates: Elizabeth B. Scott, Chair, Disaster Task Force.

Disaster Task Force members
2016-2017 academic year

Laura Crain
Mark McAteer
Elizabeth B. Scott, Chair

The Durick Library Disaster Preparedness Plan was compiled using a template of the Disaster Preparedness Workbook for U.S. Navy Libraries and Archives prepared by Lisa L. Fox on behalf of the Northeast Document Conservation Center for the U.S. Naval War College Library.
EMERGENCY INSTRUCTIONS

The first priority in any collection-threatening emergency is to preserve and protect human life. In applying the emergency instructions, focus on the safety of staff, patrons, and other people in the building, and do only as much as is safe and prudent to protect the collections.


See Appendix Q for Durick Library Emergency Chart. Appendix Q is posted on the cover of Library copies of the SMC Emergency Response Chart.

See Appendix O for Evacuation of Durick Library plan.
PREVENTION/PROTECTION PLAN

Staff awareness is one of the single most important measures of disaster prevention. Constant vigilance by the staff can prevent a disaster or keep a minor disaster from becoming a major one.

Every staff member should take the initiative to be a troubleshooter and note problems that may be occurring in the building. Problems such as leaky pipes, cracked windows, toilet problems, or unusual odors (particularly those that could indicate a fire) should be brought to the Administrative Assistant who will notify the Director (who will ensure the appropriate Collection Supervisor is notified). Correcting a problem before it develops into a full-blown disaster can save hundreds of staff hours and thousands of dollars that might otherwise be spent on salvage efforts.

Preparedness Guidelines

1. Supervisory staff will see that new employees read the Durick Library Disaster Preparedness Plan and will help them become familiar with its layout and content.

2. A member of the Disaster Task Force will give a tour to acquaint staff members with the building and point out any building vulnerabilities and relevant details in the floor plans.

3. The Disaster Task Force will review the emergency evacuation procedures and evacuation routes with LIS staff members annually.

4. The Recovery Coordinator will inventory the Disaster Supply Closet (Durick Library Room 125) at least annually, noting the supplies on hand, those stored in locations outside the building, and those that would have to be purchased in case of emergency.

5. The Chair of the Disaster Task Force will review the full disaster plan annually, and will work with the Disaster Task Force to update sections as necessary.

Disaster Team Preparedness

Training. Members of the Disaster Team will be provided with training to enable them to carry out their responsibilities in a disaster recovery operation. This may range from annual, full-scale disaster simulation drills to periodic workshops. At a minimum, plans must be made for on-the-spot training in the event of a disaster.

Personal equipment. Each member of the Disaster Team should be aware of the items they would need within the first eighteen hours of a disaster recovery operation.

Personal equipment should meet staff members' individual needs. Remember that when alerted for a disaster response operation, staff may need to leave home within 30 minutes or less.
Clothing should be comfortable and suited for the weather outside. The staff may be working under poor conditions, the environment may be wet and dirty, and personnel may be working outdoors or in an unheated building. Therefore, do not wear anything that you would mind being damaged. The following are suggestions for the personal equipment list of library/archives staff.

**Clothing**

- Long, washable trousers
- Long sleeved shirt
- Jacket
- Hats
- Old flat, closed shoes *or* rubber boots
- Socks
- Rubber gloves
- Work gloves
- Large handkerchief

**Personal Items**

- Sun glasses, sunscreen, hand lotion
- Prescription medicines
- Tissues or towelettes
- Quick-energy snacks
- Toothbrush/toothpaste
- Waterproof flashlight
- Pocket knife
- Battery-operated radio
- Container of drinking water
- Small notebook
- Pencil
- Other personal needs

**Liaison with Other Units**

The Chair of the Disaster Task Force or his/her designee will communicate at least annually with officials in the following units:

- Saint Michael’s College Director of Safety and Security
- Saint Michael’s College Director of Physical Plant

Regular communication will further the goals of:

- helping emergency response units minimize damage to collections;
- increasing responders' salvage effectiveness;
- ensuring that appropriate LIS staff understand the system of emergency response units and that the units are aware of Library and Information Services Durick Library Disaster Preparedness Plan; and
- identifying revisions and updates needed in either unit's written plans or operating procedures.
**Fire Safety**

The SMC Safety and Security Office manages the SMC fire safety program. This includes inspection and maintenance of fire protection systems and devices. Activities and inspections will include areas listed in the Inspection Checklist (Appendix I-1) that relate to:

a. fire extinguishers  
b. fire alarm system  
c. smoke and heat detectors  
d. fire suppression systems  
f. staff training

Further details about the fire safety program are outlined in Appendix J, Fire Safety.

**Security**

The SMC Safety and Security Office manages the security program, in conjunction with the LIS Director who oversees use of the collections within the facility. SMC Safety and Security Office shall inform the LIS Director of problem areas and issues related to collections. This will include inspection and maintenance of security systems and devices, including key control, alarms and cameras.

**Storage Areas**

The Chair of the Disaster Task Force and designated members of the Disaster Task Force will ensure periodic inspection of collection storage areas according to criteria listed in the Inspection Checklist (Appendix I-1) and Building Vulnerabilities (Appendix I-2). Inspections will give particular attention to:

a. signs of leaks, water damage, etc.  
b. signs of mold, insect, or rodent infestation  
c. fire hazards

Inspections will include any offsite storage areas used for the collection.

**Computer Backups**

An important element of disaster mitigation is routine backup and offsite storage of computer records. To the extent that originals or duplicates are held elsewhere, the organization's vulnerability to disaster is reduced.

The LIS Associate Director for Systems & Metadata works with the SMC IT department to maintain the safety of the LIS Integrated Library System (see Appendix D-1).

Appendix D-2 contains the Disaster Task Force’s recommendation for Data Backup.
Chemicals and Hazardous Materials

The SMC Health and Safety Officer is responsible for all chemical and hazardous materials. The SMC Emergency Response plan addresses most issues related to chemical and hazardous waste.
RESPONSE PROCEDURES WATER DAMAGE (ROUTINE)

The following procedures are for routine water damage from roof leaks, plumbing system malfunctions, minor flooding, and so on. For area flooding and other major water disasters, follow the instructions in "Response Procedures: Medium-to-Large Scale Disasters."

Judgment and experience may lead you to apply these instructions in a different order than listed here. For example, if a minor leak threatens only a single file cabinet, the prudent course may be to move the cabinet out of harm's way before initiating steps 2-6.

1. Attempt to determine the cause or source of the water. If you cannot determine the source, proceed to step 2 anyway.

2. Call, in the following order:

<table>
<thead>
<tr>
<th>Name/Title</th>
<th>Office Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Assistant</td>
<td>2621</td>
</tr>
<tr>
<td>If after hours, call Switchboard</td>
<td>2000</td>
</tr>
</tbody>
</table>

   If action was taken after hours, or in the Administrative Assistant’s absence, notify Director of LIS of action taken (via email or voicemail).

3. If collection materials are threatened by water, immediately notify the LIS Director and the Recovery Coordinator, or his/her designated back-up:

<table>
<thead>
<tr>
<th>Name/Title</th>
<th>Office Phone</th>
<th>Home Phone/cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth Scott, Archivist</td>
<td>2540</td>
<td>899-4717 / 233-9138</td>
</tr>
<tr>
<td>Laura Crain, Associate Dir., Collection Services</td>
<td>2388</td>
<td>899-5479 / 316-2522</td>
</tr>
</tbody>
</table>

4. Make sure personnel have turned off all electrical circuits in the affected area. **No one should walk through water** until the appropriate safety officer has declared the area safe.

5. Pull needed materials (plastic tarps, mop, etc.) from the Disaster Closet, Durick Library room 125.

6. Protect the collections while awaiting assistance. Choose (a), (b), or (c), depending on the situation:
   a. If only a few items are in jeopardy and the water flow is minor, move any wet or vulnerable materials to a dry, secure location nearby.
   b. If water is coming from above, get plastic tarps (located in Circulation and in the Disaster Supply Closet, Durick Library Room 125) and use tarps to cover affected areas, stack ranges, cabinets, shelves, etc.
c. If water is coming in on the floor, get book trucks or dollies and remove materials from affected area, beginning with those in lower drawers/shelves, and move them to a safe location.

7. Oversee removal of any standing water with a wet/dry vacuum (must request from Physical Plant – call Library Administrative Assistant or Switchboard when Physical Plant Administrative Assistant is not available.).

8. Take steps to reduce the temperature and humidity and to increase air circulation:

   a. Measure the temperature and relative humidity using monitoring devices (see Elizabeth Scott).

   b. Call Administrative Assistant to request facilities management turn on air-conditioning or lower the temperature setting.

   c. Increase air circulation in the affected area by running fans continuously (fans are located in the Disaster Closet, Durick Library Room 125).

9. Initiate salvage procedures detailed in the "Salvage Procedures" section of the plan. If the quantity of damaged materials is less than 50 volumes or 3 file drawers, they will be salvaged in-house using the air-drying technique. If the quantity of damaged materials exceeds that amount, the Disaster Team must decide between (a) freezing them and then air-drying in small batches, (b) freezing them and having them commercially freeze-dried, or (c) calling in a company that provides on-site dehumidification or vacuum-drying services.
RESPONSE PROCEDURES: SEVERE STORMS AND FLOODS

1. When a severe storm is forecast, and flooding is possible, supervisory staff on duty shall be on high alert. They should monitor the lower level of the library, particularly the corners of the building located near the drains and the loading dock. If the water level appears to be rising or appears significant, they should then notify Director of LIS and the Recovery Coordinator or his/her designated back-up. If none are available, call in the order listed in the Communications Plan (Appendix C).

2. The Recovery Coordinator, in consultation with administrators, will determine what level of response, if any, is warranted.

4. If flooding is anticipated or has begun, ensure that bound periodicals are off the bottom shelves, and that materials in the Archives are off the floor. Bound periodicals should be placed on tables and in cubicles, Archival materials should be moved to shelving in the Cataloging Department.

5. Perform necessary backups of software and data files. See Appendix D2 for Data Backup recommendations.

6. Brief disaster team and other staff on plans and confirm responsibilities.

7. Evacuate if instructed to do so.

8. After the storm, implement applicable procedures outlined in the Salvage Procedures section.
RESPONSE PROCEDURES: MOLD

Spores of mold and mildew are found almost everywhere. All they require are the proper conditions--moisture, temperature, nutrients, and often darkness or dim light--to proliferate. Media such as paper, cloth, leather, and adhesives may be consumed or stained by many types of mold. The combination of temperature and humidity is the most critical factor. General cleanliness and the removal of dust and dirt reduce the risk of infestation, and good air circulation is helpful in avoiding a mold outbreak.

When the temperature reaches 70 degrees Fahrenheit and relative humidity is near 70%, conditions are optimal for growth and reproduction of most types of mold. Any rise in these levels creates an environment conducive to mold and mildew growth, and they may "blossom" within 48 to 72 hours. The absence of visible growth at low temperatures does not indicate the death of spores, but merely that they have gone dormant.

A mold outbreak may occur during routine times if temperature and humidity controls are not adequate, but the risk is greater after a flood or other water damage. In the event of a mold outbreak, take the following actions:

1. If mold is on a few isolated items:
   a. Place items in freezer bags located in Disaster Closet, Durick Library Room 125.
   b. Call the Recovery Coordinator. If the Recovery Coordinator is not in the office, leave a message and put the items (enclosed in plastic freezer bags) in freezer (In Break Room Durick Library 122). If Recovery Coordinator is out of the office for an extended time (more than a few days), contact LIS Director.

2. If mold is discovered in whole stack ranges, drawers, or rooms, call:
   Director of LIS or designee.
   If Director of LIS is not reachable, call the Recovery Coordinator. If neither is available, call in the order listed in the Communications Plan (Appendix C).

3. Obtain appropriate supplies from the disaster supply kit located in room 125. *****Wear appropriate protective gear such as gloves and respirators.

4. Seal materials in garbage bags located in disaster closet in room 125.

5. When dealing with a moderate- or large-scale mold problem, keep air movement to a minimum, since air currents spread mold spores to other, unaffected collections.
• Do not use fans in the area.
• Minimize the opening and closing of doors.
• If feasible, block off return air vents so spores are not spread into the air-handling system and to other storage areas.

6. Transfer all infected materials to an isolation room in such a manner that other areas will not be affected because of the transportation of materials. Room 124, off the loading dock, is the most appropriate room in the library.

7. Immediately and thoroughly sterilize the affected storage area(s), including the climate control system where possible.

8. Determine whether the affected items must be retained. If not, consider discarding, photocopying, or microfilming.

9. If the items must be salvaged, consult a conservator or preservation specialist (see Suppliers and Service Providers, Appendix B2) when dealing with severely affected materials. If the number of affected items is small, they may be treated in-house. See NEDCC’s *EMERGENCY SALVAGE OF MOLDY BOOKS AND PAPER*, by Beth Lindblom Patkus, for detailed instructions. The leaflet can be found in Appendix P.

10. Check materials periodically (at least monthly) for evidence of new or recurrent growth. Carry out these inspections for one year following the infestation.
RESPONSE PROCEDURES: MEDIUM-TO-LARGE SCALE DISASTER

Disaster response procedures are the steps taken from the time an emergency situation is detected through the time when holdings are actually removed to begin packing, drying, or other salvage operations. This section outlines the basic steps that may be taken. The order may be altered depending on the nature of the emergency, extent and type of damage, and available resources.

The Saint Michael’s College Emergency Plan will go into effect with all medium or large scale disasters. Only after the building has been stabilized, security measures established, and clearance given to enter the site will the LIS response procedures go into effect.

LIS Emergency Response Procedures

1. Assess the situation
   a. Notify responsible staff
      Contact the LIS Director who will make the determination by phone or through an inspection of the site. The LIS Director will contact the Recovery Coordinator.
   b. Determine damage
      Through phone conversation or site visit, the responsible staff will determine whether or not to declare a disaster.
      1. The situation will be deemed an emergency if the nature and extent of damage is of limited severity and can be dealt with by available personnel. See the Salvage Procedures section and Appendix M (detailed salvage procedures) for instructions.
      2. A disaster will be declared if the nature and extent of damage warrants resources beyond those available at the time.

2. Establish a command post
   In a routine emergency where the building is intact, operations will be controlled and coordinated through the Recovery Coordinator's office.
   If offsite space is required for operations control or for salvage activities (sorting, packing, drying, etc.), follow instructions in Appendix K, Operations Center.

3. Stabilize the environment
   The Saint Michael’s College Facilities Management Office will supervise the restoration of environmental controls with the goal of providing a cool, dry climate in the affected area(s).
   a. If the heating/air-conditioning system is operable, settings will be adjusted to provide maximum cooling and dehumidification, with the goal of maintaining the temperature
below 70 degrees F and the relative humidity below 50%. The system should run 24 hours per day.

b. If the heating/air-conditioning system is not working due to damage or power outage, contact Physical Plant (via Administrative Assistant, if available).

c. The Recorder will ensure that staff monitor the temperature and humidity at least every 4 hours to measure progress. The following monitoring devices may be used.

<table>
<thead>
<tr>
<th>Item</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>RH/Temp Monitor</td>
<td>LIS Director’s Office</td>
</tr>
<tr>
<td>RH/Temp Remote Monitors (3 total)</td>
<td>Archives</td>
</tr>
<tr>
<td>RH/Temp Monitor</td>
<td>Circulation</td>
</tr>
</tbody>
</table>

4. Make a detailed damage assessment

The LIS Director, Recovery Coordinator, and Reporter/Photographer will make a detailed assessment of damage. If appropriate, the librarian in charge of the collection area should be involved in the assessment, since s/he best knows the collections.

The Reporter/Photographer will use the Library Staff digital camera stored behind the Circulation desk.

5. Notification

a. Determine personnel needed

If the LIS Director declares a disaster, the notification plan will go into effect. The following may be called to report for duty:

- Members of the Disaster Team. See names and contact information in Appendix A1, Disaster Team.
- Supplementary personnel as needed. See Appendix A2, Supplemental Personnel.
- Others as determined by the Recovery Coordinator and LIS Director.

Personnel shall be informed exactly when and where to report. Additional details are provided in the Communication Plan (Appendix C).

b. Means of notification

If phones are working, use the phone numbers listed in the Staff List (Appendix A3).

If phones are inoperable, use alternate mechanisms outlined in the Communication Plan (Appendix C).
c. Establish personnel management system

The Operations Assistant will establish mechanisms for maintaining records of time spent by individuals and providing space, supplies, and other materials needed for refreshments, meals, and rest areas.

6. Develop a detailed plan of action

The Director of Library & Information Services, Recovery Coordinator, and SMC Director of Physical Plant will meet to review the extent of damage, status of building systems, and available personnel. They will develop a plan of action that addresses major issues in the recovery plan. In the event of a large-scale disaster, a key decision will be which recovery operations to handle with existing staff and which to contract to specialized disaster recovery companies. This decision will influence all facets of the recovery plan.

The Disaster Team and other staff will be briefed on the plan of action and their responsibilities in it. If appropriate, training in specific techniques such as packing, cleaning, or air-drying will be offered.

If appropriate the LIS Director will liaison with appropriate SMC personnel, including Provost, Security, and Safety, Physical Plant, Health and Safety, and Public Relations.

7. Procure/assemble the necessary supplies and services

The Operations Assistant will consult with the Recovery Coordinator to determine what supplies and services are required for the recovery operations.

The in-house supply/equipment stockpile inventory is produced in Appendix B1, Disaster Supply Stockpile.

External suppliers and service providers already identified are listed in Appendix B2, Suppliers and Service Providers.

If cash, purchase orders, or requisitions are needed, follow the instructions in Appendix E, Emergency Funds.
SALVAGE PROCEDURES

Before salvage begins, the LIS Director, the Collections Manager and the appropriate collection representative will:

- Determine the salvage priorities for various parts of the collection. These will be based on the priorities given in the Salvage Priorities list, but adjusted based on the type and extent of damage and the services available. Be sure to include items in the building on loan (for exhibition, etc.) and materials brought in on approval or for appraisal.

- Determine the kind and degree of damage that materials in each location have sustained. These will be "gross" designations, not on an item-by-item or box-by-box basis, but (depending on the extent of the disaster) on a range-by-range, cabinet-by-cabinet, or room-by-room basis.

- Identify any parts of the collection that should be written off as a loss.

Members of the Disaster Team will be called to the site as outlined in the Response Procedures section above and the Communication Plan (Appendix C).

Work Crews

- Each work crew will have a team leader.

- Regardless of usual reporting lines, team leaders will have full authority over the members of their work crews.

Packout

Materials must be removed from affected areas, either for immediate drying in a stable location within the repository, for transport to a cleaning/salvage area on the campus, or for transport to a freezer facility or to a commercial drying facility. If the option of on-site dehumidification is to be used, only soaked items need to be removed.

Execute packout operation in the order determined by the Recovery Coordinator, based on the Salvage Priorities list and the degree of damage. If a full range of recovery services is available, it is generally appropriate to begin working on the wettest materials, then deal with those that are merely damp. However, if the organization is limited to air-drying using staff resources, it may be better to begin with those that are least damaged and therefore most easily salvaged.

Packout procedures depend on whether materials are being transported to a nearby area for immediate drying or to an off-site freezer or drying facility. The latter requires more careful packing and more thorough documentation.
Depending on the nature of damage and possible logistical constraints, each work crew in the packout operation will generally consist of the following (individual descriptions may be combined, should circumstances require it. If that is done, attention should be paid to workflow):

- crew leader (will also do one of the following): ensures smooth work flow, alleviates bottlenecks, troubleshoots
- box assembler: sets up boxes, milk crates, ResCubes, or other containers
- retriever: removes materials from shelves, cabinets, floor, etc., attempting to pull materials of similar size for each container
- packer: takes items from retriever and wraps and boxes items
- sealer and record-keeper: keeps a written packing list, seals and labels containers
- transporter(s): moves containers from packing area to pallet, elevator, stairs, etc.

To move materials within the building during packout, use book trucks, hand carts, or dollies. Metal book trucks and carts are preferable. If only wooden ones are available, they should be well covered with heavy plastic sheeting to prevent damage to their finish.

Take the following precautions if materials are to be transported in cardboard boxes:

- Boxes should be no larger than 1.5 cubic feet.
- Line the boxes with heavy-duty trash bags before placing wet materials inside. This will prevent the boxes from becoming soggy and collapsing.
- Do not stack boxes more than 4 high. The boxes can be stacked on pallets and the pallets can be shrink-wrapped to prevent slippage during transportation. A fork lift can then be used to move the pallets onto trucks or to the drying area.

If possible, loosely sort materials according to the degree of wetness (soaked, damp, or dry). Pack like materials together—e.g., damp records or volumes in one box, soaked ones in another, and so on.

- Bound volumes: Load into boxes or milk crates for transport. Place normal-size volumes in a "spine-down" position. Pack large volumes flat in boxes. If time allows, loosely place sheets of freezer paper or waxed paper around every volume (or every other volume). Boxes should be packed only about 75% full to allow for swelling.
- Files: Place folders in boxes or milk crates. Place the folders vertically in boxes (standing as they would in a file drawer). Fill boxes only about 75% full to allow for swelling.
- Photographic materials: Most can be left in cool, clean water for a few hours until ready to dry or send for reprocessing. See further details in Appendix M2, Emergency Salvage of Photographs.
- Microforms: Place in cool, clean water until ready to transport for reprocessing. See further details in Appendix M3, Salvage Procedures: Microforms.
- Oversized prints and drawings: Pack in map drawers, bread trays, shallow flat boxes, or on heavy cardboard or plastic-covered plywood.
- Audio and videotapes: Keep wet. Pack vertically in plastic bags or containers with cold water.
- Computer diskettes: Keep wet. Pack vertically in plastic bags or containers with cold water. See further details in Appendix M4, Salvage Procedures: Computer Media.

**Documentation**

For inventory control as well as insurance purposes, it is necessary to know the condition and disposition of materials. Which were destroyed? Which need to be removed or replaced? Which were unharmed or sustained only minor damage? Which were damaged but are salvageable?

As materials are removed, one team member will label each container on all four sides with a brief designation of its contents. Describe contents by shelf, range, or call number, by cabinet or drawer, by record group or series, and so on. If time allows, also indicate the number of volumes or archives files in each box, describe the damage (e.g., "wet," "dry," "smoke," "mud," etc.), and indicate the salvage priority of items in the box. If materials are going to different areas (e.g., some to the rinsing stations, others to the air-drying area, and some to a freezer), also note the destination of each container. A typical box might be labeled as follows:

<table>
<thead>
<tr>
<th>BOX #24</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTENTS: PR400 - PR500</td>
</tr>
<tr>
<td>PRIORITY: □</td>
</tr>
<tr>
<td>QUANTITY: 20 vols.</td>
</tr>
<tr>
<td>TO: Freezer</td>
</tr>
<tr>
<td>CONDITION: wet/mud</td>
</tr>
</tbody>
</table>

If there is a large quantity of containers, give each a brief designation (e.g., floor/section designation and box number), and use a written inventory/packing list to record detailed information regarding contents, damage, and priority. A sample packout list is included in Appendix H, Forms.

Throughout the salvage operation, it is also useful to document various decisions made (particularly the decision to discard) and who made/authorized them. This may be the responsibility of the photographer/reporter.

The photographer/reporter will take photographs or videotape the salvage operations to document the recovery effort.

**Removal**

If elevators are working, they will be used. If not, the following strategies may be used:
- use of "human chain."
- laying plywood on stairs to create ramps for sliding boxes down.
- sliding boxes out windows onto ramps.
**Rinsing**

Materials may be rinsed before drying or freezing if they have been subjected to mud, sand, or other dirty deposits and if adequate personnel and time are available. The objective of the cleaning is not to make the materials pristine, but to remove gross deposits.

Never use these rinsing techniques on materials with soluble inks (watercolors and many manuscripts), animal skins (leather, vellum, or parchment), or works of art on paper.

Rinsing operations can be performed on the Northeast side the Durick Library, near the bike rack. A water spigot is located outside the front door of the Library. An alternative rinsing location is outside of the Tarrant Recreation Center in the small parking lot located on the Northern side of the building. A spigot is located between the two “Garage Doors” This spigot must be turned on by a representative of Physical Plant staff.

Personnel working in the rinsing area should be provided with rubber boots and gloves and waterproof clothing. If the water has been contaminated by sewage or other contaminants, workers will have additional protective gear as recommended by the Saint Michael’s College Occupational/Environmental Health Coordinator.

The rinsing stations may be set up in either of the following ways, depending on the type of rinsing that is needed:

If deposits are so light that a single brief rinsing will remove them, each station may consist of one garden hose with a spray nozzle. Rinse individual folders or volumes one at a time, holding the folder/volume tightly closed to avoid transferring dirt between the pages.

If deposits are heavy:

- Set up a series of 3-8 large (30- to 50-gallon) plastic garbage cans.
- Have a garden hose running into each can, with the nozzle resting at the bottom, and turn water on to provide a slow but continuous flow into each one.
- Workers will take each item to the first can, hold it firmly closed and immerse it, move to the second can and immerse the item, and so on through the line.
- Keep a supply of sponges at the last can, so that mud can be lightly dabbed off there.
- The last station will have a hose with spray nozzle so that workers can rinse materials under a fine spray.
- Gently squeeze excess water from volumes or folders.

Do not attempt to remove mud or stubborn stains during the rinsing process, for that would significantly slow down the operation. In addition, it might damage the materials, and it usually drives mud and stains even deeper into paper fibers, making restoration even more difficult.
The same procedure may be used for photographic materials and computer media, except that shallow dish pans or photo processing trays may be placed on tables and used instead of garbage cans.

Once materials have been rinsed, they may be transferred to the air-drying area or packed for transport to a freezer or drying facility as outlined above in the packing instructions.

**Freezing**

Freezing may be used as a stabilization technique for wet materials, especially paper-based ones. It should be used whenever materials cannot be dried within 48-72 hours, because wet materials are at great risk for developing mold if the temperature is above 70 degrees F, especially in high-humidity conditions. In addition, bound volumes cease swelling and inks cease "bleeding" or diffusing once frozen. In a medium-to-large scale disaster, freezing "buys time" for the organization: once the materials are stabilized by freezing, funds can be obtained, drying options and vendors can be evaluated, and the staff can take a break after the taxing work of packout. There is no limit on the amount of time that materials may be left frozen. In fact, paper tends to dry slightly while in a freezer.

Bound volumes and paper records are suitable for freezing. In a large-scale disaster, microfilm and most other photographic materials can also be frozen, though that is not ideal. Historic photographs (such as daguerreotypes, tintypes, ambrotypes) should **never** be frozen.

For best results, use a commercial blast freezer, one that freezes materials at -10 degrees F or lower. Commercial freezer facilities for our organization are listed in Appendix B2, Suppliers and Service Providers.

For small volumes of materials, the following freezers within the organization may be used:
- Freezer in LIS break room (DL 122).
- Deep Freeze located at Liz Scott’s house, 3 Florida Avenue. Freezer is located on mudroom and can be accessed without going into house.

In an area-wide disaster such as a flood or hurricane, there may not be a local freezer facility. In that case, we may use a refrigerated truck for transporting materials to a remote facility or for temporary cool storage on-site. While a truck will not freeze the materials, it may keep them cool enough to prevent mold growth. Sources of refrigerated trucks are listed in Appendix B2, Suppliers and Service Providers.

**Drying Techniques**

When materials are to be air-dried, the following procedures will be used.

Items will be set up on tables in specified room with fans on. Care must be taken to keep temperature in the room below 70 degrees F and RH below 50%. Individuals will be responsible for the entire drying process under the leadership of the Recovery Coordinator or work crew leader.
• Use paper towels or newsprint to interleave at least every 50 pages, starting from the back of the volume. Turn pages carefully to avoid tearing them. Be careful not to interleave too much, or the spine will become concave and the volume distorted. Complete the interleaving by placing clean blotter paper inside the front and back covers. Stand the volume on its head, fan it open, and place it on several sheets of absorbent paper. Change the interleaving frequently. Turn the volume over each time it is interleaved.

• When volumes are dry but still cool to the touch, they should be closed and laid flat on a table or other horizontal surface, gently formed into the normal shape, with convex spine and concave front edge (if that was their original shape) and held in place with a light weight. Do not stack drying volumes on top of each other. In no case should they be returned to shelves until thoroughly dry; otherwise mold may develop, particularly along the inner margins.

• Dampness will persist for some time in the inner margins, along the spine, and between boards and flyleaves. You may use a moisture meter to determine whether the paper is dry. Normal dry paper generally has about 7% moisture content. Check often for mold growth while books are drying.

• If the edges are only slightly wet, interleaving is not required. Stand the volume on end and fan it open slightly in the path of a flow of air (as from a fan). To minimize distortion of the edges, lay volumes flat under light pressure (e.g., a book press or paper-covered bricks) just before drying is complete.

• If you can establish an air-conditioned room capable of maintaining a constant relative humidity of 25 to 35% and temperatures between 50 and 65 degrees F, books with only wet edges can be dried successfully in approximately 2 weeks without interleaving.

If materials are to be commercially dried (via freeze-drying or vacuum-drying), follow the packing materials for freezing instructions in Appendix M. The Collection Manager will oversee the packing and recordkeeping, while the Recovery Coordinator will work with the Operations Assistant to contact the outside agency.

Materials may be dried on-site via large-scale commercial dehumidification if a large number of collection materials and building furnishings are damp but not soaked. The LIS Director may authorize the Administrative Assistant or Operations Assistant to contact a vendor.

**Fire Damage**

Materials involved in a fire are likely also to suffer water damage, and recovery techniques outlined here may be used. They also may be charred (either completely or just around the edges), may have smoke/soot deposits, and are likely to have an odor. The following techniques are appropriate for bound volumes and paper records. When dealing with fire damage to special materials (art works, photographs, magnetic media, computer equipment, etc.), consult one of the
conservators or other specialists listed in Appendix B2, Suppliers and Service Providers. Special procedures for computer media are outlined in Data Processing Plans (Appendix D1).

**Charred Materials**

If only the edges of bound volumes are charred or badly smoke-damaged, they can be sent to a library binder, who will remove the binding, trim the edges of the paper, and rebind the volumes. A list of certified library binders is available from the Library Binding Institute (see Appendix B2, Suppliers and Service Providers). Others may be found in the Yellow Pages.

Damage caused by extremely high temperatures is irreversible. Even if materials are not charred beyond recognition, exposure to high temperatures will cause the paper to become extremely brittle. Such records should be evaluated. Some may be discarded, and others may be microfilmed or photocopied to preserve the information. If documents are unrecognizable yet deemed to be irreplaceable, the information on charred materials sometimes can be recovered through special photographic methods. These methods are usually carried out only in forensic science laboratories and are only available in exceptional circumstances. In the absence of professional help, do not attempt to open charred bundles, for such handling will result in further damage.

**Smoke/Soot Deposits**

If smoke/soot is deposited on the edges of materials, they can be treated in the following ways:

- Send the materials to a binder who can guillotine off the smoke-damaged edges.
- Treat the materials in-house, using natural latex sponges to remove the smoke from the edges of bound volumes.
- Rare, archival, or special collections materials should be evaluated by a conservator before employing any general-purpose smoke removal techniques.

**Smoke Odor Removal**

Professional companies can deodorize fire-damaged paper materials. There are three major options:

- Some companies essentially "perfume" damaged materials to mask the odor. Such companies can be found in the Yellow Pages under "Fire & Water Damage Restoration".
- Materials may be treated in an ozone chamber. Ozone effectively neutralizes the odor. However, ozone is a powerful oxidizing agent that irreversibly accelerates the aging of paper, so it generally should not be used on archival or intrinsically valuable materials. Companies listed in Appendix B2, Suppliers and Service Providers,
provide this service, often in combination with trimming and rebinding of bound volumes. Some states have outlawed the use of ozone, so be sure to check with appropriate safety officials.

- Storage boxes that incorporate zeolites have shown to be effective in odor reduction. Place dried volumes or papers in the boxes, and they may remain there indefinitely. Sources of these boxes are included in Appendix B2, Suppliers and Service Providers.

**Fumigation**

Water-related disasters, including water left from firefighting operations, create an environment ideal for mold growth. Give high priority to the fumigation and sterilization of mold-infested materials, and keep such materials segregated from those not yet infested.

There are many divergent opinions about fumigating collection materials. If the decision is made to fumigate, every precaution must be taken to safeguard the collection materials and the health of personnel. Potential effects on the environment also must be considered.

- Ethylene Oxide Fumigation. Ethylene oxide long was the most commonly used fumigant, favored because of its effectiveness over a wide range of problems. However, studies have indicated that exposure to this chemical may accelerate the aging of leather, parchment, paper, rubber, and some plastics. There also are hazards to human health, and the ethylene oxide absorbed by the treated materials is released slowly over time. Because of these dangers, ethylene oxide should not be used.

- Area Fogging. If the mold infestation is widespread, fogging the area with a fungicide may be advised. Remember that fogging kills only the mold that is growing on exposed surfaces, and the procedure may have to be followed up by more intensive fumigation. Area fogging should only be undertaken by a licensed fumigator.

- Cleaning and Sterilization. The affected area must be cleaned and sterilized before it is used to store collection materials. The cleaning crew should wear protective clothing and eye-wear. The Recovery Coordinator should work with the cleaning crew to ensure that the following recommended procedures are followed:

  a. Remove all curtains and sterilize them in an autoclave if the fabric will tolerate such treatment. Then launder the curtains.

  b. Remove any incidental materials from the area, leaving only the main pieces of furniture.

  c. Thoroughly clean carpets with a germicidal cleanser. Remove as much moisture as possible from the carpets.
d. Provide good air circulation in the room along with air-conditioning and dehumidification.

e. Thoroughly wash floors, ceilings, walls, shelves, fixtures, and furniture using a germicidal cleaner. Disposable wipes should be used to avoid the spread of contamination.

Additional instructions are available in Appendix Q

**Wrap-Up and Evaluation**

After the salvage operation is complete, evaluate the effectiveness of the disaster plan. Talk with those involved. Were they sufficiently prepared? Did the plan work? How could it be strengthened? Revise your disaster plan accordingly.

Remember to extend thanks to all those within and outside the organization who assisted in the recovery operation.
SALVAGE PRIORITIES

In the event of a disaster that involves the whole building, collection materials should be protected, transferred to a safe location, or salvaged in the according to salvage priority lists in Appendix P.

See Appendix K for floor plans and locations of these materials.
COLLECTION RESTORATION

After materials have been salvaged, some further restoration work will probably be required before they can be reshelved or returned to other storage locations.

Storage.
Materials that have been water-damaged or mold-infested should be kept apart from other holdings for at least 3 months in a well-ventilated area with good climate control (65 degrees F and 35-45% relative humidity). The room next to the loading dock may be used for this purpose.

Assessment.
The Associate Director for Collection Services, in coordination with appropriate representatives, will evaluate the materials and decide on the next steps:

- discard/withdraw
- reprocess and/or duplicate--particularly for photographic and magnetic media
- replace by microfilming, photocopying, or purchasing another copy or edition
- repair, rebind, clean, or provide conservation treatment
- rehouse in new folders, boxes, etc.
- relabel, replace card pockets, etc.

Procedures for each are outlined below.

Withdrawal.
Authority for withdrawal:

Director of Library and Information Services: Overall authority
Associate Director for Collection Services: General and reference collection
Archivist: Archives and Special Collections

Damaged books for withdrawal should be handled in one of the following ways:

1) If possible, damaged books for withdrawal should be brought to the Cataloging Dept.

2) If the above procedure is unwieldy, tear off title page and barcode page, staple together, and submit to Cataloging. Discard books.

For insurance purposes and record-keeping, Cataloging will submit a record of withdrawn titles to Director of LIS. A copy of this record should be submitted to Associate Director for Collection Services for possible replacement. RECORD SHOULD INCLUDE PHOTOGRAPHIC EVIDENCE OF THE DAMAGE TO THE MATERIALS IF THE MATERIALS THEMSELVES CANNOT BE RETAINED.
**Repair.**
Materials for relabelling or for the bindery may be brought to the Cataloging Dept. Other repairs may involve procedures outlined in the Disaster Preparedness Plan or consultation with Archivist or Associate Director for Collection Services.

**Conservation.**
The Archivist will work with the collection representative to identify and contact an appropriate conservator.

**Reshelve.**
Reshelving books is a significant part of Collection Restoration. Once salvage work is underway and planning for restoration begun, a representative of the Circulation Department will be named the Coordinator of Resheling. The Coordinator of Resheling will work closely with the Recovery Coordinator and the Collection Manager to keep up to date on the recovery process. The Coordinator of Resheling must be aware of large or significant missing section of books so that proper planning occurs. The coordinator will work with the library administrator to ensure that necessary resources are deployed to ensure that materials are reshelved in a timely fashion. If necessary, student resources may be reallocated to ensure that student staff with the proper skill set are identified and put to use in the appropriate area.

Depending on the scope of the disaster, reshelving the materials may take several days. Every effort should be made to ensure availability of library materials during the reshelving process, although this may not be possible.

1. Books will not be reshelved until shelving is thoroughly cleaned and is dry.
2. As soon as possible, regardless of whether shelves are ready, materials will be placed into call number order beginning with the first range of relocated materials. This can be done using any or all of the following: Book Trucks, White Trucks, Adjacent Carrels, tables and floor.
3. Coordinator of Resheling must work to ensure that space is left for books which will be replaced.
The Durick Library Disaster Preparedness Plan contains prevention, response and salvage procedures recommended by the Northeast Document Conservation Center.

IN THE EVENT OF A COLLECTIONS-THREATENING EMERGENCY:
The NEDCC can be reached by calling (978) 470-1010, day or night, seven days a week. After Center hours, you will be referred to a second telephone number to reach a staff member.

The NEDCC maintains a Web site: http://www.nedcc.org where users can find technical leaflets, resources, and bibliographies.

The Northeast Document Conservation Center (NEDCC) is the largest nonprofit, regional conservation center in the United States. Its mission is to improve the preservation programs of libraries, archives, museums, and other historical and cultural organizations; to provide the highest quality services to institutions that cannot afford in-house conservation facilities or that require specialized expertise; and to provide leadership to the preservation field.

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