Acknowledgements

Wellheiser, J and Scott, J
*An ounce of prevention. Integrated disaster planning for archives, libraries and record centres.*

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

**Disaster Planning and Recovery: An SLA Information Kit**

**Disaster Preparedness and Salvage Plan Reed Library State University of New York College at Fredonia**
Fredonia: Reed Library; 1989.

Forston, Judith.
**Disaster Planning and Recovery**

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**
DISASTERS

Disasters can occur in many different forms but the most common for a library is in most cases 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 library collections. Its purpose is to minimize collection loss in the event of a disaster.
Table of Contents

1. Emergency Contacts and Notifications
2. Salvage Operations
3. Post Disaster Analysis
4. Prevention
5. Salvage / Recovery resources
1. Emergency Contacts and Notifications
Notification

1. **FIRE**— Police Emergency Centre (416)978-2222 is automatically alerted when the alarm sounds.

2. **OTHER DISASTER SITUATIONS**— Contact campus police ((416)978-2222) immediately. Campus Police and Library Security have a copy of the master manual. They will know how to get a hold of key personnel.

3. The Salvage Operation Team Leader should prioritize what needs to get done. In the event that water is still flowing and damaging the collection it certainly is appropriate that protective sheeting 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.
WHOM TO NOTIFY IN THE LIBRARY

1. **CO-ORDINATORS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Toyonaga</td>
<td>Administrator, Library Disaster Plan</td>
<td>416-978-2276</td>
</tr>
<tr>
<td>Larry Alford</td>
<td>Chief Librarian</td>
<td>416-978-2292</td>
</tr>
</tbody>
</table>

Responsibilities:

1. To direct staff on spot and evacuate 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 co-ordinator(s) should assess:
   a. How great the damage.
   b. What types of material are involved?
   c. What kind of damage e.g. fire, water, chemical etc.
   d. Take notes of damage (using a camera).
   e. Inform insurance manager as soon as possible.
   f. Decide what equipment is needed and order it from purchasing personnel (416-978-6881).
Chief Librarian and Senior Administration List, St. George Campus
Office No.

University Chief Librarian        Larry Alford        416-978-2292
Deputy Chief Librarian            Julie Hannaford     416-978-1702
Associate Chief Librarian for     Neil Romanosky      416-978-6370
Science Research and Information  Gerstein Science Information Centre
Associate Chief Librarian for     Caitlin Tillman    416-946-3856
Collections and Materials Management

University Archivist and          Loryl MacDonald     416-978-7656
Department Head                   U of T Archives & Records Management Services (UTARMS)
Interim Associate Chief Librarian  for Special Collections,
Director, Thomas Fisher Rare Book Library

Information Technology Services,  Sian Meikle           416-946-3689
Director
Strategic Initiatives,            Laura Anderson       416-978-7644
Director
Human Resources,                  Darlene Chow         416-978-7646
Head
Access & Information,             Lari Langford       416-978-2898
Head
Communications Librarian          Margaret Wall        416-978-1757
Jesse Carliner                   416-946-3803
**SALVAGE EXPERT**

J. Toyonaga  Binding     416-978-2276

**PROCUREMENT**

Yuliya Markova     416-978-6881

**FACILITIES**

Ikee Gibson     416-978-1396

**HEALTH & SAFETY**

Susan Gropp     416-978-1289

**LIBRARY PATROL**

Robarts Library Patrol Office     416-946-3590
Robarts Info Desk (to radio Patrol)     416-978-5093

Gerstein Library Patrol Office     416-978-2516
Gerstein Circulation Desk (to radio Patrol)     416-978-2280
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Chief Librarian for</td>
<td>Caitlin Tillman</td>
<td>416-946-3856</td>
</tr>
<tr>
<td>Collections and Materials Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Processing, Head</td>
<td>Alastair Boyd</td>
<td>416 978-8934</td>
</tr>
<tr>
<td>Book and Serials Acquisitions,</td>
<td>Don McLeod</td>
<td>416-978-3090</td>
</tr>
<tr>
<td>Head</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Collections Librarian</td>
<td>Weijing Yuan</td>
<td>416-978-0084</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
University Personnel
And Resources

UNIVERSITY PERSONNEL

M. Munroe  Associate Director (Acting), 416-978-7378
            Campus Police Services

Deborah Fritz  Campus Police Services  416-978-2264

S. Arnold  Chief Fire Prevention Officer  416-978-5151

J. D. Kerr  Director, Risk Management  416-978-6478

PROPERTY MANAGERS
(To contact Property Managers on weekends/evenings call 416-978-2323)

Robarts Complex
Gerstein  Barry Espin  416-580-3843

Bahen Centre for Information Technology
D. Wood  416-717-9706

Engineering  N. Ahmed  416-453-8591

Earth Sciences  Jennifer Corinthios  416-717-9978

FIELD SUPERVISORS FOR CARETAKING

Robarts
8:00am-4:00pm  Monday to Friday  Caretaking Office  416-978-6252
6:30am-3:00pm and Weekends  Ivo Sousa  416-946-8306
3:00pm –12:00am and Weekends  Fatima Costa  416-676-1228

Gerstein
8:00am-4:00pm  Monday to Friday  Caretaking Office  416-978-6252
6:30am-3:00pm and Weekends  Ivo Sousa  416-946-8306
4:00pm-12:00am and Weekends  Victor Juradinho  416-676-1033

Robarts and Gerstein: 11:00pm-7:15am Monday night to
Saturday morning  (night caretaking Supervisor) Brent Warner  416-676-9278
University Personnel
And Resources

**MANAGER OF MECHANICAL OPERATIONS AND MAINTENANCE**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robarts Complex</td>
<td>J. Walker</td>
<td>416-978-5064</td>
</tr>
<tr>
<td></td>
<td></td>
<td>416-978-7127</td>
</tr>
<tr>
<td>Gerstein Science Information</td>
<td>C. Lee</td>
<td>416-978-8645</td>
</tr>
<tr>
<td>Centre</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXTERNAL SALVAGE EXPERTS**

<table>
<thead>
<tr>
<th>Role</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservator</td>
<td>416-327-1521</td>
</tr>
<tr>
<td>Provincial Archives</td>
<td></td>
</tr>
<tr>
<td>Of Ontario</td>
<td></td>
</tr>
<tr>
<td>Canadian Conservation</td>
<td>613-998-3721</td>
</tr>
<tr>
<td>Institute</td>
<td>or 1-866-998-3721</td>
</tr>
</tbody>
</table>

(Hours: 08:00 to 16:00 Monday to Friday, except statutory and civic holidays.)
<table>
<thead>
<tr>
<th>Local Library</th>
<th>Local Library Co-ordinator(s) in Disaster Situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Studies</td>
<td>N. Burnett (Corin) 416-667-7712</td>
</tr>
<tr>
<td>Rm. 117</td>
<td>D.W. Zingg, 416-667-7709</td>
</tr>
<tr>
<td>4925 Dufferin St.</td>
<td>Dr. O. L. Gulder 416-667-7721</td>
</tr>
<tr>
<td></td>
<td>Dr. H. T. Liu 416-667-7928</td>
</tr>
<tr>
<td></td>
<td>Associate Director</td>
</tr>
<tr>
<td>Architecture</td>
<td>I. Puchalski 416-978-6787</td>
</tr>
<tr>
<td>1 Spadina Crescent</td>
<td>Prof. R. Sommer, 416-978-3089</td>
</tr>
<tr>
<td></td>
<td>Dean 416-946-3269</td>
</tr>
<tr>
<td></td>
<td>M. Batourine 416-978-7003</td>
</tr>
<tr>
<td></td>
<td>X201</td>
</tr>
<tr>
<td>Astronomy</td>
<td>L. Robbins 416-978-4268</td>
</tr>
<tr>
<td>Rm. 1306</td>
<td>P. Martin, 416-978-3150</td>
</tr>
<tr>
<td>McLennan Physical Labs</td>
<td>Chairman</td>
</tr>
<tr>
<td>60 St. George St.</td>
<td></td>
</tr>
<tr>
<td>Bora Laskin</td>
<td>G. Medeves 416-978-5537</td>
</tr>
<tr>
<td>78 Queen’s Park</td>
<td>Interim, Chief Law Librarian</td>
</tr>
<tr>
<td></td>
<td>Ed Iacobucci 416-978-3718</td>
</tr>
<tr>
<td></td>
<td>Dean</td>
</tr>
<tr>
<td>Chemistry</td>
<td>P. Meindl 416-978-3587</td>
</tr>
<tr>
<td>Rm. 429</td>
<td>TBA, 416-978-5287</td>
</tr>
<tr>
<td>Lash Miller Labs</td>
<td>Chair</td>
</tr>
<tr>
<td>80 St. George St.</td>
<td></td>
</tr>
<tr>
<td>Local Library</td>
<td>Local Library Co-ordinator(s) in Disaster Situations</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Criminology</td>
<td>A. Shier</td>
</tr>
<tr>
<td>14 Queen’s Park</td>
<td>416-978-7068(x245)</td>
</tr>
<tr>
<td>Circle West</td>
<td>Prof. R. Ericson</td>
</tr>
<tr>
<td>Rm. 100</td>
<td>416-978-3722(x231)</td>
</tr>
<tr>
<td>Dentistry</td>
<td>Helen He,</td>
</tr>
<tr>
<td>Rm. 267</td>
<td>416-864-8213</td>
</tr>
<tr>
<td>124 Edward St.</td>
<td>Head</td>
</tr>
<tr>
<td></td>
<td>416-864-8302</td>
</tr>
<tr>
<td></td>
<td>M. Choi,</td>
</tr>
<tr>
<td></td>
<td>Assistant Dean</td>
</tr>
<tr>
<td>Department of Art,</td>
<td>M. English</td>
</tr>
<tr>
<td>Rm. 6032B</td>
<td>416-978-5006</td>
</tr>
<tr>
<td>Sidney Smith Hall</td>
<td>Carl Knappett</td>
</tr>
<tr>
<td>100 St. George St.</td>
<td>416-978-7891</td>
</tr>
<tr>
<td>Earth Science</td>
<td>B. Garrod</td>
</tr>
<tr>
<td>5 Bancroft Ave.</td>
<td>416-978-3538</td>
</tr>
<tr>
<td>Engineering &amp; Computer Science Library</td>
<td>M. Thuna</td>
</tr>
<tr>
<td>10 King's College Road, Rm 2402, 2nd Floor</td>
<td>416-946-4020</td>
</tr>
<tr>
<td>Sandford Fleming Building</td>
<td></td>
</tr>
<tr>
<td>Gerstein Science Information Centre</td>
<td>N. Romanosky</td>
</tr>
<tr>
<td>7 - 9 King's College Circle</td>
<td>416-978-6370</td>
</tr>
<tr>
<td>Toronto, Ontario</td>
<td></td>
</tr>
<tr>
<td>M5S 1A5</td>
<td></td>
</tr>
<tr>
<td>Industrial Relations</td>
<td>Vicki Skelton</td>
</tr>
<tr>
<td>121 St. George St.</td>
<td>416-978-2928</td>
</tr>
<tr>
<td>(main floor)</td>
<td>Prof. R. Gomez,</td>
</tr>
<tr>
<td></td>
<td>Director</td>
</tr>
<tr>
<td></td>
<td>416-978-2927</td>
</tr>
<tr>
<td>Information Studies Library</td>
<td>L. Langford</td>
</tr>
<tr>
<td>Inforum, 4th Floor</td>
<td>416-978-2898</td>
</tr>
<tr>
<td>140 St. George</td>
<td>E.Sze</td>
</tr>
<tr>
<td></td>
<td>416-978-7071</td>
</tr>
</tbody>
</table>
Local Library

Innis College
2 Sussex Dr.
K. Johnson 416-978-4497
C. Clairmont, CAO 416-946-0643
Prof. C. Keil, Principal 416-978-2510

Management Studies
105 St. George St.
S. Forbes 416-978-1924

Massey College
4 Devonshire Place
P.J. MacDougall 416-946-7880
Hugh Seagal, 416-978-2549
K. Gale 416-978-2907

Mathematics
416-507-9878
Bahen Centre for
Information Technology
40 St. George St.
6th floor room 6141
B. Garrod 416-978-8624
Jeremy Quastel, Chairman 416-978-3320
416-922-8493

Music Library
80 Queen's Park Crescent
J. Guise 416-978-6920

New College
20 Willcocks Street
J. Newman 416-978-2493
S. Mojab, Interim Principal 416-978-2461
<table>
<thead>
<tr>
<th>Local Library</th>
<th>Local Library Co-ordinator(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>in Disaster Situations</strong></td>
<td></td>
</tr>
<tr>
<td>OISE/UT Library</td>
<td>Monique Flaccavanto, 416-978-1867</td>
</tr>
<tr>
<td>252 Bloor St. W</td>
<td>Director</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elizabeth Broccoli, 80787</td>
</tr>
<tr>
<td></td>
<td>Glen Jones, 416-978-8292</td>
</tr>
<tr>
<td></td>
<td>Interim Dean</td>
</tr>
<tr>
<td>Physics</td>
<td></td>
</tr>
<tr>
<td>McLennan Physical Labs</td>
<td>Dylanne Dearborn, 416-978-5188</td>
</tr>
<tr>
<td>60 St. George St.</td>
<td></td>
</tr>
<tr>
<td>University College</td>
<td></td>
</tr>
<tr>
<td>(Laidlaw Library)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M. Fulford, 416-978-4634</td>
</tr>
<tr>
<td></td>
<td>Sylvia Bashevkin, 416-978-7516</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jim Linley, 416-978-8144</td>
</tr>
<tr>
<td></td>
<td>CAO</td>
</tr>
<tr>
<td>UTL at Downsview</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M. Phillips, 416-667-7728</td>
</tr>
<tr>
<td></td>
<td>L. Langford, 416-978-2898 or 416-667-7733</td>
</tr>
</tbody>
</table>
2. SALVAGE OPERATIONS
Access and Commencement of Salvage Operations

The co-ordinators 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 co-ordinators 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 416-978-5947.

Before beginning the salvage operation, The SOT will:

1. Decide who will take overall charge of the salvage operations.
2. Decide who will take charge of the Library Operations and who will take charge of 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. clear 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 work space for processing of 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 air conditioner running at 18.3 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 air, using portable fans.
- Mop up standing water.
Mould

The occurrence of mould 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 mould 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 event of the Development of Mould 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 John Toyonaga (416-978-2276) when dealing with mild or severely affected materials.
Removal and Packing of Materials

Initial Handling of Damaged 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 type of damage and treatment.
3. Team of record keepers.

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

Remove first:

- Wet materials lying on the ground.
- Wet or damp books on lower shelves (unless mould is forming).
- Wet or damp books on upper shelves (unless mould is forming).
Removal and Packaging of Materials

Books should be boxed either flat or spine down to minimize damage to binding and costly repairs. Pack books of the same size next to one another to minimize warpage. 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 onto 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.
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 2" thick with a base support (.128 board).

Crating, Boxing

- Use plastic milk crates or, if not available, strong cardboard boxes such as library book bindery boxes.

- 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 the freezing facility without delay.
Treatment

Cleaning and Washing of Collection Material.

"THIS SHOULD NOT BE ATTEMPTED WITHOUT THE ADVICE OF THE SALVAGE EXPERT."

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, PHOTOGRAPS OR ANY MATERIAL CONTAINING WATER SOLUBLE MATERIALS.

Freezing

Freezing is an effective method for stabilizing conditions until drying can be attempted. Mould will start to form within 48 hours 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 mould developing on them they should be treated as soon as possible. (Do not attempt this without advice from J. Toyonaga 978-2276.)
Treatment

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 cool temperatures. Keep 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 paper or blank newsprint.

   Change paper as needed.

   Let photographs dry for up to 48 hours.

7. Relabel sleeves before putting photographs and negatives back.

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

1. Wet
   - Photo
   - Photo
   - Negative
   - Sleeve
   - Mylar Sleeve
   - Folder
   - Remove from folders & sleeves

2. Photo
   - Photo
   - Negative
   - Sleeve
   - Mylar Sleeve
   - Folder

3. Wet
   - Pick up from floor & water
   - Rinse in water if dirty

4. Fans - Dehumidifiers
   - 35-50% rH
   - Fahrenheit

5. Monofilament
   - Hang to dry

6. Negatives dry quickly
   - OR -
   - Dry photographs face up for 48 hours
   - OR -
   - Put in cold water
   - OR -
   - Blast freeze to -20°F and vacuum freeze dry

7. Photo
   - Photo
   - Negative
   - Sleeve
   - Mylar Sleeve
   - Folder
   - Refile in archival sleeves & folders
Treatment

Microforms

1. Take microforms out of sleeves. If 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. Immediately arrange to send for cleaning and drying.
**Microfilm**

**Dry Film** -

1. Take out reel
2. Replace box
3. Relabel box

**Wet Film** -

1. Remove from box
2. Microfilm
3. - OR -

Put in plastic container with cold water - send to be reprocessed

Box and blast freeze to -20°F then freeze dry
Microfiche

Dry Fiche –

1. Take out microfiche

2. Label new archival sleeve

Wet Fiche –

1. Put in plastic container with cold water

2. Hang microfiche to dry

3. Refile fiche
Treatment

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.
Treatment

Audio and Video Cassettes

Audio and video tape is easily damaged by water, mould, dirt and dust. Most audio and video cassettes are stored in plastic boxes that are water tight. 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 cool temperatures (Rh 20% - 40%), 7 - 16 C.

3. If this is a master tape, dehumidify and carefully watch for mould growth. If mould growth or rust forms or window clouds then send for restoration.

4. If this is a circulation tape, dehumidify and watch for mould growth or window clouding. If it is mouldy or rusty then throw it out and replace.
Audio & Video Cassettes

1. Open boxes

2. Fans - Dehumidifiers

3. Master cassette?
   - Dehumidify
   - Watch for mold

4. If moldy or rusty
   - Send for restoration

5. Circulating cassette?
   - Dehumidify
   - Watch for mold

6. If moldy or rusty
   - Discard and replace

7. Replace dry cassettes in new boxes
Treatment

Water Damaged 3.5" Disk

Stabilize within 48 hours to prevent mould.

- Open shell carefully. Remove screws if present.
- Remove diskette from shell.
- **DO NOT FOLD, BEND, PINCH OR ABRADE DISK.**
- **DO NOT TOUCH SURFACE.**
- Use clean, distilled water to remove debris from surface of disk.
- Gently blot surface with clean, soft, lintless cloth or lay flat on clean cloth to air to dry.
- When dry, place in temporary shell.
- Copy disk. Remember to check the integrity of the transferred data.
- Discard the original.

Water damaged 5.25' Disk

Stabilize within 48 hours to prevent mould.

- Remove disk from paper, plastic and tyvek sleeves.
- Cut open jacket carefully.
- Remove disk from jacket.
- **DO NOT FOLD, BEND, PINCH OR ABRADE DISK.**
- **DO NOT TOUCH SURFACE.**
- Use clean, distilled water to remove debris from surface disk.
- Gently blot surface with clean, soft, lintless cloth or lay flat on clean cloth to air dry.
- When dry, place in temporary shell.
- Copy disk. Remember to check the integrity of the transferred data.
- Discard 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 ABR ADE

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.
   - Trash
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 ABRIDE

3. Clean with Distilled Water.
   Dip in tray.

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

5. When dry, place in temporary shell.

6. Copy diskette.

7. Check copy for readable data; label diskette.

8. Discard original.
   Trash
Treatment

Water Damaged CD-ROM and Optical Disks

Treat Immediately

- Remove from water immediately.
- Remove from container.
- **DO NOT BEND OR SCRATCH.**
- Rinse off any dirt, mud with clean, distilled water.
- **DO NOT SOAK.**
- Dip dry in dish drain or rack, vertical, not flat.
- Clean with soft, dry, lintless cloth.
- Move cloth perpendicular to grooves, left to right, up and down.
- **DO NOT MOVE IN CIRCULAR MOTION.**
- Place cleaned compact disks in clean containers.

Replace the disk if:

- Mould or condensation forms on disk.
- Deep scratches on 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

Treatment of affected area

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

- Wash shelving with soap, water and a disinfectant such as liquid Lysol.

- Wash walls, furniture, counters etc.

- Scrub stone walls, furniture, counters etc. as above.

- Paint where necessary.

- Shampoo carpets and apply spray disinfectant.
**Treatment**

**Return of Material to Library**

When dry and treated as applicable, books should be sorted as to whether they are in need of:

- Discarding or replacing.
- Commercial rebinding.
- In-house mending.

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 35-45% Rh and temperature not above 18.3 C.

A random inspection for mould-infested material should be conducted daily.

Towards the end of this time the temperature should be gradually changed to duplicate conditions in 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.
Treatment

Insect Infestations

1. In the case of insect infestations, the best practice is to immediately seal the books individually in zip lock bags. (Barcodes need to be visible)
2. Place the sealed bag into a plastic bin.
3. Call the bindery 416-978-2276 or 416-978-5069.
4. The binding department will determine what treatment will follow.
3. POST-DISASTER ANALYSIS
Post Disaster Assessment

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 unforeseen situations will occur. Once the assessment has been completed, the Disaster Plan should be amended to reflect any inadequacies that have been identified.

Finally, please remember that appreciation and recognition must be given to the individuals who helped in the success of the recovery operation.
4. PREVENTION
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:

Materials should not be stored on the floor. Always use skids to keep material off the floor.

Frayed electrical cords.

Water leaks.

Weather damage.

Garbage or hazardous chemicals lying about.

Problems with heating, air conditioning and electrical systems.

Equipment / machinery unplugged in 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 the building.
( Floor plans can be printed from https://updc.utoronto.ca/campus-facilities-planning/building-plans/ )
Special Services

**Book Drying**
Kevin Hogan  
Business Development Specialist - Temporary Climate Solutions  
Polygon Property Restoration & Climate Solutions  
Polygon Après Sinistre & Solution Climatique

230 Admiral Blvd, Toronto, ON  
Office: 9058585894  
Mobile: 416-791-1156  
Fax: 9058589130

Emergency 24/7 Number: 1-888-702-4782

Kevin.hogan@polygongroup.com  
www.polygongroup.com

**Cardboard Cartons**

In stock, Library stores and Bindery  
 Sizes 16" x 10" x 10"  
 416-978-6881  
 416-978-5069  
 416-978-2276

**Carpet Shampoo**

Caretaking (Robarts)  
Hours: 9-5  
4pm-12:30pm  
416-978-6252  
416-978-0456

**Dehumidification**

Polygon: Water Damage Recovery Services  
(Kevin Hogan)  
1-888-702-4782

**Disinfectant**

In stock Facility and Services  
416-978-6252

**Document Reprocessors**

Document Reprocessors  
40 Railroad Avenue  
Rushville, New York 14544  
www.documentreprocessors  
East Coast 24 hrs  
West Coast 24 hrs  
1-800-4-DRYING  
585-554-4500  
FAX 585-554-4114
**Freeze Dry**

Freeze Dry Foods Ltd.  579 Speers Rd.  905-844-1471  
(Lisa Horwath)  Oakville  L6K 2G4

**Freezer Paper, Newsprint**

Adelco Glenford Lewis Group  3321 Mc Nicoll Ave  416-754-2060  
Scarborough, Ontario

**Freezer Plant**

Associated Freezers Corp.  3691 Weston Rd.  416-741-7820

**Freezer Trucks**

Ryder Truck Rental Canada Ltd. (24 hrs.)  672 Kipling Ave.  416-255-4427  
Thermo-King of Toronto (24 hrs.)  6243 Netherhart Road  905-564-2800  
905-458-5555

**Mops**

Caretaker  416-978-6252

**Polygon**

Polygon: Water Damage Recovery Services  1-888-702-4782  
(Kevin Hogan)

**Paper Towels**

Caretaker  416-978-6252

**Polyethylene Sheeting**

(10' ROLLS)

In stock, Procurement Office and Bindery  416-978-6881  
416-978-5069  
416-978-2276

**Transportation**

Consolidated Moving & Cartage  542 Mt. Pleasant Road  416-922-9595

**Water Extraction Pumping**

Polygon: Water Damage Recovery Services  1-888-702-4782  
(Kevin Hogan)
( Floor plans can be printed from https://updc.utoronto.ca/campus-facilities-planning/building-plans/ )