

University of Michigan Library

Disaster Response & Recovery Plan

for *Library Collections*

General Information

Update November 2019

## Note

The *General Information* version of the University of Michigan Library Disaster Response & Recovery Plan includes generic instructions about responding to a library collection disaster as well as information that is specific to the University of Michigan (U-M) Ann Arbor campus. The contents in this document draws on public information that is openly available on U-M Websites and elsewhere.

A collection disaster plan must also gather information that should *not* be made available publicly, but must be restricted to those members of the library’s staff who may need it in an emergency situation. This information for the U-M Library is gathered in a separate document and is not shared here. The templates in the appendices of this document provide a guide to what restricted information needs to form part of the collection disaster plan.

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# Update Log

For the general University of Michigan Library Disaster Response and Recovery Plan for Library Collections. This log is maintained by the Department of Preservation and Conservation.

Date Name Notes

2010Aug30 Shannon Zachary Plan created

2011Mar03 Shannon Zachary Proofreading; edits to 15-4 Volunteers

2011Mar22 Shannon Zachary Proofreading; minor corrections throughout

2011Mar29 Shannon Zachary Update MLibrary contacts section 23

2011Apr06 Shannon Zachary Revisions to 15-4 Volunteers

2011Aug26 Shannon Zachary Add Whitney Field as MLibrary Head of Facilities

2013May17 Ikumi Crocoll Check and update names, addresses, URLs etc. throughout

2013Jul05 Shannon Zachary Review text throughout; bibliography updated and moved

2014Aug13 Shannon Zachary Update Hatcher disaster supply list

2015Jan15 Rashelle Nagar Check and update names, addresses, URLs etc. throughout

2019Nov18 Shannon Zachary et al. Major reorganization of the plan. Review text throughout; check and update names, addresses

# Scope and Distribution

## Scope and Purpose of this Plan

The instructions in the following pages are to help streamline the protection and salvage of materials in the University of Michigan Library’s collections in the event of an emergency. While some instruction is given for human safety, this plan is *not* intended as a manual of personal safety. Neither does this plan cover continuity of operations or steps for protecting and recovering the Library’s business, administrative, personnel, or similar records used in the regular operation of the organization.

## People Safety

The University of Michigan Department of Public Safety and Security (DPSS) and U-M Department of Environment, Health & Safety (EHS) develop emergency procedures for the safety of students, faculty, staff, and visitors to the University.

**U-M Department of Public Safety and Security (DPSS):**

Emergency phone: 911

Non-emergency phone: 734-763-1131

Text: 377911

Web: <https://www.dpss.umich.edu/content/about/our-departments/police/>

DPSS has emergency procedures information posted at their Web site under the Prevention & Education tab for the following categories :

1. Emergency Response
2. Personal Safety
3. Campus Safety
4. Protecting Your Property

Environment, Health & Safety (EHS) provides information about workplace, chemical, and other hazard safety at<https://ehs.umich.edu>.

The University Library Facilities Department maintains the University Library Emergency Plan. A pdf copy is available to Library staff to view and download at <https://staff.lib.umich.edu/content/library-facilities>; a print copy should be available in every work area. The Library Emergency Plan covers library-specific information about:

Evacuating library buildings

Fire

Tornadoes and severe weather

Active attacker

Natural gas leak

Power outage

Medical emergency

Unusual or suspicious activity

Hazardous materials

Bomb threat

Water leaks

## Distribution of the Plan

The *University of Michigan Library Disaster Response & Recovery Plan for Collections* actually consists of a suite of written documents and tools.

1. The *General Information* version of this plan is available publicly online at the Department of Preservation and Conservation Website:  
   <http://www.lib.umich.edu/preservation-and-conservation/emergency-response>
2. The *Restricted* version of this plan is made available to a list of about forty library staff members who, by the nature of their jobs, would have leadership and management responsibilities in the event of an incident affecting the collections.
3. The U-M Library disaster response magnet, with critical phone numbers, is available to all Library staff. Extra magnets may be requested from Library Facilities. Specify what building the magnet is for (Hatcher/Shapiro/Buhr or other library).
4. Internal contact lists (see templates in the Appendices) may be provided to staff in a particular library unit or may be posted at service desks or other office locations, according to the policies of that unit.
5. A **University of Michigan Library Disaster Response Pocket Plan** (a single sheet providing important information needed immediately) is distributed to designated Library managers. It includes a condensed version of critical contact information and first steps to take in the event of a disaster. A generic (non-U-M) template for the Pocket Response Plan is available from the Council of State Archivists, <https://www.statearchivists.org/programs/emergency-preparedness/emergency-preparedness-resources/pocket-response-plantm-prep-tm-english-template/>
6. Paper copies of the *General Information* and the *Restricted* plans, with information relevant to specific libraries, is distributed to designated Library managers.

Staff holding paper copies of this plan must keep two copies: (1) a personal or a shared copy onsite at the library and (2) a personal copy at home, to be used in the event that the emergency prevents access to the office copy. *Do not rely solely on access to an online copy; an emergency may include an electrical outage or other disruption to the Library server.*

## Plan Updates

The Department of Preservation and Conservation updates and distributes the *General Information* version of the *Disaster Response and Recovery Plan for Library Collections*. Please send corrections, updates or suggestions for revision to the Head of the Department of Preservation and Conservation.

The Department of Preservation and Conservation convenes a team (1) to update the Restricted version of the plan every six months and (2) to organize training, especially orientations for new staff. This team participates in the review and update the General Information version every three years or more frequently as needed.

## Credits

This manual was researched and assembled in 2010 by Sarah Barbrow and Shannon Zachary and updated in 2013 with assistance from Ikumi Crocoll. Rebecca Frank assisted with the development of plans for individual libraries. Various people reviewed the text at various times and offered valuable corrections and additions, including staff from Library Preservation and Conservation, Library Administration, Library Business Operations and Staff Services, the University Office of Emergency Preparedness, Environment, Health & Safety (EHS), U-M Office of Risk Management, the Department of Public Safety & Security (DPSS), and U-M Facilities & Operations. Portions of the text were adapted from plans created by the Northeast Document Conservation Center (dplan, <http://dplan.org/>), the Getty Conservation Institute (*Building an Emergency Plan*), the U-M Law Library, and the Bentley Historical Library. Other parts were originally developed for the University Library in 1998-2000 by Shannon O’Dell, Shannon Bovis, and Shannon Zachary of the Preservation Division.

In 2019 the Disaster Planning Task Force (Shannon Zachary, Marieka Kaye, Geoff Stoll, Shannon Moreno, Kelly Goodknecht, and Eric Ferguson) thoroughly reviewed, reorganized, and updated the plan.

Other heritage organizations building their own disaster response plans are invited to freely borrow, adapt, or rework the contents of this plan to their own needs. Those who use information presented here for their own plans are responsible for checking that it is correct for their own situations.

# Immediate Response – Calls for Assistance

The following information, including restricted information, is also included in the Disaster Response Pocket Plan.

## First Calls (By Any Staff Member)

**Anyone who notices a disaster situation should immediately make the following two calls**:

**1. Contact Help for Immediate Emergency**

Fire, Police, Ambulance: **911** OR

**734-763-1131**

**Text: 377911**

(U-M Department of Public Safety and Security)

Call 911 from a campus phone (direct tie-in to the U-M Department of Public Safety and Security); dial 911 from a non-campus phone (cell phone or off campus) and identify the emergency as on the U-M campus; your call will be quickly forwarded to the U-M Department of Public Safety and Security. Direct line to DPSS is 734-763-1131.

**Provide:**

* your name
* your present location
* type of disaster (fire, people hurt, flood, etc.)
* exact location of disaster (building, floor, room number)
* extent and any peculiarities (odors, color of flame, color of water)
* suspect description (if applicable)

**Alert** other people in the area of the emergency. If possible, **send someone to the building entrance** to direct emergency response personnel to the emergency site. Stay at the phone if it is safe to do so; identify yourself as the person who reported the emergency when emergency response personnel arrive.

The U-M Department of Public Safety and Security can also provide fast assistance for building and property emergencies such as floods, fire, structural collapse, stuck elevator, etc.

**2. Contact Onsite Library Unit Head or Alternate**

In any emergency, **library staff** should call or speak to the **supervisor** on site as soon as possible.

[names and phone numbers restricted]

**Provide the supervisor with:**

* your name
* your present location
* type and location of disaster
* what services or people you have already contacted

*NOTE: If no onsite supervisor is immediately available, any library staff member should proceed to make the calls the supervisor would make.*

Continue to try and reach the onsite supervisor or alternates and inform them of any communications that have taken place.

## Next Calls (by a Library Unit Head or Supervisor)

The **Library Unit Head** or an **alternate supervisor** makes the following calls or delegates someone to make the calls:

**3. Contact Building Facilities Manager**

If the building is in any way compromised, contact the **Building Facilities Manager**.

*NOTE: Another staff member may make these calls if a Library Unit Head or alternate is not immediately available*.

*Urgent help for a building problem if a Building Facilities Manager is not available*:

**Facilities & Operations Call Center 24-hour number 734-647-2059**

Additional facilities managers’ contact information [names and phone numbers restricted].

**If collections are damaged or are in danger,** the Library Unit Head or alternate contacts the Preservation Officer. *NOTE: Another staff member may make these calls if a Library Unit Head or alternate is not immediately available.*

**Preservation & Conservation Office: 734-763-6980**

**Conservation Lab 734-763-2045**

After hours listen to recorded message at the Preservation office phone for a contact phone number.

**Report:**

* your name
* your present location and contact information
* type and location of disaster
* what services or people you have already contacted
* what immediate services are needed

## Additional Calls (by Disaster Response Managers)

The **Library Unit Head** or **alternate**, the **Building Facilities Manager**, and/or staff from the **Preservation and Conservation Department** decide on the following calls, based on the nature and size of the incident. *Another staff member may make these calls if none of these managers is available*.

**5. Contact U-M Facilities & Operations and BELFOR**

The **Building Facilities Manager** makes contact with Facilities & Operations. Other Library staff contact U-M Facilities & Operations directly *only if the Building Facilities Manager is not available*. Contact U-M Facilities & Operations for any disaster regarding the building or facilities. They may be quicker to respond than BELFOR Property Restoration, especially if there are multiple floods or similar problems around campus.

**U-M Facilities & Operations 24-hour number: 734-647-2059**

The **onsite supervisor** or **alternate**, a **library facilities manager**, **Preservation & Conservation staff** or **Risk Management property specialists** makes the decision to contact BELFOR, as needed. BELFOR is the University’s contract supplier for disaster response services as of 2019. They can handle large disasters, and should respond relatively quickly. If their estimated arrival time is not immediate, contact U-M Facilities & Operations (above).

**BELFOR 800-421-4141**

For a list of services that BELFOR provides see **Section 11: Resources and Services**. *If library staff call BELFOR* *directly, follow up with contact to Risk Management property specialists as soon as practical.*

**6. Contact U-M Emergency Response Departments**

The **Library Unit Head** or **alternate**, the **Building Facilities Manager**, and/or staff from the **Preservation and Conservation Department** decide on the following calls, based on the nature and size of the incident. *Another staff member may make these calls if none of these managers is available*.

**U-M Department of Public Safety and Security: 734-763-1131**

Touch base with DPSS as new contingencies arise and for security assistance.

**U-M Office of Risk Management: 734-764-2200**

Contact Risk Management property specialists (try the liaisons first; if they do not respond, call the general number) to alert the office to the situation. Risk Management staff can assist with rapidly reaching and deploying services from BELFOR.

*Risk Management Office for Property:*

Chip Hartke 734-763-3006 (w)

**U-M Office of Environment, Health & Safety 734-647-1143**

Contact U-M EHS if there is a chemical spill or other suspected hazard to people or the environment.

*EHS Liaison for the U-M Library:*

Matthew Repka 734-647-6673 (w)

**7. Contact library staff as needed**

The **Library Unit Head** or **alternate** contacts other library staff as appropriate. Contact managers or subject specialists with specialized knowledge of the area affected by the incident; inform up the reporting chain if the incident will have an impact on the building remaining open or opening on the normal schedule. Delay contacting additional workers until a plan of action is developed. If the incident is at night, assemble key managers but avoid calling out workers until the following morning if at all possible.

If you are summoned to a disaster site, check that you have with you:

* U-M identification card (MCard)
* keys and alarm codes
* cell phone
* contact lists
* protective clothing (sturdy shoes, waterproof boots, jacket, etc.)

Managers bring:

* Pocket Response Plan
* Notebook with this entire plan, if it isn’t already available onsite
* University PCard, if you have one
* Notepad and pens
* Pocket camera or cell phone with camera, if available

As much as possible carry necessary items in pockets or attached to your person. Avoid bringing purses or other valuables; there may not be a ready secure place to put them at the disaster site and you may need your hands free.

**Note on parking**: To avoid parking tickets on University property *during a response to a disaster*, contact the U-M Department of Public Safety and Security (**734-763-1131**). Notify them of the:

* Vehicle make, model, and license plate
* Reason for parking in a no-parking zone
* Estimated time of parking in the spot

Do not block access for emergency vehicles.

# External Communications

The following information is also included in the Disaster Response Pocket Plan.

In order to minimize confusion and misinformation, all communication with news organizations should flow through one designated person, usually the Library Unit Head or other manager coordinating the disaster response or a person from Library Administration. If the Library Command Center Team has been created (see **Section 8:** **Large Disasters**), the **Communications Coordinator** will form a communications strategy and liaise with news outlets.

In the event of a large disaster affecting the Library, the either the Library’s AUL for Operations or the Communications and Marketing Director will be the Communications Coordinator.

If the disaster is serious enough, the assigned Library spokesperson or Communications Coordinator should liaise with the University Spokesperson at the U-M Office of Public Affairs (contact information in **Appendix A**) in case a statement from the University will be needed. If the incident includes a security risk, contact the Deputy Chief of Police & Public Information Officer at DPSS (contact information in **Appendix A**) so she can alert relevant communities.

The Library Unit Head or alternate or the Communications Coordinator should clearly state the communications policy to all workers:

* Staff and volunteers should not discuss the progress of the response and recovery on any media (social or otherwise) outlet.
* Instead, they should refer all inquiries to the Library Unit Head or alternate or Communications Coordinator and refrain from making any public statements.
* No media personnel are allowed at the Library Command Center. Refer all inquiries to the designated Communications Coordinator.
* It is University policy that while the U-M Department of Public Safety and Security is on site, only the DPSS Incident Commander, the DPSS Public Information Officer or the University Spokesperson will decide what is communicated to the media.

All staff *and volunteers* should be apprised of this policy and the designated media liaison as soon as they begin to help with the response to a disaster.

# Recommended Disaster Response Supplies

## Minimal Onsite Disaster Response Supplies

A full list of supplies in the Library’s disaster cabinets is available in the **Restricted Disaster Response Plan**. A list of ordering information for supplies for disaster response can be found in **Appendix B**.

*All libraries should have the following supplies locally on hand in the event of a disaster:*

* **Polyethylene sheeting, 4 to 6 mil:** to protect dry books and materials. Use rolls (not sheets, which take more time to put up). *Do not cover wet or damp materials with plastic for more than 24 hours! The plastic may encourage mold growth.*
* **Flashlights and batteries (or wind-up powered flashlight):** in case the power goes out.
* **Disposable nitrile gloves:** to provide protection when handling wet or dirty materials.
* **Re-sealable polythene bags:** to bag/isolate moldy, infested, or soiled books that will be sent to the Department of Preservation and Conservation or elsewhere.
* **Caution tape:** to mark areas as ‘off limits’ to patrons and staff.
* **Clean rags:** to wipe down books, shelves, or work areas.
* **Sock sorbents, snakes:** water-absorbent sock 36 inches long and 3 inches wide that can contain a leak. They are particularly useful for "wicking out" water underneath book stacks and will contain a spill or modest leak. *Disposal is regulated: consult U-M Environment, Health & Safety.*

## Supplies for Immediate Response

A list of ordering information for supplies for disaster response can be found in **Appendix B**.

* **Extension cords, power strips**: to power fans, dehumidifiers, and other equipment
* **Hand trucks, dollies**: for moving books and equipment
* **Plastic bags**: liner bags for dripping wet books going into boxes, garbage bags, etc.
* **Inventory control**:tags or labels, marking pens, clipboards, tape, laptop computer and barcode scanner, etc.
* **Wet/Dry Vacuum Cleaners** (Shop Vacs): to remove water
* **Dehumidifiers:** to dry things out. The recovery service (e.g. BELFOR) can supply and deploy heavy-duty dehumidifiers.
* *Use a heavy-duty dehumidifier, avoid a desiccant dehumidifier, and if possible, find one with refrigerant coils (but beware: run refrigerant dehumidifiers only if the temperature is over 65 degrees; the coils will freeze at lower temperatures). Immediately assign someone to frequently empty pans to avoid mold growth.*
* **Fans:** to circulate air to promote drying and reduce risk of mold growth. The recovery service (e.g. BELFOR) can supply and deploy heavy-duty fans.
* **Clean rags:** to wipe down books, shelves, or work areas.
* **Smoke (drywall) sponge:** to clean smoke and soot off books or other materials.
* **Paper towels:** to interleave wet books during air-drying. *Note: Pre-cut C-fold towels are easier to use than rolls.*

*If any paper towels or other supplies are taken from custodial closets, notify custodial staff immediately.*

## Equipment & Supplies for Pack-Out

A list of ordering information for supplies for disaster response can be found in **Appendix B**.

* **Boxes, containers**: First, check with your selected recovery service (company that will do vacuum freeze-drying, for example) to learn what containers they recommend. The recovery service (e.g. BELFOR) can supply appropriate boxes.
* Banker’s boxes (1 ft.x1 ft.x1.5 ft., with handles cut on the side) or similar size boxes are the preferred boxes for packaging books. Larger boxes become too heavy to lift when filled with wet books. Handles are a convenience but not a necessity.
* Milk crates, Library red tote, or plastic bins
* Plastic buckets (for film and electronic media)
* **Box moving equipment:** book trucks, hand trucks, dollies, flat-bed trucks
* **Inventory control**:tags or labels, marking pens, clipboards, tape, laptop computer and barcode scanner, etc.
* **Freezer wrap** or **wax paper** (deli wrap): to interleave between books before freezing
* **Pallets and pallet wrap:** to stack boxes. Find standard industrial pallets with sufficient clearance for handling with a pallet mover or fork lift. The recovery service (e.g. BELFOR) can supply appropriate pallets.
* **Shipping supplies:** packaging tape, tape guns, cable ties with applicator gun, pallet wrap. The recovery service (e.g. BELFOR) may be able to supply appropriate packing supplies.
* **Distilled water**: To pack or wash film, photos, microfilm, magnetic tape or disks in clean water.
* *If distilled water is not readily available, clean tap water may be used.*
* **Tables, folding chairs, table covers, canopies.**
* **Transportation of goods**: Library truck or van; disaster recovery company (BELFOR, etc.) supplies vehicles; U-M Facilities & Operations Moving and Trucking; traffic barricade cones
* *Note: Do not have employees volunteer their personal vehicles for disaster recovery efforts if at all possible. Liability issues are a concern since personal vehicles are insured for personal use only.*
* **Freezers and refrigerated transport:** to temporarily store wet books in town. Arrange for a freezer truck through the disaster recovery company (BELFOR, etc.). *A freezer truck is called a “reefer” in the business.*

## General Disaster Response Supplies

A list of ordering information for supplies for disaster response can be found in **Appendix B**.

* **Cell phones, radios and walkie talkies**: regular battery-powered or crank radios
* **Bull horns**: for communication
* **Tools**: hammers & nails, pliers, bolt cutters, wrenches, cutting tools, ripping bar, fishing line, rope or string, tape & tape guns, scissors, knives & blades, measuring tape, ladders, door stops or wedges, plug adapters (3-prong) etc.
* **Extension cords, power strips, batteries**: to power fans, dehumidifiers, and other equipment
* **Generators**: to power equipment, lights, etc. *NOTE: Only U-M Facilities & Operations is authorized to set up generators on campus.*
* **Lighting (emergency)**: set up so work stations can be illuminated.
* **Cleaning supplies**: mops & buckets, brooms & dustpans, hand-held vacuum-cleaners, rags, squeegees, sponges, detergent, spray bottles etc.
* **Tarps**
* **Moisture meters & psychrometers**

## Supplies for Workers

Supplies relating to workers’ needs.

* **Drinking water**
* **Safety Clothing / Personal Protective Equipment:**
* **Gloves** (cotton, leather, or nitrile)
* **Boots** (coverings, or rubber)
* **Water resistant aprons, jackets, pants, coveralls**
* **Helmets, goggles, face masks**. *Use of tight-fitting half-face, full-face, or hood masks is regulated; consult EHS*
* **Floor signs**

**Transportation:**

* U-M Parking and Transportation (fleet rentals, bus rentals)
* Ann Arbor Transportation Authority (fixed bus service)
* Ann Arbor Cabs Taxi Service, Michigan Green Cars (24-hour), etc.

**First Aid:**

For medical emergencies, refer to Section **10: People Management**.

* **First aid kits**
* U-M Work Connections
* U-M Occupational Health Services

*Refer to* ***Section 10: People Management*** *for more information on workers’ needs.*

# Immediate Response – Stabilize the Site

The following sections describe stabilizing a disaster site **for the security and safety of the library collections.** For emergency procedures for the **safety of people**, see the Library Emergency Plan, maintained by Library Facilities or the U-M Department of Public Safety & Security(DPSS), <https://www.dpss.umich.edu>. The Library plan is linked from the Library Facilities page on the Library Staff Intranet (a print copy should be available in every work area):

Library Facilities: <https://staff.lib.umich.edu/content/library-facilities>

Library Emergency Plan: <https://docs.google.com/document/d/1wc8Y3zURuBmISE4tvlRy8MipDbB1nOfvcpUaj24KnLQ/edit>

The following information is also included in the Disaster Response Pocket Plan.

**Consider the personal safety of yourself and others first,** before taking action to protect the collections. **Do not re-enter the building until DPSS personnel give clearance that it is safe to do so.**

## Evacuation

If it does not put your personal safety at risk, **close and lock doors and windows** behind you as you leave (but do not *return* to the building or office simply to close doors and windows). Closed doors maintain security and limit fire/smoke damage. Building codes require that people can always exit a building despite locked doors; emergency responders can break through doors if necessary.

After evacuating, meet at a designated rally point for a head count and to await further instructions.

## Security at a Disaster Site

Contact the DPSS if security measures are needed. In the event of a large disaster that impacts buildings, the U-M Department of Public Safety and Security (DPSS), <https://www.dpss.umich.edu/content/about/our-departments/police/> will staff the perimeter and communicate to disaster response teams when it is safe to re-enter the building.

The Library’s Command Center Team may need to appoint Library staff to provide additional security for collections in certain situations, or hire security staff. Inquire with the DPSS.

Log staff into/out of the secure area. Staff must wear their University ID card in a badge holder at all times on the site. To obtain or renew a card, see the U-M MCard site: [http://www.mcard.umich.edu/](http://www.mcard.umich.edu/.)

Organize a secure place (locked room or an area that is continuously monitored by an assigned “guard”) for responders and workers to leave their personal belongings.

## Fire

**Consider the personal safety of yourself and others first. Do not re-enter building until U-M Department of Public Safety and Security personnel give clearance that it is safe to do so.**

Contact U-M Department of Public Safety and Security to liaise with other responders, assess the safety of the situation, and provide clearance for re-entry.

* **Fire extinguishers** can be important for limiting damage to collections. If you are trained and comfortable doing so, use a fire extinguisher AND:
* Have someone else **pull a fire alarm box and call 911** while you are using the fire extinguisher.
* Stay nearer to an exit than the fire; do not become trapped.
* If you have any doubts, do not attempt to use the extinguisher; **evacuate the area, pull a fire alarm box, and call 911.**
* If the fire cannot be controlled with **one** fire extinguisher **evacuate the area, pull a fire alarm box, and call 911.** Do not try to use additional fire extinguishers to put out the fire.

**Upon clearance for re-entry by U-M Department of Public Safety and Security:**

* **Do not** move burnt library material until a plan for evacuating and treating them is established. **Do not** open books or handle materials, which may cause further damage.
* Fire-damaged library materials that are dry and protected from weather and handling are stable; they may sit indefinitely while a salvage plan is developed.
* For fire-damaged library materials that are wet: see instructions for water-damaged materials, below.

**If Department of Preservation and Conservation staff is or will soon be available to direct salvage, stop at this point. If not, proceed to the instructions provided in** Section 7: Salvage of Library Collections **and following.**

## Water

**Consider the personal safety of yourself and others first. Do not re-enter the building until U-M Department of Public Safety and Security personnel give clearance that it is safe to do so.**

**Do not step into standing water that may be in contact with live wiring or electric outlets (some outlets can be in the floor).**

Contact U-M Department of Public Safety and Security to liaise with other responders, assess the safety of the situation, and provide clearance for re-entry.

Contact **Facilities & Operations** via the **Building Facilities Manager** or established phone tree for the building. *If the Building Facilities Manager is unavailable, contact* ***both*** *the U-M Department of Public Safety and Security at* ***734-763-1131 and*** *Facilities & Operations directly at* ***734-647-2059*** *for emergency assistance with facilities, utilities, and maintenance issues.*

The Building Facilities Manager, Facilities & Operations, or U-M Department of Public Safety and Security team will:

* turn off the water supply if water is flowing from pipes
* turn off electricity, if necessary
* provide equipment (mops, pails, wet vacuums, floor squeegees, extension cords)
* provide personnel to clean up water
* call in the University’s contract disaster recovery service (as of 2019, BELFOR)

By University policy only Facilities & Operations and Department of Public Safety and Security personnel have keys to shut off utilities; some building facilities managers have keys to some utilities**. It saves time if library staff can lead**  **Facilities & Operations technicians or Department of Public Safety and Security personnel who are unfamiliar with the building to the shut-off location.** Refer to the floor plans of the library (in the **Restricted Disaster Response Plan)** to find water shut-off switches.

**Beware of contaminants** that may have entered with the water (sewage, chemicals, animal droppings); stay away from a possibly contaminated area until assessments and plans are made. Consult with emergency personnel and U-M EHS (refer to contact list in **Section 3: Immediate Response – Calls for Assistance**).

**Upon clearance for re-entry by U-M Department of Public Safety and Security:**

* Use plastic sheeting to cover stack ranges onto which water is falling; protect undamaged portions of the collection.
* Cover dry collections in the area with plastic sheeting to prevent further water damage
* **Do not** cover collections that are not at risk; raised humidity inside the plastic covering. promotes mold growth.
* Remove and safely store at risk materials, e.g. books on the bottom shelves, near a broken window, etc.
* **Do NOT** cover damp books. Remove damp books and arrange for drying.
* Turn down heat in the building and/or turn up the air conditioning. Lower temperatures inhibit mold growth; air conditioning helps dehumidify the building and contents. **Do not let building temperatures drop below freezing when there is a danger of freezing water in pipes.**
* Improve ventilation to discourage mold growth.
* If **weather conditions** and the **security situation** permit, **open** windows and doors.
* If electricity is working and safe, position electric fans to improve air circulation.
* If there is no electricity, the salvage team may arrange with Facilities & Operations for portable generators.
* Remove standing water with floor squeegees, wet vacs, or mops.
* If the water is deep (covering books), leave standing water in place while a salvage plan is developed. Mold does not grow under water and salvage treatments are usually most successful on materials that are still wet and have not dried partially before treatment.
* Remove wet furnishings that will be discarded (carpet, upholstery, ceiling tiles, etc.) as soon as feasible to help reduce relative humidity.
* Set up portable dehumidifiers; arrange to monitor dehumidifiers and empty their tanks regularly.
* Do not remove wet books from shelves until a plan for evacuating and treating them is established. Mold will grow only on the exposed surfaces of a firmly closed book.
* If it will take more than 6 hours to plan and evacuate materials, remove 4 - 8 inches of books or paper records from very wet, tightly-packed shelves or drawers to prevent the swelling paper from bursting the shelving or exploding books onto the floor.
* Remove library materials from the floor if the materials are still dry or if they block access to other endangered shelves; otherwise leave them until a plan for evacuation and treatment is established.

**Untreated wet materials may start developing mold growth within 24 - 48 hours, especially if temperatures are warm and air stagnant.**

*Supplies*: see **Section 5: Recommended Disaster Response Supplies** and **Appendix B.**

**If Department of Preservation and Conservation staff is or will soon be available to direct salvage, stop at this point. If not, proceed to the instructions provided in** Section 7: Salvage of Library Collections **and following.**

## Structural Collapse, Dirt

The library building may suffer damage from tornadoes, heavy winds, heavy rains and flooding, structural weaknesses, earthquake, equipment malfunction, fire, heavy snow, and ice storms. Damage to the building may mean damage to collections if the structure leaves the collection open to the elements.

**Consider the personal safety of yourself and others first. Do not re-enter building until U-M Department of Public Safety and Security personnel give clearance that it is safe to do so.** Contact U-M Department of Public Safety and Security to liaise with other responders, assess the safety of the situation, and provide clearance for re-entry.

* **Beware of electrical hazards.** Shut off electricity if necessary. University policy limits who has access to utilities shut-off. Normally only Facilities & Operations and Department of Public Safety and Security personnel have keys; some facilities managers have keys to some utilities. It saves time if library staff can lead technicians to the shut-off location.
* **Beware of contaminants** that may have entered with the dirt (sewage, chemicals, animal droppings); stay away from a possibly contaminated area until assessments and plans are made. Consult with emergency personnel and U-M EHS (refer to contact list in **Section 3: Immediate Response – Calls for Assistance**).
* Library materials buried under rubble or common dirt are stable provided they can be kept dry and protected from weather; they may sit indefinitely while a salvage plan is developed.

**If Department of Preservation and Conservation staff is or will soon be available to direct salvage, stop at this point. If not, proceed to the instructions provided in** Section 7: Salvage of Library Collections **and the following sections.**

# Salvage of Library Collections – Workflow

**If Department of Preservation and Conservation staff is or will soon be available to direct salvage of collections, stop once the site is stabilized (**see **Section 6: Immediate Response** above**). The following instructions provide guidelines if expert help for assessment and planning is not immediately available upon clearance for re-entry to a disaster site by the U-M DPSS.**

## Develop a Plan

**Take time to plan** next steps, once the site is stabilized. A variety of decisions and arrangements must be made to salvage damaged library materials; salvage is likely to be most efficient and effective if as much of the planning as possible is made at first, before salvage begins. Summon a few key staff for planning; delay assembling additional helpers until a plan and supplies are ready for them.

**Record the damage**

* Make photographs and notes of the disaster site; describe the nature, extent, and any peculiarities of the damage
* Make notes of any priorities for salvage
* Label diagrams of the damaged area; these can serve as reference guides for packing labels and reduce the work of sorting materials later
* Record the location and call number ranges
* Record the number of shelves, ranges, or boxes

**Assess the extent of damage**

How many books? What other media? How many shelf ranges or floors?

* Make a rough estimate of the amount of material affected
* Inspect areas neighboring the damage site to make sure no damaged materials are overlooked
* *Inspection may require taking books off shelves to look behind them, feeling for dampness, and opening boxes to check the media within.*

*NOTE:* A typical 36-inch library shelf contains about 50 books.

**Decide: salvage onsite or pack out** for (a) Conservation Lab or (b) commercial recovery firm.

Refer to **Section 9: Initial Salvage of Collections – Water** for detailed information on salvaging wet materials. Small numbers of damaged materials are usually best salvaged onsite or at the Library’s Conservation Lab in the Buhr Building. Larger, more complex salvage should go to a commercial disaster recovery firm.

## Decision chart for salvage

|  |  |
| --- | --- |
| Slightly wet books | |
| Up to about 400 books: | Air-dry at Conservation Lab (least disruption to library) or onsite at library |
| Over 400 books | Identify extra space for air-drying; or call in commercial vendor |
| *Moderately wet books* | |
| Up to about 100 books | Air-dry at Conservation Lab (least disruption to library) or onsite at library; pack in Buhr freezer for temporary storage as needed. |
| Over 100 books | Pack for salvage by a commercial vendor; may or may not freeze for temporary storage, depending on how fast the commercial vendor can arrive on site or books can be shipped. |
| *Very wet books* | |
| Up to 25 books | Air-dry at Conservation Lab (least disruption to library) or onsite at library; pack in Buhr freezer for temporary storage as needed. |
| Over 25 books: | Pack for salvage by a commercial vendor; may or may not freeze for temporary storage, depending on how fast the commercial vendor can arrive on site or books can be shipped. |
| *Books with coated paper* | |
| Up to 25 books | Air-dry at Conservation Lab (least disruption to library) or onsite at library; pack in Buhr freezer for temporary storage as needed. After freezing evaluate for shipping to commercial vendor. PREVENT BOOKS FROM DRYING BEFORE FREEZING OR TREATMENT by wrapping in plastic for up to a day. |
| Over 25 books | Pack for salvage by a commercial vendor; may or may not freeze for temporary storage, depending on how fast the commercial vendor can arrive on site or books can be shipped. PREVENT BOOKS FROM DRYING BEFORE FREEZING OR TREATMENT by wrapping in plastic for up to a day. |
| *Film, magnetic media, disks* | |
| Up to 25: | Remove to Conservation Lab for treatment; do not freeze magnetic tape. |
| Over 25: | Pack for commercial vendor; do not freeze magnetic tape. |
| *Photos, artwork and other special materials* | |
| Any amount | see *Salvage at a Glance* for special instructions for drying/packing (Section 17: Selected Bibliography; copies available from Department of Preservation and Conservation) |

**Organize the staging area**

The “staging area” is where the work will be done. Based on the assessment of damage, a decision will be made about what the work will actually entail.

Staging area needs are determined by: (1) The amount and nature of the damage and (2) whether the recovery work can be done onsite or whether materials must be shipped offsite. Potential staging area locations are identified on the floor plans in the **Restricted Disaster Response Plan.**

## Sorting

At some point during the response and salvage, impacted materials will need to be sorted. Deciding just when, where, and by whom will have to be determined in the planning process at each event. This decision depends on the kind and amount of materials involved and the space, staff, and resources available. The sort can happen at the shelf, at a designated staging area before packing, or at an offsite treatment area. The sort may require two people working together, one person who is familiar with salvage technologies and the likelihood for a successful recovery, and one person who can judge the likelihood that a specific title can be replaced.

**Sorting categories**

Sort categories may need to be determined at the time of each event, but the following categories are common:

* **no damage:** book can be returned to shelf as soon the shelving is available again
* **minor damage:** book can be treated successfully with relatively little effort, typically by library staff (e.g. a splashed or slightly wet book can be air dried; only the binding is damaged, which can be stripped and the book sent out for rebinding)
* **major damage, book can be readily replaced:** the book needs significant effort for successful treatment; the effort and cost of replacement may be less and/or a replacement copy may better serve future use (e.g. an extensively wet book or a book with more than minor mold on the cover). The books may be set aside (frozen if wet or moldy) until it can be confirmed that a replacement can be purchased. Claim to Risk Management for replacement costs.
* **major damage, book can not be readily replaced:** these books can be set aside (frozen if wet or moldy) for more extensive decisions or treatment later. Decisions may also consider whether the book is available full text online.
* **catastrophic damage:** the book likely can’t be replaced, but extensive damage (e.g. mold or loss of text) renders the book useless. The loss is recorded and the book discarded. Claim to Risk Management for loss of value.

Books may be sorted to labeled booktrucks, boxes, or shelves. Barcodes are scanned for each category to facilitate next steps in recovery: updating the catalog, ordering, further review, or a claim to Risk Management.

## Packing out

The purpose of packing out may be to remove materials for salvage or to relocate undamaged materials out of harm’s way.

**Decide how and where to pack materials**

*Lighting and safe working space are primary concerns. Take care that books and packing materials are at a comfortable height. Folding tables work best, but book trucks can be used.*

Pack materials in the aisles if the damage is not too extensive. Alternatively, move materials to be packed to the staging area. If the disaster is severe, packing at the staging area will probably be the only option.

**Set up the Staging Area**

If possible identify a covered secure area for supplies. Cordon the area off from the public. Set up or clear work tables.

* Plan routes for both collections and supplies to/from the staging area
* Pack the materials immediately upon arrival at the packing area
* Set up tables. If materials are soaked with water, consider the weight that a table can hold.
* Cover tables with plastic.
* *If wooden tables are used, cover with cloth or table pads first before covering with plastic sheeting to prevent varnish from dissolving onto books and to protect tables from damage.*
* Use tape to keep covering in place, if necessary.

**Assemble supplies and equipment**

* Gather equipment: book trucks, flatbeds, pallets and pallet movers
* Gather supplies: boxes, tape, freezer wrap, and a box-labeling kit (waterproof markers, tags) per packing team; rubber boots, aprons, gloves, hardhats, face masks, and other protective equipment as needed
* *Make sure it is quick and easy to prepare materials – freezer paper in sheets is easier than tearing it off a roll, tape is easier to handle from a dispenser, etc.*

**Calculate:**

* 1 box freezer wrap per 200 books
* 15 books per box
* 27 boxes per pallet
* team of 2 workers to pack 200 books/hour

**Organize inventory control**

It is essential to document what collections were damaged, where they were moved to, and what was done with them. The better the inventory control at the time of first response, the easier will be the recovery and return to service. When materials are removed, either for salvage or for disposal, the Emergency Response Recorder should:

* Diagram and number the ranges and shelves affected
* Reference the call number ranges
* Tape paper tags with these numbers to the shelves
* Instruct packers to label the boxes on all sides with the same numbers.

If possible, the Disaster Team in charge of salvaging or packing out materials should set up a barcode scanning station at the **Staging Area**. All materials with barcodes leaving the site for repair or disposal should be scanned to create a list of what has been removed. Two options are available:

* If there is no Internet access: Scan the barcode into an Excel, plain text (preferred), or Word document (acceptable but less desirable), one code per line. Remember to identify the list with a date and location and brief explanation of the circumstances.
* Alternative option if there is Internet access: Log in to Aleph and apply an Item Process Status Code. Remember to record what code was used, the date, and the circumstances.

Work with the Library Automation, Indexing, & Metadata Office to generate reports of what was removed or discarded.

**Decide how to move materials.**

* Determine what materials and equipment are available
* Establish routes to move materials to the packing area
* Mark these routes if necessary with appropriate signage
* Assign a team leader to be at the head of each human chain or book truck convoy
* Also establish routes to move materials from the packing area

If power is out, elevators cannot be used. Alternatives are:

* Human chain (the most efficient way to move books up and down stairs if the power is out; refer to **Section 10: People Management** section on Volunteers)
* Convoy of book trucks
* Stack tote bins on dollies and wheel out
* Individuals carry a few books at a time in tote bins (inefficient, use as last resort).

To move as many materials as possible in a short time, use an assembly line approach. Assign teams to:

* Move supplies to a packing area
* Prepare packing materials: cut freezer paper, assemble boxes
* Pack
* Seal up and label the box
* Move boxes away from packing area
* Stack packed boxes

**Pack out to Conservation Lab:**

* Alert Conservation Lab staff
* Arrange with Library Facilities for a Library truck to transport material to the Conservation Lab *AS SOON AS POSSIBLE* – certainly on the same day.
* Sort wet books into categories: (1) dry; (2) very wet, (3) slightly wet, (4) coated (glossy) paper or other special problems. Label totes, boxes, or trucks by these categories.
* It may be easiest to remove books from shelves to book trucks and wheel them to a staging area for sorting and packing.
* Pack books in regular Library red totes; books must be placed in the tote flat or SPINE down; do not pack totes above the ledges that support the next tote on top. (A Library red tote typically will hold around 15 books.)
* Pack larger quantities of books on library book trucks; run pallet wrap around the loaded truck to keep the books from sliding off during transit. The book trucks can be loaded in the larger library van and delivered to the Conservation Lab at Buhr. (A book truck typically will hold around 80-150 books.)
* Place books printed on coated (glossy) paper in plastic bags before packing to keep them wet; if coated paper dries without special treatment the pages will stick together irremediably.
* Place wet film, magnetic media, or disks in plastic bags in totes to keep them wet; if film or media dries without special treatment it may stick together irremediably.

**Pack out for commercial recovery firm:** (a) direct, or (b) via interim storage in freezer or warehouse.

* If feasible, arrange for the destination and transport of materials BEFORE packing, since where and how you send the materials may indicate the best way to pack them.
* If a large number of items need to be freeze-dried, a freeze-dry company can be hired to come onsite, pack up, and take the materials to their plant.
* Ask the company for advice: they may have specific requirements or guidelines concerning the number and types of items they can handle.
* The recovery company chosen may also have specific instructions for packing or shipping. Ask the company how to proceed before beginning the pack-out.

**When Packing Wet Books:**

* Pack directly from the shelves, if practical, keeping books in order.
* Line the boxes with plastic trash bags ONLY if the books are so wet they will cause the box to collapse before it can be frozen
* Loosely wrap books in freezer paper or plain white paper towels to separate and protect them
* Pack books in a crate or cardboard box
* Try to pack books so that they are all either lying flat on their sides or resting on their spines, with the fore edge sticking straight up; as possible, square the books (if the book is skewed when it dries, it will retain a memory of the distorted shape forever)
* Don’t pack books tightly; leave room in the box to allow for expansion during freezing
* Extremely loose packing can distort the book’s shape, however; if possible, pack crumpled balls of unprinted newsprint or paper towels to fill gaps in the box
* Label boxes "U-M Library" and identifier for contents: LC call number or shelf range or Box # of #
* Record this label and the call numbers or ranges that are contained in each box
* If boxes will be split between two facilities, record which is going where
* Undamaged materials or dry materials damaged only by fire or dirt may need to be packed out and placed in temporary storage for security and protection from weather until they can be sorted and further treatment organized
* Arrange transport for materials, if needed. See **Appendix A** for contact information for transport of packed boxes or pallets of packed boxes to storage.

*Double-check with the disaster response or recovery firm or drivers of the trucks on details such as raised loading docks (or absence), how to stack pallets, use of pallet wrap to stabilize a pallet, and equipment needed to move packed boxes.*

# Large Disasters: Library Command Center and Team

A “Library Command Center” is a pre-arranged place from which the overall disaster response is coordinated, regardless of the type of disaster. It is the recovery headquarters *for the Library*.

**Note**: U-M Department of Public Safety and Security will establish their own command center called an Incident Command Center. Having two command centers may cause confusion. Refer to the Library Command Center as such to avoid confusion as much as possible.

Disaster recovery team leaders and staff assemble in the Library Command Center location to receive their work assignments and information needed to begin the disaster recovery operation. Possible locations of the Library Command Center are provided in the **Restricted Disaster Response Plan**.

Only in the event of a large or widespread disaster incident will the full range of personnel and teams described here be designated and assembled. The tasks described, however, are likely to apply to any incident; the difference is that all the tasks may be performed by a smaller group of staff.

## When to Set Up the Library Command Center

Once an actual or potential disaster is detected, identified, and reported to designated individuals in the library, the Library Command Center Team should be assembled in person, via phone, or via other technology.

The first task the Library Command Center Team must undertake is to determine where the Library Command Center will be set up. The physical location of the Library Command Center depends on the type of disaster and whether or not it is possible to enter the library at all, or if only certain areas within the library are affected by the disaster. The Library Command Center may be in a temporary location until staff are allowed into the library. The location of the Library Command Center will depend on such factors as safety, the availability of electricity and technology, proximity to affected areas, and related factors. If possible, the Library Command Center should have electricity, working telephones, computer and internet access, etc.

## Security and Logistics at the Library Command Center

Post a list of personnel authorized to have access to the Library Command Center. Only members of the disaster response team should have access. Enforce this rule by ensuring authorized staff have identification indicating who they are. Create a sign-in /out sheet at the entrance of the Library Command Center for tracking people.

No media reporters are allowed at the Library Command Center. Refer all inquiries to the Communications Coordinator.

## Library Command Center and Response Team – Outline of Duties

As part of disaster planning each library should identify staff (and alternates) who might perform a variety of functions in case of an emergency at that library. Depending on the size of the disaster, one person might handle multiple functions or one function might require a team of staff. Below is a checklist of functions needed along with position titles for guidance.

*All members of the Library Disaster Response Team should keep their personal home disaster plans and supplies up-to-date; staff will be able to help the Library better and more quickly, knowing their own families and property are safe. Resources for personal disaster planning are listed in* **Section 16: Training***.*

Library Disaster Response Team members need an up-to-date University ID card (that specifies the Library as place of employment, not an old one from a previous job on campus) and must wear it in a badge holder at all times on site. To obtain or renew a card, see the U-M MCard site: <http://www.mcard.umich.edu/.>

**1. Emergency Response Coordinator**

The Emergency Response Coordinator may be the Library Unit Head or alternate (in a moderate, localized incident); in a larger, more wide-spread incident it will more likely be an Associate University Librarian or delegate. This person determines the appropriate delegation of authority for various aspects of decision-making and communications related to the situation.

The Emergency Response Coordinator is in charge of all aspects of the recovery operation, but their focus is on policy, communications and public relations, and interactions with higher authorities within the Library and University to obtain needed resources. The Emergency Response Coordinator coordinates with the Communications Coordinator and the University’s News Service regarding media contacts. The Emergency Response Coordinator will:

* Assess the scope of the emergency
* Contact, assemble, and brief other emergency coordinators
* Work closely with the other emergency coordinators and with local and Library administration to plan the response strategy
* Oversee implementation of the response
* Work with the Emergency Response Recorder to document decisions made
* Prepare interim and final reports on the emergency response
* Brief the Recovery Manager

The Emergency Response Coordinator coordinates with the University’s Emergency Operations Center (if that is in effect) and other campus departments that must be involved from the outset:

* U-M Office of Risk Management
* U-M Department of Public Safety & Security
* U-M Environment, Health & Safety (EHS)
* U-M Facilities & Operations
* U-M News Service
* U-M Provost’s Office
* U-M Office of Public Affairs (University Spokesperson) as needed

**2. Library Unit Head or alternate**

The Library Unit Head or alternate (possibly in addition to acting as the Emergency Response Coordinator) will:

* Work closely with the Emergency Response Coordinator to plan strategies
* Direct outsiders to on-site locations and resources
* Provide access (open locked/alarmed doors)
* Assign unit staff to assist with the response/recovery work as needed
* Interpret the area’s Priorities List for the Rescue Teams
* Advise (or appoint advisors) to sorters deciding what to salvage and what to discard
* Likely become the Recovery Manager

**3. Emergency Response Recorder**

The Emergency Response Recorder serves as recorder to the Library Command Center. The Emergency Response Recorder or team creates records of major decisions and a chronology of events. This team is also responsible for inventory control, i.e. ensuring accurate recording of items removed from the building. The Emergency Response Recorder will:

* Work with the Emergency Response Coordinator to document decisions made
* Document (written and photographic record) the scope of damage and collections affected for insurance claims and other planning purposes
* Develop a system (and document it) for labeling packing boxes
* Record what materials are sent where
* Organize computers and barcode scanners for inventory control, if feasible
* Assemble and direct an Emergency Recording Team as needed
* Assemble the information recorded into reports as needed

**4. Communications Coordinator**

In a major event, this function is normally performed by the AUL for Operations or the Communications and Marketing Director. The Communications Coordinator will:

* Set up a communications center
* Work closely with the Emergency Response Coordinator and Library Administration
* Liaise with the U-M Department of Public Safety and Security information officer (as needed)
* Liaise with University Spokesperson at the U-M Office of Public Affairs (as needed)
* Organize documentation of events for communication with the University community and the general public: photography, written notes, and press releases
* Serve as contact person for the media or to the University News Service; all Library emergency staff will refer queries from the media or general public to the Communications Coordinator
* Document what information has been released to what people, media, or organizations.
* Assemble and directs a Communications Team, as needed
* Prepare interim and final reports on these activities

**5. Emergency Logistics Coordinator**

The Emergency Logistics Coordinator directs the recovery operation and supervises team leaders. This person is responsible for contacting expertise available on campus and for quickly establishing functional work teams and designating team leaders. This person must have a **purchasing credit card (PCard)** or be able to mobilize designated staff who do (Library Facilities has Pcards and can serve as runners to purchase immediately needed supplies).

This function is likely to be performed by the Department of Preservation and Conservation. In small or moderate incidents, staff from the Department of Preservation and Conservation may combine this role with that of Emergency Response Specialist and Operations Coordinator.

The Emergency Logistics Coordinator will:

* Work with Emergency Response Coordinator and Emergency Response Specialist to plan strategies and assess needed resources
* Establish a management "office"—arranges space, tables, phone lines, runners, or walkie-talkies, etc.
* Procure resources or disaster recovery services – services, equipment, supplies, and staff – as needed
* Authorize payments or connect with Library staff who may authorize payments or contracts
* Record names and working hours of Library staff assisting; register volunteers; distribute name badges for staff on site
* Coordinate documentation of costs for insurance claim: keep records of staff, hours, supplies, and other expenses
* Organize and procure resources for the comfort, refreshment, and safety of workers – drinking water and cups, coffee, food, portable toilets, blankets, etc. – as appropriate
* Assemble and direct a Logistics Team, as needed
* Prepare interim and final report on costs of the emergency response
* Act as liaison with Risk Management property specialists or insurance personnel and the University after fiscal arrangements have been made and approved by the Emergency Response Coordinator.

**6. Building Facilities Coordinator**

This function is normally performed by the Building Facilities Manager. The Facilities team works closely with the Emergency Response Coordinator, Emergency Logistics Coordinator, and Emergency Response Specialist to plan and implement the response strategy. U-M Library Facilities staff (at the Hatcher Library) have access to purchasing credit cards as well as Library vehicles; they can act as runners to obtain supplies from local businesses. The Building Facilities Coordinator will:

* Be responsible for the building.
* Assess the scope of damage to fabric or furnishings
* Liaise with Buildings Maintenance Services or Facilities & Operations, as needed
* Assemble and direct a Building Facilities Team, as needed
* Suggest locations for packing area and central staging area
* Monitor supply levels and equipment in the staging area
* Coordinate transportation for people and goods
* Coordinate security for the disaster site
* Liaise with police, fire, and emergency services
* Liaise with U-M Office of Environment, Health, and Safety
* Brief the Recovery Manager (and other local or Library administration) on long-term facilities issues resulting from the emergency
* Prepare interim and final reports on facilities damage and recovery

**7. Emergency Response Specialist & Operations Coordinator**

This function is normally performed by staff from the Department of Preservation and Conservation. The Emergency Response Specialist & Operations Coordinator will:

* Assess the emergency with the Emergency Response Coordinator, the Building Facilities Coordinator, and the Emergency Logistics Coordinator to develop a plan of action and determine what resources are needed
* Serve as technical advisor on methods of salvage for different types of collections
* Assemble and direct Emergency Rescue Team Leaders as needed
* Set up operations space; organize work flow; instruct and direct Rescue Team Leaders and workers; oversee worker safety
* Communicate ongoing needs for equipment/supplies/staff to the Emergency Logistics Team
* Provide information to the Emergency Response Coordinator and the Communications Coordinator, both ongoing and for interim and final reports

**8. Emergency Rescue Team Leaders**

Team Leaders are the communication link between the Recovery Team Workers and the Emergency Operations Coordinator. Team Leaders may be staff from the Department of Preservation and Conservation or designated staff from Operations. Team Leaders will:

* Be responsible for monitoring supplies for teams and proper packing and handling techniques
* Be responsible for monitoring team workers for needed breaks and rest time.
* Work closely with the Emergency Logistics Coordinator to carry out immediate response and salvage
* Assume responsibility for directing an operation, such as packing out materials from a specific area, air-drying collections, or cleaning soiled materials; direct one to five workers in a specific operation
* Disaster Team Leaders and Team members will be identifiable by wearing bright vests or disaster recovery ID tags

**9. Recovery Manager**

The Library Unit Head is likely to become the Recovery Manager. Following a large incident, another staff member may be assigned to this work full-time. The Recovery Manager will:

* Plan and coordinate activities to return the collections to use and the library to operation
* Coordinate with other expertise around the Library as needed (Preservation and Conservation, Technical Services, Facilities, etc.)

This organizational system is compatible with the way U-M Department of Public Safety and Security will be organized and how all federal, state and local responders will be organized. For more information on the Incident Command System used by government first responders, refer to: <http://en.wikipedia.org/wiki/Incident_Command_System>

# Initial Salvage of Library Materials

## General

Good general references on salvage, with specific information by media type, are listed below. Print copies of these references are available at the Buhr Conservation Lab. Refer to **Section** **17: Selected Bibliography** for more sources on dealing with library materials affected by disasters.

*Emergency response and salvage wheel.* National Institute for the Conservation of Cultural Property. Washington, D.C., 1997. <https://store.culturalheritage.org/site/index.php?app=ecom&ns=prodshow&ref=FAIC-1>  
Ready reference for salvage of library, archive, and museum materials.

Walsh, Betty. *Salvage at a glance*. WAAC Newsletter 19.2. May 1997.   
<http://cool.conservation-us.org/waac/wn/wn19/wn19-2/wn19-207.html>   
Chart. Excellent source for first response salvage actions by media type.

Walsh, Betty. *Salvage operations for water damaged archival collections: A second glance.* WAAC Newsletter 19.2 May 1997. <http://cool.conservation-us.org/waac/wn/wn19/wn19-2/wn19-206.html>  
Narrative text. Excellent source for first response salvage actions by media type.

Iraci, Joe. *Disaster Recovery of Modern Information Carriers: Compact Discs, Magnetic Tapes, and Magnetic Disks.* C.C.I. Technical Bulletin No. 25. Ottawa: Canadian Conservation Institute, 2002. Available for download: <http://publications.gc.ca/collections/collection_2016/pch/NM95-55-25-2002-eng.pdf>  
Discusses options for salvaging CDs, magnetic tapes and disks after water damage.

## Water

Once the U-M Department of Public Safety and Security has cleared the area as safe to enter (**see Section 6: Immediate Response – Stabilize the Site**) and steps outlined in **Section 7: Salvage of Library Collections – Workflow** have been completed, proceed to the following salvage steps.

There are several ways to dry wet books; for descriptions and pros/cons, see:

Ruzicka, Glen. *Disaster recovery: Salvaging books.* Philadelphia: Conservation Center for Art and Historic Artifacts. 2002, rev. 2013. <https://ccaha.org/sites/default/files/attachments/2018-07/technical-bulletin-salvaging-books.original.pdf>

Take care to distinguish the different drying methods carefully because many of the names are similar and/or may be used differently by different vendors.

**Freezing:**

Wet books may be frozen to halt mold growth and gain time for additional planning or logistics. If it is not possible to arrange for books to be dried within 24 hours, make arrangements to freeze them. **Freezing is a strategy to halt further damage to books, not to dry them.** Local Options:

* The Department of Preservation and Conservation has a freezer at the Buhr Building that can hold nine to twelve record boxes, depending on the current contents of the freezer
* University Unions may have freezers available
* Local blast freezer (chills rapidly to -20˚F; best option if available)
* Stack boxes of wet books outdoors (winter only; arrange for security)

Moving materials to a freezer requires packing and trucking; it may be easier to send materials directly to the disaster recovery vendor:

* Park a freezer truck on site (cooling is slower than blast freezing)
* See Vendor Contact List in **Appendix A**
* Coordinate parking permissions with U-M Parking and Transportation Services:

Phone: 734-764-8291 Website: <https://ltp.umich.edu/?>

**External vendor to vacuum freeze-dry**

BELFOR, the University’s current (2019) contract, disaster-recovery company, provides clean-up services for University property. Services provided include, but are not limited to: water mitigation and drying, cleaning (structure and content), mold remediation, document restoration, electronics restoration, deodorization and re-construction.

With the approval of the Department of Preservation and Conservation and the U-M Office of Risk Management, they may subcontract other companies as needed to provide vacuum freeze-drying services for library collections.

*When contracting with a company for vacuum freeze-drying of books, ask about special specifications for packing and stacking pallets. Tell them whether or not the library has an elevated loading dock. Also consider:*

* When contacting the disaster recovery company, make sure that you and the company are clear on who packs the books
* If you are to pack the books, ask how they would like the books packed and make sure that you understand what materials should be used.

**Air-dry on site:** arrange space, supplies, and staff

Air-drying (labor-intensive) is usually best for relatively small numbers of books or objects. For step-by-step procedures for air drying books: see *How to Salvage Wet Books,* appended to this section.

* **Space**: see Library Command Center and Staging Area options for off-site locations for air-drying wet materials. Estimate about 3 books per square foot of drying surface.
* **Supplies**: supplies for air-drying library materials are located in the disaster cabinets; additional supplies may be purchased as needed.
* **Staff**: for air-drying estimate about 25 books per person/hour.

*This estimate is for the initial response; additional time will be needed on subsequent days. More time will be needed for books with coated—glossy—paper.*

* **Triage for air-drying**: assess and sort books into the following categories, since treatment needs will vary.
* coated (glossy) paper
* pamphlets or thin, lightweight books
* very (dripping) wet
* partially wet
* damp

## How to Salvage Wet Books

*This leaflet was produced as a public service by the Department of Preservation and Conservation of the University of Michigan Library. While the information presented reflects tried and accepted library preservation practices, neither the University nor its employees accept responsibility for results from their application. Always consult a professional conservator when working with valuable or precious materials.*

Water is a major hazard to the survival of books. It can dissolve glues, deform paper, warp bindings, make inks run, and cause glossy papers to fuse together. Damage to books from water can be limited if proper steps are taken promptly after the books become wet.

Wet paper is highly susceptible to mold. Mold damage on paper is difficult —often impossible—to remove. Mold may start growing on wet books within 24 to 48 hours, especially if temperatures are warm. If you cannot begin steps for drying your books within that time, you should freeze them until you have adequate time to work on them. Freezing does not damage books but inhibits mold growth and prevents further absorption of water. Instructions for freezing a book are given at the end of this leaflet.

This leaflet provides steps you can take yourself to minimize water damage to books. Bear in mind, however, that a book that has once gotten wet is likely always to show some signs of damage. Seek assistance from a professional book conservator for drying especially valuable books.

**Contaminated water**

Before handling wet books, consider carefully the source of the water that has wet them. DO NOT HANDLE books wet with sewage water or water that has dripped through contaminated areas (attics with animal droppings, sources of chemical contamination); contact local health authorities for advice before proceeding.

**Mud, soil**

The safest time to clean a muddy book is after it has dried. Heavy mud or silt on the cover of the book, however, can be reduced effectively before starting the drying process. Hold the book shut and place it under clean running water, using a sponge or rag to gently wipe away mud with a daubing motion; rubbing and brushing should be avoided. Do not open the book under water or attempt to wash the pages. Cleaning a stain that is difficult to remove should be not be attempted until after the book has been dried.

DO NOT PUT A BOOK IN AN OVEN OR MICROWAVE TO DRY. Heat will over-dry and warp the book and can melt the adhesives used in the binding. Microwaves cook the book rather than dry it and can also melt adhesives or singe paper.

**Air-Drying Wet Books**

When salvaging a number of books, you should first sort them into different types:

A. thoroughly wet (dripping) books,

B. moderately wet books,

C. damp books,

D. pamphlets and small paperbacks,

E. books printed on coated (glossy) paper.

There are slightly variant methods for treating each type of book, as described in the instructions.

**Materials**

• electric fan(s ) to keep the air circulating

• electric dehumidifier(s)— useful, if available, to reduce ambient humidity

• plastic sheeting to protect tables

• paper towels—plain white, avoid paper towels that contain color dyes, **or**

• UNPRINTED newsprint—available at packaging supply shops or art stores

• waxed paper—kitchen rolls or freezer wrap available at super-markets

• sponges (small pieces)

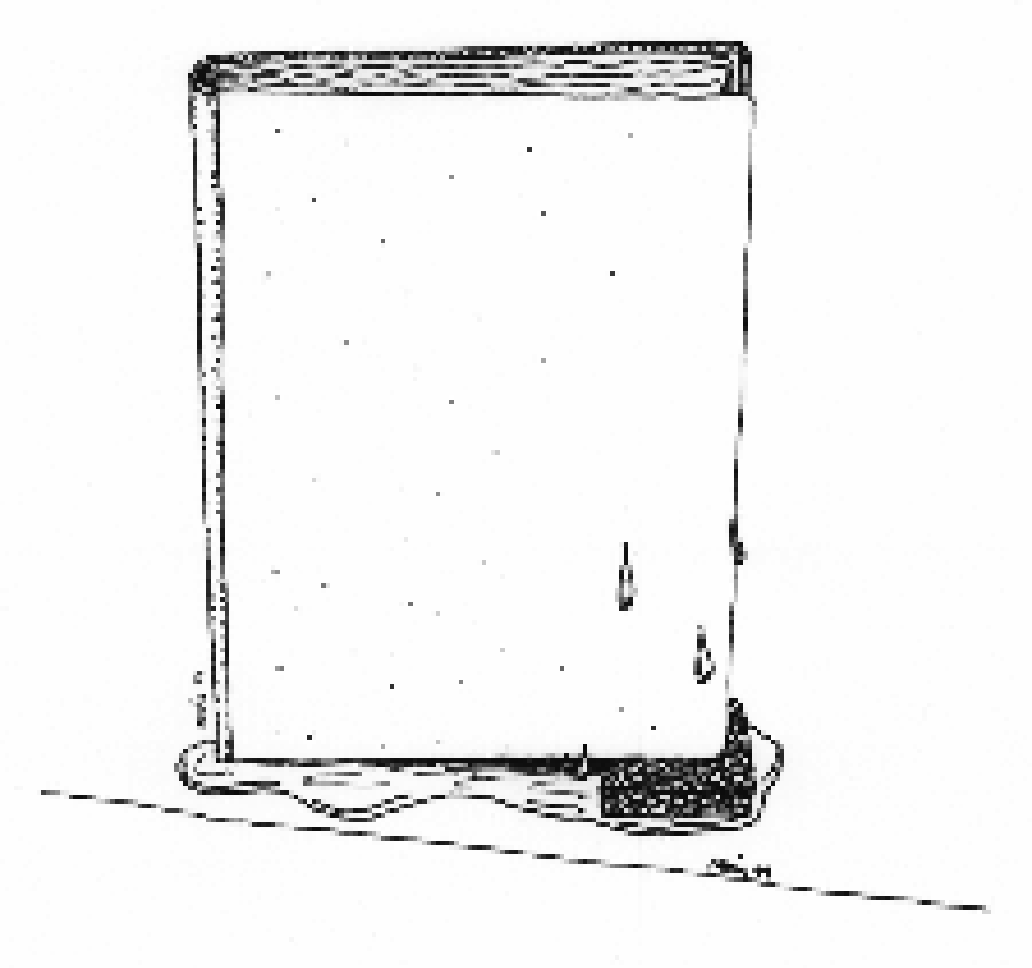
**Set up for drying**

Before you begin the procedures outlined below, create an environment that is conducive to drying wet books. Ideally, the temperature should not be above 70˚ F, and the relative humidity should not be above 65%. Use fans to circulate air and, if necessary, portable dehumidifiers to take excess moisture out of the air. Cool, dry, circulating air will accelerate the drying process and discourage mold growth. Arrange to clean and dry the shelves and rooms to which the books will be returned, to inhibit additional damage and mold growth.

If weather conditions permit, books may be air-dried outdoors. Relative humidity should not be above 65%. Long-term exposure to the ultraviolet rays of the sun may cause books to fade and may accelerate aging, but setting a book in the sun for a day should not cause visible damage to most books. DO NOT leave books outside overnight because morning dew will dampen them.

**Create a work surface**

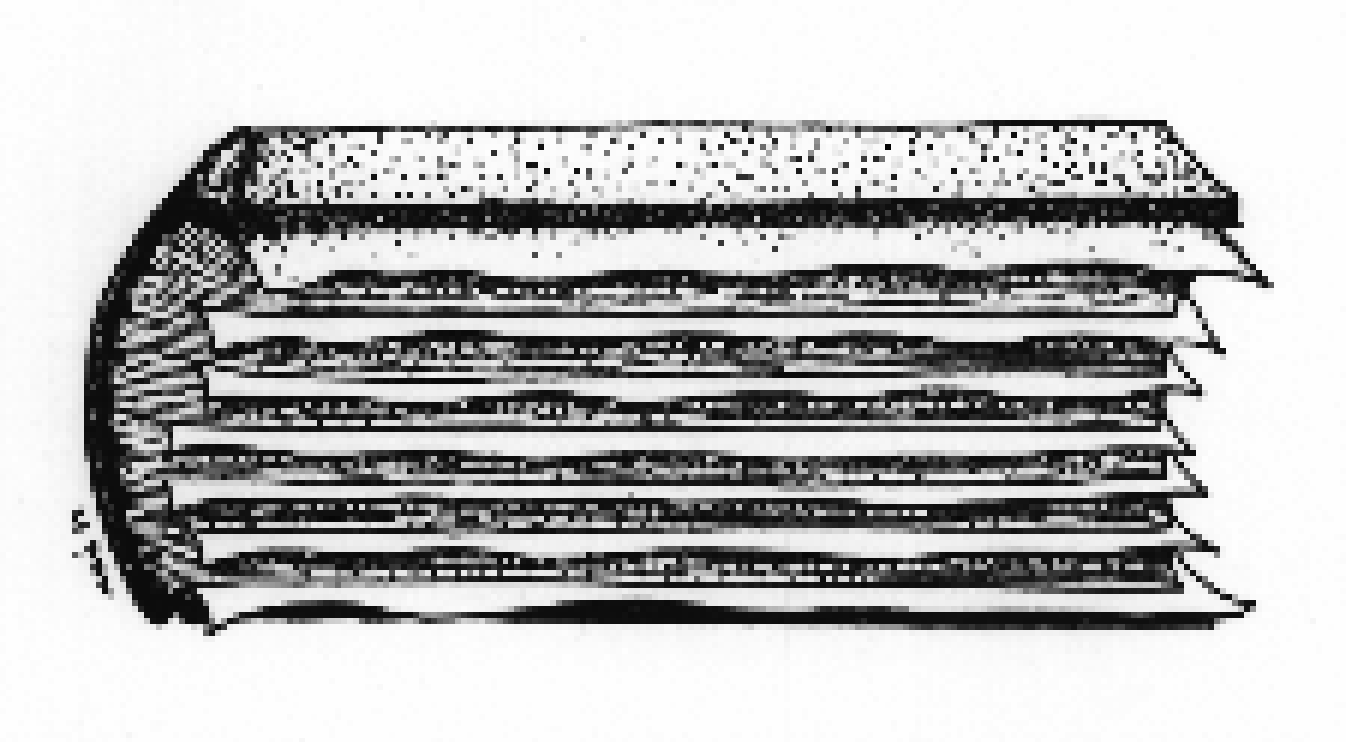
Use a table top or pieces of wood set up on cinderblocks, etc. Cover the work area first with a piece of plastic (to protect the work surface), then with several layers of absorbent paper such as strong, white paper towels or unprinted newsprint. The paper will absorb excess water from the books. Remove wet absorbent papers from the drying area promptly to help keep the ambient humidity down.



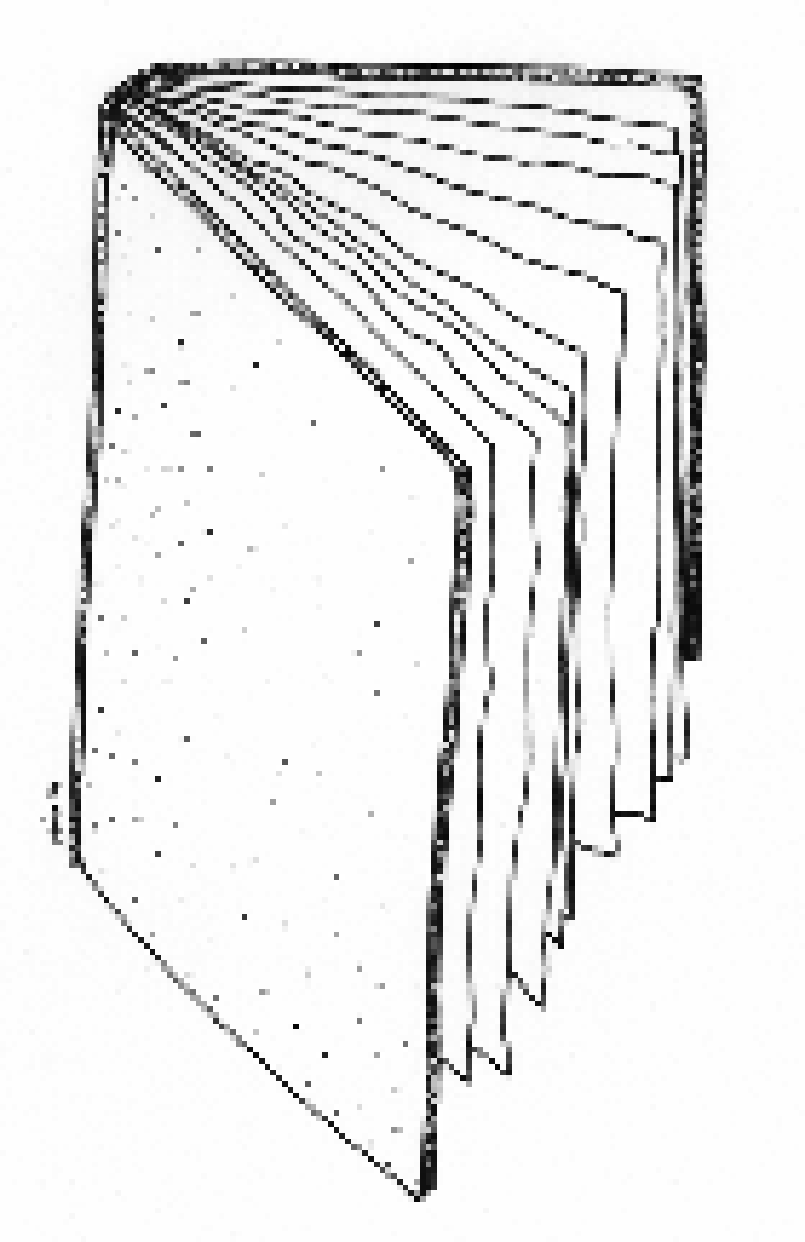
**A. Wet (dripping) books – start at Step 1**

**Step 1.** Do not open thoroughly wet books. Wet paper is extremely delicate and will tear easily. Do not remove covers or bindings unless absolutely necessary.

**Step 2.** Place the wet book, closed, on its head (top edge) on the absorbent paper. Place small pieces of sponge under the fore-edge of the book to allow water to drain from the book more efficiently. Do not fan the pages open. You may place paper towels or unprinted newsprint between the cover and the text block to further help with water absorption. Replace the absorbent paper when it becomes damp. DO NOT use this process with books that contain coated (glossy) paper; see **Section E, Coated (glossy) paper,** below.

**Step 3.** Continue draining the book until water is no longer dripping and you do not see free water on the pages if they are gently opened. At this stage the book may be advanced to Step 4.

**B. Moderately wet books – start at Step 4**

**Step 4.** Cut paper towels or unprinted newsprint slightly larger than the size of the pages in the book. (Older guidelines on the salvage of wet books recommended paper impregnated with thymol to control mold; *do not use thymol,* which is now known to be a carcinogen.) Very carefully, open the book and insert a sheet of paper between the text block and the cover and additional sheets every quarter inch (20–30 pages) to absorb excess water. Be careful not to insert too many pieces of paper, which may cause the spine to become concave and will distort the book. Right-handed people may find it easiest to start inserting sheets from the back of the book working to the front. Lay the book on its side on the table. As the sheets of paper become wet, they should be removed and replaced with dry sheets. Turn the book over on the other side each time sheets are replaced. Take care at this stage to keep the book square and in shape, which will help minimize permanent damage to the binding.

**Step 5.** Continue exchanging the interleaving of the book (vary the location of the absorbent sheets at each exchange) until the paper is just slightly damp rather than wet. At this stage the book may be advanced to Step 6. The dryer the book is before moving to Step 6, the less cockling (rippling) of the paper.

**C. Damp books – start at Step 6**

**Step 6.** Stand a damp book on its head (top edge) on the work surface and open the book, slightly fanning the pages. Don’t force the book open more than about 60˚. Electric fans circulating the air should not be allowed to flap the pages. Let the book stand until it is thoroughly dry—check the book for dryness in several locations by feeling the gutter as deeply as possible between pages. It may take days or even a week or more for wet books to dry thoroughly.

**Step 7.** Pressing can reduce cockling (rippling) of the dried pages. Manipulate the dry book square and in shape and place it in a press or under weight (other books, a clean brick covered with cloth or paper) for a few days to a few weeks.

**D. Pamphlets and small paperbacks**

Damp pamphlets and small paperbacks that cannot support themselves when fanned open may be hung over fishing line to dry. Fishing line is not recommended for thoroughly wet items—it can cut the paper.

1. Start drying thoroughly wet pamphlets by laying them flat on absorbent paper; change the paper as it gets wet. Small paperback books that are thoroughly wet should be dried by following steps for **Wet (dripping) books,** above; bookends or wood blocks may be used for support during the draining process.

2. If the pamphlet is only moderately wet or is no longer dripping, insert paper towels or unprinted newsprint cut slightly larger than the size of the pamphlet between every few pages, as described in **Steps 4-5,** above.

3. When the pamphlet or small paperback is dry enough to hang over fishing line without ripping, it may be hung up to dry completely. Use fans to keep the air circulating in the drying area but do not let the breeze flap or dislodge the pamphlets. Place dry pamphlets under a light weight to flatten the paper.

**E. Coated (glossy) paper**

Sort out books that contain coated paper; many books and magazines are printed entirely on coated paper, some use glossy paper for sections of illustrations. Water softens the coating of adjacent pages, which then fuses together as it dries. If two sheets of coated paper dry together, it is impossible, even for professionals, to separate them. If you do not have time to begin the drying process immediately, *keep books with coated paper wet* by placing them in plastic bags and, if possible, freeze them to prevent them from drying. Follow the steps for **Freezing a Book,** below.

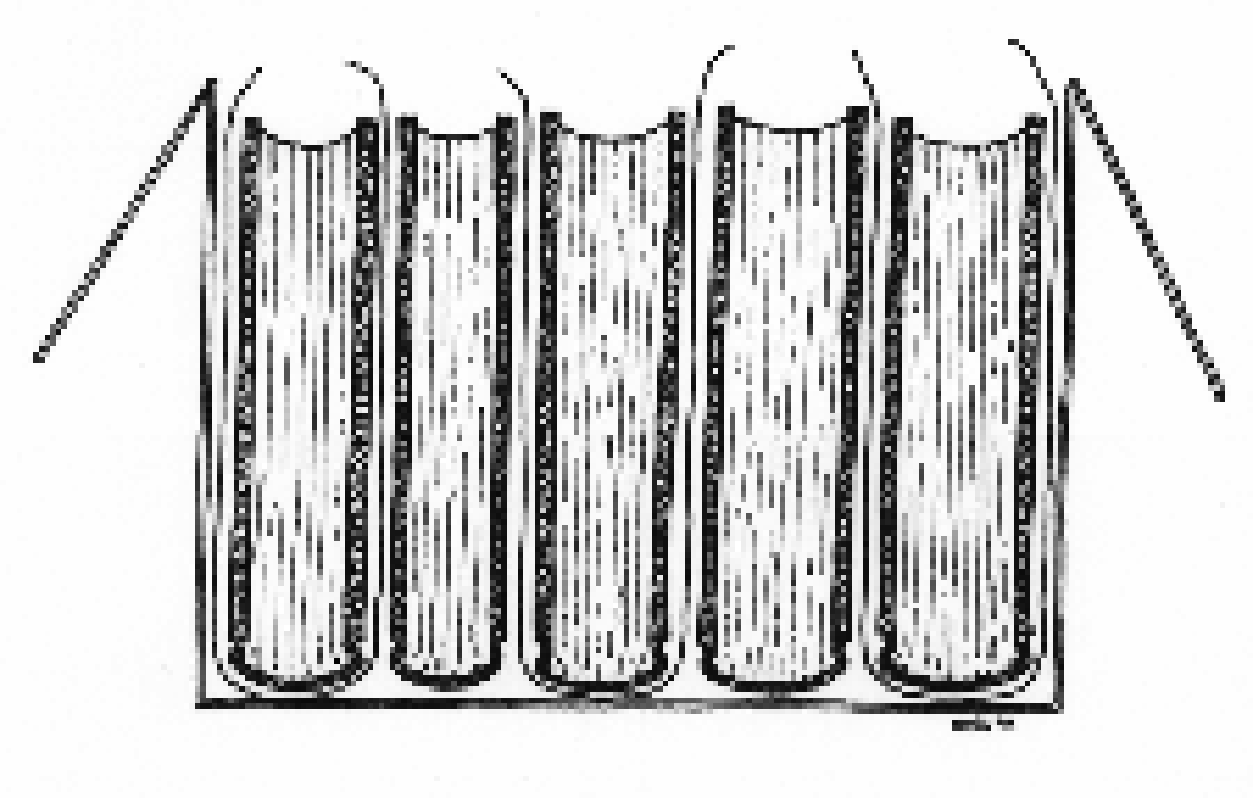
1. Cut waxed paper, paper towels, or unprinted newsprint to the approximate size of the pages in the book. Carefully separate *each* coated page in the book and place a sheet of separation paper between *each* page. It is important to place a sheet of paper between each coated page so the pages will not be able to dry together. As soon as the interleaving sheets become wet, they should be removed and replaced with dry sheets.

2. Once the pages are merely damp, the interleaving paper may be removed and the book fanned open to finish drying (**Steps 6 - 7,** above). Check frequently to be sure the pages are not sticking.

**Freezing a Book**

If you do not have the time or resources to air-dry wet books immediately, or you need extra time to find professional help, you may freeze it. Freezing does not dry the book—or only very, very slowly—but it prevents further damage. A book may safely remain frozen for weeks, even months.

**Materials**

• paper towels—plain white, avoid paper towels that contain color dyes, **or**

• UNPRINTED newsprint—available at packing supply shops or art stores

• plastic freezer bag

**To freeze the book**

1. Wrap the book in paper towels or unprinted newsprint.

2. Seal the wrapped book in a plastic freezer bag. Use a bag with a zip closure or fold the open end over several turns and tape it closed. Remember to label the bag so others will know what it is!

3. Place the book in a freezer. If you have a choice, use the coldest freezer available: optimal temperature is in the range -20˚ to -40˚ F. Domestic chest freezers are usually about 0˚ F; refrigerator ice boxes are usually just below freezing (32˚ F). Any of these will do, if necessary. Use plastic bags and placement to separate the wet book from other contents in the freezer so neither will contaminate the other if there is a power failure.

4. Large quantities of wet books may be packed (flat on their sides or *spine down*) in cardboard boxes before freezing; place a sheet of waxed paper or freezer wrap between books but do not wrap the books individually.

5. If you arrange for a professional to dry your books, keep them frozen until that person can assess them and provide further instructions. If you wish to air-dry them yourself, thaw only as many books as you can handle at a time.

**To thaw the book**

1. Remove the book from the freezer. DO NOT remove it from the plastic bag or box.

2. Let the book come back up to room temperature inside the bag. This step will take anywhere from 2 to 48 hours depending on how wet the book is. When the book reaches room temperature, remove it from the bag and discard the paper towels. Do not let the thawed book sit at room temperature; a wet book left to sit at room temperature in a plastic bag will encourage mold growth.

3. Thoroughly dry the book, according to the instructions for **Air-Drying Wet Books** above. The amount of time it takes to dry the book will vary depending on how wet or damp it was when it was placed in the freezer.

**Freezer-drying**

Frost-free freezers—freezers that have regular automatic defrost cycles—can dry out wet books by the same process that produces “freezer burn” on frozen foods. The book should ***not*** be wrapped in plastic, to let the water evaporate. The drying process can take weeks to well over a year, depending on the thickness and wetness of the book. Allowing very wet books to drain (see **Air-Drying Wet Books, Steps 1-3,** above) before freezing can help speed up the process.

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*Updated 6/30/2014*

### Muddy Books:

For muddy books, there are two options:

* Follow drying procedures and once dry, brush the dirt from the book
* Clean the book under running water with a sponge, then dry and brush dirt from the book

To clean the book under running water:

* Hold book closed
* Place under faucet or hose, do not open the book
* Use sponge to gently dab at dirt; do not scrub
* Follow drying procedures
* When dry, use a soft brush to remove remaining dirt

If books are extremely filthy, you may want to use the following method:

* Find an area where you can fill up plastic garbage or storage bins with water and that has good drainage
* Fill up a sequence of bins with water
* Frequently refresh the water in the bins so you are rinsing the book in relatively clean water; the Idea is that you will rinse the book in progressively cleaner water
* Take the muddy book and hold its pages closed
* Agitate it under water in the first bin to remove larger particles
* Move on to a second bin, again while holding the pages closed, agitate the book under water
* Some sources recommend using a sponge to gently dab at the book’s cover to remove additional dirt
* NEVER open the pages under water
* Rinse the book in a third bin – proceed to either dry the book or to pack out for freezing / freeze-drying

### Microforms:

Wet microfilm or microfiche must be professionally reprocessed (run through a developing machine charged with clean water instead of developing chemicals). **Microforms must remain wet** (pack in clean water) until they can be reprocessed; otherwise the film will stick together as it dries. Work with the Library Department of Preservation and Conservation and U-M Risk Management property specialists to set up a contract with a photo company. Consider:

* DuArt
* Preservation Technologies (The Media Preserve)
* Document Reprocessors
* BMS Catastrophe

Consult with vendor about how to pack and ship the microforms. Use a plastic tub or bucket to submerge microforms in clean water and transport to the photo company.

### CDs and DVDs:

CDs sitting in water should be removed from the water immediately

* Handlers should wear gloves and hold the CD by the edges
* If the water is debris or dirt-free, the CD should be wiped with a clean, dry, lint-free cloth (e.g. a baby diaper)
* Gently wipe in a straight line from the inside of the disc to the outer edge
* Never wipe a CD in a circular motion, or it may become scratched
* If CDs are muddy or immersed in dirty water, they should be rinsed, but not soaked, in clean water
* Then wipe with the clean, dry, lint-free cloth
* If necessary, CDs can be air-dried, but vertically, not flat
* After recovery, CDs should be placed in a clean container.
* If the booklet associated with the CD is also damaged by water, make sure it is completely dry before placing back in with the CD (to prevent mold)
* When packing CDs, pack vertically in a box padded with Styrofoam or another shock-absorbent material

### Audio/Video Cassettes:

* Water is especially damaging to magnetic media, so cassettes and videos should be removed from water right away
* Water should be drained out of the tape, but the tape should not be allowed to dry before treatment is started (seal in a plastic bag with a wet towel or sponge)
* The tape should be left on the reel and rinsed in distilled water
* Videotape cassettes can be opened if necessary
* If the tape is dirty or covered in debris, a small amount of mild detergent can be placed in the distilled rinse water
* The detergent should be free of any dyes or perfumes
* The tape can be immersed in the water but should not soak
* Cassettes and videos should be air-dried – never dried with heat or freeze-dried
* After recovery is completed, the inside of the tape should be checked for rust or corrosion
* Tapes should be copied after recovery and the originals discarded
* When packing cassettes and videos, they should be kept wet in plastic bags and packed vertically in egg crates

*The labor this format type requires for salvage often makes replacement a better option.*

### Vinyl Discs

* Vinyl discs should be removed from water within 48 hours to prevent to prevent warping
* Handlers should wear gloves and hold the discs by the edges
* The ideal method of recovery requires the use of a cleaning machine, like the Nitty Gritty
* Cleaning solutions should be used with the machine: 25 parts of Tergitol 15-S-3 and 25 parts of Tergitol 15-S-9 per 100 parts of distilled water
* After cleaning, the vinyl discs should be rinsed with distilled water and vacuumed dry
* If no machine is available, chemical cleaning solutions can still be used
  + 1% non-ionic wetting agent in distilled water
* To clean, use a soft brush to remove the dirt, brushing in the direction of the grooves of the record
* Get the brush wet but do not submerge the disc in water
* If no chemicals are available, distilled water can be used to clean vinyl discs, using the same method as above
* If no brush is available, a soft, lint-free cloth can be used
* Vinyl discs can be air dried or dried with a soft, lint-free cloth, wiping in the direction of the grooves
* Water damaged plastic covers for vinyl discs should not be reused
* Disc jackets can be hung to dry
* Packing vinyl discs: vinyl discs should be packed vertically in ethafoam-padded crates
* The ethafoam should be interleaved every 25 discs

### Floppy Disks

* Floppy disks with water damage should be dealt with within 48 hours to prevent mold
* Handlers should wear gloves
* To recover the disk, open the protective case of the disk
* For 5.25-inch floppies, cut the edge of the case, taking care not to cut the diskette inside
* For 3.25-inch floppies, the metal shutter and screws may have to be removed in order to open the case, taking care not to bend, fold or pinch the diskette
* Rinse the disk in distilled water to remove dirt and debris
* Blot the diskette with a clean, dry lint-free cloth and let it air dry completely
* When completely dry, the diskette should be placed in a temporary case for copying purposes
* Discard the original after copying
* When packing floppy disks, keep floppy disks wet in plastic bags or in tubs of cold water
* They should be packed upright in distilled water

## Smoke and Fire

**IMPORTANT:** Before undertaking any salvage operations, ensure that the building and any work areas are structurally sound. Do not enter the building without first obtaining clearance from U-M Department of Public Safety and Security.

Smoke or fire in the collection will most likely trigger the sprinkler system, so you may have books that are both wet and fire-damaged.

* First, assess whether the material is salvageable. If at all possible, scan the barcode, record the call number, or capture basic author/title information before discarding any material.
* Second, if the collection is wet, dry the materials according to the procedures for wet books.
* Dry smoke or soot-damaged materials are stable. They can be allowed to sit in storage while a process and procedures for recovery are developed. (See **Section 13 Rehabilitation of Collections**.)

### Fire-damaged Books

* **Charring or smoke-damage** to books usually happens around the edges. Often it is possible to salvage the book by stripping the cover, trimming the text, and rebinding.
* **Soiling from smoke and soot** can often be reduced, although not always cleaned entirely.
* **Heat** can turn paper fragile and brittle. Options are:
* House the heat-damaged material between two acid-free portfolio boards and tie it with cloth ribbon. Limit circulation and use of this book. *Note: the paper will continue to degrade, becoming more and more brittle*
* Reformat the book: digitize, scan and print, or photocopy
* Replace the book
* **Odors** can be reduced; see See **Section 13 Rehabilitation of Collections**.

### Smoke- or Heat-Damaged Microforms

There is not much that can be done for heat or smoke damaged microforms, aside from sending it to a photo company for reprocessing if you decide that it may be salvageable.

### Fire- or Smoke-Damaged CDs or DVDs

* CDs can become warped when the environmental temperature becomes too high, and if warped CDs are usually not recoverable
* For less severe fire damage, follow recovery steps for water damaged CDs

### Fire- or Smoke-Damaged Audio/Video Cassettes

* Temperatures ranging from 160-200 degrees F can be tolerated for up to one hour
* After one hour, most cassettes and videos are not recoverable
* Handlers should wear gloves at all times
* Slightly singed tapes can be spooled onto new spools then copied
* Extreme care should be taken because the tape could be brittle
* If the tape winds are stuck, then the tape cannot be recovered
* Smoke or dust can be vacuumed off the tapes, or if only a few tapes are damaged, the smoke can be wiped off with a cloth dampened with distilled water; turn or fold the cloth to always wipe with a clean surface
* If the cases are damaged but the tape is intact, the tape should be moved to a new case

### Fire- or Smoke-Damaged Vinyl Discs

* Vinyl discs are very sensitive to heat
* High temperatures cause dehydrochlorination and may melt the disc altogether, making it not recoverable
* A disaster recovery professional should be consulted
* For less severe fire and /or smoke damage, follow the recovery process for water damage

### Fire- or Smoke-Damaged Floppy Disks

* Floppy disks are designed to be stored between 32-150 degrees F
* Disks exposed to higher temperatures are usually not recoverable
* Severely damaged disks should be given to a disaster recovery professional
* Less severe heat or smoke damage should be recovered using the same process as water damage

## Mold

Mold outbreaks may occur where there is a source of water, or high humidity (~65% or above), warm temperatures, and stagnant air. Mold may affect a single book or object, several books, or an entire section of the stacks. The following sections outline immediate response based on the extent of the outbreak.

One of the best available step-by-step guides to treating mold on heritage collections is:

Guild, Sherry and Maureen MacDonald. *Mould prevention and collection recovery: Guidelines for heritage collections.* CCI Technical Bulletin No. 26. Ottawa: Canadian Conservation Institute, 2004.

Available for download: <http://publications.gc.ca/collections/collection_2016/pch/NM95-55-26-2004-eng.pdf>

A copy is also available in the University Library. Other guides are listed in **Section 17: Selected Bibliography**.

**Mold on one or a few books/objects:**

* Search for the source of water: dropped in a puddle? a dripping pipe?
* Take steps to stop the source of water; contact the Building Facilities Manager to repair the pipe, etc.
* Place the book(s) in sealed plastic bags; keep zip-lock bags and disposable nitrile gloves at all circulation and tech processing points for this purpose
* Avoid breathing close to the mold—just slip the book into a bag and seal it; wash hands after handling moldy materials
* Call the Department of Preservation and Conservation
* Send the book to the Department of Preservation and Conservation

If the mold is *active* (the book is wet or damp) arrange to transport the book to the Department of Preservation and Conservation IMMEDIATELY, within hours. The bag is to isolate the book during transport. **Do not leave wet, moldy books sitting in plastic bags** overnight or over a weekend —condensation inside the bag may encourage the mold to grow more. If necessary, call the Preservation and Conservation after-hours contact named on the department phone recording. Individual books, sealed in plastic bags, may also be placed in a freezer. Freezing does not kill mold, but it halts its continued growth until treatment can be arranged.

If the mold is ***not active*** (the book is dry), **bag the book** and **send it to Preservation and Conservation** by the next scheduled Library truck delivery.

If the source of water is not immediately evident, ask the Library Facilities Manager and/or Preservation and Conservation to help search for the cause.

Preservation and Conservation staff will dry the book to deactivate the mold. In a fume hood and wearing appropriate protective clothing, they will remove mold growth using a vacuum cleaner with a HEPA (high efficiency particulate air) filter, although staining from the mold will almost always remain. They may treat local areas with a 70:30 ethanol:water mixture (the ethanol—common “alcohol”—evaporates from the book quickly). Books that have been treated for mold are stamped inside the back cover. Preservation and Conservation may recommend replacing a mold-damaged book, especially if the damage is extensive and/or the book is still in print.

**Mold outbreak (mold on many books/objects):**

* Leave the books where they are
* Alert other staff and the public to stay away from that section of the building
* Call for help:
* Library Facilities Manager
* Department of Preservation and Conservation

If possible, take steps to reduce humidity and/or temperature in this area

The Library Facilities Manager and the Department of Preservation and Conservation staff will evaluate the situation and develop a plan of action in conjunction with U-M EHS and U-M Office of Risk Management. Depending on the nature and extent of the outbreak, treatment will probably involve hiring a specialized company to come in and set up a cleaning operation, isolating the affected area and using specific safety protocols. Inspections and treatment of the building air handling system may also be initiated to remove mold in the system or to reduce a high humidity problem.

## Insects and Vermin

Information about integrated pest management (IPM) in library, archive, and museum settings is presented in detail at the Web site: <http://museumpests.net/> .

Also consult the U-M Environment, Health & Safety Integrated Pest Management Guideline: <https://ehs.umich.edu/wp-content/uploads/2016/08/guidipm.pdf>

*Applies to all University buildings that require pest management services.*

***Never store packing materials or foodstuff that may attract pests! Discard food or food containers promptly in receptacles that are emptied daily.***

Individual insects frequently enter buildings through doors or windows or ride in on people’s clothing. A single insect is rarely a threat to the collection. Signs of threats to collections include visible groups of insects on site, or evidence that insects have taken up residence in or near the collections; these signs require action.

Insects may also be imported on new acquisitions. Inspect new materials closely for signs of insect inhabitation.

**Insects found in a single book or a few books**

* Quarantine individual, infested items in plastic bags and seal them
* Call Preservation and Conservation
* Send the book(s) to Preservation and Conservation

Preservation and Conservation staff will cycle the books through their freezer. Alternating low temperatures (-20˚C) and room temperatures (20˚ C) for 24- to 48-hour cycles will kill most insects, eggs, and larvae. Preservation and Conservation does not use chemical fumigation to kill insects.

**Infestation or suspected infestation in collection areas**

* Contact the Library Facilities Manager and Preservation and Conservation; they will call and work with the University’s Pest Management (contact Pest Management via U-M Facilities and Operations, 734-647-2059) to develop a plan of action.
* Pest Management will set out sticky traps to identify the type of pest and the extent of the infestation.
* If a large part of the collection is infested, do not remove items from shelves, contact Preservation and Conservation immediately.
* In no case should Pest Management (or contract service providers) apply pesticides directly on the collections; in some cases pesticides may be applied around the exterior perimeter of the building.

**Common infestation types found in Ann Arbor**

Cockroaches:

* Cockroaches are omnivorous and will eat almost anything – food scraps to paper and book bindings
* Cockroach damage may be hard to identify – you will see damage but it may be difficult to identify cockroaches as the culprits
* Cockroaches prefer book covers and bindings, especially leather bindings
* Cockroach damage may look like mold on the spine or cover, but will reveal missing surface layers upon close inspection
* With large mouthparts and strong jaws, cockroaches can bite off pieces of pages and covers which produces a ragged appearance

Silverfish:

* Silverfish feed directly on paper materials
* Their feeding produces a lacy pattern or very thin spots in the paper food source
* Dead silverfish carcasses are solid evidence of their presence
* In the right conditions, silverfish can live 3.5 years
* Silverfish are endemic in cardboard factories; they lay eggs in the corrugation of boxes and when boxes are brought into the library, a new crop of silverfish is introduced
* Avoid storing boxes or large amounts of cardboard near books

Booklice:

* Booklice are tiny (1 mm) white or translucent insects found on book pages—usually spotted when the insect races across a newly-opened page.
* Booklice feed on mold; their presence indicates a high humidity/mold problem in the area where they are found
* Booklice do not harm people or books directly
* Adjust the humidity and treat the collection for mold if active mold growth is found

Mice:

* Mice feed on foodstuffs and can shred books, packing material, upholstery, and carpeting for nesting material
* Their nests are stained with urine and fecal matter
* Mice infestation is instantly recognizable – nests of soft, chewed material
* Mice sense when areas are not inhabited or frequently used; you may be able to prevent mice infestation by frequenting the underused areas of the collections
* Traps for mice are preferred over bait; a poisoned mouse can climb behind books or into boxes and die, creating further problems for the collections.

Bookworms:

* “Bookworm” is a generic term used to describe several varieties of beetle that feed on cellulose-based materials, glues used in binding, and the bindings themselves
* Adult bookworms deposit eggs near the binding edges or on the page edges
* When the eggs hatch, the larvae burrow into the book
* After they become adults, they burrow back out and leave pinhead-sized holes in the bindings or text blocks
* You can also identify a bookworm infestation if you see frass (excrement) on the shelves next to the books – a granular or powdery substance the same color as the affected material
* Most “bookworms” in Ann Arbor will have hitched a ride in from warmer climates.

## Structural Collapse

**IMPORTANT:** Before undertaking any salvage operations, ensure that the building and any work areas are structurally sound. Do not enter the building without first obtaining clearance from the U-M Department of Public Safety and Security.

* Assess and document the damage to collections
* Contact the Library Department of Preservation and Conservation and U-M Risk Management property specialists for guidance and direction about external disaster recovery services.

After an assessment has taken place, you will be ready to make informed decisions. The leaders of the disaster recovery team should compile a list of options to review as a team.

* Can a Library disaster recovery team enter the building? For how long?
* How should recovery efforts for the collection proceed?
* Have the materials already been damaged past the point of recovery?
* The longer the wait to enter the building, the more likely replacement may be more cost-effective than salvage, especially if materials are warm and wet.

**Choose a course of action:**

1. Evacuate books

* Choose a method for removing them: human chain, book trucks, etc.
* Once books have been evacuated, separate books according to the extent/type of damage
* Decide how the library will house the books after they are evacuated:
* Where? Another room? Another building? Rent space to house the books?
* On shelves or boxed
* Decide how to arrange them if they are boxed or re-shelved

2. Leave books where they are even if they’re exposed to the elements.

* If the books are left, try to cover and protect them
* If the environment is moist and warm or if rain is falling, covering the books puts them at risk for mold (trapping warm, stagnant air and moisture under the covering)

Careful review of the available options is important, but so is decisive action. In the event that the recovery team is unable to reach a decision, the team leader will choose the course of action.

**Important**: disaster recovery activities for collections should integrate with what recovery units for the building are doing as a whole.

# People Management

Assembling Staff During an Emergency

* Call out only key decision-making staff in the middle of the night. Working teams will be fresher in the morning, even if this delays the start of operations a few hours.
* Depending on the disaster, the course of action taken will vary. Decide on what steps need to be taken before summoning workers. Refer to **Section 7: Salvage of Library Collections -Workflows** and specifically the Develop a Plan subsection before proceeding.
* Try to arrange for supplies to arrive before team members
* If it is a major disaster, organize key staff (key library unit staff, Preservation, Library Salvage Teams) in shifts. This way, there are always informed, trained staff on site.
* Staff need an up-to-date University ID card (that specifies the Library as place of employment, not an old one from a previous job on campus) and must wear it in a badge holder at all times on site. To obtain or renew a card, see the U-M MCard site: [http://www.mcard.umich.edu/](http://www.mcard.umich.edu/.)
* Log staff coming onto and off the site, for safety and to track staff hours

## Staff Safety

**Follow U-M Department of Public Safety and Security and U-M Environment, Health, and Safety (EHS) guidelines in promoting staff safety.**

* Working in a post-disaster environment may include exposures to high temperatures and high humidity. Disaster recovery staff should pay attention to the warning signs of heat stress. Information available at: <https://ehs.umich.edu/working-safely/risk-factors/physical/>
* Ensure staff know about the Comfort Station provided (seebelow)
* Always make sure that disaster recovery staff are wearing correct protective gear when appropriate, such as rubber boots, HEPA filter masks, gloves, etc.
* To avoid injury, ensure that staff are not lifting over-heavy loads and that proper lifting procedures are being used: <https://ehs.umich.edu/working-safely/ergonomics/>
* If wrapping and boxing books for pack-out, the work surface should be at a comfortable height to minimize unnecessary stretching or bending, preferably at a table.
* Exercise caution when removing books from upper shelves
* For more information, contact U-M Environment, Health, and Safety: <https://ehs.umich.edu/about/>

**If a worker is injured or becomes ill while assisting with an emergency recovery**

Supervisors are required to report all work-related illnesses and injuries to WorkConnections within 24 hours: <http://www.workconnections.umich.edu/supervisors-departments/work-related-illness-injury/step-one/>. WorkConnections is partner to the U-M Office of Risk Management and oversees all Workers Compensation issues. Copy any forms sent to WorkConnections and send them to Library Human Resources, so that department is apprised of the incident.

**Serious, emergency injury or illness: call 911 (or U-M Department of Public Safety and Security direct line 734-763-1131).**

* Do not move a person who is unconscious or seriously injured; call 911 for help. Take injured person to nearest emergency room. Identify the person as U-M employee or volunteer.
* Supervisor files report to Work Connections or U-M Risk Management (described below) immediately.

**Non-life-threatening injury or illness: send worker to U-M Occupational Health Services.**

1. Person is a U-M employee (including volunteers who are also U-M employees):

* The supervisor must fill out a Work Connections "Illness or Injury Report Form" available at: <http://www.workconnections.umich.edu/supervisors-departments/work-related-illness-injury/step-one/> and in **Appendix C**.
* Send injured person with form (or fax or email the form) to U-M Occupational Health Services for treatment
* Send the form to Work Connections: fax it to 734-936-1913 or email it to [work.connections@umich.edu](mailto:work.connections@umich.edu)
* After the visit, share a copy of any work restrictions with Library Human Resources and explain if/how those restrictions can be accommodated. See <https://staff.lib.umich.edu/content/workplace-injuries>

2. Person is NOT a U-M employee (but is a volunteer):

Volunteers are not not insured for Workers Compensation, for injuries received on the job. Medical treatment is covered by the volunteer’s own health insurance.

* Send injured person to the nearest emergency room or to their own doctor for treatment
* The supervisor must fill out the U-M Office of Risk Management’s "Injury Report For Non-Employees" form available at: <http://www.finance.umich.edu/risk-management/injury-report-for-non-employees> and in **Appendix C**.
* Send the form to Risk Management Services: fax to 734-763-2043; phone: 734-764-2200.
* Send a copy of the form to Library Human Resources: fax it to 734-763-0687 or email it to [libhumres@umich.edu](mailto:libhumres@umich.edu)

**U-M Occupational Health Services**

U-M Occupational Health Services is the designated treatment facilities for work-related illness or injury only. If an employee becomes ill or is injured at work, medical care is provided by the university's designated medical facilities:

Hours: 7:00 a.m. to 4:30 p.m., Monday through Friday

C380 Med Inn Building  
University of Michigan Hospitals  
1500 E. Medical Center Drive  
Ann Arbor, MI 48109-5838  
Phone: 734- 764-8021  
Fax: 734- 763-7405

Website<https://hr.umich.edu/about-uhr/service-areas-offices/occupational-health-services>

**Maps to U-M Occupational Health Services (PDFs):**

Map with driving directions: <https://hr.umich.edu/sites/default/files/ohs_driving_directions.pdf>

Map from Med Inn parking lot: <https://hr.umich.edu/sites/default/files/medinn_directions.pdf>



*After clinic hours or on weekends go to:***UMHS Emergency Department**

1500 East Medical Center Drive

Ann Arbor, MI 48109-5303

Phone: 734- 936-6666

Website:<https://medicine.umich.edu/dept/emergency-medicine/>

**University Health Services**

University Health Services serves current students (who may also be volunteers):

Hours: 8:00 a.m. to 5:00 p.m., Monday through Friday

207 Fletcher St.  
Ann Arbor, MI 48109-1050  
Phone: 734- 764-8320  
Website <https://www.uhs.umich.edu/>

## Counseling

**U-M Faculty & Staff Counseling and Consultation Office (FASCCO)** can be called upon to help staff cope with the emotional and personal impact of a disaster. FASCCO counselors are available for confidential, one-on-one or group sessions.

Web: <https://hr.umich.edu/benefits-wellness/health-well-being/mental-health-counseling-consultation-services/faculty-staff-counseling-consultation-office-fascco>

Phone: 734-936-8660, [fascco@umich.edu](mailto:fascco@umich.edu)

Emergencies: Psychiatric Emergency Room at U-M 734-936-5900 or dial 911

## Overtime & Temporary Staff

*On a disaster site, regular staff members are preferred, hourly workers are the second preference. Volunteers can be recruited if needed, but should not be the first resort.*

**Overtime for Regular Library Staff**

Policies and procedures for overtime work for regular staff are presented in the Standard Practice Guide section 201.38. <https://spg.umich.edu/policy/201.38>

The Associate University Librarians authorize requests for overtime for unanticipated situations. In the event of an emergency and if no Associate University Librarian is available to make this decision, Library Heads or the Emergency Response Coordinator may assign Library employees to work overtime as, in their best judgment, the situation demands. This decision should be communicated to and confirmed with an AUL as soon as practical.

Overtime is recorded on the regular staff timesheet. If the timesheet does not have a blank or special code number for recording overtime, that staff member (librarians and other primary faculty and exempt professional staff) is ineligible for overtime. See the *Library Staff Manual* for details.

At the preference of the employee and with the approval of the supervisor, the employee may take time off *within the same pay period* in lieu of overtime pay. The employee records *both* the extra time worked (as overtime) *and* the compensating time off (as excused absence without pay) on the timesheet. Employees eligible for time-and-a-half overtime pay would receive time-and-a-half time off: e.g. 6 hours excused absence without pay corresponds to 4 hours overtime worked.

If extra staffing will be needed for more than a week because of an emergency, seek special funding from the University Librarian to hire temporary workers rather than displace regular library staff for an extended period of time.

**Hiring Temporary Staff**

Temporary staff – either student assistants or non-University “hourlies”—may be needed at some stages of the salvage operations following an emergency.

To advertise for temporary employees, post a notice to the following email lists:

* [LibraryStudentSupervisors@umich.edu](mailto:studentsupr@umich.edu) (Library supervisors of temp workers)
* [umsi.all.open@umich.edu](mailto:umsi.all.open@umich.edu) (School of Information)
* [libraryallstaff@umich.edu](mailto:libraryallstaff@umich.edu) (All Library staff)

If more temp workers are required, contact Library HR at 734-764-2546 or libhumres@umich.edu for temp workers. Note that if LHR offices are affected by the disaster incident, their operations may have moved offsite.

## Volunteers

In the wake of a significant library disaster and especially following media coverage, people from the University community and general public may be willing to volunteer to help out. Volunteers are likely to be most available in the first 72 hours after the disaster and then start to trickle off. Take care not to sign on more volunteers than the supervising staff can manage; ask any overflow if they can return to relieve workers at a later hour.

More information on University guidelines for enlisting and relying on volunteers can be found at: <https://ogc.umich.edu/frequently-asked-questions/volunteers/>, a Web site maintained by the Office of the Vice President and General Counsel (OVPGC).

**Guidelines for working with volunteers:**

* ***Do not assign volunteers (or any staff) to work in an unsafe environment***; check with U-M Department of Public Safety and Security and/or the Office of Environment, Health, and Safety (EHS) if a situation is questionable
* Check that volunteers are capable (physically, mentally, emotionally) of the task assigned; check in periodically and reassign or dismiss volunteers if they are not appropriate for the job
* Clarify expectations on each side
* Define jobs to be done separately from the work for paid faculty, staff, and students; set specific goals
* Expect to train volunteers how to handle materials
* Persuade volunteers to do needed work that they may not have envisioned (such as answering telephones)
* Provide recognition for the volunteers’ contributions, from public thanks to free lunches if the budget permits
* Say no to volunteers if you cannot adequately direct them
* Always supervise volunteers closely for the safety of people and collections

The Emergency Logistics Coordinator has responsibility for signing up volunteers. Record the names and contact information of volunteers. Check whether the volunteer is: a student; a university employee (exempt or non-exempt); not affiliated with the university; other. Sign-up forms for volunteers can be photocopied from the template available in **Appendix C**.

Best advertising for volunteers is for the designated Communications Coordinator to tell the media covering the event that help is needed. Alternatively try contacting:

* Academic departments with high vested interest in the survival of this collection
* School of Information students
  + UMSI on Facebook: <http://www.facebook.com/uomsi>
  + UMSI Office of Student Affairs: (734) 763-2285 | 3360 North Quad
* Fraternities and sororities with service missions

## Comfort Station

In addition to the staging area, the disaster recovery team needs a comfort station for work teams to take breaks:

* It must be located near the staging area, where the work is taking place
* Provide food and beverages for the recovery teams
* The comfort station should have safe, dry places for work teams to sit down
* Restroom facilities should be located near the comfort station
* First aid supplies should be available
* There should be a secure area where staff can leave personal belongings if necessary

Contact information for refreshment vendors is available in **Appendix A**.

# Resources and Services

This section outlines resources and supplies that may be needed to respond to and recover from a disaster affecting collections in the University of Michigan Library. Contact information for all vendors and service providers is listed in **Appendix A.** The Department of Preservation & Conservation itself and in cooperation with other Library units maintains caches of certain supplies for response to small to moderate incidents; locations and detailed lists of these supplies can be found in the **Restricted Disaster Response Plan**. In addition, a list of potentially useful supplies and ordering information can be found in **Appendix B**.

**Disclaimer: Information about external vendors gathered in this Plan is provided as a service and is not to be construed as an endorsement by the University of Michigan of any individual company, service, or product.**

## U-M Departments

All contact information can be found in the contact list in **Section 3: Immediate Response – Calls for Assistance** or **Appendix A.**

**U-M Department of Public Safety and Security** <https://www.dpss.umich.edu/>

The umbrella organization for emergency services at U-M, the U-M Department of Public Safety and Security (DPSS) provides police services, parking enforcement, communications, and criminal investigation for the University.

* Emergency: Anyone may contact the U-M Department of Public Safety and Security if the safety of people or property are at risk. Dial 911, 734-763-1131, or text 377911.
* DPSS has the authority to clear an area as ‘safe to enter’
* DPSS can provide or help coordinate security at a disaster site on campus
* Documentation of loss or injuries (for the Office of Risk Management) should be corroborated by a DPSS report
* The DPSS Public Information Officer (734-763-3434) provides official communications to the public in emergency situations.

**U-M Facilities & Operations** <http://fo.umich.edu> will be a resource in any disaster; this department manages the University’s plumbers, electricians, custodial operations, and much more. Before contacting any specific department of Facilities & Operations (e.g. Building Services, Pest Management), contact the main number of Facilities & Operations, 734-647-2059. The general Facilities & Operations staff will mobilize the needed specialists to help with the situation.

Contact with U-M Facilities & Operations for the University Library is normally handled via Library Facilities staff and/or the Building Facilities Manager (or designated alternate) for the building where the library unit is located. During an emergency, and if Library Facilities staff are not available, other Library staff may contact U-M Facilities & Operations to request assistance. Routing communication via the local facilities managers whenever possible helps reduce multiple reportings and confusion.

* If U-M Facilities & Operations has not been involved by the time an Emergency Response Coordinator has been assigned, that position may contact them.
* Further coordination with U-M Facilities & Operations as the response and recovery operations continue can happen through the Building Facilities Manager
* Additional information and links are located in **Appendix A**: Contact Lists (unrestricted)

**U-M Environment, Health & Safety (EHS)**,<https://ehs.umich.edu>

U-M EHS is the University’s office for overseeing compliance with state and federal safety regulations. EHS manages disposal of hazardous waste (e.g. used Sock Sorbents).

* If there is a threat to worker safety (contaminants, structural integrity issues, for example), a manager or alternate, a Facilities Manager, or Preservation & Conservation should contact EHS as soon as possible to notify them of the situation.
* If EHS has not been involved by the time an Emergency Response Coordinator has been assigned, that position may contact them.
* Further coordination with EHS as the response and recovery operations continue can happen through the Building Facilities Manager.

**U-M Risk Management Services** <http://finance.umich.edu/risk-management> manages insurance for University property and other liabilities. Managers responding to a disaster on campus should contact Risk Management property specialists *before* making a major commitment of funds for disaster recovery—since this office may ultimately end up footing the bill!

* A manager or alternate, a Facilities Manager, or Preservation & Conservation should contact Risk Management property specialists as soon as possible to notify them of the situation.
* If Risk Management property specialists have not been involved by the time an Emergency Response Coordinator has been assigned, that position should contact them.
* Throughout the rest of the response and recovery, the Emergency Logistics Coordinator should communicate with Risk Management property specialists.
* Risk Management property specialists will need to be involved in all steps from that point forward, as they coordinate contracts with disaster recovery vendors, handle insurance claims, and, on approval, pay invoices or reimburse for purchases.
* Risk Management property specialists review the selection of the University’s contract disaster recovery vendor (as of 2019 this vendor is BELFOR). The disaster recovery vendor has mutual aid agreements with other vendors for services that may reach beyond their immediate capacity or expertise. When seeking such services for University property, check first whether appropriate resources are available from the contract disaster recovery vendor. Working with this vendor streamlines the process of securing, approving, and financing recovery activities.
* Refer to **Section 12: Risk Management and Insurance** for more information.

**U-M Purchasing** <http://www.procurement.umich.edu/> arranges and maintains University contracts for a vast array of goods and services, from office supplies to catering, to moving and storage. University units are strongly advised to check first with Purchasing for almost all categories of supplies and services on the disaster recovery list whenever possible. See Procurement Services for the current list of preferred vendors: <http://procurement.umich.edu/buying/find-products-services>. University Library managers work with the Library Finance unit <https://staff.lib.umich.edu/content/finance> to make purchases.

**U-M Parking and Transportation**<https://ltp.umich.edu/?>

* Contact Parking to arrange permits for unusual parking needs (e.g. for emergency team, deliveries, to park a freezer truck in a University lot, etc.).
* Arrangements for shuttle services (rent University buses) or for auto and van rental from the University fleet.

**U-M Office of the Vice President and General Counsel** <http://www.ogc.umich.edu/>

* Consult this office if any legal matters arise.
* The Emergency Response Coordinator is responsible for liaising with this office.

**U-M News Service** <http://www.ns.umich.edu/>

* During a large or widespread disaster incident, all interaction with the media is managed through the U-M News Service.
* All contact with the News Service should be authorized and approved by an Associate University Librarian or delegate, or the Emergency Response Coordinator and Communications Coordinator.
* The News Service can serve to publicize needs, call for volunteers, and communicate response efforts, changes to services and library functions, etc.

## U-M Contract Disaster Recovery (BELFOR)

Local custodial crews, with back-up from Facilities & Operations Custodial and Grounds Services, can provide clean-up for smaller incidents; summon their assistance by contacting the Building Facilities Manager or (after hours) calling Facilities & Operations at 734-647-2059.

BELFOR, the University’s current (2019) contract disaster recovery company, provides clean-up services for University property. Services provided include, but are not limited to: water mitigation and drying, cleaning (structure and content), mold remediation, document restoration, electronics restoration, deodorization, and re-construction.

Contact BELFOR either by calling Risk Management property specialists or (especially after hours) calling BELFOR direct.

**U-M Office of Risk Management: 734-764-2200**

**BELFOR 800-421-4141**

**BELFOR can bring the following items on site:**

* Air Movers
* Dehumidifiers
* Truck-Mounts
* Convection Drying Trailers
* Generators
* Freezer trucks

BELFOR can often provide general supplies for packing out (boxes, tape, pallets, pallet wrap) in quantity and at short notice. BELFOR staff have access to measuring and monitoring equipment such as moisture meters and meters to measure humidity.

With the approval of the Department of Preservation and Conservation and the U-M Office of Risk Management, BELFOR may sub-contract with other companies as needed to provide vacuum freeze-drying services for library collections.

## Expertise for Specific Media

Contact information can be found in **Appendix A.**

If additional resources beyond the normal University resources are needed for specific media or formats, below is a list of experts and vendors that can provide advice or services to remediate damage. Work with both the Department of Preservation and Conservation and the U-M Risk Management property specialists to develop a plan for treatment and funding.

**On-campus experts with background or experience in heritage collections disaster recovery** (over-the-phone advice or brief consultations):

Books and library materials:

* Shannon Zachary, Head, Preservation and Conservation, University Library
* Marieka Kaye, Conservation Librarian and Book Conservator, Preservation and Conservation, University Library
* Lance Stuchell, Digital Preservation Librarian, Preservation and Conservation, University Library
* Dianna Samuelson, Conservator, Bentley Historical Library

Museum artifacts:

* Suzanne Davis, Curator and Objects Conservator, Kelsey Museum of Archaeology
* Carrie Roberts, Objects Conservator, Kelsey Museum of Archaeology

**External/Commercial Disaster Recovery Services by MEDIA TYPE:**

Books (wet/mold)

* BELFOR USA
* Document Reprocessors
* Polygon
* BMS Catastrophe
* Midwest Freeze Dry
* Northeast Document Conservation Center (*advice only*)

Computer media

* Campus ITCom
* BELFOR USA
* BMS Catastrophe
* Document Reprocessors
* Polygon

Microfiche, Microfilm, Magnetic Tape

* DuArt
* The Media Preserve
* Document Reprocessors
* Northeast Document Conservation Center (*advice only)*

**For additional non-U-M sources for disaster response services and supplies see also t**he interactive disaster planning site created by the Northeast Document Conservation Center, <http://www.dplan.org/>

# Risk Management & Insurance

## Property Insurance at U-M

Insurance for the University of Michigan Library buildings, furnishings, and collections—as part of a comprehensive insurance program for the University—is managed by the U-M Office of Risk Management.

<http://finance.umich.edu/risk-management>

Phone: 734-764-2200

Fax: 734-763-2043

3050 Wolverine Tower

3003 South State St.

Chip Hartke is the Risk Management officer assigned (as of 2019) to manage issues relating to the Library’s collections. Risk Management property specialist staff can provide assistance on issues dealing with U-M property.

Most of the Library’s collections fall under the University’s general property insurance program. A limited number of selected rare or special materials are covered under the University’s Fine Arts policy. Coverage under the Fine Arts policy must be arranged with Risk Management property specialists in advance and updated annually.

The Library’s primary liaison to the U-M Office of Risk Management is the Library Facilities Manager. Except for an emergency situation, contact Risk Management property specialists via the Library Facilities Manager or apprise him/her in advance of communications or claims.

During an emergency, the Library Head/alternate, a Library Facilities Manager, or a Preservation & Conservation representative contacts Risk Management property specialists to alert them of the situation. Risk Management property specialists can summon emergency services of the University’s contract disaster recovery company. (As of 2019 that company is BELFOR).

The U-M Office of Risk Management frequently—but not always—covers costs relating to an emergency to Library collections. Their primary mechanism is through the services of the University’s contract disaster recovery company (as of 2019, BELFOR). The Library should work with BELFOR for all services or goods (e.g. boxes for packing out) that the company provides. See **Section 11: Resources and Services** for services available from BELFOR.

If a necessary service is not available from BELFOR, or BELFOR does not have the capacity to handle the extent of the emergency, BELFOR may sub-contract with another vendor to provide an appropriate disaster response service. The Library may also negotiate for services from an independent vendor (not via a sub-contract of BELFOR) if there is a reasonable cause for doing so. Consult Risk Management property specialists *before* contracting work out, to check whether they will cover payment for this service/vendor.

Under the general property insurance claims may be made to U-M Office of Risk Management to replace library collection items that are destroyed beyond repair. There is no deductible for property damage. The basis of replacement is like kind and quality or actual cash value at the time of the incident. The claim requires either receipts (replacement in like kind and quality) or an appraisal (actual cash value at the time of the loss).

The U-M Office of Risk Management does not reimburse University departments for staff time, if staff members are working during their regular work hours (even if work at a disaster site takes them away from their regularly assigned duties). Under some circumstances the U-M Office of Risk Management may cover the costs of overtime for non-exempt staff who are required to put in extra hours as part of a disaster response. The U-M Office of Risk Management does not pay for overtime work of exempt staff, who are not eligible for overtime pay. Claims for reimbursement of staff time will require Pay Registers for the appropriate staff documenting the overtime payments.

## Documentation of Damage

The Emergency Response Recorder is responsible for seeing that appropriate information is collected at the disaster site.

The Emergency Response Recorder must write a narrative description of the incident. Include:

* What happened
* When
* Cause
* Extent of damage
* Actions taken
* Photos of the incident
* Receipts from vendor services and supplies
* Records of staff time, noting each staff member (including volunteers) who contributes work to the disaster and the number of hours they work. Especially record overtime hours worked by non-exempt staff.

## Insurance Claims for Theft

* Contact U-M Department of Public Safety and Security at the time of the incident. Call 911 (emergency) or 734-763-1131 (non-emergency).
* Have an officer prepare a report verifying the nature and extent of the incident. Obtain a Security / Police Report number for the claim.
* Fill out a Proof of Loss form within one year of the incident. Form is available at <http://finance.umich.edu/risk-management/proof-of-loss>
* Submit the form to the U-M Office of Risk Management via online form or email ([RiskMgmt.Claims@umich.edu](mailto:RiskMgmt.Claims@umich.edu)) or fax (734-763-2043)

The U-M Office of Risk Management does not cover lost property discovered through general inventory.

# Rehabilitation of Collections

Rehabilitation of collections is the process of returning collections to a usable state once they have been salvaged. It may be necessary to hire and/or train additional personnel to handle the work.

Unfortunately there is no quick or easy way to make rehabilitation decisions; all damaged items must be examined, sorted, and categorized according to their needs.

NOTE: The emotional toll of *recovering* from a disaster incident does not necessarily stop when the excitement of the initial incident dies down. Be aware of signs of stress or depression in yourself and co-workers. **U-M Faculty and Staff Counseling and Consultation Office (FASCCO)** can be called upon to help staff cope with the emotional and personal impact of a disaster. FASCCO counselors are available for confidential, one-on-one or group sessions.

Web: <https://hr.umich.edu/benefits-wellness/health-well-being/mental-health-counseling-consultation-services/faculty-staff-counseling-consultation-office-fascco>

Phone: 734-936-8660

[fasscco@umich.edu](mailto:fasscco@umich.edu)

## Rehabilitation of Water-damaged Materials

Once wet collections have been dried, they often are not ready simply to put back on the shelf.

* **Cleaning** – Some materials may have been rinsed before being allowed to dry. If dry paper-based collections still have mud or other debris, they can be cleaned by brushing or vacuuming. Books that have once been wetted will almost always have some residual water staining and wrinkling of the pages. If materials have sewage contamination, they should be discarded or cleaned by a professional. Many disaster response vendors can also perform cleaning. Works of art or other valuable materials need to be cleaned by a conservator. The Department of Preservation and Conservation can develop a plan and specifications for cleaning.
* **Fused coated paper** – If coated (glossy, slick) paper has blocked or fused, the outlook for recovery is poor. (To prevent fusing coated paper must be separated while it is still wet; alternatively the book must be frozen before it starts to dry and then vacuum freeze-dried.) Lightly fused paper will sometimes pop apart with stress or separation with a thin bone folder or letter opener. Careful, labor-intensive work with a thin bone folder or letter opener can sometimes limit the skinning of the paper to a small area of the page. In most cases the volume should be replaced if possible.
* **Repair and rebinding** – The Book Repair and Bindery Prep units in the Department of Preservation and Conservation can evaluate damaged books for repair in-house or rebinding by the Library’s contract commercial binder. Large numbers of damaged books may require developing a special contract with an external vendor. The Department of Preservation and Conservation can develop a plan and specifications for repair and rebinding.
* **Conservation treatment** – The Conservation unit in the Department of Preservation and Conservation can evaluate damaged rare or special collection books (or other materials) for conservation treatment in-house. Large numbers of damaged materials may require developing a special contract with an external vendor. The Department of Preservation and Conservation can develop a plan and specifications for conservation treatments.
* **Rehousing/relabeling** – Water-damaged boxes, folders, envelopes, sleeves, etc. will need to be replaced. Be sure to copy all identification information to the new enclosures. It may also be necessary to replace labels, card pockets, book plates, security tags, and other items. Small quantities of materials requiring rehousing/relabeling can be handled by the Library units that normally perform these services (Labeling, Book Repair, etc.) Large numbers may require either additional project staff or help from an external vendor. The Department of Preservation and Conservation can assist developing specifications for enclosures and procedures.
* **Data verification** – Tapes and disks that have been dried onsite or sent out to a commercial company for recovery need to be checked to verify that the data is readable.

## Rehabilitation of Fire-damaged Materials

* **Cleaning** – Mechanical-cleaning can be used to remove smoke and soot deposits. Vacuuming and cleaning with dry-chemical sponges and erasers are common methods. Less common but quite effective is blast cleaning with dry ice:  
  Silverman, Randy. “Fire and ice: A soot removal technique using dry ice blasting.” *Archival Products News*, 15:3 (2008). <http://www.archival.com/newsletters/index.shtml>.  
  Wet cleaning should not be used; water sets the carbon into porous materials.
* **Odor removal** – There are no easy, certain cures for odors in collections of lasting value. For materials with a residual smoke odor, most disaster recovery companies have an ozone chamber. Ozone treatment will reduce the odor, but ozone is a powerful oxidizing agent that accelerates the aging of paper and organic materials, so it should not be used on archival or other intrinsically valuable materials. Another possibility is to seal individual items in a container with an odor-absorbing agent (e.g. baking soda, activated charcoal, or kitty litter with zeolites; these materials should not come into direct contact with the collections, however). Under no circumstances use (or permit a disaster recovery company to use) fragrances to mask the odor.
* **Recovery of information in charred items** – In rare cases of collections that are badly charred but very important, it may be possible for a conservator or a forensic science laboratory to retrieve information from the materials. This treatment is very expensive and would only be justified for unusually valuable items. Consult with the Library’s Department of Preservation and Conservation.
* **Repair and rebinding** – As with water-damaged collections, charred items can be repaired and rebound. Charred edges would be trimmed and the volumes rebound, as long as the pages are not too brittle. The Book Repair and Bindery Prep units in the Department of Preservation and Conservation can evaluate damaged books for repair in-house or rebinding by the Library’s contract commercial binder. Large numbers of damaged books may require developing a special contract with an external vendor. The Department of Preservation and Conservation can develop a plan and specifications for repair and rebinding.
* **Conservation treatment** – As with water-damaged collections, treatment by a conservator is usually reserved for materials of significant value, due to the high cost of treating individual items. The Conservation unit in the Department of Preservation and Conservation can evaluate damaged rare or special collection books (or other materials) for conservation treatment in-house. Large numbers of damaged materials may require developing a special contract with an external vendor. The Department of Preservation and Conservation can develop a plan and specifications for conservation treatments.
* **Rehousing/relabeling** – Boxes, folders, and other enclosures that have suffered fire damage will need to be replaced. In addition, items that have suffered fire damage may be very brittle and may need special enclosures to protect them from future damage. Small quantities of materials requiring rehousing/relabeling can be handled by the Library units that normally perform these services (Labeling, Book Repair, etc.) Large numbers may require either additional project staff or help from an external vendor. The Department of Preservation and Conservation can assist developing specifications for enclosures and procedures.
* **Data verification** – Tapes and disks that have been cleaned onsite or sent out to a commercial company for recovery need to be checked to verify that the data is readable.

## Other Rehabilitation Activities

Also remember that additional activities may be required before collections can be returned to the shelves. Catalog records and finding aids will need to be updated to reflect any withdrawals, replacements, or other changes. Furnishings and shelving will need to be cleaned, repaired, and/or replaced. Finally, the collections themselves will need to be reshelved or refiled.

In some cases, rehabilitation of the collections may not be possible due to excessive damage, or rehabilitation may be more expensive than other options such as replacement. There are several options for replacement: photocopying, scanning, purchase of a replacement copy, or purchase of a reprint or other edition.

It is difficult to plan ahead for specific rehabilitation activities, since it is impossible to know the extent or nature of the disaster in advance. When the time comes to plan for rehabilitation, these general planning issues will need to be considered:

* What specific steps are needed for each rehabilitation activity?
* Who will carry them out?
* Who will supervise the work?
* Where will the work be done?
* Will temporary storage or space be needed?
* What kind of workflow makes sense?
* Who will have authority to discard badly damaged items?
* What funds will be available? From the operating budget? From insurance?
* How should rehabilitation priorities be set to allow quick resumption of essential services?
* How much of the work can be done by staff and how much needs to be contracted out?
* How will the work be evaluated?

## Funding for Collection Rehabilitation

The U-M Office of Risk Management may provide funding for rehabilitation activities through the University’s property insurance program. Library recovery managers should work with Risk Management to get *advance* approval for rehabilitation activities that Risk Management will fund. Keep in mind that U-M Office of Risk Management does not reimburse for salaried (“exempt”) staff time or for regular working hours of other (“non-exempt”) staff, even if the work displaces the staffer from his/her normal duties.

Planning for rehabilitation needs to include a strategy to identify and assemble all documentation of expenses (receipts, PCard statements, etc.), for purposes of both insurance claims and evaluating the impact of the disaster incident.

# Post-Disaster Reflection and Evaluation

Arrange evaluation sessions after the emergency event is concluded or after strategic phases of a large event.

Arrange for all participants who responded to a small event to debrief together. For a large event, gather groups of staff according to their role in the response. Include:

* Library managers (Library Unit Heads and supervisors)
* Appropriate Library supporting operations (Facilities, Finance, Human Resources, Systems, Preservation and Conservation, etc.)
* Appropriate University departments (U-M Department of Public Safety and Security, EHS, U-M Office of Risk Management, etc.)

Consult a current version of this Disaster Response and Recovery Plan. Compare the workflows and processes of this plan to those that actually happened. Discuss and make notes of:

* What worked well
* What didn’t go well, and how things could be improved
* Proposed revisions to the Disaster Response Plan or protocols
* Action items to prevent or mitigate future incidents
* Questions for experts
* Costs

Develop a list of action items. Send proposals for revisions to the Disaster Response and Recovery Plan to the Department of Preservation and Conservation.

The Library Unit Head and/or the Department of Preservation and Conservation should write a report of the event. This report should include:

* Brief review of what caused the disaster
* Brief overview of the response
* What collections materials were affected
* Status of library services
* Status of library resources
* Summary of the reflection and evaluation responses from disaster responders
* Summary of the action items
* Recommendations for changes, edits, and updates to the plan
* Log of what was updated (implemented recommendations) and why

The report should be filed with Library Facilities and (if the incident involved library collections) with the Department of Preservation and Conservation.

# Prevention

The best disaster is the one that didn’t happen. This section includes checklists of ongoing activities to prevent a disaster from happening or to mitigate the effects if it does.

## Collections

**Collection Inventories**

* Ensure that collection inventories are up to date
* If the collection is not cataloged on Aleph, store an electronic copy of the inventory on a Library server; store a second copy of a paper inventory offsite.
* Regularly (annually or more frequently as needed) ensure that the floor plans are updated in the physical and electronic copy of this plan. Plans should show the locations of collections, including call numbers ranges, any paper inventories, and inventories located on a local desktop computer or file cabinet.

**Walk-through safety checks for collections**

* Walk-throughs are extremely important and must be conducted frequently, weekly or monthly is best.Look for any potential hazards including:
* Collections placed directly on the floor (move two to four inches off the floor, on shelves or pallets)
* Collections stored directly against an exterior wall (allow a 4-inch gap)
* Important collections located in basements and first floors
* Collections located near or under pipes
* Shelving twisted or bowing from excess weight
* Close any **open windows** (especially in winter, when open windows can cause pipes to freeze)
* Review the locations of utility (water, electrical) shut-offs; can you lead a DPSS or Facilities & Operations technician unfamiliar with the building to the right place quickly?

## Supplies

**Inspection of disaster cabinets**

Library Unit Head or delegate inspects local supplies annually or at the conclusion of an incident.

* Check local caches of disaster response supplies (see **Restricted Plan**)
* Replace missing supplies
* Check the batteries for the flashlights (NOT stored IN the flashlights) and replace as needed.
* The Department of Preservation and Conservation checks on disaster response supplies held centrally.

**Inspection of availability of local supplies**

* Annually or more frequently as needed, the Department of Preservation and Conservation checks the supplies vendor list to ensure that the vendors are still those with which U-M contracts, and that they still sell the items indicated. Updates are entered in this plan and distributed.

## Building

**Walk-through safety checks for the building**

A Building Facilities Manager should walk through the area regularly, looking for potential hazards that could cause or exacerbate a disaster. Special attention should be given to the following:

*Safety & Security*

* Evacuation routes are clearly marked
* Ensure that flashlights and fresh batteries (or wind-up flashlights) are available.
* Ensure that battery powered radios with weather band (and fresh batteries) are available.
* Emergency back-up lighting is available if needed
* If any new construction requires changes to the emergency plan

*Potential Building Hazards*

* Close any **open windows** (especially in winter, when open windows can cause pipes to freeze)
* Check for any condensation or seepage problems along the foundation or in the basement, near walls, or under windows, etc.
* Check for blocked drains: downspouts, air conditioners, humidifiers; drains for restrooms, kitchens, labs, or other water sources in a room above
* Check air conditioning units; clean drains twice a year
* Check for leaking gutters and downspouts or other roofing problems
* Check for dripping pipes
* Check HVAC system for proper functioning
* Review the locations of utility (water, electrical) shut-offs; can you lead a DPS or Facilities & Operations technician unfamiliar with the building to the right place quickly?

Note any other issues that may cause or exacerbate disasters and take steps to remediate them. Experience will identify needed checkpoints for any specific building.

## Fire Safety & Prevention

Building Facilities Managers and Library Unit Heads or delegates check the following on a weekly basis:

* All aisles in the stacks are clear of combustibles and are unobstructed
* All fire alarm pull stations are clear of obstructions
* All fire extinguishers are clear of obstructions
* Make a note of the last time the extinguisher was checked (see the tag on the device); if it has been more than one year, contact the Fire Inspectors at EHS
* All exit doors are clear of obstructions
* Proper use of electrical extension cords
* No storage of collections within 18 inches of the bottom of sprinklers or heat deflectors
* Signage is available indicating shelter, evacuation routes, exits, etc.

If there are any issues noticed during a walk-through, contact the EHS Fire Safety Services, 734-615-6764, for help.

A fire extinguisher visual inspection should be conducted on a monthly basis. The inspection should include:

* Location in a designated place
* No obstruction or access to visibility
* Operating instructions on nameplate legible and facing outward
* Safety seals and tamper indicators not broken or missing
* Fullness determined by weighing or hefting for self-expelling-type fire extinguishers
* Examination for obvious physical damage, corrosion, leakage, or clogged nozzle
* Pressure gauge reading or indicator in the operable range or position
* Condition of tires, wheels, carriage, hose, and nozzle checked (wheeled units only)

Upon completion of the above, the 30-day inspection may be signed off on the tag. Any discrepancies should be documented and reported to the U-M Facilities & Operations Fire Extinguisher Shop (734-647-2059).

Fire Drills are conducted on a regularly scheduled basis by EHS Fire Safety Services. To schedule a drill, call Fire Safety at 734-615-6764.

# Training

**Disaster Recovery Training**

The U-M Library can hold in-house training activities:

* Staff from the Department of Preservation & Conservation can help organize and conduct training sessions
* Staff from U-M EHS can organize and conduct training sessions on specific aspects of the plan
* The U-M Library can send staff members to off-site training opportunities.

**Tabletop Exercises**

Train staff in emergency response activities using selected “dry run” scenarios. Conduct drills annually and evaluate the results through discussion. Staff from the Department of Preservation & Conservation can assist Library supervisors with organizing and conducting tabletop disaster drills relating to library collections.

* Keep drills short and simple
* Tailor the drill scenarios to the kinds of disasters likely to happen (e.g. water pipe bursting)
* Use props (such as a box of soaked books or photographs, etc.) to make the drill more realistic
* Goals: build confidence, enlighten staff as to proper procedures during an emergency, and unearth any needed revisions to the Disaster Plan
* Evaluation: all team members should participate in the drill’s evaluation
* Identify what worked well and find any flaws in the plan
* Identify any additional training needs
* Submit any revisions or updates needed to the head of the Department of Preservation and Conservation

**U-M Environment, Health & Safety (EHS) Training:**

Regular training sessions posted at <https://ehs.umich.edu/education/>. Other classes can be developed on request, such as:

* Mold & Flood Remediation
* Mold Awareness
* Exits, Evacuations & Emergencies
* Fire Extinguisher Training
* Fire Prevention Safety
* Fire Safety
* Portable Fire Extinguishers

Trainings may be updated, and there may be others in the course catalog that are of use.

**Ann Arbor Community Resources**

Below are listed training opportunities to develop a **home disaster response plan** or to better understand community emergency response organizations. Remember that various University departments (the U-M Department of Public Safety and Security and the office of Environment, Health, and Safety) perform disaster preparedness planning and response for the University. These offices link to city, county, state, and national offices as needed.

* Washtenaw County Emergency Services (for community response materials)
* Main Page: <https://www.washtenaw.org/1540/Emergency-Services>
* Useful links (including Emergency Management Sites): <https://www.washtenaw.org/1565/Emergency-Services-Links>
* Community Emergency Preparedness Workbook & Guidelines: <https://www.washtenaw.org/1759/Family-Preparedness>
* Washtenaw County Public Health Department (for individual and family resources)
* Main page: <https://www.washtenaw.org/1822/Emergency-Preparedness>
* Washtenaw-Lenawee Chapter Red Cross (offers emergency preparedness classes off-and-on):
* <https://www.redcross.org/local/michigan.html>
* A national source that is useful for home disaster planning: <https://www.ready.gov/>

**Classes, Conferences, and Workshops on Disaster Response for Cultural Heritage Collections**

* Department of Preservation & Conservation staff can conduct workshops on air-drying wet books and how to pack books for freeze-drying.
* The Northeast Document Conservation Center organizes workshops on disaster recovery:  
  <https://www.nedcc.org/>
* LYRASIS holds conferences, classes, and workshops and several of them are related to library disaster planning. Online courses and self-study courses offered.   
  <https://www.lyrasis.org/services/Pages/Classes.aspx>
* The Conservation Center for Art and Historic Artifacts organizes workshops on disaster response:  
  <https://ccaha.org/events>
* The American Library Association and other national library groups may hold preservation or disaster response workshops or discussion sessions at annual conferences and meetings. Scan program schedules as they become available for relevant events.

**May Day**

The Society of American Archivists and other heritage collection professional groups promote awareness of disaster mitigation and disaster recovery through a concept it calls “May Day”: <http://www2.archivists.org/initiatives/mayday-saving-our-archives>

* Each year, on May Day (or around then): run tabletop scenarios, disaster drills, identify significant threats to the collections, invite local emergency personnel to give presentations, disaster-proof some area of the collection, check pipes, sprinklers and heating/cooling equipment for leaks, check window seals, conduct a disaster preparedness activity (cut plastic sheeting to size, check supplies in disaster cabinet, etc.)
* Consult this site for more ideas: <http://www2.archivists.org/initiatives/mayday-saving-our-archives/ideas-for-mayday-activities>

Use May Day as a reminder to update this plan.

# Selected Bibliography

**General**

*Emergency response and salvage wheel*. Washington, D.C.: FAIC, 2016. <https://www.culturalheritage.org/publications/books-periodicals/shop/product-catalogs>  
Printed copy at Buhr Conservation Lab and distributed with printed disaster plans.  
Ready reference for salvage of library, archive, and museum materials.

*Field Guide to Emergency Response* Heritage Preservation, 2017. <https://www.culturalheritage.org/publications/books-periodicals/shop/product-catalogs>  
This handbook is a quick read AND it comes with a DVD. DVD is helpful in that it demonstrates some of the different recovery techniques that may be hard to explain.

*Salvage of Water-Damaged Collections: Salvage at a Glance*. National Park Service: Conserve O Gram, 2002 Number 21/3  
<http://www.nps.gov/museum/publications/conserveogram/cons_toc.html>

*Salvage at a Glance, Part II: Non-Paper Based Archival Collections*. National Park Service: Conserve O Gram, 2002 Number 21/5  
<http://www.nps.gov/museum/publications/conserveogram/cons_toc.html>

Tandon, Aparna. First aid to cultural heritage in times of crisis. Rome: International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), 2018. <https://www.iccrom.org/publication/first-aid-cultural-heritage-times-crisis>  
Practical framework for handling a major crisis.

**Books and documents on paper**

*How to salvage wet books.* Conservation Services, University Library, University of Michigan. 2015.  
<http://www.lib.umich.edu/preservation-and-conservation/university-library-emergency-response>  
Instructions for air-drying wet books. Provided in the Plan.

Buchanan, Sally. *Emergency salvage of wet books and records.* Northeast Document Conservation Center Technical Leaflet, 1999.  
<https://www.nedcc.org/free-resources/preservation-leaflets/3.-emergency-management/3.6-emergency-salvage-of-wet-books-and-records>  
Good summary of the various drying techniques (air drying, dehumidification, freezer drying, vacuum freeze drying, etc.)

Dadson, Emma. Salvaging library and archive collections. London: Preservation Advisory Centre, 2012. <https://www.bl.uk/conservation/guides>.  
Brief and practical hands-on advice.

Ruzicka, Glen. *Disaster recovery: Salvaging books.* Philadelphia: Conservation Center for Art and Historic Artifacts. 2002. <https://ccaha.org/resources>  
Excellent updated information on various drying techniques (air drying, dehumidification, freezer drying, vacuum freeze drying, etc.).

Silverman, Randy. Fire and ice: A soot removal technique using dry ice blasting. *Archival Products News*, 15:3 (2008). <http://www.archival.com/newsletters/index.shtml>.

*Salvage at a Glance, Part I: Paper Based Collections*. National Park Service: Conserve O Gram, 2002 Number 21/4 <http://www.nps.gov/museum/publications/conserveogram/cons_toc.html>

**Magnetic disks; optical disks**

Iraci, Joe. *Disaster Recovery of Modern Information Carriers: Compact Discs, Magnetic Tapes, and Magnetic Disks.* C.C.I. Technical Bulletin No. 25. Ottawa: Canadian Conservation Institute, 2002. <http://www.cci-icc.gc.ca/resources-ressources/publications/category-categorie-eng.aspx?id=18&thispubid=493>. Discusses options for salvaging CDs, magnetic tapes and disks after water damage. Printed copy at Buhr Conservation Lab.

Kahn, Miriam. *Disaster response and prevention for computers and data*. Columbus, OH: MBK Consulting, 1994.  
Guidelines for cleaning and salvage of a variety of magnetic and optical formats. Printed copy at Buhr Conservation Lab.

**Photographic media, film**

*Disaster Recovery salvaging photograph collections*. Philadelphia: Center for the Conservation of Art and Historic Artifacts, 1998.<https://ccaha.org/resources>   
This leaflet addresses water-damaged photograph collections. Printed copy at Buhr Conservation Lab.

Albright, Gary. *Emergency Salvage of wet photographs.* Northeast Document Conservation Center Technical Leaflet. Amherst, MA: NEDCC, 1999.  
<http://www.nedcc.org/free-resources/preservation-leaflets/3.-emergency-management/3.7-emergency-salvage-of-wet-photographs>  
Discusses salvage options for wet photographs.

Kodak. *How to handle water-damaged microform.*  
Print copy at Buhr Conservation Lab. See also:

**Other Materials and Objects**

Minnesota Historical Society Emergency Response web site, at: <http://www.mnhs.org/preserve/conservation/emergency.html>

*Detailed salvage instruction sheets are provided for the following types of objects:*

Archaeological artifacts

Books: Cloth or Paper Covers

Books: Leather or Vellum Covers

Disaster Salvage Tip Sheet

Inorganics: Ceramics, Glass, Metals, Stone

Leather and Rawhide

Magnetic Media: Computer Diskettes

Magnetic Media: Reel-to-Reel Tapes

Microfiche

Microfilm and Motion Picture Film

Organics: Bone, Hair, Horn, Ivory, Shell

Paintings on Canvas

Paper: Coated

Paper: Framed or Matted, Preparation for Drying

Paper: Uncoated

Photographs and Transparencies

Record Albums

Scrapbooks

Textiles and Clothing

Textiles: Costume Accessories

Vellum and Parchment: Bindings and Documents

Wood

**Mold and Pest Infestations**

Guild, Sherry and Maureen MacDonald. *Mould prevention and collection recovery: Guidelines for heritage collections.* C.C.I. Technical Bulletin No. 26. Ottawa: Canadian Conservation Institute, 2004. <http://www.cci-icc.gc.ca/resources-ressources/publications/category-categorie-eng.aspx?id=18&thispubid=500>

Patkus, Beth L., *Emergency salvage of moldy books and paper.* Northeast Document Conservation Center Technical Leaflet, 3.8 1999 rev. 2012.  
<http://www.nedcc.org/free-resources/preservation-leaflets/overview>  
This leaflet provides some basic information about mold and outlines the steps that need to be taken to stop mold growth and begin to salvage collections. Printed copy at Buhr Conservation Lab.

*Mold: Prevention of Growth in Museum Collections*. National Park Service: Conserve O Gram, 2007 Number 3/4  
<https://www.nps.gov/museum/publications/conserveogram/cons_toc.html>

MuseumPests.net (<http://museumpests.net/>).  
Detailed information about integrated pest management (IPM) in library, archive, and museum settings.

Patkus, Beth L., *Integrated Pest Management.* 3.10  
<http://www.nedcc.org/free-resources/preservation-leaflets/overview>  
Northeast Document Conservation Center Technical Leaflet.  
Provides information for pest management.

Raphael, Toby. Insect pest control procedure: The freezing process. *Conserve O Gram* 3/6. Harpers Ferry, W. Va.: National Park Service, July 1994. <http://www.nps.gov/museum/publications/conserveogram/cons_toc.html>

Southwell, Kristina L. Chlorine dioxide: A treatment for mold in libraries. Archival Products News, 10.3: 1-4. <http://www.archival.com/newsletters/apnewsvol10no3.pdf>

University of Michigan Environment, Health & Safety Integrated Pest Management Guideline: <https://ehs.umich.edu/wp-content/uploads/2016/08/guidipm.pdf>

*Applies to all University buildings that require pest management services.*

**Other Sources**

DPlan. Northeast Document Conservation Center. <http://dplan.org/>

The DPlan is an interactive Web site with templates and instructions to allow institutions to create their own disaster response and recovery plan.

Dorge, Valerie, and Sharon L Jones. *Building an Emergency Plans: A Guide for Museums and Other Cultural Institutions*. Los Angeles: The Getty Conservation Institute, 1999.

*Insurance and Risk Management*: <http://www.loc.gov/preserv/emergprep/insurancemain.html>  
The Library of Congress has a page with useful links: glossary of insurance terms, contacts, and selected bibliography.

Emergency Management, Library of Congress. <http://www.loc.gov/preservation/emergprep/>  
General library disaster preparedness.

Artim, Nick. *An Introduction to Fire Detection, Alarm, and Automatic Fire Sprinklers.* Northeast Document Conservation Center Technical Leaflet 3.2.<http://www.nedcc.org/free-resources/preservation-leaflets/overview>  
Fire safety disaster preparedness.

Motylewski, Karen. *Protecting Collections During Renovation.* Northeast Document Conservation Center Technical Leaflet 3.9.  
<http://www.nedcc.org/free-resources/preservation-leaflets/overview>  
Suggestions for disaster preparedness when renovating buildings.

*Cleaning Books and Stacks.* Northeast Document Conservation Center Technical Leaflet.  
https://www.nedcc.org/free-resources/preservation-leaflets/4.-storage-and-handling/4.3-cleaning-books-and-shelves  
Disaster preparedness through keeping things clean.

*An Emergency Cart for Salvaging Water-Damaged Objects.* National Park Service: Conserve O Gram, 2002 Number 21/2.<http://www.nps.gov/museum/publications/conserveogram/cons_toc.html>

# Appendix A: Contact Lists {Unrestricted}

## U-M Expertise

Following are U-M employees in various organizations or departments who may be able to provide useful specialized expertise. Contacts outside the Library can provide phone advice and, with their consent, brief consultations. More extensive involvement must be negotiated between the departments.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Expertise | Department | Email Uniqname | Phone (work) |
| Marieka Kaye | Paper & Book Conservator (DIS, CONS, COL) | U-M Library Preservation & Conservation | marieka | 734-763-2045 |
| Lance Stuchell | Digital Preservation Librarian | U-M Library Preservation & Conservation | lstuch | 734-615-2686 |
| Carrie Roberts | Objects Conservator (DIS, CONS, COL) | Kelsey Museum of Archaeology | cirobert | 734-615-6555 |
| Suzanne Davis | Objects Conservator (DIS, CONS, COL) | Kelsey Museum of Archaeology | davissl | 734-647-0439 |
| Dianna Samuelson | Book Conservator (DIS, CONS, COL) | Bentley Historical Library | sdianna | 734-936-1347 |
| Katie Prichard | Assistant Registrar (COL) | U-M Museum of Art | katprich | 734-647-0527 |
| Timothy James | Fungi expert | U-M Herbarium | tyjames | 734-615-7753 or 734-615-4917 |
| Shannon O'Dell | Museums Manager | Sindecuse Museum of Dentistry | shannono | 734-763-0767 |
| Shannon Zachary | Book & Paper Conservator (DIS, CONS, COL) | U-M Library Preservation & Conservation | szachary | 734-763-6980 |

DIS: disaster response for heritage collections

CONS: conservation of artifacts

COL: collections management of artifacts, especially housing, packing, and shipping

INS: identification of insects/ pest management for collections

MOLD: identification of mold/ mold management for collections

## U-M Emergency Response

Following are U-M departments outside the Library who may provide support during a disaster incident.

|  |  |  |
| --- | --- | --- |
| Department | General Number | Website |
| U-M Department of Public Safety and Security | 911 (emergency);  734-763-1131 (dispatch);  377911 (text) | <https://www.dpss.umich.edu/> |
| U-M Faculty and Staff Counseling and Consultation (FASCCO) | 734-936-8660 | <https://hr.umich.edu/benefits-wellness/health-well-being/mental-health-counseling-consultation-services/faculty-staff-counseling-consultation-office-fascco> |
| U-M Health Services Emergency Department | 734-936-6666 |  |
| U-M ITCom - Customer Service | 734-764-HELP | <https://its.umich.edu/> |
| U-M Library Human Resources | 734-764-2546 | <https://staff.lib.umich.edu/content/library-human-resources> |
| U-M Mail Services | 734-764-9227 | <http://mbiz.bf.umich.edu/mailsvcs/index.htm> |
| U-M News Service | 734-764-7260 | <https://news.umich.edu/> |
| U-M Occupational Health Services | 734-764-8021 | <https://hr.umich.edu/benefits-wellness/health-well-being/occupational-health-services> |
| U-M Environment, Health & Safety | 734-647-1143 | <https://ehs.umich.edu/> |
| U-M Environment, Health & Safety - Fire Safety Services | 734-615-6764 | <https://ehs.umich.edu/living-safely/fire-prevention/> |
| U-M Office of Public Affairs | 734-936-5190 | <https://publicaffairs.vpcomm.umich.edu/> |
| U-M Office of the Vice President and General Counsel | 734-764-0304 | <https://ogc.umich.edu/> |
| U-M Parking and Transportation Services | 734-764-3427 (Fleet);  734-764-8291 (Parking) | <https://ltp.umich.edu/> |
| U-M Facilities & Operations | 734-647-2059 | <http://fo.umich.edu> |
| U-M Office of Risk Management | 734-764-2200 | <http://www.finance.umich.edu/risk-management> |
| U-M WorkConnections | 734-615-0643;  Toll Free: 877-869-5266 | <http://www.workconnections.umich.edu/> |
| University Unions | 734-936-0869 | <http://uunions.umich.edu/> |

## Non-U-M Vendors of Goods and Services

**Disclaimer: Information about external vendors gathered in this Plan is provided as a service and is not to be construed as an endorsement by the University of Michigan of any individual company, service, or product.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Company | Address | Web | Phone (corporate HQ) | Phone (emergency) | Type of Service |
| A-1 Rental | 2285 W. Liberty St., Ann Arbor 48103-4405 | <https://www.a1rental-annarbor.com/> | 734-663-0060 |  | rentals for tables, chairs, tools, equipment |
| Advantage Transportation | 6246 W. Sterns Rd., Ottawa Lake, MI 49267 | <http://www.advantagetran.com/> | 801-956-0296 |  | reefers, flatbeds, storage trailers, Air Ride vans |
| American Freeze-Dry | P.O. Box 5740, Deptford, NJ 08096; OR:  1722 Hurffville Road, Bldg 2A, Five Points Business Center, Sewell, NJ 08080 | <https://www.americanfreezedry.com/> | 866-939-8160 | 609-458-0510 856-939-8160 | Document & Artifact Restoration, Library & Archive Collections Restoration |
| APAC Paper | 400 Enterprise Drive, Allen Park 48101 | <http://www.apacpaper.com/> | 800-922-1986 |  | packing and custodial paper supplies |
| BELFOR USA | 2643 E. Michigan Ave.  Ypsilanti, MI 48198 | <https://www.belfor.com/en/us> | 734-261-7764 248-594-1144 | 800-856-3333 | Mold Remediation, Pre-Planning, Drying & Dehumidification, Environmental Services, Books & Vital Records, Emergency Power, Contents Restoration |
| BMS Catastrophe | 5718 Airport Freeway Haltorn City, TX 76117 | [i](mailto:info@bmscat.com)<https://www.bmscat.com/> |  | 877-730-1948 | Fire & Smoke, Water, Moisture Control & Dehumidification, Mold Remediation |
| Document Restoration Services | 11847 Levan Road, Livonia, MI 48150 | <https://www.documentfreezedrying.com/> | 888-217-3418 | 888-217-3418 | Document recovery services |
| Document Reprocessors | 40 Railroad Ave, Rushville, NY 14544 | <http://www.documentreprocessors.com/> | 585-544-4500 | 800-437-9464 | Freeze-Drying, other water damage recovery |
| DuArt | 245 West 55th St., New York, NY 10019 | <http://www.duart.com/> | 212-757.4580 |  | Restoration of video products |
| Global Industrial Equipment | 2505 Mill Center Parkway, Suite 100, Buford, GA 30518 | <https://www.globalindustrial.com/> | 888-978-7759 |  | Supplies: lighting, trucks, dollies, pallets |
| Grainger Industrial Supply | 2915 Boardwalk St., Ann Arbor, MI 48104-6765 | U-M MarketSite | 734-662-1060800-772-4643 |  |  |
| The Media Preserve | 111 Thomson Park Drive, Cranberry Township, PA 16066 | <https://ptlp.com/en/mediapreserve/overview/about-us/> | 800-416-2665 |  |  |
| Michigan Green Cabs |  | <https://migreencars.com/> | 877-476-8294 |  | Transportation: Cab Service |
| Midwest Freeze Dry | 7326 N. Central Park, Skokie, IL 60076 | <https://midwestfreezedry.com/> | 847-679-4756 |  | Freeze-Drying, Fumigation, PlasmaF |
| Northeast Document Conservation Center | 100 Brickstone Square, Andover, MA 01810-1494 | <https://www.nedcc.org/free-resources/disaster-assistance/emergency-phone-assistance> | 855-245-8303 | 978-470-1010 | Consulting on preservation and recovery of library and archive materials |
| PLM Trailer Leasing | 1180 John A. Papalas, Lincoln Park, MI 48146 | <https://www.plmtrailer.com/> | 313-295-8901  877-736-8756 |  |  |
| Polygon | 2008 Bloomingdale Road, Glendale Heights, IL 60139 | <https://www.polygongroup.com/en-US/> | 800-422-6379 |  | Climate control; document recovery services; |
| Ryder Truck Rental | 3720 East Morgan Road, Ypsilanti MI 48197 | <https://ryder.com/> | 734-434-0150  888-997-9337 |  |  |
| Service Master Tri Counties | 13671 Lachene, Warren, MI 48088 | [http://www.servicemagic.com/rated.ServiceMasterT](http://www.servicemagic.com/rated.ServiceMasterTri.10878785.html) | 734-352-3379 |  | Commercial janitorial, carpet cleaning, floor refinishing, 24-hour emergency service, water and fire damage |
| Talas | 330 Morgan Ave, Brooklyn NY 11211 | <http://talasonline.com/> | 212-219-0770 |  | Binding and book repair supplies |
| U-M Aero Engineering – Bendix Large Vacuum Test Facility | Aerospace Engineering, 3037 FXB, 1320 Beal Ave, Ann Arbor, MI | <http://pepl.engin.umich.edu/research/facilities/> | 734-764-4199 | Timothy Smith timsmith@umich.edu | Limited freeze-drying |
| U-M Chemistry Dept. | 1500c Chemistry Building | <https://lsa.umich.edu/chem/> | 734-764-7316 | Tracy Stevenson, building manager | Distilled water |
| Ann Arbor Cab | 2050 Commerce, Ann Arbor MI 48103 | <http://www.annarbortaxitransport.mysite.com/> | 734-272-8009 |  | Transportation: cab service |
| Zep Manufacturing | 34462 Glendale St., Livonia MI 48150 | <https://www.zep.com/> | 734-525-0800  877-428-9937 |  | industrial cleaning supplies |

# Appendix B: Disaster Supplies & Services

Supply lists with vendor information: for ordering supplies.

**Disclaimer: Information about external vendors gathered in this Plan is provided as a service and is not to be construed as an endorsement by the University of Michigan of any individual company, service, or product.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Supply Name | Vendor | Catalog Number or Search Terms | Purpose -- General | Purpose -- Specific |
| Aprons, coated PVC | U-M Marketsite → Grainger | 1N872 | Personal Protective Equipment | worker safety |
| Apron, disposable Tyvek | U-M Marketsite → Grainger | 4T061 | Personal Protective Equipment |  |
| Bags -- garbage, large (30-50 gal.) -- with ties | U-M Marketsite → Grainger | Search: Cleaning > Trash bags and liners | Cleaning Supplies | remove trash from scene |
| Bags -- plastic, liner -- 3 rolls 3/cs 30"x48"; 1.25 mil | U-M Marketsite → Grainger | Search: Cleaning > Trash bags and liners | Collection Salvage Supplies | for lining box interiors |
| Bags -- plastic, with ties | U-M Marketsite → Grainger | Search: Cleaning > Trash bags and liners | Collection Salvage Supplies |  |
| Bags -- plastic; 250/box; 18" x 24" | U-M Marketsite → Grainger | Search: Cleaning > Trash bags and liners | Collection Salvage Supplies | to protect individual books |
| Bags -- plastic; reclosable; 500/box; 12" x 12", 4 mil | U-M Marketsite → Grainger | 5LH30 | Collection Salvage Supplies | to protect individual books |
| Barcode -- scanner |  |  | Documentation |  |
| Barcode, scanning software |  |  | Collection Salvage Supplies |  |
| Batteries -- alkaline, 12/box; D-size | U-M Marketsite → Grainger | 2HYJ5 | General Supplies |  |
| Boot Covers, disposable | U-M Marketsite → Grainger | 29DZ47 | Personal Protective Equipment | protect workers |
| Bottle -- polyethylene; gallon | UM Marketsite --> Fisher Scientific | 02-912-036 | Cleaning Supplies | to hold or transport water |
| Bottle -- spray; 24 oz. | UM Marketsite --> Fisher Scientific | NC9832040 Lab Safety Supply, No. 28117 | Collection Salvage Supplies | to keep pages from sticking |
| Box -- 15" x 12" x 10" for books | U-M Marketsite → Grainger OR APAC Paper | Search: Shipping Cartons | Container | transport wet / damp books to vendor |
| Brooms | U-M Marketsite → Grainger | Search: Cleaning > brooms and brushes | Cleaning Supplies |  |
| Brush -- dust | U-M Marketsite → Grainger | Search: Cleaning > brooms and brushes | Cleaning Supplies | clear out debris |
| Bucket -- 5 gal., with lid | U-M Marketsite → Grainger | Search: Cleaning > mopping supplies > mop buckets | Container |  |
| Can -- plastic; 32 gal. | U-M Marketsite → Grainger | 2W276 | Collection Salvage Supplies | for rinsing wet books |
| Canvas or leather work gloves | U-M Marketsite → Grainger | Search: Safety > gloves and hand protection > leather palm gloves | Personal Protective Equipment |  |
| Cards -- index; 4" x 6" | UM Marketsite --> OfficeMax | 03010985 | Communication | make signs |
| Cell phones |  |  | Communication | emergency phone |
| Cleaner -- drive head |  |  | Collection Salvage Supplies | clean video tapes |
| Cleaner -- photo PEC-12, 4 oz. | <https://photosol.com/products/pec-12/> |  | Collection Salvage Supplies | clean photographic materials |
| Cleaner – Kodak Photo-Flo | Adorama <http://www.adorama.com/> | 1464510 | Collection Salvage Supplies | rinse photographic materials |
| Clipboard -- covered, 8.5" x 11" | U-M Marketsite → Grainger | F7OM01920 | Documentation | make notes, protect from water |
| Containers -- stackable | U-M Marketsite → Grainger. | Search: Lewis Bins Stack N Nest Containers | Container |  |
| Coveralls -- disposable; different sizes | U-M Marketsite → Grainger | 4T831 | Personal Protective Equipment |  |
| Crank Radio – no batteries needed | U-M Marketsite → Grainger | 49LX77 | General Supplies | Radio updates |
| Crank Light – no batteries needed | U-M Marketsite → Grainger | 2XTG9 | General Supplies | Lighting for emergencies |
| Dehumidifiers | U-M Marketsite → Grainger |  | Collection Salvage Supplies | dry out environment |
| Dessicant Packets -- silica gel |  |  | Collection Salvage Supplies |  |
| Detergent -- Nalgene L900 liter | UM Marketsite --> Fisher Scientific | 04-319B (4L) or (1 L) | Cleaning Supplies | clean plastic materials |
| Disaster Cart -- 24" x 36" x 36" | UM Marketsite --> OfficeMax | Search: Janitorial & Maintenance Supplies > Carts | Collection Salvage Supplies | hold response supplies |
| Door wedges -- oversized | U-M Marketsite → Grainger | 1XNN8 | General Supplies | prop open doors |
| Dustpan -- plastic | U-M Marketsite → Grainger | Search: cleaning > brooms, brushes, and dust pans > dust pans | Cleaning Supplies | clear out debris |
| Extension cords -- grounded | UM Marketsite --> OfficeMax | Search: Extension Cord | General Supplies | for light set up, etc |
| Fans | U-M Marketsite → Grainger | 2LY89 | Collection Salvage Supplies | dry out environment |
| Filament tape | U-M Marketsite → Grainger | Search: Filament Tape | Collection Salvage Supplies | to tape plastic sheeting |
| First Aid Kit | U-M Marketsite → Grainger | 1VAB1 | Personal Protective Equipment | worker safety |
| Flashlight -- 3-D cell, strap | U-M Marketsite → Grainger | Search: Flashlights | General Supplies | emergency lighting |
| Freezers and refrigerated transport | University Library Preservation and Conservation Department at the Buhr Building has a freezer that will hold up to 9 bankers | OR VendorContactList: Advantage Transportation, PLM Turner Trailer Leasing, Ryder Truck Rental, Reefer Peterbilt | Collection Salvage Supplies |  |
| Absorbent Socks | U-M Marketsite → Grainger | Search: Absorbent Socks and Booms; select water, oil, or universal; 3 in diameter x 10 ft is useful | Collection Salvage Supplies |  |
| Generator -- portable | Call U-M Plant Operations, 734-647-2059 | Only U-M Plant Operations may deploy a generator at a U-M building | General Supplies | provide temporary power |
| Gloves -- disposable latex or nitrile | U-M Marketsite → Grainger | 1RL58 and other sizes | Personal Protective Equipment |  |
| Gloves -- leather work; L | U-M Marketsite → Grainger | 3ZL53 | Personal Protective Equipment |  |
| Gloves -- rubber | U-M Marketsite → Grainger | 48GL70 and other sizes | Personal Protective Equipment |  |
| Goggles -- safety; adjustable | U-M Marketsite → Grainger | 2CVG2 | Personal Protective Equipment | worker safety |
| Hammer | U-M Marketsite → Grainger | 4YR58 | General Supplies | Hang rope, etc. |
| Helmet -- safety | U-M Marketsite → Grainger | Search: Safety > Head Protection > Hard Hats | Personal Protective Equipment | worker safety |
| Hose -- plastic; 50 ft | U-M Marketsite → Grainger | 2P562 | Cleaning Supplies | filling cans |
| Knife - utility | U-M Marketsite → Grainger | 4A803 | General Supplies | cut plastic, cardboard |
| Labels | UM Marketsite --> OfficeMax | A55266 | Documentation |  |
| Labels -- color coding; round, 0.75" diameter | UM Marketsite --> OfficeMax | 07002183 | Documentation | color code boxes |
| Labels -- self-adhesive; 3.33" x 4" | UM Marketsite --> OfficeMax | 07100424 | Documentation | label boxes |
| Light -- flood light; on pole; 300-500 watt | U-M Marketsite → Grainger | Search: Hand and Portable Lamps | General Supplies | emergency work lighting |
| Light bulbs -- consider wattage needed | U-M Marketsite → Grainger | Search: Bulbs and Lamps | General Supplies | emergency work lighting |
| Line -- Fishing; 50# test | U-M Marketsite → Grainger | 4CN04 | Collection Salvage Supplies | dry pamphlets & paperbacks |
| Lysol -- spray can, 19 oz. | U-M Marketsite → GraingerR | 3WU88 | Cleaning Supplies | disinfect shelving |
| Marker -- China; black | U-M Marketsite → Grainger | 1JU74 | Documentation | mark on wet surfaces |
| Marker -- China; red | U-M Marketsite → Grainger | 1JU75 | Documentation | mark on wet surfaces |
| Marker -- Waterproof; permanent | UM Marketsite --> OfficeMax | 20475914 | Documentation | make notes, signs |
| Masks -- for dust; 50/bx tie on | U-M Marketsite → Grainger | 4MH50 | Personal Protective Equipment | worker safety |
| Antifatigue Mat | U-M Marketsite → Grainger | 3TTN9 | General Supplies | cut plastic, cardboard |
| Milk crates | VendorContactList--> Washtenaw Dairy |  | Container |  |
| Mops | U-M Marketsite → Grainger | 16W209 (mop head) | Cleaning Supplies | clean water off floor |
| Mylar sheet |  |  | Collection Salvage Supplies |  |
| Nails -- 16D | U-M Marketsite → Grainger | 4NEP9 | General Supplies | Hang rope, etc. |
| Nails -- 6D | U-M Marketsite → Grainger | 4NFD1 | General Supplies | Hang rope, etc. |
| Notepad -- yellow, lined; 8.5" x 11" | UM Marketsite --> OfficeMax | 22358878 | Documentation | make notes |
| Pallet jacks | U-M Marketsite → Grainger | Search: pallet jacks | Collection Salvage Supplies |  |
| Pallet -- plastic | U-M Marketsite → Grainger; wood pallets may be free at delivery sites | Search: pallets | Collection Salvage Supplies | keep boxed books off floor |
| Paper -- blotting; 20" x 30 " |  |  | Collection Salvage Supplies | absorb water, oversize docs |
| Paper -- freezer; 18" x 100' | UM Marketsite --> Fisher Scientific; OR APAC Paper, Sam's Club, Target, Kroger, etc. | NC9662422 (1100') | Collection Salvage Supplies | wrap / barrier for wet books |
| Paper -- wax | UM Marketsite --> Fisher Scientific; OR Sam's Club, Target, Kroger, etc. | S55038 | Collection Salvage Supplies | interleave between wet books |
| Paper towels -- white | UM Marketsite--> GRAINGER, | 3JG99; 2U227; C-fold towels easiest for interleaving books | Collection Salvage Supplies | blotter between book pages |
| Pen -- acid-free indicator | VendorContactList--> Talas | TEC007001 | Documentation |  |
| Pens - black, permanent, waterproof | UM Marketsite --> OfficeMax | 22446907 | Documentation |  |
| Plastic sheeting -- 4 mil, 10’ x 100’ (Drop Cloth Clear Polyethylene Sheeting) | U-M Marketsite → Grainger | 4JX87; Search: polyethylene construction film | Collection Salvage Supplies | leak protection, cover ranges |
| Pliers -- medium duty; slip joint | U-M Marketsite → Grainger | 4CR40 | General Supplies | to open cases, adjust equipment |
| Power Strips -- 6 outlet | U-M Marketsite → Grainger | 5HN14 | General Supplies | extend power to equipment |
| Ramp -- roller | U-M Marketsite → Grainger | Search: Loading ramps and dock ramps | General Supplies | to transfer boxed books to truck |
| Rope – nylon; 0.25” x 100’ | U-M Marketsite → Grainger | 12U274 | General Supplies | tie sheeting, hold up sheeting |
| Scissors – medium-duty | U-M Marketsite → Grainger | 2DFJ3 | General Supplies |  |
| Screwdriver – #2x4 Phillips; medium-duty | U-M Marketsite → Grainger | 53JT19 | General Supplies | to open cases, adjust equipment |
| Screwdriver – regular; medium-duty | U-M Marketsite → Grainger | 53JR99 | General Supplies | to open cases, adjust equipment |
| Sleeves for Pocket Plan |  |  |  |  |
| Sponges -- regular | U-M Marketsite → Grainger | 2NTH6 | Collection Salvage Supplies | clean shelves, work tables |
| Sponges -- smoke & soot | U-M Marketsite → Grainger | 2RMZ8 | Collection Salvage Supplies | clean sooty books in lab |
| Squeegee -- floor (18" wide) | U-M Marketsite → Grainger | 3U806; OR search Squeegees | Cleaning Supplies | clear away standing water |
| Storage Totes -- 13.6" x 8.4 " x 4.5" | U-M Marketsite → Grainger | Search: Storage Totes | Container | organize disaster supplies |
| Storage Totes -- 16" x 11" x 9" | U-M Marketsite → Grainger | Search: Storage Totes | Container | organize disaster supplies |
| Sump Pump | Call Facilities & Operations Call Center for water removal |  | Cleaning Supplies | remove standing water |
| Table -- covers | Gordon Food Services |  | General Supplies |  |
| Table -- work; 60" x 36" x 33" | U-M Marketsite → Grainger | Search: material handling > workbenches and accessories > work tables | General Supplies | emergency work surfaces |
| Tables -- folding | U-M Marketsite → Grainger Wolverine Rental, A-1 Rental | Search: furniture, hospitality and food service > furniture > folding tables | General Supplies |  |
| Tape -- "Do Not Enter" barricade tape | U-M Marketsite → Grainger | 1N956 | Communication | direct traffic away |
| Tape -- Caution | U-M Marketsite → Grainger | 2FZH8 | Communication |  |
| Tape -- Duct Tape | U-M Marketsite → Grainger | 15F807, 6JD46, or 2W504 | General Supplies | splice sheets of plastic, tape cords down |
| Tape -- Gaffers yellow; 2" x 60 yds | U-M Marketsite → Grainger | 3NLG3 | General Supplies |  |
| Tape -- guns | U-M Marketsite → Grainger | 4FE48 | General Supplies |  |
| Tape -- masking; 1" x 50 yrds | U-M Marketsite → Grainger | 20PJ09 | General Supplies | tape signage, etc |
| Tape -- Packaging tape | U-M Marketsite → Grainger | 53XM02 | Collection Salvage Supplies |  |
| Toolkit -- 7 tools + pouch | U-M Marketsite → Grainger | 4CZ75 | General Supplies | to create on-site work areas |
| Towels -- cloth | U-M Marketsite → Grainger | 4HP38 | Collection Salvage Supplies | cleaning, absorb water |
| Towels -- cotton; 18" x 18" | U-M Marketsite → Grainger | 1XEA7 | Collection Salvage Supplies | cleaning, absorb water |
| Traffic Cones | U-M Marketsite → Grainger | 6FGZ1 | Communication | direct traffic away |
| Trash can -- with lid (red if possible); 33 gallon; plastic | U-M Marketsite → Grainger | 5M763 and 5M759 | Collection Salvage Supplies |  |
| Trash cans | U-M Marketsite → Grainger | 2W276 | Cleaning Supplies |  |
| Tray -- bakery | Gordon Food Services |  | Collection Salvage Supplies | dry oversize items |
| Truck -- book truck, metal | U-M Marketsite → Grainger; Or Demco | Search: Book Truck | General Supplies | transport books |
| Truck -- dolly | U-M Marketsite → Grainger | 2LNJ7 | General Supplies | to transport boxes |
| Truck -- hand truck | U-M Marketsite → Grainger; OR UM Moving & Trucking, Wolverine Rental | Search: material handling > hand trucks | General Supplies |  |
| Vests or Badges to identify members of the Disaster Recovery Team | U-M Marketsite → Grainger | Search: safety > workwear > traffic safety vests; 2XKF2 for Badges | Personal Protective Equipment |  |
| Water -- Distilled | Chemistry Building |  | Collection Salvage Supplies | store microfilms in transition |
| Wet/Dry Vacuum Cleaners | U-M Marketsite → Grainger | 1UG91 | General Supplies |  |
| Wipes -- Pec\*Pad Photowipes, 100/pack; 4" x 4" | Adorama.com | <http://www.adorama.com/CHPECPP.html> | Collection Salvage Supplies | to clean photographic materials |
| Wipes -- photo clean, 119/pack; 12" x 12"; 3-ply | UM Marketsite --> Fisher Scientific | 06-666-11D | Collection Salvage Supplies | to clean photographic materials |

# Appendix C: Printable Flyers and Forms

The following basic forms have been provided to assist you in documenting any incidents that may damage your building and/or collections. Use them as is, modify them for your circumstances, or devise others as needed.

Keep multiple photocopies of any forms that you anticipate using with your in-house disaster supplies since access to a photocopier may not be possible in an emergency.

Included in this Appendix:

Printable Disaster Team List

Printable Volunteer Sign-On List

WorkConnections Illness or Injury Report Form

U-M Office of Risk Management Injury Report Form for Non-Employees

Collection Incident Report Form

Building Incident Report Form

Packing and Inventory Form

Environmental Monitoring Form

Donor Form

# Disaster Team Lists

|  |  |
| --- | --- |
| Disaster Team # | Disaster Team # |
| Leader | Leader |
| Building / Area | Building / Area |
| Maintenance | Maintenance |
| Preservation | Preservation |
| Team Workers: | Team Workers: |
|  |  |
| Disaster Team # | Disaster Team # |
| Leader | Leader |
| Building / Area | Building / Area |
| Maintenance | Maintenance |
| Preservation | Preservation |
| Team Workers: | Team Workers: |
|  |  |
| Disaster Team # | Disaster Team # |
| Leader | Leader |
| Building / Area | Building / Area |
| Maintenance | Maintenance |
| Preservation | Preservation |
| Team Workers: | Team Workers: |
|  |  |

# Volunteer Sign-Up Sheet

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| --- | --- | --- | --- | --- | --- |
| Name | Email | Other contact info: | Time IN/OUT | Work Performed | Date |
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# WorkConnections Illness or Injury Report Form

*Illness or Injury Report Form*

<http://workconnections.umich.edu/forms.html>

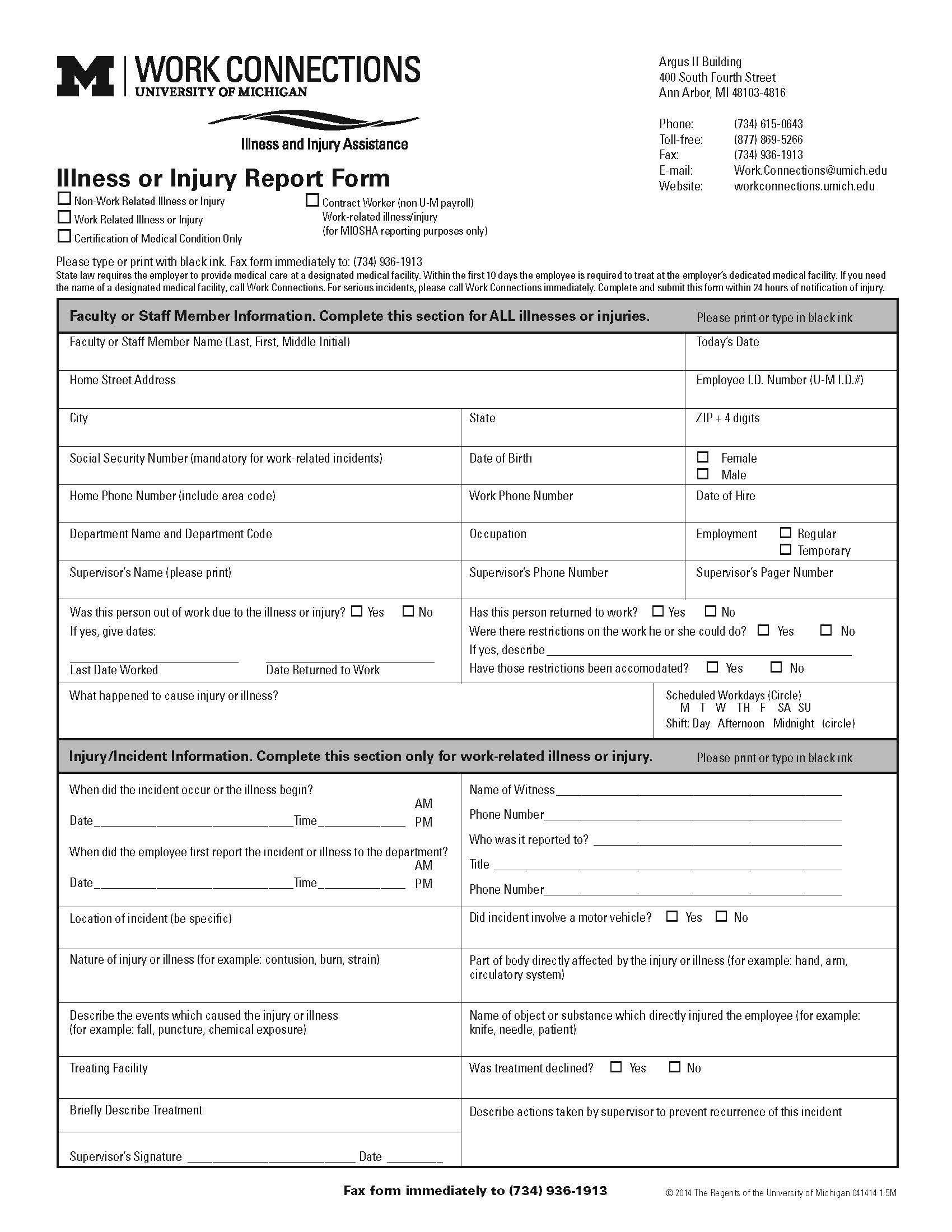
This form should be completed by the supervisor for **ALL** work-related injuries or occupational illnesses for **regular U-M employees**. (To report an injury to a volunteer who is not a U-M employee, see the U-M Office of Risk Management form, following).

**Form Instructions**

The Illness or Injury Report form can be completed and submitted entirely online (email to [Work.Connections@umich.edu](mailto:Work.Connections@umich.edu)), or fax the completed form to 734-936-1913.

Send a copy of the form to Library Human Resources: fax it to 734-763-0687 or email it to [libhumres@umich.edu](mailto:libhumres@umich.edu)

Form on next page.



# Risk Management Injury Report Form for Non-Employees

*Injury Report Form for Non-Employees*

<http://www.finance.umich.edu/risk-management/injury-report-for-non-employees>

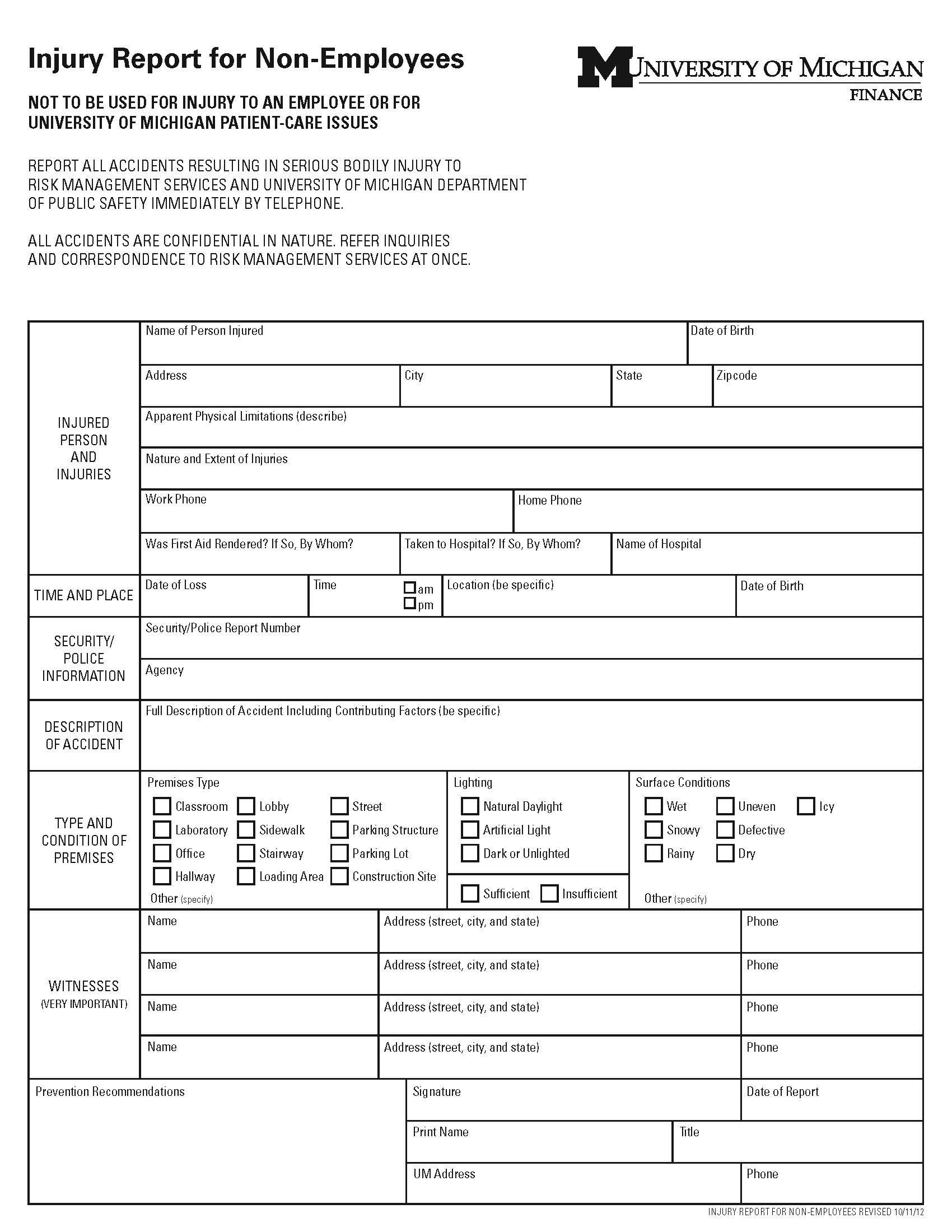
Supervisors should complete this form if non-employee volunteers require medical treatment for work-related injuries or illnesses.

**Form Instructions**

Email the completed form to [Work.Connections@umich.edu](mailto:Work.Connections@umich.edu) or fax it to 734-936-1913.

Send a copy of the form to Library Human Resources: fax it to 734-763-0687 or email it to [libhumres@umich.edu](mailto:libhumres@umich.edu)

Form on next page.



# Collection Incident Report Form

This form should be used to keep a record of any incident that causes damage to collections. The second section of the form provides a salvage timeline form to keep track of salvage decisions.

*Initial Report*

Person completing form:

Today’s date:

Date of incident:

Time of incident:

Collection(s) involved (collection area, formats, and quantity):

Description of incident:

Damage to collections (type of damage and extent):

Immediate action taken to minimize damage:

# Building Incident Report Form

Use this form to document any building problems, whether or not they caused collections damage. These forms should be maintained in a building log notebook, so that a history of building problems will be available.

Location:

Date:

Person reporting problem:

Description of problem:

Description of action taken:

If collections were damaged, describe briefly (and fill out an Incident Report Form):

# Packing and Inventory Form

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Box # | Original Storage Location | Contents (e.g. call #s, record series) | Format of Materials | Quantity of Materials | Damage | Salvage Priority | Destination |
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# Environmental Monitoring Form

(Use one form for each room/area that needs to be monitored. Readings should be taken at least every four hours.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Temperature | Relative Humidity | Time | Person taking Reading | Equipment Used |
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# Donor Form

Use this form to keep track of supplies or other materials donated for the recovery effort. Contact the Library Development office.

Date:

Donor (name, address, and phone):

Supplies or other materials donated:

# Appendix D: Site-Specific Templates and Instructions

Below are instructions for assembling information specific to a library or location. Template forms are provided after the Instructions section, or **a library may design its own forms**. Insert this information into *Restricted* version of this plan.

## 1. Immediate Response – Calls for Assistance

Print copies of **Section 3: Immediate Response – Calls for Assistance** from this plan, edit it, and add local numbers as appropriate, or develop a local form.

Distribute copies of this list to:

1. Library unit staff members (most staff will need access to one copy at work and another coy at home)
2. Post at information desks and other areas where staff work
3. Place a copy in a cover pocket of printed disaster recovery manuals

***UPDATE LIST WHEN STAFF CHANGE; CHECK IT EVERY SIX MONTHS***

## 2. Contact Lists for Key Library Unit Staff Members

This section is simply a list of contact information for key staff for this library or collection area—people who may need to be contacted after the initial set of emergency calls. This contact list is for **restricted** distribution to library staff who need this information. Each unit decides what information, including home phone or cell phone numbers of staff, should be made available to what staff.

As appropriate, make notes of who has keys or alarm codes to get into restricted areas of the unit.

Distribute copies of this list to:

1. Local Library Unit Head and key unit staff members (staff will need access to one copy at work and another copy at home)
2. Relevant Facilities Managers
3. Department of Preservation & Conservation (send to department head)
4. Place a copy in a cover pocket of printed disaster recovery manuals

***UPDATE LIST WHEN STAFF CHANGE; CHECK IT EVERY SIX MONTHS***

## 3. Disaster Supplies Held Onsite

List the supplies the library has on hand and where they are located. Update every six months and after every disaster. See **Sections 5** for information about what supplies should be gathered.

## 4. Library Command Center Disaster Team Members

Refer to the Library Command Center job duties described in **Section 8: Large Disasters**. List the names and titles of the people who would likely perform each role at this library unit; remember that some of the roles may be filled by people outside the unit. Make sure that at least one alternate is designated for each role; two or three alternates are advisable if possible.

Check that contact information for everyone on this list is recorded in the unit’s Disaster Response Plan Contact Lists.

## 5. Directions, Maps, and Plans

### Directions to the Library

Write out clear directions to the library so that when communicating via phone, email, or fax to emergency or other disaster response personnel, a staff member can refer to this information. Include the library name, a specific building or room if applicable, street address, the phone number(s), and directions from multiple general starting points to any number of entrances applicable (front entrance, loading dock, etc.). Also, if applicable, include directions from inside the building to where important rooms are. Provide for alternate routes if the most usual route is blocked.

### Maps to the Library

Insert images of maps of the area to fax if necessary to emergency personnel or others.

### Floor Plans of the Library

Insert images of floor plans of the library. On the floor plans include pertinent building information: location of priority collections, staging areas, smoke detectors, electricity & water shut offs, water pipes, system controls, disaster supplies, etc. Consult the Building Facilities Manager and/or the Department of Preservation & Conservation for help getting a floor plan outline for your building or locating utilities. The floor plan may also identify:

* Location options for a Library Command Center. See **Section 8: Large Disasters** for a description of the functions of the emergency Library Command Center.
* Location options for staging areas. See **Section 8: Large Disasters** for a description of the functions of the emergency staging area.
* Location options for a staff comfort station. See Section 10: People Management for the functions of a staff comfort station.

## 6. Salvage Priorities

Develop priorities for salvage specific to this library or collection area.

**1. Name the library unit, location, the primary coordinator for the creating the priority list, and at least one alternate who is familiar with the list and the collections.**

**2. List, in priority order, those materials in the library that should be evacuated first, in case of an emergency.** Assume you have no more than four hours and perhaps four people to evacuate the most important material from this library unit before [building collapses, flood waters rise, insert your favorite disaster here]. If parts of the collections are located off-site in another area or building, prepare separate information for that material.

Considerations:

* records of what the library contained at the time of the disaster
* value to library’s mission, as individual items or groups of material
* value to get the library operational again quickly
* cost /availability of replacement
* vulnerability to further damage: e.g. coated (glossy) paper, special formats

Number the priorities 1, 2, 3 . . .

Give a high priority to card catalogs or paper inventories of collections if the paper copy is the only record of what that collection contains. Give a high priority to documentation supporting the collection (files of donor records, for example) if the paper copy is the only record. If this information is recorded in the online catalog and the paper copy would not be needed to document what was lost in the disaster incident, assign these records a lower priority.

**3. List special needs or hazards in or around this collection.** For example:

* Special collections; special media; special instructions for salvage
* Chemicals, radioactive materials, attics with bird droppings, other hazards in rooms neighboring the library, including above and below.

**4. Mark a floor plan of the library unit identifying:**

* all priorities listed above, by number sequence
* locations of special hazards or needs
* location of exits
* include call number ranges on the floor plan

*Make the plans clear and uncluttered. Evacuation crews may be working quickly in dim light amid collapsed or damaged structures. Limit plans to 8-1/2 x 11 inch format so they can be filed in the disaster response notebook.*

**5. Make an appropriate number of copies of the list and floor plan**. Distribute the copies as follows:

1. Library Unit Head – keep in printed disaster plan at office; make sure at least one alternate knows and has access to this location
2. Additional copies for Library Unit Head and alternate(s) to keep in printed disaster plan at home
3. U-M Library Department of Preservation & Conservation (send to department head)
4. U-M Library Administration (send to Chief Operating Officer)

*Keep in mind that your office may be inaccessible because of the same disaster that is affecting the collections and that there may be power losses; always back up information needed for disaster response in hard copy and keep a second copy at a secure remote location – e.g. at home.*

**Security:** lists and floor plans identifying exceptionally valuable portions of the library’s collections should be kept secure from casual access; alert staff of the need to keep this information secure.

## 7. Special Procedures

No template is provided for this section. Create and slot intothe *Restricted* version of the planany special procedures for a collection or a portion of the collection. Special procedures may be developed for formats not described elsewhere in the plan or materials for which the standard procedures are not appropriate. If the special procedures are specific to a library unit, identify that unit clearly on each sheet.

# Template Forms

The following pages are templates for gathering information for a particular library. Instructions for these templates are in **Appendix D** above.

Library Command Center Disaster Team Members

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Library

Updated mm/dd/yyyy

Refer to the Library Command Center job duties described in **Section 8: Large Disasters**. List the names and titles of the people who would likely perform each role and alternates. Check that contact information for everyone on this list is recorded in the Disaster Response Plan.

**Emergency Response Coordinator**

**1.**

**2.**

**Library Unit Head**

**1.**

**2.**

**Emergency Response Recorder**

**1.**

**2.**

**Communications Coordinator**

**1.**

**2.**

**Emergency Logistics Coordinator**

**1.**

**2.**

**Building Facilities Coordinator**

**1.**

**2.**

**Emergency Response Specialist & Operations Coordinator**

**1.**

**2.**

**Emergency Rescue Team Leaders**

**1.**

**2.**

**Recovery Manager**

**1.**

**2.**

Directions to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Library

Updated mm/dd/yyyy

**Library: \_\_\_\_\_\_\_\_\_\_\_**

**Room & Building:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Street Address:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Library phone:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Library fax:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions:**

a. [INSERT HERE: concise street directions from \_\_\_ to building main entrance; concise building directions to library within building from main entrance]

b. [INSERT HERE: concise street directions from \_\_\_ to building loading dock, if different; concise building directions to library within building from loading dock]

Maps to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Library

Updated mm/dd/yyyy

**Library: \_\_\_\_\_\_\_\_\_\_\_**

**Room & Building:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Street Address:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Library phone:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Library fax:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions:**

Insert map images that can be faxed or otherwise consulted here. Include a close up version and a zoomed out version if applicable.

Floorplan for the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Library

Updated mm/dd/yyyy

**Library: \_\_\_\_\_\_\_\_\_\_\_**

**Room & Building:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Street Address:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Library phone:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Library fax:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions:**

Insert floor plans that can be faxed or otherwise consulted here. Include all collections (multiple floors, etc.).

Salvage Priorities

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Library

Updated mm/dd/yyyy

High Priority

|  |  |  |  |
| --- | --- | --- | --- |
| Rank (1 is highest) | Name of Collection or Item (Identifier) | Location in the Library | Call Number Range |
| 1 | [Fill In] | [Fill In] | [Fill In] |
| 2 | [Fill In] | [Fill In] | [Fill In] |
| 3 | [Fill In] | [Fill In] | [Fill In] |

List staff with special knowledge of this collection or material

List any particular hazards for this material

Attach any related salvage procedures / notes

Medium Priority

|  |  |  |  |
| --- | --- | --- | --- |
| Rank (1 is highest) | Name of Collection or Item (Identifier) | Location in the Library | Call Number Range |
| 1 | [Fill In] | [Fill In] | [Fill In] |
| 2 | [Fill In] | [Fill In] | [Fill In] |
| 3 | [Fill In] | [Fill In] | [Fill In] |

List staff with special knowledge of this collection or material

List any particular hazards for this material

Attach any related salvage procedures / notes

Replacement Priorities

|  |  |  |  |
| --- | --- | --- | --- |
| Rank (1 is highest) | Name of Collection or Item (Identifier) | Location in the Library | Call Number Range |
| 1 | [Fill In] | [Fill In] | [Fill In] |
| 2 | [Fill In] | [Fill In] | [Fill In] |
| 3 | [Fill In] | [Fill In] | [Fill In] |

List staff with special knowledge of this collection or material

List any particular hazards for this material

Attach any related salvage procedures / notes