

# Disaster Plan: Library Materials

For the University of Toronto Library System

September 2023



UNIVERSITY OF TORONTO  
LIBRARIES

## Disasters

Disasters can occur in many different forms but the most common for a library is water damaged materials either as the aftermath of a fire or because of a flood.

The Disaster Plan for the University of Toronto is limited to procedures for removal and salvage of Central Library Collections. Its purpose is to minimize collection loss in the event of a disaster.

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## Acknowledgements

Wellheiser, J. and Scott, J. *An ounce of prevention. Integrated disaster planning for archives, libraries, and record centres*. Second edition. Boston: Scarecrow Press, 2002. (Copyright held by Canadian Archives Foundation).

Bohem, Hilda. *Disaster Prevention and Disaster Preparedness*. Berkeley: UCLA; 1978.

*Disaster Planning and Recovery: An SLA Information Kit*. Washington, DC: Special Libraries Association; 1989.

Forston, Judith. *Disaster Planning and Recovery*. New York: Neal-Schuman; 1992.

Kahn, Miriam. *Disaster Response and Prevention for Computer and Data*. Columbus, Ohio; MBK Consulting; 1994.

Lundquist, Eric G. *Salvage of Water Damaged Books, Documents, Micrographic and Magnetic Media*. San Francisco: Document Reprocessors; 1986.

# 1. Emergency Contacts and Notifications

September 2023

1. FIRE - Police Emergency Centre at 416-978-2222 is automatically alerted when the fire alarm sounds.
2. OTHER DISASTER SITUATIONS - Contact campus police at 416-978-2222 immediately. Campus Police and Library Security have a copy of the Master Manual. They will know how to get hold of key personnel.
3. The Salvage Operation Team Leader should prioritize what needs to be done. If water is still flowing and damaging the collection, protective sheeting should be put over the material while waiting for the disaster team to arrive. There are so many variables such as humidity and temperature that it is difficult to apply a firm set of procedures to any situation. This is why it is important that the disaster team is called immediately.

Should emergency conditions (fire, flood, etc.) damage any library collection, please notify the following people between 8:00 am and 4:00 pm Monday to Friday.

**Loryl MacDonald at 416-978-7656**

**Christy Thomasson at 416-978-5069**

After the hours listed above or weekends and holidays, please phone Campus Police at 416-978-2222. They will call the appropriate staff.

## WHOM TO NOTIFY IN THE LIBRARY

### COORDINATORS:

#### **Loryl MacDonald**

*Associate Chief Librarian for Special Collections*

416-978-7656

#### **Christy Thomasson**

*Preservation Specialist*

416-978-5069

#### **Larry Alford**

*Chief Librarian*

416-978-2292

### Responsibilities

1. To direct staff on site and evacuate the building if necessary.
2. To help emergency personnel control situation.
3. To form Salvage Operation Teams (SOT) consisting of the Department Head of the affected area and other knowledgeable personnel.
4. The coordinator(s) should assess:
  - How great is the damage?
  - What types of material are involved?
  - What kind of damage e.g., fire, water, chemical etc.?
  - Take notes and photos of the damage.
  - Inform the insurance manager as soon as possible.
  - Decide what equipment is needed and order it from purchasing personnel at 416-978-6881

## Chief Librarian and Senior Administration List, St. George Campus

University Chief Librarian	Larry Alford <a href="mailto:larry.alford@utoronto.ca">larry.alford@utoronto.ca</a>	416-978-2292
Deputy Chief Librarian	Julie Hannaford <a href="mailto:j.hannaford@utoronto.ca">j.hannaford@utoronto.ca</a>	416-978-1702
Chief Administrative Officer	Glen Morales <a href="mailto:g.morales@utoronto.ca">g.morales@utoronto.ca</a>	416-946-7035
Associate Chief Librarian for Collections and Materials Management	Caitlin Tillman <a href="mailto:caitlin.tillman@utoronto.ca">caitlin.tillman@utoronto.ca</a>	416-946-3856
Associate Chief Librarian for Special Collections, Director, Thomas Fisher Rare Book Library	Loryl MacDonald <a href="mailto:loryl.macdonald@utoronto.ca">loryl.macdonald@utoronto.ca</a>	416-978-7656
Associate Chief Librarian for Science Research & Information - Interim Director, Gerstein Science Information Centre	Mindy Thuna <a href="mailto:mindy.thuna@utoronto.ca">mindy.thuna@utoronto.ca</a>	416-978-6370
Associate Chief Librarian, Data Services, Digital Scholarship, and Information Technologies	Marcel Fortin <a href="mailto:marcel.fortin@utoronto.ca">marcel.fortin@utoronto.ca</a>	416-978-7649
Strategic Initiatives, Director	Laura Anderson <a href="mailto:l.anderson@utoronto.ca">l.anderson@utoronto.ca</a>	416-978-3353
Interim Associate Chief Librarian for Gerstein Science Information Centre	Mindy Thuna <a href="mailto:mindy.thuna@utoronto.ca">mindy.thuna@utoronto.ca</a>	416-978-6370
Director, Human Resources Director	Darlene Chow <a href="mailto:darlene.chow@utoronto.ca">darlene.chow@utoronto.ca</a>	416-978-7646
User Services, Department Head	Monique Flaccavento <a href="mailto:monique.flaccavento@utoronto.ca">monique.flaccavento@utoronto.ca</a>	416-978-2898
Director, Communications	Larysa Woloszansky <a href="mailto:larysa.woloszansky@utoronto.ca">larysa.woloszansky@utoronto.ca</a>	416-978-1757
Manager, Security, Health & Safety, Central Libraries	Susan Gropp <a href="mailto:susan.gropp@utoronto.ca">susan.gropp@utoronto.ca</a>	416-978-1289

## Central Library Staff

Bindery, Central Libraries	Christy Thomasson Salvage contact <a href="mailto:christy.thomasson@utoronto.ca">christy.thomasson@utoronto.ca</a>	416-978-5069
Emergency services	<a href="mailto:safety@utsc.utoronto.ca">safety@utsc.utoronto.ca</a> Mon. - Fri. 8:00am to 4:00 pm Call campus police evenings, weekends, and holidays	416-978-2222
Business Manager	Julian Mitchell <a href="mailto:julian.mitchell@utoronto.ca">julian.mitchell@utoronto.ca</a>	416-946-3247
Operations and Building Services Officer	Jason Carmichael <a href="mailto:jason.carmichael@utoronto.ca">jason.carmichael@utoronto.ca</a>	416-978-1396
	Urgent requests	416-978-3000
Manager, Security, Health and Safety	Susan Gropp <a href="mailto:susan.gropp@utoronto.ca">susan.gropp@utoronto.ca</a>	416-978-1289
Lead Hand, Library Patrol	John Corbin <a href="mailto:john.corbin@utoronto.ca">john.corbin@utoronto.ca</a>	416-946-3590
Library Patrol	Robarts Library Patrol Office Robarts Info Desk (to radio Patrol) Gerstein Library Patrol Office Gerstein Circulation Desk (to radio Patrol)	416-946-3590 416-978-5093 416-978-2516 416-978-2280
Associate Chief Librarian for Collections and Materials Collection Development/ Management Cataloguing	Caitlin Tillman <a href="mailto:caitlin.tillman@utoronto.ca">caitlin.tillman@utoronto.ca</a>	416-946-3856
Metadata Services, Head Collection Development/ Cataloguing	May Chan <a href="mailto:ms.chan@utoronto.ca">ms.chan@utoronto.ca</a>	416-978-3075
Web Licensing and e-Resource Acquisitions, Head	Weijing Yuan <a href="mailto:weijing.yuan@utoronto.ca">weijing.yuan@utoronto.ca</a>	416-978-0084

## University Personnel

Director, Campus Safety	Michael Munroe <a href="mailto:michael.munroe@utoronto.ca">michael.munroe@utoronto.ca</a>	416-978-7378
Manager, Fire Prevention	Steve Arnold <a href="mailto:steve.arnold@utoronto.ca">steve.arnold@utoronto.ca</a>	416-978-5151
Director, Risk Management and Insurance	John D. Kerr <a href="mailto:jd.kerr@utoronto.ca">jd.kerr@utoronto.ca</a>	416-978-6478
Environmental Health and Safety	Office <a href="mailto:ehs.office@utoronto.ca">ehs.office@utoronto.ca</a>	416.978.4467

## Field Supervisors for Caretaking

(For emergency repair or service request phone 416-978-3000)

Caretaking Office		416-978-6252
Robarts	Ivo Sousa <a href="mailto:ivo.sousa@utoronto.ca">ivo.sousa@utoronto.ca</a> Fatima Costa <a href="mailto:fatima.costa@utoronto.ca">fatima.costa@utoronto.ca</a>	416-946-8306 416-946-7140
Caretaking Office		416-978-6252
Gerstein	Ivo Sousa <a href="mailto:ivo.sousa@utoronto.ca">ivo.sousa@utoronto.ca</a> 8:00 am - 4:00 pm Monday to Friday 6:30 am to 3:00 pm and Weekends 4:00 pm - 12:00 am and Weekends	416-946-8306
Robarts and Gerstein Night caretaking Supervisor	Brent Warner <a href="mailto:brent.warner@utoronto.ca">brent.warner@utoronto.ca</a> 11:00 pm to 7:15 am Monday night to Saturday morning	416-676-9278

## Mechanical Operations

Facilities & Services Department	John Walker Manager, Mechanical Operations <a href="mailto:jd.walker@utoronto.ca">jd.walker@utoronto.ca</a>	416-978-5064 416-978-7127
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## Local Library contacts

Architecture Landscape & Design 1 Spadina Crescent	Cathryn Copper Librarian <a href="mailto:cathryn.copper@utoronto.ca">cathryn.copper@utoronto.ca</a>	416-978-3538
Bora Laskin Law Library 78 Queen's Park	Gian Medves Chief Law Librarian <a href="mailto:gian.medves@utoronto.ca">gian.medves@utoronto.ca</a>	416-978-5537
Business (Milt Harris Library, Rotman School of Management) 105 St. George St.	Sean Forbes <a href="mailto:sean.forbes@rotman.utoronto.ca">sean.forbes@rotman.utoronto.ca</a>	416-978-1924
Chemistry Library (A D Allen) Rm 480, 80 St. George St.	Madeline Gerbig <a href="mailto:maddy.gerbig@utoronto.ca">maddy.gerbig@utoronto.ca</a>	416-978-3587
Cheng Yu Tung East Asian Library 8th Floor, 130 St. George St.	Hana Kim <a href="mailto:hn.kim@utoronto.ca">hn.kim@utoronto.ca</a>	416-978-7690
Engineering & Computer Science Library 10 King's College Road Rm 2402, 2nd floor Sandford Fleming Building	Angela Henshilwood <a href="mailto:angela.henshilwood@utoronto.ca">angela.henshilwood@utoronto.ca</a>	416-978-8212
Gerstein Science Information Centre 7-9 King's College Circle	Mindy Thuna <a href="mailto:mindy.thuna@utoronto.ca">mindy.thuna@utoronto.ca</a>	416-978-6370
Harry R. Abbott Dentistry Library 124 Edward St.	Helen Yueping He <a href="mailto:Helen.He@dentistry.utoronto.ca">Helen.He@dentistry.utoronto.ca</a> Maria M. Zych <a href="mailto:maria.zych@dentistry.utoronto.ca">maria.zych@dentistry.utoronto.ca</a>	416-864-8213 416-864-8212
John P. Robarts Library for the Humanities and Social Sciences 130 St. George St.	Monique Flaccavento User Services, Department Head <a href="mailto:monique.flaccavento@utoronto.ca">monique.flaccavento@utoronto.ca</a>	416-978-1867
Map and Data Library 130 St. George St. 5th floor	Leanne Trimble Acting Head <a href="mailto:leanne.trimble@utoronto.ca">leanne.trimble@utoronto.ca</a>	416-978-1958
Mathematics Bahen Centre for Information Technology 40 St. George St. 6th floor room 6141	Bruce Garrod Mathematics Librarian <a href="mailto:bruce.garrod@utoronto.ca">bruce.garrod@utoronto.ca</a>	416-978-8624
Media Commons 130 St. George St. 3rd floor	Loryl MacDonald <a href="mailto:loryl.macdonald@utoronto.ca">loryl.macdonald@utoronto.ca</a>	416-978-7656
Music Library 80 Queen's Park Circle	Jan Guise Head <a href="mailto:jan.guise@utoronto.ca">jan.guise@utoronto.ca</a>	416-978-6920
Noranda Earth Sciences Library 5 Bancroft Ave.	Bruce Garrod Head Earth Sciences Library <a href="mailto:bruce.garrod@utoronto.ca">bruce.garrod@utoronto.ca</a>	416-978-3538

OISE/UT Library 252 Bloor St. W.	Jenaya Webb Director, OISE Library <a href="mailto:jenaya.webb@utoronto.ca">jenaya.webb@utoronto.ca</a>	416-978-1905
Petro Jacyk Central & East European Resource Centre 130 St. George St. Rm. 3008	Ksenya Kiebusinski <a href="mailto:ksenya.kiebusinski@utoronto.ca">ksenya.kiebusinski@utoronto.ca</a>	416-978-1288 (M-W) 416-978-4826 (Th-F)
Richard Charles Lee Canada-Hong Kong Library 130 St. George St. 8th floor	Maria Lai Che Lau Director <a href="mailto:laiche.lau@utoronto.ca">laiche.lau@utoronto.ca</a>	416-946-3892
Thomas Fisher Rare Book Library, including the  University of Toronto Archives 120 St. George St.	David Fernandez Head, Department of Rare Books and Special Collections <a href="mailto:david.fernandez@utoronto.ca">david.fernandez@utoronto.ca</a>  Tys Klumpenhauer University Archivist <a href="mailto:t.klumpenhauer@utoronto.ca">t.klumpenhauer@utoronto.ca</a>	416-978-7741  416-978-7658
UTL (University of Toronto Libraries) at Downsview	Kyla Everall User Services Librarian and Downsview Coordinator <a href="mailto:kyla.everall@utoronto.ca">kyla.everall@utoronto.ca</a>	416-978-1745

## Property Managers

Architecture Landscape & Design 1 Spadina Crescent	Ronald Shakespeare <a href="mailto:ronald.shakespeare@utoronto.ca">ronald.shakespeare@utoronto.ca</a>	416-578-5473
Bora Laskin Law Library 78 Queen's Park	Ronald Shakespeare <a href="mailto:ronald.shakespeare@utoronto.ca">ronald.shakespeare@utoronto.ca</a>	416-578-5473
Business Information Centre (BIC) 105 St. George St.	Rachel Tennant <a href="mailto:rachel.tennant@utoronto.ca">rachel.tennant@utoronto.ca</a>	437-226-0374
Chemistry Library (A D Allen) Rm 480, 80 St. George St.	Marcelo Lima Figueiroa <a href="mailto:marcelo.lima@utoronto.ca">marcelo.lima@utoronto.ca</a>	416-717-9650
Cheng Yu Tung East Asian Library 8th Floor, 130 St. George St.	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-978-2323
Engineering & Computer Science Library 10 King's College Road Rm 2402, 2nd floor Sandford Fleming Building	Doug Graham <a href="mailto:doug.graham@utoronto.ca">doug.graham@utoronto.ca</a>	416-978-2323?
Gerstein Science Information Centre 7-9 King's College Circle	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-528-7938

Harry R. Abbott Dentistry Library 124 Edward St.	Willy Wong <a href="mailto:willyl.wong@utoronto.ca">willyl.wong@utoronto.ca</a>	416-717-9694
John P. Robarts Library for the Humanities and Social Sciences 130 St. George St.	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-978-2323
Map and Data Library 130 St. George St. 5th floor	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-978-2323
Mathematics Bahen Centre for Information Technology 40 St. George St. 6th floor room 6141	Doug Graham <a href="mailto:doug.graham@utoronto.ca">doug.graham@utoronto.ca</a>	416-989-2323
Media Commons 130 St. George St. 3rd floor Cold Storage 321 Bloor St. W.	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>  Christina Carydis <a href="mailto:christina.carydis@utoronto.ca">christina.carydis@utoronto.ca</a>	416-978-2323  416-526-5542
Music Library 80 Queen's Park Circle	William Hsia <a href="mailto:william.hsia@utoronto.ca">william.hsia@utoronto.ca</a>	416-428-8430
Noranda Earth Sciences Library 5 Bancroft Ave.	Jennifer Corinthios <a href="mailto:jennifer.corinthios@utoronto.ca">jennifer.corinthios@utoronto.ca</a>	416-717-9978
OISE/UT Library 252 Bloor St. W.	Tony Marziliano <a href="mailto:tony.marziliano@utoronto.ca">tony.marziliano@utoronto.ca</a>	416-717-9804
Petro Jacyk Central & East European Resource Centre 130 St. George St. Rm. 3008	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-978-2323
Richard Charles Lee Canada-Hong Kong Library 130 St. George St. 8th floor	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-978-2323
Thomas Fisher Rare Book Library, including the University of Toronto Archives 120 St. George St.	Nicole Wilkinson <a href="mailto:nicole.wilkinson@utoronto.ca">nicole.wilkinson@utoronto.ca</a>	416-978-2323
UTL at Downsview	Anthony Wright <a href="mailto:anthony.wright@utoronto.ca">anthony.wright@utoronto.ca</a>	416-989-8789

### External Salvage Experts

Conservator, Provincial Archives of Ontario	<a href="mailto:reference@ontario.ca">reference@ontario.ca</a>	416-327-1600 / 1-800-668-9933
Canadian Conservation Institute	<a href="mailto:iccservices-cciservices@pch.gc.ca">iccservices-cciservices@pch.gc.ca</a>	613-998-3721 / 1-866-998-3721

## 2. Salvage Operations

### Access and Commencement of Salvage Operations

The coordinators will form salvage teams consisting of the head of the affected area and other knowledgeable personnel.

Access to buildings will be authorized by either the coordinators of the operation or by one of the senior managers of the Library in consultation with the fire department or other emergency authorities.

Press releases and interviews will be taken care of by Strategic Communications 416-978-3353.

Before beginning the salvage operation, the SOT (Salvage Operation Team) will:

1. Decide who will take overall charge of the salvage operation.
2. Decide who will lead the Library Operations and the Physical Plant operations.
3. Assess the extent of the damage.
4. Assess the type of materials involved.
5. Assess the kind of damage e.g., clean, or dirty water, etc.
6. Record damage using notes and camera.
7. Inform University Insurance Manager.
8. Decide what equipment is needed and order it.
9. Prepare a workspace for processing damaged materials. The work surfaces should be either Formica or covered with clean polyethylene sheeting.

### Control the Environment

Try to control the temperature and humidity to reach a temperature of 18.3 C or less and relative humidity of 50% or less.

### Temperature Control

In summer;

- Seal all broken windows.
- If possible, keep the air conditioning running at 18 C

In winter;

- Turn off all heat.
- Leave windows open if possible.
- Protect pipes from freezing to prevent damage from burst pipes.

### Humidity Control

- Use portable dehumidifiers if necessary.
- Circulate the air, using portable fans.
- Mop up standing water.

## Mold

The occurrence of mold and mildew may constitute a disaster situation or may be the result following a flood or fire. By reducing the temperature and humidity one can reduce the risk of mold growth and thus buy time for the recovery operation. Air circulation must be increased to eliminate stagnant air pockets. Excess water must be pumped out and all wet debris must be removed.

In the development of mold or mildew;

- Immediately transfer all infected materials to a self-contained room.
- The affected area should immediately be cleaned and sterilized, including the climate control system where possible.
- Consult with Christy Thomasson at 416-978-5069 when dealing with suspected or any affected materials.

## Removal and Packing of Materials

When handling damaged materials, observe the following:

- Do not open or close wet books.
- Do not separate single sheets.
- Do not remove book covers.
- Do not press wet books or paper.
- Do not wipe off mud and dirt.

## Removal Procedures

Books should be removed by human chain in exact condition in which found. Human chain should consist of:

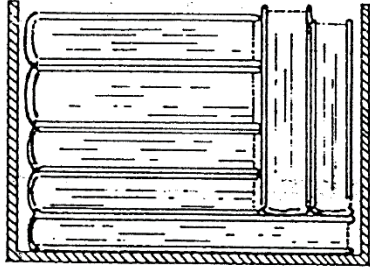
1. Team of removers.
2. Team of sorters which sort books into types of damage and treatment.
3. Team of record keepers.

The number of people in each team should be balanced to create an even workflow and to prevent bottlenecks.

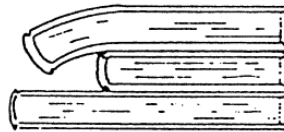
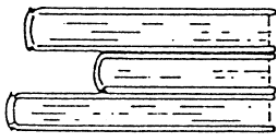
Remove first:

- Wet materials lying on the ground.
- Wet or damp books on lower shelves (unless mold is forming)
- Wet or damp books on upper shelves (unless mold is forming)

Books should be boxed either flat or spine down to minimized damage to binding and costly repairs. Pack books of the same size next to one another to minimize warping. Do not stack boxes over four high as they tend to collapse once the cardboard box absorbs water from the wet books. Shrink wrap the stacked boxes on skids to minimize transit damage.



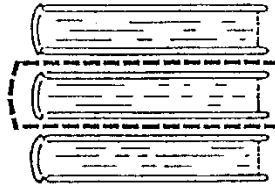
"Wet" box should be packed FLAT or SPINE DOWN



Do not pack wet books like this. Wet books will sag causing permanent damage. Spine up causes the binding to sag and tear.

## Preparation for Removal and Treatment

### Packaging and Wrapping



- Wrap bound volumes in freezer paper, wax paper, or silicone paper so that the books won't stick together.
- Keep sheet material e.g., manuscripts, records, unframed prints, and drawings etc. in sections not more than 5 cm thick with a base support (.128 board).

### Crating or boxing

- Use plastic milk crates or, if not available, strong cardboard boxes such as library book bindery boxes. (Tote boxes available in the bindery - only to be used if material is not going for freeze drying and to be opened immediately at destination)
- Pack books FLAT or SPINE DOWN.
- Do not pack too tightly. Allow for air circulation.
- Put an identification mark on each container.

### Transportation

- When boxed, put material immediately into refrigerated trucks.
- If this is not possible, pack dry ice around the material or keep as cold as possible.
- Transport to freezing facility without delay.

## Treatment

### Cleaning and Washing of Collection Material (paper)

THIS SHOULD NOT BE ATTEMPTED WITHOUT THE ADVICE OF THE SALVAGE CONTACT.

All cleaning and washing must be carried out by trained personnel. No cleaning or washing should take place if it increases the delay in freezing.

DO NOT ATTEMPT TO WASH OPEN VOLUMES, MANUSCRIPTS, ART ON PAPER, PHOTOGRAPHS OR ANY MATERIAL CONTAINING WATER SOLUBLE MATERIALS.

## Freezing

Freezing is an effective method for stabilizing conditions until drying can be attempted. Mold will start to form in 12-48 hours (about 2 days) if left unfrozen. Freezing buys time in a major disaster to assess the next steps to be taken.

Coated paper **MUST** be frozen as soon as possible.

If the number of books affected is small, freezing can be done in local freezers.

## Drying

For materials which have been in freezer facilities freeze drying is the least expensive for large collections.

### Air Drying

If the number of books affected is small, drying can be done without freezing.

The work area for air drying should be clean and have adequate temperature and humidity controls. Fans and dehumidifiers should be used, as necessary.

Books should be placed upright on a clean surface and fanned out.

If any of the books show any signs of mold developing on them, they should be treated as soon as possible. (Do not attempt this without advice from C. Thomasson 416-978-5069.)

## Treatment of Non-paper Materials

### Photographs and Negatives (post 1950)

If wet:

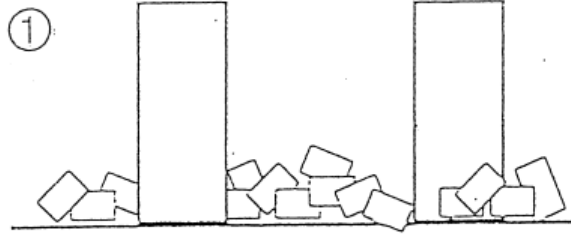
1. Pick up photographs and negatives from water.
2. Separate photographs and negatives from sleeves. Photographs and negatives will stick to surfaces if allowed to dry by themselves.
3. Rinse off any dirt with cold water. **DO NOT RUB**
4. Set up fans, dehumidifiers and keep temperatures cool. Keep the area as dry as possible.
5. Hang photographs and negatives on monofilament with plastic clothes pins.
6. Photographs can be dried flat. Place face up on a clean, white blotter or blank newsprint. Change paper as needed. Let photographs dry for up to 48 hours (about 2 days).
7. Relabel sleeves before putting photographs and negatives back.

**CAUTION:** Pre 1950 photographs and negatives require careful handling! Do not immerse negatives in water without explicit instructions from a film/photograph conservator.

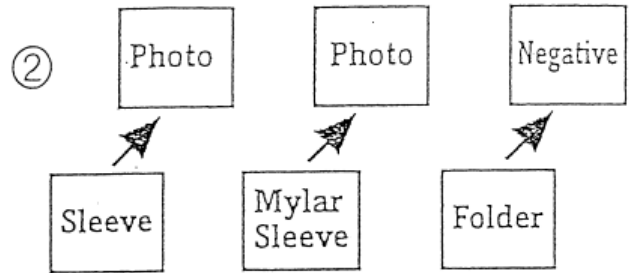


Photographs & Negatives (post 1950)

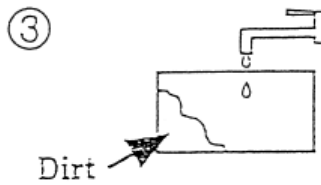
Wet



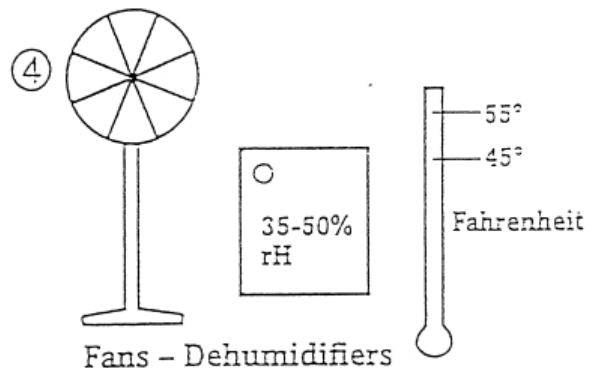
① Pick up from floor & water



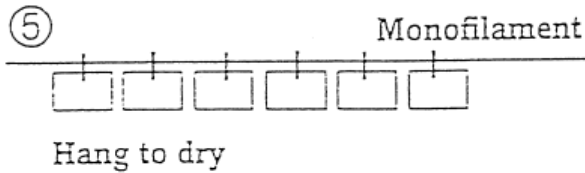
② Remove from folders & sleeves



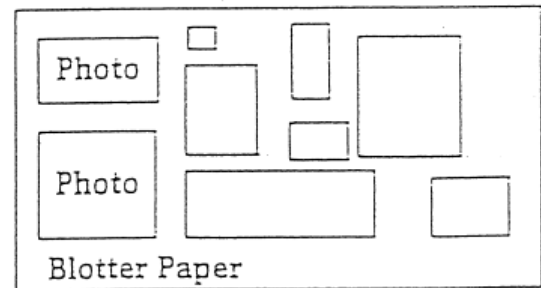
③ Rinse in water if dirty



④ Fans - Dehumidifiers

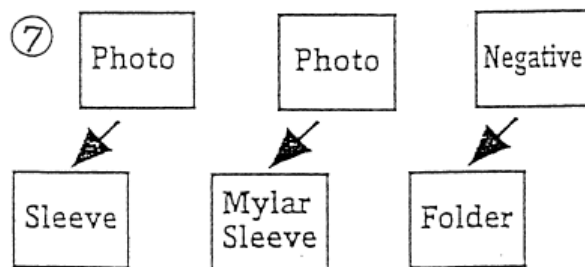


⑤ Hang to dry



⑥ Dry photographs face up for 48 hours

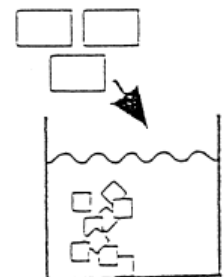
⑥ Negatives dry quickly - OR -



⑦ Refile in archival sleeves & folders

- OR -  
Put in cold water

- OR -  
Blast freeze to -20° F  
and  
vacuum freeze dry

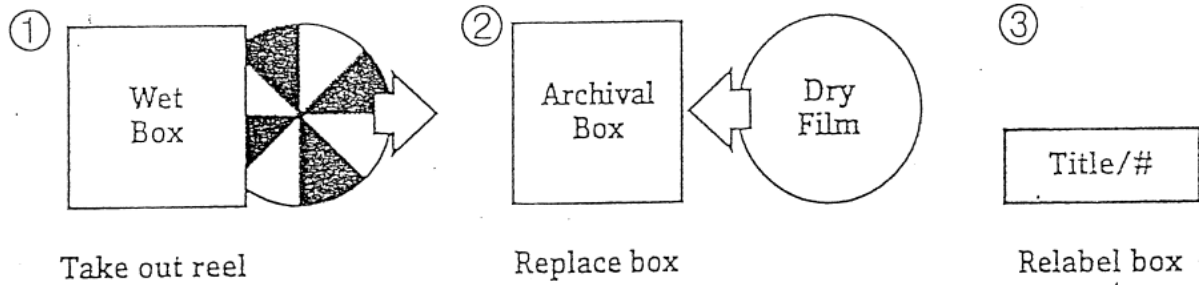


## Microforms

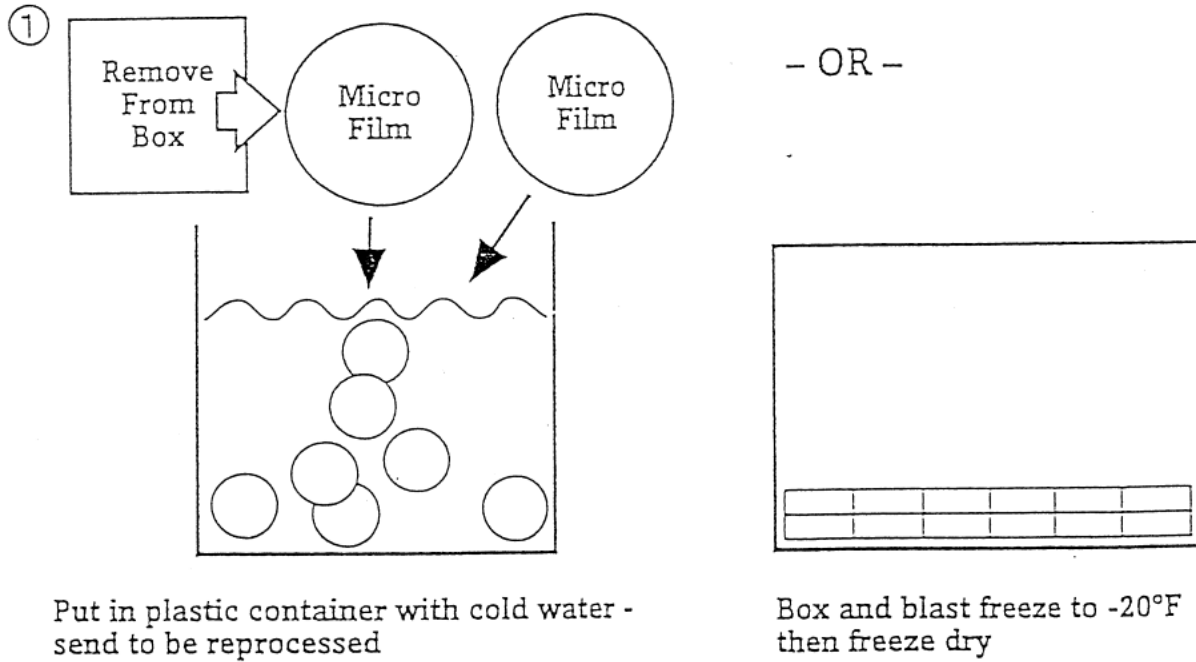
1. Take microforms out of sleeves. If the fiche or paper sleeve sticks, soak in cold water.
2. Put in polyethylene bags and put into plastic garbage cans (not metal) under clean, cold running water. Microform will survive thus for up to 72 hours (about 3 days). Immediately arrange to send for cleaning and drying.

Microfilm

Dry Film -

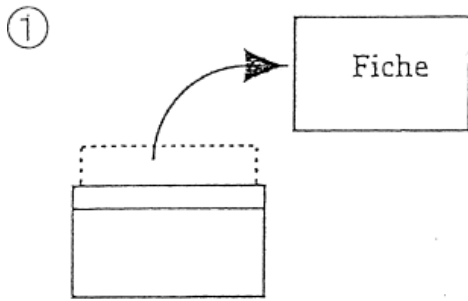


Wet Film -

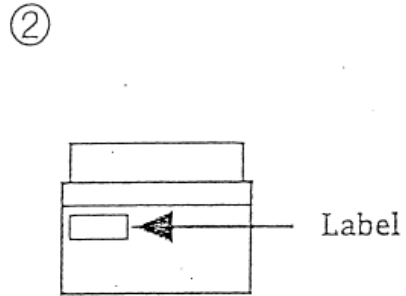


Microfiche

Dry Fiche -

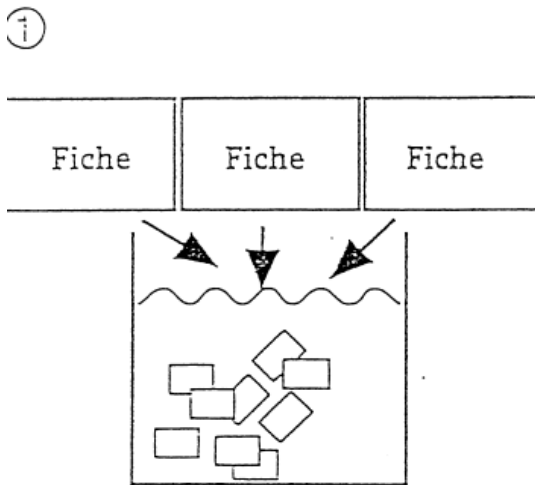


Take out microfiche



Label new archival sleeve

Wet Fiche -

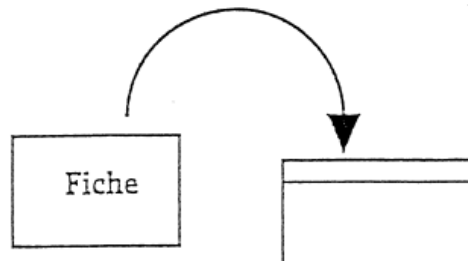


Put in plastic container with cold water



Hang microfiche to dry

③ Refile fiche



## Film and Plates

If possible, they should be stored flat in trays of water until they can be properly washed and dried. Generally, try to salvage only those prints for which negatives are not available and prints which are not badly stained.

## Audio and Video Cassettes

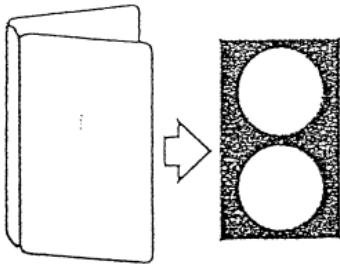
Audio and video tape is easily damaged by water, mold, dirt, and dust. Most audio and video cassettes are stored in plastic boxes that are watertight. Remove tapes from a moist environment as quickly as possible. Tape will stick together if allowed to dry by itself.

### DO NOT FREEZE

1. Open boxes.
2. Set up fans, dehumidifiers and keep temperatures cool. (RH 20% - 40% and 7-16 C.)
3. If treating a master tape, dehumidify and carefully watch for mold growth. If mold growth or rust forms or window clouds, then send for restoration.
4. If treating a circulation tape, dehumidify and watch for mold growth or window clouding. If it is moldy or rusty then throw it out and replace.

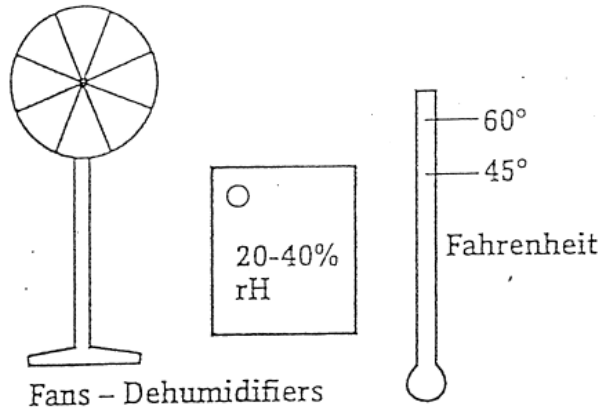
Audio and Video Cassettes

①



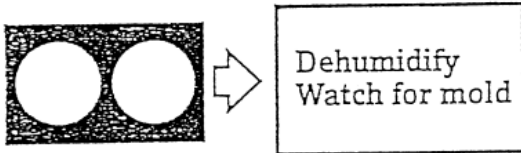
Open boxes

②



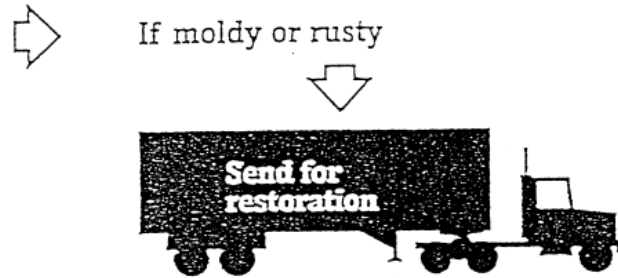
Fans - Dehumidifiers

③

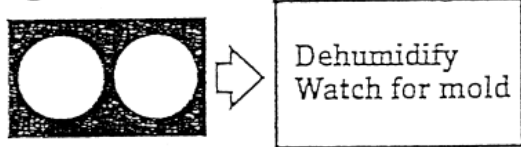


Master cassette?

④



⑤



Circulating cassette?

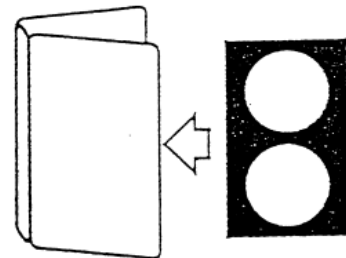
⑥

If moldy or rusty



and replace

⑦



Replace dry cassettes  
in new boxes

## Disks and Diskettes

### *3.5" Disk*

Stabilize within 48 hours (about 2 days) to prevent mold.

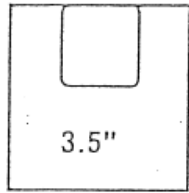
1. Open shell carefully. Remove screws if present.
2. Remove diskette from shell.
3. DO NOT FOLD, BEND, PINCH OR ABRABE THE DISK.
4. DO NOT TOUCH SURFACE.
5. Use clean, distilled water to remove debris from the surface of the disk.
6. Gently blot surface with clean, soft, lint less cloth or lay flat on clean cloth to air dry.
7. When dry, place in temporary shell.
8. Copy disk. Remember to check the integrity of the transferred data.
9. Discard the original.

### *5.25" Disk*

1. Remove disk from paper, plastic, and Tyvek sleeves.
2. Cut open carefully.
3. Remove disk from jacket.
4. DO NOT FOLD, BEND, PINCH OR ABRABE THE DISK.
5. DO NOT TOUCH SURFACE.
6. Use clean, distilled water to remove debris from the surface of disk.
7. When dry, place in temporary shell.
8. Copy disk. Remember to check the integrity of the transferred data.
9. Discard the original.

# Water Damaged 3.5" Diskettes

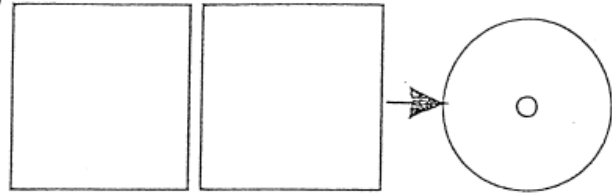
① Open Shell



Open at side.  
Remove screws.

②

Remove From Shell

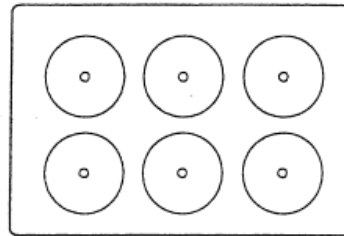


Do Not Touch Surface of Diskette

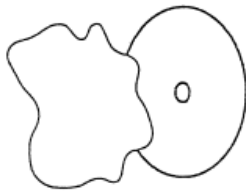
DO NOT BEND, PINCH, FOLD OR ABRABE

③ Clean with Distilled Water.

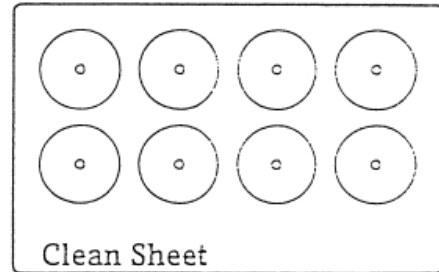
Dip in tray.



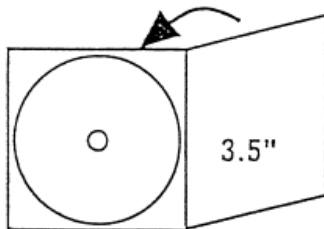
④ Gently blot dry with lintless, soft cloth. - OR - Air dry for 8 hours.



Do Not Rub



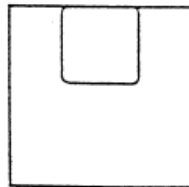
⑤ When dry, place in temporary shell.



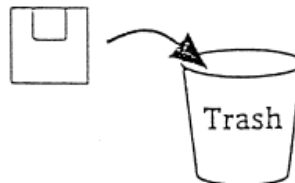
⑥ Copy diskette.



⑦ Check copy for readable data; label diskette.



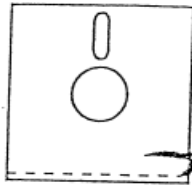
⑧ Discard original.





# Water Damaged 5.25" Diskettes

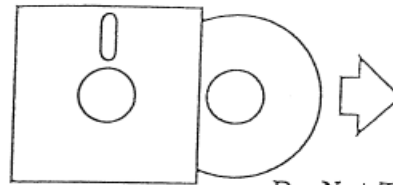
① Open Jacket



CAUTION!  
Only 1/16" between  
diskette and jacket.

Cut open one end.

② Remove From Shell

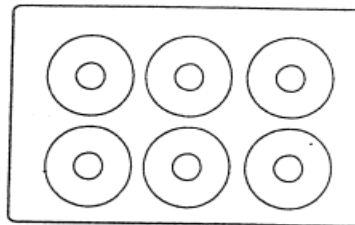


Do Not Touch  
Surface of Diskette

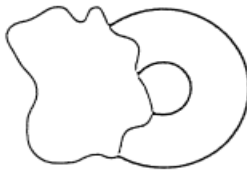
DO NOT BEND, PINCH, FOLD OR ABRABE

③ Clean with Distilled Water.

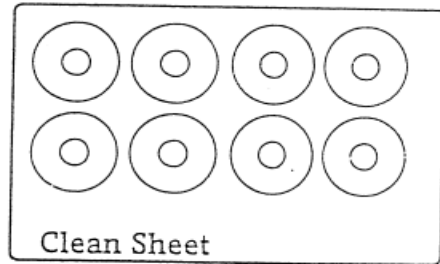
Dip in tray.



④ Gently blot dry with lintless, soft cloth. - OR - Air dry for 8 hours.

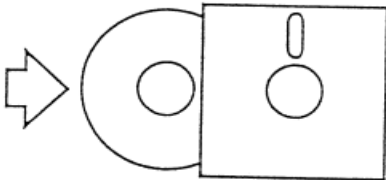


DO NOT  
RUB



Clean Sheet

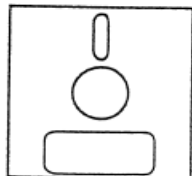
⑤ When dry, place in temporary shell.



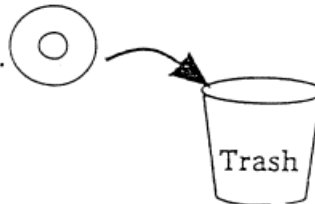
⑥ Copy diskette.



⑦ Check copy for  
readable data;  
label diskette.



⑧ Discard  
original.



## Water Damaged CD\_ROM and Optical Disks

### TREAT IMMEDIATELY

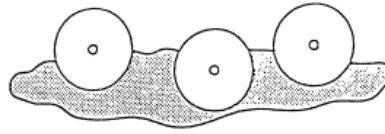
1. Remove from water immediately.
2. Remove from container.
3. DO NOT BEND OR SCRATCH.
4. Rinse off any dirt with clean, distilled water.
5. DO NOT SOAK.
6. Drip dry in dish drainer or rack, vertical, not flat.
7. Clean with soft, dry, lint less cloth.
8. Move cloth perpendicular to the grooves, left to right, up and down.
9. DO NOT MOVE IN CIRCULAR MOTION.
10. Place cleaned compact disks in clean containers.

Replace the disk if:

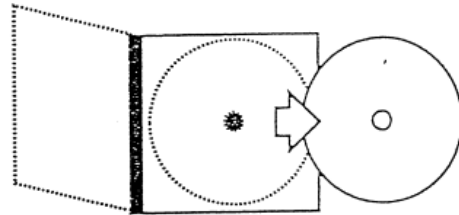
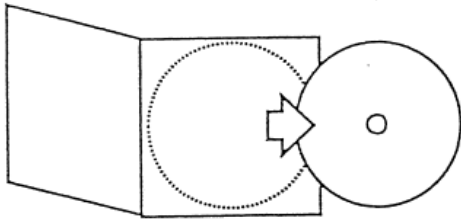
- Mold or condensation forms on disk.
- There are deep scratches on the surface.
- Disk is not readable or playable.

# Water Damaged Optical Disks

① Remove from water ASAP!

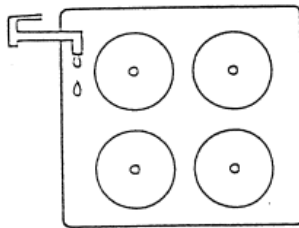


② Remove from cases and cartridges.



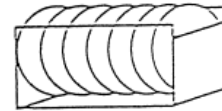
DO NOT BEND OR SCRATCH

③ Rinse off debris with clean water.

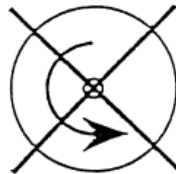
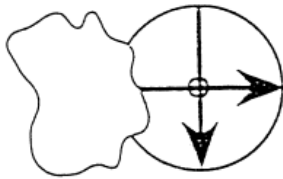


DO NOT SOAK!

④ DRIP DRY.  
Vertical, not flat.

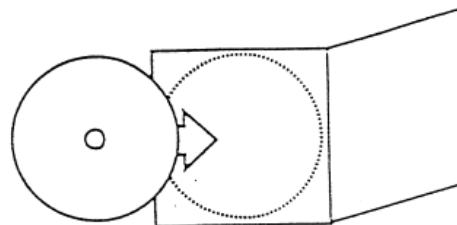
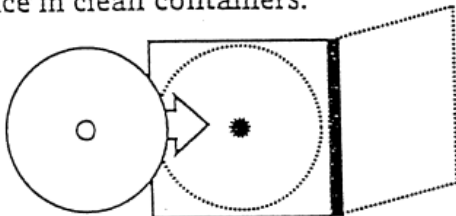


⑤ Clean with soft, lintless cloth. WIPE PERPENDICULAR TO GROOVES.



Not in circular motion!

⑥ Place in clean containers.



## Treatment of affected area

After the material has been removed for salvage, if the area is determined to be still usable and safe it must be cleaned thoroughly before library material is replaced.

1. Wash the shelving with soap, water, and a disinfectant such as liquid Lysol.
2. Wash walls, furniture, solid surface floors such as terrazzo or wood, and counters etc. as above.
3. Scrub stone walls.
4. Paint where necessary.
5. Shampoo carpets and apply spray disinfectant.

## Return of Material to the Library

When dry and treated as applicable, books should be sorted as to whether they need;

- Discarding or replacing.
- Commercial rebinding.
- In-house mending.
- More extensive conservation treatment.

When the material is returned it should be kept apart from the main collection in a ventilated and air conditioned "rehabilitation area" for six months. The atmospheric conditions should be 35-40% RH and a temperature not above 18C. A random inspection for mold-infested material should be conducted daily. Towards the end of this time the temperature should be gradually changed to duplicate conditions in the stack area to which materials are returning. After the materials are returned to the stack area random monitoring should be continued for at least one year.

## Insect Infestations

1. In the case of insect infestations, the best practice is to immediately seal the books individually in zip lock bags. (available from the Bindery) Barcodes need to be visible.
2. Place the sealed bag into a plastic bin.
3. Call the Bindery at 416-978-5069.
4. Staff in the Bindery will determine what treatment will follow.

### 3. Post-Disaster Analysis

A post-mortem should be held to determine "what went wrong," and "what went right". A report should be written on the recovery operation and submitted to the Chief Librarian and others as directed. It is inevitable that unforeseen situations occur. Once the assessment is complete, the Disaster Plan should be amended to reflect any identified inadequacies. Finally, please remember that appreciation and recognition must be given to the individuals who helped in the success of the recovery operation.

## 4. Prevention

Preventive conservation does not always require expensive or complex care strategies. Much can be done by applying common sense.

Regular checks should be made as a preventive measure for:

- Frayed electrical cords.
- Water leaks.
- Weather damage.
- Garbage or hazardous chemicals lying about.
- Problems with heating, air conditioning and electrical systems.
- Equipment/machinery unplugged when not in use.

Routine security checks should be made at closing time for:

- Equipment turned off.
- Still burning cigarettes and other hazards.

All staff should be aware of the physical layout of their building.

(Floor plans can be printed from <https://updc.utoronto.ca/campus-facilities-planning/building-plans/>)

## 5. Salvage Recovery Resources

<b>Book Drying</b>		
Polygon Property Restoration & Climate Solutions\Polygon Après Sinistre & Solution Climatique	30 Admiral Blvd., Toronto, ON	Emergency 24/7 1-888-702-4782 Office: 905-858-5894
<b>Cardboard Cartons</b>		
In stock Library stores and Bindery Sizes 16" x 10" x 10"		416-978-6881 416-978-5069
<b>Carpet Shampoo</b>		
Caretaking (Robarts)	Hours: 9:00am - 5:00pm 4:00 pm - 12:30 pm	416-978-6252 416-978-0456
<b>Dehumidification</b>		
Bindery (limited scale) Polygon (see book drying above)		416-978-5069
<b>Disinfectant</b>		
In stock Facility and Services		416-978-6252
<b>Document Reprocessors</b>		
Document Reprocessors <a href="http://www.documentreprocessors.com">www.documentreprocessors.com</a>	40 Railroad Ave. Rushville, N.Y	1-800-437-9464
<b>Freeze Dry</b>		
Lisa Horwarth Free Dry Foods Ltd.	2916 South Sheridan Way Suite 300 Oakville, ON	905-844-1471
<b>Freezer paper, newsprint</b>		
Adelco Glenford Lewis Group	3221 McNicoll Ave Scarborough, ON	1-905-795-7500
<b>Freezer Plant</b>		
<b>Freezer Trucks</b>		
Ryder Truck Rental Canda	672 Kipling Ave. Toronto, ON	416-255-4427
Thermo-King of Toronto	6243 Netherhart Rd. Toronto, ON	905-564-2800 905-458-5555

<b>Mops</b>		
Caretaker		416-978-6252
<b>Polygon</b>		
Polygon: Water Damage Recovery Services (see Book Drying - previous page)		1-888-702-4782
<b>Paper Towels</b>		
Caretaker		416-978-6252
<b>Polyethylene Sheeting</b>		
In stock, Procurement office and Bindery		416-946-3247 416-978-5069
<b>Transportation</b>		
Consolidated Moving & Cartage	542 Mt. Pleasant Rd. Toronto, ON	416-922-9595
<b>Water Extraction Pumping</b>		
Polygon: Water Damage Recovery (see Book Drying - previous page) Bindery, limited scale		416-978-5069

(Library specific floor plans can be printed from <https://updc.utoronto.ca/campus-facilities-planning/building-plans/>)