
David Walls, Preservation Librarian
Tornados

- Wind speed of 100 mph or more
- Ground speed varies
- U.S. has the most tornados
- Develop when warm moist air below mixes with cool air in higher clouds.
- National Weather Services issues Watches, Warnings
Hurricanes

- Typically 2-3 major ones each season.
- Hurricane Season: June 1-November 30th.
- There is a 69% probability of a major hurricane in 2020.
Thunderstorms

- Downburst “cells” produce damaging winds.
- Cause flash floods where a season of rain may fall in hours
- Flash flooding is worse in urban areas due to impervious cover
Protection and Risk
Managing Risk
Assessing Risk

Consider the risk...

- What are the risks?
- How likely are they to occur?
- How often could they occur?
- What is the likely outcome if the risk event occurs?
Flood

- Fire suppression
- Hot and cold fresh water
- Hot water radiators
- Hot water to HVAC Heat Exchangers
- Steam to HVAC
- Chiller water to HVAC
- Condensation return
- Rain water
- Sewage
Flood

- Heed the warning signs
- Report signs of leaks as soon as they appear
Flood
Fire

- Policy on use of electric space heaters
- Use of extension cords
- Ensure that enough electrical circuits exist for break rooms
- Enforce no smoking policy
Fire

- Arson is a frequent cause of library fires
- Improve sight lines to public areas
- Be aware of suspicious behavior
- Ensure that fire detection and suppression systems are regularly inspected
Fire

• Fire Marshall or special Arson Investigation Unit
• Library becomes a crime scene
• Documentation of Fire pattern
• Staff/witness interviews
• Evidence collected
Renovation
Mold

- Humidity consistently above 55% rH
- HVAC System Failure
- Renovation changes airflow
- Attempt to save $$ on humidity and temp control
- $$ to remove
Planning

• Form a Disaster Prevention and Response Plan Task Force
• Assess risks to collections from building systems
• Monitor building systems regularly
• Build communication with maintenance and security staff for organizational support
Assessing Risks: The Collection

• Documentation of holdings
• Age of materials
• Special Collections
• Items with specific historic or artifactual value
• Location of collections in the building?
Assessing Risks: Floor Storage
Assessing Risks: Organizational Support

• Who responds?
• Do you know your facilities staff?
• Who monitors the building at nights, weekends, holidays?
• If water is flowing out from under a locked door, who has the keys?
• If you need supplies (a mop and bucket) how do you get them?
• Do you have remote loggers to warn of leaks?
Assessing Risks: Information Technology

• Are the library catalog and essential business record systems backed up?
• Who would restore the catalog and other systems in the event of a disaster?
• Are IT access services for library users, (WiFi) part of the restoration of online services
**Risk Checklist**

- Known building system issues: leaks, drainage, flooding, humidity?
- Collections Stored in the basement?
- Collections stored remotely?
- Materials directly on the floor?
- Collections close to large windows
- Collection items inventoried through the catalog or other documents
- IT systems backed up and restorable
- Building and collection areas monitored
Planning

• Form a Disaster Prevention and Response task force and make developing a Disaster Recovery and Response Plan a priority
• Assess Risks
• Is your collection cataloged and inventoried?
• Determine how your insurance works – documentation required?
• Map the location of cut-off valves for water
• Map the location of special collection items
• Purchase Disaster Recovery supplies and secure them in a dedicated space
Planning

• Communication is essential: management, maintenance, security, first responders
• Arrange with administration for a source of emergency funds that can be used when normal city/campus offices are closed
• Develop an approved template for press releases and decide who will be the spokesperson
• Obtain a dedicated emergency triage space outside of the library
• Secure a contract with a Disaster Recovery Service
Planning Checklist

• Building and environmental risks assessed and monitored
• Disaster Response and Recovery Team organized and trained
• Disaster Response and Recovery supplies secured and accessible
• Disaster Response Plan developed with a telephone tree for staff and facilities.
• Disaster Response plan communicated with administration and building maintenance and security.
Disaster Planning

- Plan online but print each team member a copy
- Response team keeps copies at home
- Includes an emergency telephone tree for response team and other essential personnel
- Version control essential for updating
- Plastic sheets for triage instructions, maps
Supplies Checklist

• Plastic Sheeting
• Duct Tape
• Data loggers for remote monitoring
• Buckets and mops
• Wet dry vacuum
• Rubber or nitrile gloves
• Floor fans
• Space to dry books (tables or a clean, dry floor)
• Paper towels
Additional Supplies

- Plastic painters drop cloths
- Tyvek coveralls
- Rubber gloves
- Rubber boots
- Dust masks
- Paper towels
- Tables
- Fans
- Extension cords
- Emergency lights
- Flashlights / spare batteries

- Waterproof digital camera
- Large capacity camera chip
- Garden hose/water for rinsing
- Buckets
- Printed triage forms
- Boxes or milk crates for packing books for freezing
- Plastic bags
- Wax paper

Response

- Special Collection items
- Business Records
- Insurance Documentation
- Triage books from top to bottom of affected areas
- Microforms
- Computer hard drives
Plastic Sheeting
Recovery

- Clay coated paper first
- Interleaving paper towels between damp pages
Recovery

• **Destroyed**: Burned and soaked = Document for discard

• **Severely Damaged**: Heat, smoke damaged, soot, wet = Freeze / dry

• **Damaged**: Soot, smoke, damp = Clean and dry
Recovery

• Safety first
• Predetermine when you call in a recovery service
• Triage criteria essential
• Practice interleaving and drying books in a disaster drill before the real thing happens
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