# Disaster Response and Recovery Training

## **Disaster Training**

## The goal of this training is to familiarize everyone with:

- Elements of disaster planning
- Steps and procedures in responding to a disaster
- Scenarios for recovery of damaged materials

## **Disaster Planning Goals**

- Protect the safety of patrons and staff
- Minimize immediate damage to the collections
- Minimize disruptions to library operations
- Maximize full recovery

## **Disaster Planning**

Is a sequence of four activities

## # 1 - Disaster Preparedness

- All activities prior to a disaster
  - Maintenance of the up-to-date disaster recovery plan/manual, including testing
  - Assignment of responsibilities
  - Training, including adequate cross-training
  - Identification and procurement of resources
  - Identification, assessment and mitigation of potential risks to prevent disasters
  - Creation of phone tree & choice of evacuation meeting places

## # 2 - Disaster Response

- Actual response to an emergency or disaster.
- Action taken depends on:
  - Scope of disaster
  - Nature of disaster
  - Timing of disaster
  - Location of the disaster
  - Staff available for response
  - Availability of supplies and equipment

## # 3 - Disaster Recovery

 All operations after the initial response, including restoration of the Libraries collections and/or services

## # 4 - Disaster Follow-up

 Use what you have learned from the disaster to prepare for the next event

## **DISASTER PREPAREDNESS**

## **Disaster Manual**

Online Manual under Staff Resources

- RLO Guide Book provides procedure for response to various emergencies
  - Includes old Disaster Plan Quick Reference Guide information

## **CSU Libraries**

- Responsibilities are divided:
  - Jim Farmer Building Proctor
    - "Point person" for all emergencies and disasters
    - Handles all activities related to facilities
    - RLOs provide back up as "point persons"
  - Diane Lunde
    - Responsible for the print collections
  - Don Albrecht
    - Responsible for electronic resources

### **Preservation Librarian**

- Responsibilities
  - Participate in response as needed
  - Oversee/monitor recovery process on site
    - Salvage priorities
    - Assign & supervise staff
    - Establish on-site work area
    - Establish specifications/procedures
    - Supplies and equipment needs
    - Disposal
  - Liaison with any collection recovery vendors
  - Environmental monitoring of building
  - Statistics & reports

### **CSU Libraries**

All staff in Metadata and Preservation Services are on the disaster response and recovery team as related to the collections

## **Disaster Supplies**

- Preservation Supplies
  - Cabinet in Room 208
  - Cabinet on first floor of Lake Street
  - List of supplies handout sheet
- Janitorial Supplies
  - See the Building Proctor

### **Disaster React Packs**

- Just enough supplies for initial response
- Contents
  - Information sheet, paper pad, permanent markers
  - Aprons, gloves, dust masks
  - Blotting paper, freezer paper, paper towels
  - Filament tape
  - Plastic sheeting; scissors
  - Sponges
  - Trash bags

### **Disaster React Packs**

- 2 packs in Room 208
- Archives & Special Collections
- Administrative Services
- Access Services
- VET Branch Library
- Atmospheric Science Branch Library

## **DISASTER RESPONSE**

## Disaster Response Simplified

- Notification
- Initial response
- Taking care of Collections
- Clean-up
- Communications
- Record keeping
- Report writing

## Disaster Response in the Past

- Wet books, periodical issues or newspapers
- Sprinkler head malfunction
- Water pipe leakage
- Water leakage from restroom facilities
- Water dripping down between floors
- Water coming down from roof
- Burst pipe in wall
- Rain coming through an open window

## **DO NOT ENDANGER YOURSELF** in responding to a disaster.

## **SAFETY FIRST!**

Quickly review the situation, & think before you act

**SAFETY FIRST!** 

## Who you gonna call?

- BUILDING PROCTOR (491-1864)
  - System of RLOs serve as back-ups
- If collections involved: Diane Lunde (1-1825)
- If stacks involved: Desiree Eremondi (1-1904)

## TALK WITH A PERSON – DO NOT LEAVE A MESSAGE!!

If you feel the situation warrants calling for emergency help,
DO NOT HESTITATE

**CALL 911** 

## 911 Call Information

- Calls from any hardwired phone on campus goes to CSU dispatch center who notifies facilities
- Most cell phone 911 calls go to Fort Collins
  - If non-emergency, transferred to CSU dispatch center
  - If fire or medical emergency, city dispatches fire and/or ambulance, and then notifies CSU

## Responding to a Fire Alarm

- All staff and patrons must exit building
- DO NOT use the elevators
- DO NOT search for people
- Proceed to designated meeting place
- Note any suspicious activities
- Remain there until instructed to leave
- DO NOT re-enter building until cleared

#### **Evacuation Plan**

- All staff members MUST have evacuation map & meeting locations posted by their work areas & by any doors
- All staff should know multiple evacuation routes from each work locations
- All new hires (staff and students) should be walked around the building to identify evacuation routes and exit doors

## MPS Designated Evacuation Meeting Place for Morgan

- Primary Meeting Location
  - West of Lory Student Center
- Secondary Meeting Location
  - Center of the Lory Plaza

## MPS Designated Evacuation Meeting Place for Lake Street

- Primary Meeting Location
  - Central Receiving parking lot (across Lake Street)
- For tornado watches
  - Pathology Building Basement

## MPS Designated Off-Campus Meeting Location

## **Responding to Disasters**

- Fire
- Strange Odors
- Earthquakes
- Severe Weather
  - Snow, High Winds & Tornado Warnings
- Water and Flooding

#### **Fire Alarm Locations**

 Outside Preservation Lab next to stairway

 In Journal Room, outside door to stairway south of entrance to Room 210

## Fire Extinguisher Locations

- Outside door to Rooms 208 & 210
- In hallway between bathrooms across from Rooms 204-206
- In Journal Room outside stairway door south of entrance to Room 210

DO NOT USE unless you are fully trained

## Responding to Fire or Smoke

- Pull the fire alarm
  - The alarm will ring at the Fire Department
- Evacuate the building
  - Do not try to recover property
- From outside the building call University Police at 911
  - Give your name, location & area of the building affected, fire/smoke details, & whether anyone are injured or trapped

## Responding to Fire or Smoke

- Contact the Building Proctor/RLO
- Go to the evacuation meeting place
- Follow directions of responding authorities, RLO (orange vests), police and/or fire personnel
- DO NOT re-enter the building for any reason until cleared

## To Escape Fire or Smoke

- Check closed doors for heat BEFORE you open them. Use back of hand to feel door, know, & crack under door
  - HOT door DO NOT OPEN
  - Cool door Open slowly & establish whether fire or smoke blocking escape path.
     If so, close door and go another way.

## To Escape Fire or Smoke

- Close doors behind you to delay spread of fire
- DO NOT USE ELEVATORS
- Fire Towers are certified up to 2 hours against fire & smoke as long as doors are kept closed

#### If Your Clothes Catch Fire

# STOP, DROP & ROLL

Until the fire is extinguished

### **Responding to Strange Odors**

- Morgan Library does not have natural gas lines, however, Storage and Annex do
- Report odors to the Building Proctor
- If the odors are acute, call 911 and pull the fire alarm

- Take cover under heavy furniture, or crouch in an inside corner and cover your head and face
- Keep away from glass and book stacks
- DO NOT run outside or dash for exits.
- DO NOT use elevators
- Be aware that the electricity may go out and/or fire alarms may sound

- If outside, move away from the buildings, streetlights, utility wires and other tall or large structures
- Wait for the tremor to subside and falling objects to come to rest

- If damage appears minimal, assign staff to survey area for damage, such as fallen books.
- If leaking pipes involved, see
   Responding to Water and Flooding
- If serious damage, DO NOT INSPECT the BUILDING

- After the earthquake, expect after shocks which may cause more falling debris
- If possible, evacuate the building and proceed to the meeting location
- Stay at least 300 feet from buildings and power poles and lines
- DO NOT re-enter the building until instructed to do so

#### **Severe Weather**

- Watch Issued when the risk of a hazardous weather event has increased significantly, but occurrence is uncertain
- Warning Issued when a hazardous weather event is imminent or has a very high probability of occurrence.
- Advisory Issued for less serious conditions

### Responding to Snow Storms

- If the Libraries is open
  - The Dean makes the decision to close the building
- If the Libraries is closed
  - Phone CSU to see if university is open at 491-SNOW
  - (491-7669) or listen the radio, KPAW-FM (107.9)
  - DO NOT call the Police or Facilities to determine this information
- MPS staff are not essential personnel unless damage to building includes collections

## Responding to High Winds or Tornado Warning

- Evacuate Staff Lounge
- Respond to the public address system
- Go to shelter area in lower level
  - Keep away from west side glass windows
- Remain until "all clear" message
- In case of damage, report to the Building Proctor and/or call 911

### Responding to Water & Flooding

### Responding to Water or Flooding

- Response will vary according to:
  - Amount of water
  - Its continuity
  - Its location
  - The timing
  - If the collection is involved, the number and type of materials (paper vs non-paper)

### **Disaster Response Rule #5**

If you discover an emergency, DO NOT WAIT FOR HELP TO ARRIVE, especially if library materials are involved.

WE are all part of the Disaster Team!

### Responding to Water Emergency

- Minor water amount and/or damage (e.g., leakage around windows)
  - Call Building Proctor or back-up
  - Call Preservation if materials are wet
  - Have staff start clean-up of the area using disaster supplies

### **Responding to Running Water**

- For example, sprinkler system is activated, water coming in window well
  - If serious problem, pull the fire alarm
  - Call Building Proctor or back-up
  - Call 911 to report water leakage
  - Call Facilities Services at 491-0077 to have water shut off in case of broken pipes or to have electricity disconnected
  - Call Preservation if materials are wet

## **Responding to Running Water**

- DO NOT enter flooded areas until cleared by Police/Fire authorities/EHS
- DO NOT walk through moving water
- If building has not been evacuated, post staff member at entrance to flooded area to keep out unauthorized persons until the area can be cordoned off

### Responding to Flooding

- If water is extensive or flooding, call 911
  - Notify the Building Proctor
  - If water surrounds Morgan, do not go outside. DO NOT pull the fire alarm.
  - Proceed to the highest point in the building. DO NOT use the elevators.
  - Wait for further instructions.

### Responding to Water or Flooding

If Libraries collections are involved, call:

**Diane Lunde** (491-1825), or **Ann Schwalm** (491-1826)

### **Water Response Scenarios**

We will be using real-life scenarios from the simplest emergency to a medium sized disaster to aid in training

We will focus on treating the damaged materials both individually and collectively (i.e., water in the stacks)

## Decision Making for Handling of Wet Materials

- Determine the extent of the damage
  - How wet are the materials?
    - Slightly wet, just around the edges, soaked?
  - How long have the materials been wet?
  - Is damage from water or another liquid?
    - Coke or coffee, perfume
  - Are there other damages to the materials?
    - Color bleeding or ink running, muddy or dirty
    - Paper torn or sections missing; mis-shapen
    - Mold damage or bad odor
    - Fire damaged

## Decision Making for Handling of Wet Materials

- Determine the extent of the damage
  - What type of materials are involved?
    - Newsprint, clay-coated paper, non-paper
  - How many items are there? Are the volumes brought to the Lab as individual items, or are they on the shelves or on the floor?
  - Are the volumes on the collection recovery priority list?
    - Normally this does not apply unless we have a major disaster.

## Decision Making for Handling of Wet Materials

- Determine the extent of the damage
  - Is there a need for commercial assistance?
    - For the building or the collections?
  - What time is it?
    - Normal working hours with staff in Preservation Lab
    - Nights or weekends
    - 4:45 Friday night in the summer and most staff have already left for the weekend

### **Options for Action**

The answers to the above questions will help determine the response and recovery actions

- Item: Periodical or newspaper issue is received wet in the Mail Room and brought to the Preservation Lab
- Damage: Water
  - Other questions: How wet? Water??
  - Any other damage (dirty, torn, etc.)
  - Clay coated paper?? Pages already blocked??

- Response for a just damp newspaper:
  - Create "clothes line" and hang the piece up to dry
     OR lay flat on blotting paper to dry
  - Best environmental conditions for drying:
    - Gentle air circulation
    - Cool temperatures (55 to 68 degrees Fahrenheit)
    - Average relative humidity
    - Dehumidifier if possible
  - Press when dry as paper may curl and wrinkle while drying

- Response for a soaked periodical issue
  - Blot dry
  - Place on blotting paper to dry.
  - Interleaving white paper towel between the pages
  - Same environmental conditions
  - Press when dry if the paper curls or wrinkles

Response to a partially wet clay coated periodical issue

#### TOP PRIORITY FOR ACTION

There is no guarantee that coated paper will not stick together, no matter how it is dried.

- The best solution is to put the issue in the freezer and let Pres Lab staff handle the drying
- DO NOT force separation of the pages, wet paper is very fragile)

- Item: Wet newspaper with tears on cover pages
- Response:
  - Dry the newspaper first, and then repair the tears

- Items: Two wet books from circulation
- Damage: Water
  - How wet? Damp
  - Any other damage: One volume dog chewed into text block print
  - Type of paper: Regular paper

- Access Services should bring the volume to you wrapped in freezer paper
- If they cannot find anyone to whom to give the volume, they should put the volume in the freezer and leave a note for Lab staff.

- Response: Air Drying
  - Same environmental conditions
  - Cover flat surface with blotting paper
  - Set books on their ends, wet side down.
     Fan open slightly, using book ends to support books
  - Turn every 12 hours to prevent distortion
  - Optional: interleave with white clean paper towel about every 20 pages

- Response: Air drying
  - Check books with Aqua Boy to determine when dry (8-12 %)
  - Watch for mold growth
  - NOTE: If the volumes would be drying over the weekend, DO NOT AIR DRY. Place the volumes in the freezer to prevent any further damage.
- Response: Dog chewed book
  - Let the Preservation Lab deal with the problem AFTER the volume is dry

- Items: Patron leaves ten wet books in the book drop on Thursday at 4:30 p.m.
- Damage: Water, wetness varies
- Staffing/Timing: No staff in the Preservation Lab

### **Disaster Response Rule #6**

- In case of doubt, freeze the materials
  - Record the call number and/or barcode number
  - Wrap the book in freezer wrap (don't do a fancy job of wrapping, just enclose the book in paper)
  - Place the book in a freezer if possible, the freezer in Room 25 (you may have to plug it in)
  - Notify Lab staff that the book is in the freezer

- Item: 1997 flood volume returned to Access Services, wet again!!
- Damage: Liquid: Coffee and Cream
  - Volume is moldy, but cannot determine if the mold was from 1997 or an active growth

### **Disaster Response Rule #7**

If there is evidence of mold or mildew, the materials have a bad odor, or there is a question of contamination,

- \*Record the call number and/or barcode number
- \*Put the material in a plastic bag and seal
- \*Place in the freezer (See Disaster Response Rule #6)
- \*DO NOT Discard the volume
- \*Inform the Lab staff about the volume

#### **SAFETY FIRST!!**

#### **Facts About Mold**

- Mold and mildew are common terms used for a wide range of microorganisms that survive on organic materials.
  - Over 100,000 known species with only a few common to library materials.
  - Potential library materials hosts: paper adhesives, leather, dust, etc.
- Mold spores are in the environment at all times, but will germinate (bloom) with temperatures over 75 F and relative humidity above 65%

### **Identifying Mold**

- May look like accumulations of dirt, dust, stains or cobwebs
  - Mold covers more than one page, section of text block
  - Dirt, etc. can be limited to one small area, one side of a page
- Inactive (dormant) mold is dry and powdery
  - May smell musty and have many colored stains
  - Will not cause additional damage in this state
  - Not to be confused with "foxing" red-brown stains either in discrete spots or irregular splotches

#### **Identifying Mold**

- Active mold is soft and smeary with growth evident as thread-like cellular structures (conidia) that appear as a fine web of filaments
  - May develop a bushy appearance
  - Think of green mold growing on cheese in the refrigerator
  - Will continue to damage material until it enters a dormant state

#### **Handling Moldy Materials**

- Mold can be a serious health hazard (type of mold can be determined by testing)
- Mold spores enter the body by inhalation and through small breaks in the skin
- Staff who have allergies, asthma or respiratory problems, diabetes, a compromised immune system or on steroid therapy, should NOT handle moldy materials

#### **Handling Moldy Materials**

- Handling precautions:
  - Respirator with HEPA filter
  - Disposable apron
  - Disposable gloves
  - Protective eye gear / goggles
- Use paper towel under the item during inspection
- DO NOT try to clean active mold

#### **Handling Moldy Materials**

- Seal the mold materials in a plastic bag to isolate the volume and to prevent dispersion of any active mold spores
- Wash hands with disinfectant soap after handling (even if you wore gloves)
- Dispose of all gloves, paper towel, etc. used during handling in a sealed plastic bag

## Responding to a Moderate Water Disaster

- For this training, defined as a water emergency in the stacks
- We will be practicing with actual books in the stacks in two different scenarios
  - Volumes handled in-house via air drying and/or Wei T'o Book Dryer
  - Volumes to be dried by a commercial vendor

## **Initial Response to Moderate**Water Disaster

- Stabilize the environment
  - Work with Building Proctor
  - Call Facilities to turn off water, electricity, etc.
  - If water leaking onto book stacks, place plastic sheeting over stacks
  - Ensure water is cleaned up; Fans can be used to speed drying and provide air circulation
  - Have facilities make needed repairs
  - Establish temperature/relative humidity continued monitoring
  - Call (Environmental Health Services (EHS) as necessary

### **Initial Response to Moderate**Water Disaster

- Access the damage how many volumes damaged, how badly damaged, etc.
  - Take photographs of damage
  - Record beginning and end call numbers of the damaged volumes, i.e., HA555-HD345
- Access recovery resources, techniques, equipment, staffing, etc.
- Establish priorities for recovery

## **Initial Response to Moderate**Water Disaster

- Establish preparations for recovery
  - Establish work area(s)
  - Assemble equipment, supplies, etc.
  - Enlist staff & assign responsibilities
  - Quickly review of proper handling techniques

#### **Disaster Response Rule #8**

- DO NOT discard materials just because they look bad
  - Most damaged occurs on the covers and the first and last 20-30 pages.
  - No withdrawal decision should be made until the volume is dry.
- EXCEPTION: Materials that have been contaminated with a hazardous substance and are a health risk
  - Record the call number and barcode (if possible) before discarding.

## Scenario # 6: Recovery of Volumes from the Shelves

- Disaster: Water leak in ceiling over section of shelving in the basement
- Approximately two sections of shelving involved, although the adjacent range may have damage too
- Water discovered by student shelver shortly after a heavy rain storm
- Minimal water on the floor directly under the leak, but water ran down the front of the book stack section

#### Scenario #6: Initial Response

- Student shelver has notified Building Proctor, who called Facilities
- Access Services staff has cleaned up water, although not completely done dripping
- Building Proctor has notified Preservation Librarian that collections have been damaged

## Scenario #6: Protecting the Shelves

- To minimize water damage, put plastic sheeting over the sections of shelving
  - Sheeting should reach down to the floor, but not onto the floor to prevent anyone slipping or tripping on it
    - Cut the plastic sheeting on rolls to size
  - Cover enough of the stacks section to make all potential damaged area are protected
    - More is better

## Scenario #6: Removing Materials from the Stacks

- Materials should not be dried in the stacks
- Remove the materials to identified work area
- Put the materials onto book trucks, in order. Record the beginning and last call number on slip of paper with permanent ink and the number of volumes and attach the paper to truck
  - Also keep a separate running documentation of all materials

## Scenario #6: Removing Material from the Stacks

- Handle the materials carefully remember wet paper is very fragile.
- Do not open wet books.
- Do not attempt to separate books stuck together.
- Do not squeeze materials to remove water
- Do not attempt to remove staples, adhesive tape or other fasteners.

## Scenario #6: Removing Material from the Stacks

- Do not place separated covers or pages inside the text block.
- Do not force the volume to close or assume its old brick shape
- Remove more volumes than you KNOW to be wet – just in case

# Scenario #6: Evaluation of Materials for Degree of Wetness

- At the designated work site, evaluate the condition of the materials as to degree of wetness and location of damage
  - Pamphlet just damp on the spine
  - Three ring binder wet around all the edges & on cover
  - Soaked volume
- In case of doubt, use Aqua-Boy to get a better measurement of moisture in the volume
  - Use of the hands to determine if something is wet or not can be deceptive

# Scenario #6: Evaluation of Materials for Degree of Wetness

- Separate out materials based on your findings:
  - Materials that could be air dried within 48 hours
  - Materials that should go into the Wei T'o Book Dryer
- In case of doubt, freeze the volume

#### Scenario #6: Air Drying

- Follow procedures for air drying
- If the drying area is not within the office, use signage to let patrons know why the volumes are there and what is happening
- Keep Libraries staff informed via email on the progress of the recovery.

# Scenario #6: Preparing Material for the Wei T'o Book Dryer

- If the book dryer is empty & ready for the volumes, fill the machine.
- If the book dryer is full, wrap the volumes individually in freezer paper and put them in the regular freezer.
- Record the call number and/or barcode.
- If there are too many volumes for the book dryer & the freezer, see the Preservation Librarian.

## Scenario #6: Follow-up for Materials in the Wei T'o

 Give the list of call numbers and/or barcodes to Database Management (DBM) who will update the SAGE online catalog item records to inform patrons the volumes are unavailable for use.

#### Scenario #6: Follow-Up

- Send a report to the Building Proctor and other staff as appropriate.
- Meet with the Preservation Librarian and Preservation Lab to debrief about the disaster, recovery effort, and general condition of the damaged materials.

## Scenario #7: Disaster of over 1000 Wet Volumes

- Disaster: Sprinkler head goes off damaging materials on three ranges of stacks
- Water is extensive with flooding on the floor over a wide area
- Initial assessment determines that there are more volumes than can be treated in-house and approval has been given to call a commercial disaster recovery vendor
- Because the disaster is in Morgan Library, a decision has been to begin packing out the materials before the vendor arrives

# Scenario # 7: Response & Recovery

- The big difference between Scenario #6 and Scenario #7 is that materials will be "packed out" for processing by a commercial vendor
- Work with the commercial vendor would be handled by Libraries administration including specifications for processing and financial documents/contract

### Scenario #7: Work Space Guidelines

- Arrange for work and loading space
- Clear aisles and passageways for removal of full boxes
- Gather equipment and supplies, including boxes, freezer wrap, waterproof marking pens, book, and or flat trucks, and plastic sheeting. Allow extra space if boxes have to be assembled.
- Follow safety precautions for staff; have gloves, aprons, etc. available

#### Scenario #7: The Pack-Out

- Pack with care to eliminate any further damage to materials
- Start removing materials from the areas closest to the point of access and work back.
- If time permits, wrap each book in freezer paper.
- If time permits, pack different materials separately, i.e., volumes off the shelves vs volumes in dirty water.

#### Scenario #7: The Pack-Out

- When packing off the shelves, start from the top shelf and work down.
- Pack similar sized materials in the same box. Do not place large books on top of small books.
- Try to keep volumes in order if at all possible.
- Follow accompanying packing procedures.
- Use medium boxes to limit weight to a manageable level.
- If cardboard boxes are used, put a plastic bag in the box to prevent the box from becoming wet and disintegrating. Do not seal the bag.

#### Scenario #7: The Pack-Out

- Books should be snug enough to prevent shifting during transport or leaning, but loose enough to permit easy removal
- On each box, write CSUL and consecutive box number. Record the number of volumes, call number range, and location.
- Also keep information on an inventory sheet.
- Seal boxes with tape & move to the loading area.
- Stack crates on pallets no more than three boxes high.

#### Scenario #7: Follow-up

- The commercial vendor will take over processing when they arrive.
- When processing is completed, use inventory lists to update SAGE records of damaged volumes.
- Start planning for the return of the dry materials and processing back into the collection including conservation treatment and rebinding.