

Virginia Military Institute
Preston Library, VMI Archives, and Institute Records
Disaster Plan

Updated 2/28/2020 8:46 AM by VMI Archives

Table of Contents		
Introduction		Page 2
Response to Emergencies	Overview	Page 3
	Evacuation Procedures	Page 4-5
Emergency Procedures	Active Shooter	Page 6
	Bomb Threat	Page 7-8
	Building Explosion	Page 9-10
	Crime in Progress	Page 11
	Earthquake	Page 12-13
	Fire	Page 14-15
	Flood	Page 16-17
	Gas Leak or Odor	Page 18
	Hazardous Material Release	Page 19
	Hazardous Material Spill	Page 20
	Hurricane	Page 21-23
	Medical Emergency	Page 24
	Power Outage	Page 25
	Suspicious Package/Item	Page 26
	Tornado	Page 27-28
	Water Damage	Page 29-30
Recovery & Salvage Resources	Establish Priorities	Page 31
	Handling Damaged Material	Page 32
	Water Damage	Page 33-34
	Fire Damage	Page 35
	Emergency Supplies	Page 36
Additional Helpful Resources	Experts, Consultants, Disaster recovery services	Page 37
	NEDCC "Emergency Salvage of Wet Books and Records" full text	Page 38-44

Introduction

The purpose of this plan is to provide a basic guide for response to and recovery from disasters affecting Library holdings, the VMI Archives, and other Institute records. It is intended to assist Library and Archives staff, as well as other Institute personnel who are responsible for maintaining public records.

This plan fulfills the Code of Virginia's mandate that each agency shall maintain a disaster preparedness plan for the protection and recovery of public records. This Disaster Plan complements the Contingency Management Plan (CMP) maintained by the Information Technology (IT) Department. The CMP specifically addresses response to and recovery from computer systems emergencies.

This disaster plan is available on the VMI website at: <https://www.vmi.edu/archives/records-management/disaster-plan/>.

Printed copies of the plan are located at:

- the Service Desk
- the VMI Archives
- at the homes of the Library Director; Assistant Director, Head of User Services; Head of Archives and Records Management

This disaster plan will be reviewed and updated annually by the Head of Archives and Records Management, with input from the Library Director and Library staff.

Emergency Telephone Numbers

Fire-Ambulance-Police	911
VMI Post Police Dispatch	540-463-9177
VMI Guard Room	7294 (using VMI phone system)* or 540-464-7294
VMI Physical Plant	7357 (using VMI phone system) * or 540-464-7357

*** Note:** The VMI phone system will not work if the building has lost power. You will need to call using a cell phone.

Response to Emergencies: Overview

Response to emergencies is based upon the following priorities:

1. **Most importantly, safeguard human life.** Evacuate the building/shelter within the building immediately, and call for help.
2. If safe to do so, assess and contain the damage to collections.
3. Salvage as many library materials as possible, beginning with the rare materials in the Archives.
4. Staff of departments outside the Library should focus on saving vital operational records first; then prioritize salvage of remaining items.

Preston Library Continuity of Operations Plan (COOP)

The Building Coordinator for Preston Library is the Library Director.

- The responsibility of the Building Coordinator for the COOP is to ensure that personnel safely evacuate the building/shelter in the building in the event of an emergency.

The Alternate Building Coordinator is the Assistant Director, Head of User Services.

- If the Building Coordinator is absent, the Alternate Building Coordinator is responsible for ensuring that personnel safely evacuate the building/shelter in the building.

In an emergency the Library staff will to the best of their ability ensure that:

1. Patrons in the immediate area and in the path of the nearest building exit/shelter area are evacuating/sheltering.
 - a) **The Library Director serves as the overall evacuation/shelter coordinator.**
2. Individuals with disabilities are evacuated or moved to Areas of Rescue Assistance.
3. All Library staff members are accounted for.

Evacuation Procedures

Non-life threatening emergency

Notification should sound via the phone system, email, fire alarm system speakers, and the outside loud speaker. Library staff will:

- Facilitate evacuation/sheltering of patrons.
- Determine if there are patrons with disabilities who cannot use the stairs or who need assistance.
 - Try to help these patrons to a safe area, as it is unlikely that there will be any additional assistance immediately available.
- When the floors are cleared, all Library staff will assemble in the designated assembly area and conduct an accounting of personnel.
 - **Evacuation** – Parade Ground
 - **Shelter** – 3rd floor computer lab
 - If exiting the building to a location other than the Parade Ground or sheltering in a location besides the 3rd floor computer lab, Library staff must:
 - Call or text your Department Head to let her/him know that you have evacuated safely/sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground/3rd floor computer lab when it is safe to do so.
- The Library Department Heads will report to the Building Coordinator (Library Director) regarding the accounting of Library staff and patrons who have been moved to an Area of Rescue Assistance.
- The Building Coordinator will report the status of the Library to the chain of command.

Please note that these evacuation/relocation procedures **do not apply during a life-threatening emergency**.

Life-threatening emergency

Life-threatening emergencies are special cases with their own procedures. The alarm will sound, and:

- Library staff should evacuate the building/shelter in place immediately.
- Staff may help others in their path but should not detour to check other areas.
 - The alarm will clear the building.
- Emergency responders will check the building as well as Areas of Rescue Assistance.
- All Library staff will assemble in the designated assembly area and conduct an accounting of personnel.
 - **Evacuation** – Parade Ground
 - **Shelter** – 3rd floor computer lab
 - If exiting the building to a location other than the Parade Ground or sheltering in a location besides the 3rd floor computer lab, Library staff must:
 - Call or text your Department Head to let her/him know that you have evacuated safely/sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground/3rd floor computer lab when it is safe to do so.
- The Library Department Heads will report to the Building Coordinator (Library Director) regarding the accounting of Library staff and any patrons who have been moved an Area of Rescue Assistance.
- The Building Coordinator will report the status of the Library to the chain of command.

Emergency Procedures

Active Shooter

An active shooter is an individual actively engaged in killing or attempting to kill people in a confined and populated area, usually through the use of firearms.

Evacuation Procedure:

1. Run

- **ONLY** if the shooter's location is known and escape is possible.
- Have an escape route and plan in mind.
- Leave your belongings behind.
- Keep your hands visible.

2. Hide

- If the shooter's location is unknown.
- Hide in an area out of the shooter's view.
- Block entry to your hiding place and lock the doors.
 - If you have an in-swinging door, place a door-stop on the inside of the door to make entry more difficult.
- Silence your cell phone and/or pager.

3. Fight

- As a last resort and only when your life is in imminent danger.
 - Attempt to incapacitate the shooter.
 - Act with physical aggression and throw items at the shooter.
- **Call 911 when it is safe to do so.** Be prepared to provide:
 - Location of the active shooter(s).
 - Number of shooters.
 - Physical description of the shooter(s).
 - Number and type of weapons held by the shooter(s).
 - Number of potential victims at the location.
 - When law enforcement arrives:
 - Remain calm and follow instructions.
 - Put down any items in your hands (jackets, bags, etc.).
 - Raise hands and spread fingers.
 - Keep hands visible at all times.
 - Avoid quick movements toward officers such as holding onto them for safety.
 - Avoid pointing, screaming, or yelling.
 - **DO NOT** stop to ask officers for help or direction when evacuating.

Bomb Threat

A bomb threat is a telephone call, note, or verbal message that indicates that a bomb has been placed in or near the library building. **All bomb threats are to be taken seriously.**

- The print VMI directory contains a **“Threat Checklist & Telephone Procedure”** inside the front cover.

Evacuation Procedure:

Bomb threat/suspicious item:

- **DO NOT** activate fire alarm pull bars to avoid activating explosive devices.
- **DO NOT** use a cell phone, walkie-talkie, or radio to avoid activating explosive devices.
- Only notify Library staff to prevent panic.
- If instructed to do so*, **evacuate the building immediately** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground

*Evacuation locations could become targets for active shooter situations.

- Move at least 300 feet away from the building.
- Staff may help others in their path but should not detour to check other areas.
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know that you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If unable to reach your Department Head, try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.

Bomb threat via phone:

- **DO NOT** put the telephone call on hold or hang up on the caller.
 - Listen carefully.
 - Do not interrupt the caller.
 - Write down what the caller says in their own words.
 - Keep the caller on the phone as long as possible.

- Silently signal to a coworker to **call 911** on another phone to report the phone number on which the call is received or to have the phone call traced.
 - Follow the instructions of the 911 dispatcher.
- Get as much information as possible from the caller and write it down.
 - Exact location threatened (building, floor, and room).
 - The time the bomb is supposed to explode.
 - Kind of bomb.
 - Reason for threat or bomb.
 - Listen for clues about the caller such as:
 - age
 - gender
 - accent
 - tone of voice
 - background noise

Building Explosion

An explosion is a release of energy in a sudden, loud and often violent manner with the generation of high temperature and usually with the release of gases. Because the cause of a major explosion often cannot be determined immediately, it is best to take the same precautions as for a fire.

Evacuation Procedure:

Bomb/explosion inside the building.

- **Take cover** under a sturdy desk or table.
 - Stay away from windows.
 - Remain under cover until debris stops falling.
- **Evacuate the building through the nearest exit** as soon as it is safe to do so.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
 - **DO NOT USE THE ELEVATORS.**
 - Use stairs to leave the building.
 - **DO NOT USE:**
 - matches
 - lighters
 - other open flames
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know that you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, try to get to the Parade Ground when it is safe to do so.
- As you evacuate, make note of any fires or other hazards you encounter.
- **Call 911** when it is safe to do so.
- **If trapped inside:**
 - Use a flashlight or tap on pipes to signal location.

- Shout only as a last resort to avoid inhaling dangerous dust.

Bomb/explosion outside the building

- **Take cover** under a sturdy desk or table.
 - Avoid windows, doors, and exterior walls.
- Shelter in place in the building.
 - **Shelter Location:** 3rd floor computer lab
- If sheltering in a location besides the 3rd floor computer lab, Library staff must:
 - Call or text your Department Head to let her/him know you have sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the 3rd floor computer lab when it is safe to do so.
- Remain sheltered until an “all clear” announcement is made by authorized VMI or library staff.
- **Call 911** when it is safe to do so.

Crime in Progress

Evacuation Procedure:

- Do not attempt to apprehend or interfere with the suspect.
- **Evacuate the building immediately** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground
 - Staff may help others in their path but should not detour to check other areas.
 - If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know that you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so. Give:
 - your name
 - location
 - department
 - Advise them of the situation and, if safe to do so, remain where you are until contacted by an officer.
 - Be prepared to describe the suspect:
 - height
 - weight
 - sex
 - race
 - age
 - clothing
 - method and direction of travel
 - name, if known
 - If the suspect is entering a vehicle, note:
 - the license plate number
 - type
 - make
 - model
 - color
 - outstanding characteristics

Earthquake

Earthquakes may occur in Virginia. The danger from earthquakes is caused by what they do to man-made structures:

- Debris falling from damaged buildings.
- Flying glass from broken windows.
- Fires caused by broken gas lines.
- Flooding due to broken water mains.
- In libraries, there is also danger from collapsed or overturned stacks.

There is **no warning before an earthquake occurs.**

Shelter Procedure:

- If you are in the building when an earthquake occurs:
 - **DO NOT attempt to evacuate the building.**
- **Drop, cover, then hold on.**
 - **Drop** to the ground.
 - **Take cover** by getting under a sturdy desk or table.
 - **Hold on** until the shaking stops.
- If there is no cover, drop to the floor against an inside corner of the building
 - Cover your head and neck with your hands and arms.
- **DO NOT** shelter under doorways.
- Move away from:
 - bookshelves
 - cases
 - cabinets
 - exterior walls
 - overhead light fixtures
 - windows
- Remain sheltered until an “all clear” announcement is broadcast on the radio or is made by authorized library staff.
 - A battery-powered radio is available so that information concerning the earthquake can be monitored.
 - **Battery-Powered Radio storage location:** 4th floor office behind the service desk (Projection Room)
 - NOAA Weather Radio – WXL92, 162.550 MHz, Lynchburg, VA

Evacuation Procedure:

- **Evacuate the building** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
- **DO NOT USE THE ELEVATORS.**
- **DO NOT use exits which lead into stairways** because they may have collapsed.
- Avoid:
 - falling debris
 - electrical lines
 - standing water
 - broken water pipes
 - fuel leaks
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.
 - **ONLY** to report emergency situations and/or major injuries.
- After-shocks may follow for several hours or days after the earthquake.

Damage Assessment

Damage from an earthquake may include:

- Structural damage to the building.
- Collapsed shelving.
- Damage to equipment and furniture.
- Water damage from broken pipes.
- Fire and/or smoke damage caused by broken gas lines.

All damage will need to be assessed by the Facilities Director before re-entering the Library to begin recovery operations.

Fire

Fire is the most serious single threat to library collections. It may lead to:

- Loss of life.
- Loss of collections.
- Loss of building structural integrity—causing great physical damage to the unburned collections.

During fire suppression, water, chemical, and physical damage may all occur and mold may later result. Fire hazards vary by region, with forested areas and dry plains being at particular risk of wildfires.

Your first priority is to ensure the safety of the people in the building.

Use common sense and do not panic. A trained staff member may attempt to put out a small fire with a fire extinguisher if:

- The fire is small—**no larger than a fire in a waste basket.**
- The fire is confined to the area where it started.
- You have a way out and can work with your back to the exit.
- You have the right type of extinguisher and you feel confident that you can operate it.
- **DO NOT** attempt to put out a nitrate or plastics fire.

Fire extinguishers are located on each floor at the following locations:

- **5th floor**
 - Entrance lobby
 - Rear stairwell exit (Mallory Hall side)
- **4th floor**
 - Stairwell landing (outside entrance to Archives)
 - Rear stairwell exits (both sides of the building)
 - Exit to Nichols Engineering Building
 - Archives stacks
- **3rd floor**
 - Stairwell landing (outside entrance to stacks)
 - Rear stairwell exits (both sides of the building)
 - Computer Lab
 - Stacks exit on side of building (Mallory Hall side)

Evacuation Procedure:

When the fire alarm is activated:

- **Evacuate the building immediately** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground

- Move at least 300 feet away from the building.
- Staff may help others in their path as they exit the building, but **should not detour to check other areas.** Allow the alarm to clear the building.
- If smoke is present, keep close to the ground.
 - If smoke is bad, cover your nose and mouth with a wet cloth.
- **DO NOT USE THE ELEVATORS.**
 - Use stairs to leave the building.
- **DO NOT** open windows.
- Close doors behind you to help contain the fire.
- If exiting the building to a location other than the Parade Ground, Library Staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, try to get to the Parade Ground when it is safe to do so.
- Library staff will conduct an accounting of staff and patrons to try to determine if everyone has left the building.
- The alarm automatically summons both the Fire Department and Post Police.
 - **Call 911** if the Fire Department does not arrive within a few minutes.
 - Then call Post Police at (540) 463-9177.
- If safe to do so, a staff member should stay near the front door, encouraging everyone to leave and not allowing anyone except emergency personnel to enter.
- Firefighters and Post Police will assist persons with disabilities.
 - Alert professional rescue personnel about any missing or trapped individuals and their probable location.

Damage Assessment:

If there is structural damage, the Facilities Director needs to assess the damage and determine when it is safe to enter the building.

Flood

Floods are the most widespread form of natural disaster after fire. Floods and flash floods occur in all 50 states. Loss of life is always the greatest risk for floods.

Evacuation Procedure (Before Flood):

- If a **Flood Warning** is issued (a flood will occur within the next 24 hours), **evacuate and close the library.**

Shelter Procedure (During Flood):

- If you are in the building when a flood occurs:
 - Alert Library staff and patrons to the flood danger.
- **Remain in the building and shelter in place.**
 - **Shelter Location:** Top floor
 - Staff may help others in their path but should not detour to check other areas.
 - If sheltering in a location besides the top floor, Library staff must:
 - Call or text your Department Head to let her/him know that you have sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If unable to reach your Department Head, you must try to get to the top floor when it is safe to do so.
- **Call 911** when it is safe to do so.
 - Alert them to your situation and request rescue.
- Remain sheltered until an “all clear” announcement is broadcast on the radio or is made by authorized library staff.
 - A battery-powered radio is available so that information concerning the flood can be monitored.
 - **Battery-Powered Radio storage location:** 4th floor office behind the service desk (Projection Room)
 - NOAA Weather Radio – WXL92, 162.550 MHz, Lynchburg, VA
 - If necessary, go onto the roof as long as no thunderstorm is in progress.

Water Mitigation:

- If water is leaking from the ceiling, cover the area with plastic sheeting.
 - **Plastic Sheeting storage location:** 4th floor office behind the service desk (Projection Room)
- Place buckets under leaks.
 - **Bucket storage location:** Janitor closet on each floor.
- If there is water on the floor:
 - Block access to the area and do not enter if there is danger of electrical shock.
 - If you can safely do so, turn off electrical circuits to the flooded area, and unplug electrical equipment in the area.
 - If electricity in the building needs to be turned off, call Physical Plant at (540) 464-7357.
 - When safe to enter the flooded area, remove books or records from lower shelves/file drawers onto higher shelves or tables well away from standing water.
 - Do not place any material on the floor, even in a seemingly dry area, as the water may spread.

Damage Assessment:

If there is structural damage, the Facilities Director needs to assess the damage and determine when it is safe to enter the building. The Facilities Director may need to check the safety of floors, walls, and stairways.

When re-entering the building, watch for:

- Broken or leaking gas lines.
- Flooded electrical circuits.
- Submerged furnaces and appliances.
- Flammable or explosive materials that entered the building as a liquid.
- Contaminants that are health hazards (gas, biological waste).
- Biological problems including vermin, snakes, mold, and similar problems.

Gas Leak or Odor

Evacuation Procedure:

- Open a window if there is hissing or a gas odor.
- **DO NOT** turn electrical devices on or off to prevent sparking.
- **Evacuate the building immediately** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
 - If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know that you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.
- Call Physical Plant at (540) 464-7357 to request to have the gas main valve turned off.

Hazardous Materials Release

Evacuation Procedure:

- **Only evacuate** the building if instructed to do so.
 - If you are told to evacuate, drive perpendicular to the wind direction and away from the release area.
 - Keep your car windows and vents closed.
 - Keep your car air conditioning turned off.

Shelter Procedure:

- If instructed to remain in the building:
 - Alert Library staff and patrons to the danger.
- **Remain in the building and shelter in place.**
 - **Shelter Location:** 3rd floor computer lab
 - You will receive instructions to:
 - Turn off heating, ventilation, and air conditioning.
 - Close and seal with tape all doors and windows.
 - Staff may help others in their path but should not detour to check other areas.
 - If sheltering in a location besides the 3rd floor computer lab, Library staff must:
 - Call or text your Department Head to let her/him know that you have sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If unable to reach your Department Head, you must try to get to the 3rd floor computer lab when it is safe to do so.
- Report any strange, abnormal odors (almond, ammonia, garlic, mustard, rotten eggs, vinegar). Many hazardous materials, however, have no distinguishing odors.
- **Call 911** when it is safe to do so.

Hazardous Materials Spill (liquid or powder)

Evacuation Procedure:

- **Do not** try to clean the spill.
 - Cover the spilled material.
- Remove affected clothing using gloves.
 - Wash hands with soap and water.
- Restrict access to the contaminated area.
 - Leave the room and close the door.
- **Evacuate the building immediately** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
 - If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.

Hurricane

Hurricanes can form on the Atlantic Coast of Virginia between June and November. Damage from heavy rain and flooding as well as high winds may occur. Hurricanes are slow moving so precautions can be taken before the storm actually strikes.

Evacuation Procedure (Before Hurricane):

- Because sufficient warning can be given in a hurricane emergency, **evacuate and close the building** before the hurricane strikes.
- Preparation:
 - Move rare and valuable materials to a safe place.
 - Turn off the power to the building.
 - Tape windows to reduce the danger of flying glass.
 - Close doors.

Shelter Procedure (During Hurricane):

- If you are in the building when a hurricane occurs:
 - Alert Library staff and patrons to the hurricane danger.
- **Remain in the building and shelter in place.**
 - **Shelter Location:** 3rd floor computer lab
 - Take cover under a sturdy desk or table.
 - The computer lab has been equipped with a rechargeable flashlight.
 - **Flashlight storage location:**
 - A whistle that can be used to alert rescuers is also available.
 - If unable to reach the 3rd floor computer lab, **shelter in place in a windowless room above ground level.**
 - If sheltering in a location besides the 3rd floor computer lab, Library staff must:
 - Call or text your Department Head to let her/him know you have sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the 3rd floor computer lab when it is safe to do so.

- Remain sheltered until an “all clear” announcement is broadcast on the radio or is made by authorized library staff.
 - A battery-powered radio is available so that information concerning the hurricane can be monitored.
 - **Battery-Powered Radio storage location:** 4th floor office behind the service desk (Projection Room)
 - NOAA Weather Radio – WXL92, 162.550 MHz, Lynchburg, VA
- Shelter in place until cleared for evacuation.

Evacuation Procedure (After Hurricane):

- **Evacuate the building** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
- **DO NOT USE THE ELEVATORS.**
- **DO NOT use exits which lead into stairways** because they may have collapsed.
- Avoid:
 - falling debris
 - electrical lines
 - standing water
 - broken water pipes
 - fuel leaks
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.
 - **ONLY** to report emergency situations and/or major injuries.

Damage Assessment:

Most damage from a hurricane will be water damage, although there is a possibility of:

- Structural damage.
- Broken windows.
- Collapsed shelving.

If there is structural damage, the Facilities Director needs to assess the damage and determine when it is safe to enter the building.

Damage to affected materials also needs to be assessed. The recovery operation for library materials may include:

- Surveying water damage to books and other library materials.
- Re-shelving library materials.
- Deciding upon repair of broken windows.

Medical Emergency

- The Library maintains a basic first aid kit to handle minor emergencies.
 - **First-Aid Kit storage location:** 4th floor office behind the service desk (Projection Room)
- Keep the injured person calm and indicate help is on the way.
 - Remain with the injured person.
- Keep the area clear.

Minor emergency:

- Provide care only if trained to do so.
- **DO NOT** administer first aid without consent.
 - Identify yourself by name and offer assistance.
 - **DO NOT** put yourself at risk.
 - Use latex gloves and face mask when blood or bodily fluids are present.
 - Instruct the injured person to visit a personal physician.
 - When a child is injured, offer first aid supplies to the parent for their use.
 - Call the child's parent/guardian if he/she not present.

Major emergency:

- **Call 911** for major medical emergencies.
- Information to give to a 911 dispatcher:
 - Your name.
 - Location.
 - Brief description of problem (breathing, unconscious, bleeding, etc.).
 - Injured person's gender.
 - Injured person's age.
- **DO NOT** unless directed by a 911 dispatcher:
 - Move or lift the injured person.
 - Offer food or drink to the injured person.
- Arrange to meet first responders.

Power Outage

Evacuation Procedure:

- Call Physical Plant at (540) 464-7357 to report the outage.
 - The VMI phone system will not work during a power outage, so you will need to call using a cell phone.
- Use a flashlight.
 - **Flashlight storage locations:**
 - 4th floor – ILL/Hold shelf next to the service desk
 - 4th floor – Administrative Assistant Desk
 - **DO NOT use:**
 - matches
 - lighters
 - other open flames
- **Evacuate the building** through the nearest exit:
 - **Designated Meeting Area:** Parade Ground
 - Move single file with caution along the evacuation route.
 - Close doors and windows while evacuating.
 - If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, try to get to the Parade Ground when it is safe to do so.
- Secure the building.
- Restrict access until regular services and security are restored.
 - The sign “Preston Library is closed due to loss of electrical power.” should be placed on the front door.
 - The sign is located at the Service Desk, in the signs folder.

Suspicious Package/Item

- Be suspicious of a package or item displaying:
 - Excessive tape or string.
 - Handwritten/poorly typed address.
 - No return address.
 - Incorrect title or title with no name.
 - Markings such as “Confidential” without a return address.
 - Misspellings of common words.
 - Oily stains or discoloration.
 - Protruding wires or tinfoil.
 - Rigid, lopsided, or uneven envelope.
 - Ticking or buzzing.
 - Vapors or odors.
- **DO NOT:**
 - Handle, open, or move the package/item.
 - Activate fire alarm pull bars to avoid activating explosive devices.
 - Use a cell phone, walkie-talkie, or radio to avoid activating explosive devices.
- Restrict access to the area and the package/item.
- Only notify Library staff to prevent panic.
- If instructed to do so*, **evacuate the building immediately.**
 - **Designated Meeting Area:** Parade Ground

*Evacuation locations could become targets for active shooter situations.

- Move at least 300 feet away from the building.
- Staff may help others in their path but should not detour to check other areas.
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.
- Be alert for other possible explosive devices.

Tornado

Tornadoes can occur in Virginia from March to October. They are not as likely to occur in mountainous regions as in more flat terrain. Tornadoes move rapidly. Most likely, there will be little warning if there is a tornado; consequently, there will be little time to seek shelter.

Tornadoes may cause:

- structural damage
- electrical shorts
- gas leaks
- fires
- other hazards

Shelter Procedure:

- If you are in the building when a tornado occurs:
 - Alert Library and staff to the tornado danger.
- **Remain in the building and shelter in place.**
 - **Shelter Location:** 3rd floor computer lab
 - Take cover under a sturdy desk or table.
 - The computer lab has been equipped with a rechargeable flashlight.
 - **Flashlight storage location:**
 - A whistle that can be used to alert rescuers is also available.
- **DO NOT USE THE ELEVATORS.**
 - **ONLY** use the stairs.
- In the library, **stay away from book stacks**, since they may collapse.
- If you are unable to reach the 3rd floor computer lab, **take cover in a closet or windowless hallway on the lowest level you can reach.**
 - If sheltering in a location besides the 3rd floor computer lab, Library staff must:
 - Call or text your Department Head to let her/him know that you have sheltered in another location in the building.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, try to get to the 3rd floor computer lab when it is safe to do so.

- Remain sheltered until an “all clear” announcement is broadcast on the radio or is made by authorized library staff.
 - A battery-powered radio is available so that information concerning the tornado can be monitored.
 - **Battery-Powered Radio storage location:** 4th floor office behind the service desk (Projection Room)
 - NOAA Weather Radio – WXL92, 162.550 MHz, Lynchburg, VA
- Shelter in place until cleared for evacuation.

Evacuation Procedure:

- **Evacuate the building** through the nearest exit.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
- **DO NOT USE THE ELEVATORS.**
- **DO NOT use exits which lead into stairways** because they may have collapsed.
- Avoid:
 - falling debris
 - electrical lines
 - standing water
 - broken water pipes
 - fuel leaks
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, you must try to get to the Parade Ground when it is safe to do so.
- **Call 911** when it is safe to do so.
 - **ONLY** to report emergency situations and/or major injuries.

Damage Assessment:

In addition to water damage, walls, ceilings, and shelves may collapse. When structural damage occurs, the Facilities Director needs to assess the structural damage and determine when it is safe to enter the building to survey damage and begin salvage efforts.

Water Damage

Water damage is perhaps the second most common type of library collections damage. Water damage is often the result of:

- Fire-fighting activities.
- Storms.
- Structural damage.
- Floor drainage back-ups.
- Leaking HVAC systems, pipes, roofs, and skylights.

Evacuation Procedure:

- If there is a serious leak, broken pipe, or a flooded area in the building:
 - **Evacuate the flooded area and block access to it.**
 - **DO NOT** enter the area until the electricity has been disconnected by an electrician.
 - There is extreme danger of electrical shock in a flood.
- Call Physical Plant at (540) 464-7357 and state that you are reporting an emergency water problem.
 - **After hours, notify the Post Police at (540) 463-9177** and request that they contact the designated Physical Plant staff.
- Evacuation of the entire building is necessary **only in cases of major water damage and when structural damage can be expected.**
 - The decision to evacuate should be made by the department head or Building Coordinator, who will organize a team to assist in evacuation.
 - **Designated Meeting Area:** Parade Ground
 - Move at least 300 feet away from the building.
 - Staff may help others in their path but should not detour to check other areas.
- If exiting the building to a location other than the Parade Ground, Library staff must:
 - Call or text your Department Head to let her/him know you have evacuated safely.
 - You must speak to your Department Head or receive an acknowledgment of your call or text to be accounted for officially.
 - If you are unable to reach your Department Head, try to get to the Parade Ground when it is safe to do so.

Water Mitigation:

- If water is leaking from the ceiling, cover the area with plastic sheeting

- **Plastic Sheeting storage location:** 4th floor office behind the service desk (Projection Room)
- Place buckets under leaks.
 - **Bucket storage location:** Janitor closet on each floor.
- If there is water on the floor:
 - Block access to the area and do not enter if there is danger of electrical shock.
 - If you can safely do so, turn off electrical circuits to the flooded area, and unplug electrical equipment in the area.
 - If electricity in the building needs to be turned off, **call Physical Plant at (540) 464-7357.**
 - When safe to enter the flooded area, remove books or records from lower shelves/file drawers onto higher shelves or tables well away from standing water.
 - Do not place any material on the floor, even in a seemingly dry area, as the leak may spread.

Damage Assessment:

If there is structural damage, the Facilities Director needs to assess the damage and determine when it is safe to enter the building.

RECOVERY AND SALVAGE—EXTENSIVE DAMAGE

Review Damage & Establish Priorities

- Rapid response is essential for an effective recovery effort. Paper-based collections begin to distort physically immediately after becoming wet.
 - Books swell and distort; paper cockles; inks and pigments run; coated papers begin to adhere; glue dissolves.
- The Library Director, Head of Archives, and appropriate department heads or library subject specialists should evaluate damage and establish salvage priorities.
 - Archival records, rare books, records vital to the operation of the Institute, and any other irreplaceable items should receive the first attention.
- Determine the kind and degree of damage that materials in each location have sustained.
 - Depending on the extent of the disaster, this may be as broad as a room-by-room designation or as narrow as an item-by-item review.
- Determine whether the salvage operation can be handled by staff or whether a disaster recovery specialist is required. Consult experts as needed.
- After reviewing the extent of the damage, the Library Director (in other offices, the appropriate administrator), should set up a disaster recovery team and assign personnel as needed.

Handling and Removal of Material

The most common emergencies (fire, flood) involve water damage. If possible, loosely sort materials according to degree of wetness (soaked, damp, dry). Pack like materials together, e.g. damp records in one box, soaked in another etc. See also specific instructions below relating to water damage and fire damage.

- Materials must be removed from affected areas, either to a salvage/drying area within the building, or to another area on Post. Likely locations are a classroom or gymnasium.
- Files: Place folders in boxes or milk crates. Place the folders vertically in boxes (standing as they would in a file drawer.) Fill boxes tightly but do not overfill.
- Bound Volumes: Load onto metal book trucks, or into boxes or plastic milk crates for transport. Place normal-size volumes in a spine down position. Pack oversized volumes flat in boxes. If time allows, loosely place sheets of freezer paper or waxed paper around every volume. Boxes should be packed tightly, but do not force a book into place.
- To ensure inventory control and for insurance purposes, it is necessary to know the condition and disposition of materials.
 - As materials are removed, staff should be assigned to label and log each container with a brief description of its contents (e.g. books, manuscripts); call number range or Record Group; damage type (wet, dry, smoke); salvage priority; and, where applicable, bar code list.
- Assign a photographer to document the damage and salvage operations.

Water Damage

Evaluate the situation and decide whether the materials can be air-dried on-site or if they must be removed to a freezer facility. **Refer to the list of consultants located on page 37 for outside assistance in evaluating the disaster.** If the damaged materials are not too numerous or too thoroughly soaked, air-drying will be a viable option and a drying area will be required. For detailed instructions on procedures to follow see the [Northeast Document Conservation Center's Technical Leaflet "Emergency Salvage of Wet Books and Records"](#) (see Appendix for text of this leaflet). A summary of key steps is listed below. Consult the complete document for details.

- **Secure a clean, dry environment** where the temperature and humidity are as low as possible. The temperature must be below 70 degrees F. and the humidity below 50%, or mold will develop and distortion will be extreme. Keep the air moving at all times using fans in the drying area. This will accelerate the drying process and discourage the growth of mold.

Books

- Thoroughly soaked books, and books with coated paper should be frozen as soon as possible.
 - Wrap them loosely in freezer paper or wax paper and pack them snugly, spine down, preferably in plastic mail crates, for transport to a freezing facility.
 - If they cannot be frozen before they dry, interleave the pages with unprinted newsprint or paper towels. Keep an inventory of books packed and removed to freezer facilities.
- Interleave every few pages, starting from the back of the book, turning pages carefully. For interleaving, use paper towels or clean, unprinted newsprint. Be careful to avoid interleaving too much or the spine will become concave and the volume distorted.
- Books that are wet around the edges but not completely soaked can be air dried.
- When books are dry but still cool to the touch, they should be closed and laid flat on a table or other horizontal surface, gently formed into the normal shape, with convex spine and concave front edge (if that was their original shape) and held in place with a light weight.
 - Do not stack drying books on top of each other. In no case should books be returned to the shelves until thoroughly dry; otherwise mold may develop, particularly along the gutter margin

Manuscripts and Archival Records

- Air drying is most suitable for small numbers of records that are damp or water damaged only around the edges.
 - If there are hundreds of single pages, or if the water damage is severe, other methods of drying will be more satisfactory and cost-effective.
- Single leaves can be laid out on tables, floors, and other flat surfaces, protected if necessary by paper towels or clean, unprinted newsprint, or clotheslines may be strung close together and records laid across them for drying.
- If records are printed on coated paper, they must be separated from one another to prevent them from sticking. This is a tedious process that requires skill and patience.
 - Place a piece of polyester film on the stack of records.
 - Rub it gently down on the top sheet.
 - Slowly lift the film while at the same time peeling off the top sheet.
 - Hang the polyester film up to dry on a clothesline using clothespins.
 - As the document dries, it will separate from the surface of the film, so it must be monitored carefully.
 - Before it falls, remove it and allow it to finish drying on a flat surface.
- Once dry, records may be re-housed in clean folders and boxes, or they may be photocopied or reformatted in other ways. Dried records will always occupy more space than ones that have never been water damaged.

Microforms and Photographs

- **Microforms** subject to water damage should be professionally cleaned and dried within 48-60 hours.
 - They will need to be sent to a processing laboratory.
 - In most cases, the film should not be used again, but a duplicate copy should be made and the damaged one discarded.
 - If the film is dirty/muddy, put in a bucket filled with clean cold water and agitate lightly to remove major dirt deposits. Pack for shipping.
 - If film cannot be salvaged within about 60 hours, it can be frozen.
- **Photographs.** Photographs in water will quickly deteriorate: images can separate from mounts, emulsions can dissolve or stick together, and staining can occur.
 - Mold can grow within 48 hours at 60% RH and 70 degrees F, and it often causes permanent staining and other damage to photographs.
 - For these reasons photographs need to be dried as quickly as possible. If photographs cannot be dried they should be frozen.

Fire Damage

If there is a fire, materials will suffer fire and smoke damage in addition to water damage. It is necessary to consult conservators and other experts listed in this plan.

- In the absence of professional help, handling of charred items should be avoided if possible, since handling will result in further damage.
- Rare, archival, or special collections materials must be evaluated by a conservator.

Basic Emergency Supplies

Essential supplies should be maintained in the department. Other emergency supplies are located at Physical Plant. Obtain additional items as needed.

Emergency Supplies Located in Preston Library:

- Plastic Sheeting:
 - **Location:** 4th floor – office behind the Service Desk (Projection Room)
- Small buckets:
 - **Location:** Janitor closet on each floor
- Book trucks:
 - **Location:** 4th floor – office behind the Service Desk (Projection Room)
 - 4th floor – Technical Services office
- Flashlights:
 - **Location:** 4th floor – ILL/Hold shelf next to the service desk
 - 4th floor – Administrative Assistant Desk
- Fans:
 - **Location:** 4th floor – Technical Services office and supply closet

Located at or obtained by Physical Plant:

- Dehumidifiers
- Additional fans
- Generator, portable

Experts/Consultants

- [Northeast Document Conservation Center \(NEDCC\)](#)
(855) 245-8303

24/7 Collections Emergency Hotline (day or night, seven days a week).
Emergency telephone consultation.

- **LYRASIS Disaster Assistance**
(800)-999-8558

Can help with referrals.

- **Preservation Services. Alderman Library, University of Virginia**
(434) 924-1055

Can consult and help with referrals.

- **Library of Virginia (Richmond)**
(804) 692-3500 (This is not an emergency number).

Contact the State Archivist or Librarian as soon as possible after the disaster occurs.

The LVA will provide expert advice, assistance and support, as mandated by the Code of Virginia, Sec. 42.1-91, in coordination with the state Department of Emergency Services.

Disaster Recovery Service Providers

Some disasters are too large or complex for an institution to handle alone. In these instances, NEDCC recommends working with a disaster remediation company experienced in handling cultural heritage collections. The following companies have expertise in this area, and can be reached around the clock.

[Belfor](#) (Closest provider – has Richmond location: 2161 Tomlynn St., Richmond, VA 23230)
(866) 493-5053 – Richmond Office **24/7 Emergency number**
(800) 856-3333 – National **24/7 Emergency number**

[BMS Cat](#)
(877) 730-1948

[Polygon](#)
(800) 422-6379

Appendix

Northeast Document Conservation Center (NEDCC)
Technical Leaflet Full Text**“Emergency Salvage of Wet Books and Records”**

<https://www.nedcc.org/free-resources/preservation-leaflets/3.-emergency-management/3.6-emergency-salvage-of-wet-books-and-records>

Every cultural institution has collections of books and records, whether historic, reference, or administrative. Some of these materials may be affected by a disaster over the course of their useful lives. Leaking pipes or roofs, flooded basements, and open windows are the most common, and most easily contained, of the small water emergencies. Large events may include natural disaster such as hurricanes, flooding from heavy rains, water discharge at high pressure from fire hoses, and major construction accidents.

However small or large the event, the recovery of books and records after exposure to water can be successful and cost-effective if staff and management are prepared ahead of time and react in a timely fashion. If recovery actions and decisions are delayed more than a few hours, deterioration of materials accelerates, recovery becomes a major undertaking, funds for recovery must be diverted from other projects, service is interrupted, and public relations suffer.

The key to a successful salvage effort is disaster planning. Disaster planning consists of four elements: assessing and mitigating risks, writing a plan, the initial response, and recovery efforts. This leaflet will focus on response and recovery but will be a useful document in writing a disaster plan as well. For more information on disaster planning, see NEDCC preservation leaflets “Disaster Planning” and “Emergency Management Bibliography.”

INITIAL RESPONSE

The initial response to a disaster can be very stressful. If your institution is unprepared, even a small water emergency can be stressful and can spiral out of control to become a disaster. The period of initial response is a time for assessing the situation, collecting recovery materials, arranging for supplies and vendors, stabilizing the facilities, and for packing up collections. Having salvage priorities listed and mapped out ahead of time saves valuable time in the recovery stage and reduces stress from trying to decide on the spot what to save first. Advice from a preservation or conservation professional can be helpful in making decisions. If rare books or unique materials are involved, a conservator should always be consulted to best determine salvage needs.

Response to and recovery from a water disaster is most successful if collections and facilities are stabilized as soon as possible. Remove standing water, reduce and stabilize temperature and humidity, and isolate and protect dry collections. If environmental conditions are not

addressed after a water problem, mold will begin to develop in as little as 72 hours, spreading rapidly thereafter. Once established, mold can be difficult to control and eradicate and may cause problems in a facility for months or even years after the recovery effort is concluded.

Before beginning any recovery efforts, the water source must be determined. Rarely is the water clean and free of debris. What has contaminated the water? Is the contamination due to pipe corrosion, mud and debris from a flood, salt water, or is sewage involved? If the water is sewage-contaminated, call in a professional recovery service immediately; **do not deal with the salvage in-house**. If the water is only contaminated by rust, mud, or salt water, rinsing wet books and records before freezing helps by removing debris that could be difficult to clean off after drying. If both trained labor and time are available for this step, set up three or four bins of clean water. Holding books tightly closed, dip them gently in the water. Moving each book from bin to bin will expose them to successively cleaner water and remove much of the debris. Over time, make the last two bins the first two, replace the dirty water in the first two bins, and make these the bins for final rinses. If records are mud-covered, rinse by supporting the records on a piece of plexiglass or other rigid, inert support and rinse with a gentle stream of water from a hose or pitcher. Do not rinse if the inks are soluble; freeze immediately, mud and all.

RECOVERY

Several drying techniques can be used for books and records that have been water damaged. For most recovery efforts, no single approach will be sufficient to cover all of the materials damaged. The selection of techniques depends upon the degree of wetness, the physical characteristics of the materials affected, expected use and retention, and available funds for recovery. Select the technique that will minimize physical damage (cockling of paper, warping of covers, and distortion of the binding) and bleeding of soluble inks and colorants. For example, in the case of a burst pipe, wet materials may be frozen and sent to a professional recovery company for vacuum freeze-drying, slightly wet materials may be air dried, the affected area is isolated, and the building, furnishings, and damp materials are dried by commercial dehumidification.

At the same time that the environment is being stabilized, wet books and records should be sorted and then treated according to degree of wetness. Degrees of wetness can be considered with these main categories in mind:

Dry materials are often overlooked in a disaster. They must be removed from the affected area if environmental conditions are not addressed immediately. Otherwise, they too will quickly become susceptible to mold growth.

Damp materials are cool to the touch. Exposed to high humidity, they can sometimes be identified after the event by mold formation.

Slightly wet materials exhibit staining to the textblock, binding, folder, or pages no more than one-half inch in from the edges. These areas will have been in immediate contact with water.

Wet materials exhibit staining more than one-half inch in from the edges, up to saturation.

It is important to understand that no drying method restores collections to their pre-damage condition. However, if stabilization and recovery occur quickly, the materials can often be dried and returned to the shelves with little discernible damage.

AIR DRYING

Air drying is the most common in-house method of dealing with water-damaged books and records. It is best suited for small numbers (less than 200) of damp or slightly wet books and documents. Because it requires no special equipment, it is often believed to be an inexpensive method of drying. However, air drying is labor intensive, occupies a great deal of space, diverts many hours of staff time to regularly monitor the process, and often results in a distorted finished product. Due to the time required for air drying and the potential for mold growth, it is not an option for a large-scale disaster. It is also not an option for books with coated paper. The rehabilitation costs after air drying tend to be greater than other methods because most bound materials require some form of treatment, from pressing to full rebinding; documents often need flattening and rehousing.

An additional consequence of air drying is the extra amount of shelf space required for collections when they are returned to the stacks. Depending upon how successfully wet materials are stabilized and dried, the amount of additional shelf space required after drying can be 20% or more.

DEHUMIDIFICATION

Drying by dehumidification with large, commercial desiccant systems allows for drying while collections, equipment, and furnishings are left in place. Temperature and humidity are carefully controlled to specifications. This drying method has the advantage of leaving damp collections in place on the shelves and in storage containers, eliminating the costly step of removal to a freezer or vacuum chamber. It is not recommended for coated papers or water-sensitive inks and pigments. The number of items that can be treated with dehumidification is limited only by the equipment and expertise of the company called in to install it.

Dehumidification is most often used in conjunction with other drying methods and for stabilizing the building and environment. Home dehumidifiers are not strong enough to reduce a building's humidity and thus are not a viable option.

FREEZER DRYING

Books and records that are damp or slightly wet may be dried quite successfully in a frost-free or blast freezer, if left there long enough. The temperature in the freezer must be maintained at or below -10° F. Books and stacks of records will dry with less distortion if they are restrained between unprinted, clean corrugated board wrapped with a strong elastic band, which will help reduce cockling. Leather and parchment/vellum bindings can be dried in this manner as well.

Documents may be placed in the freezer in stacks; shorter stacks allow for faster drying. Expect this method to take from several weeks to many months, depending upon the temperature of the freezer and the extent of water damage. If items are placed in the freezer soon after becoming wet, added shelf or storage space following drying will be less than for air-dried materials.

Freeze drying will cause more harm than water for some commonly held non-book materials. Do not freeze the following:

- Audio, video, and computer tapes – Air dry if just the outermost foot or two of tape is damp, or keep them wet until they can be sent to a professional recovery company no later than two days after salvage.
- CDs and DVDs – Air dry in a single layer; rinse first if the water was dirty or salty.
- Ambrotypes, daguerreotypes, or tintypes – Air dry in a single layer and immediately consult a photograph conservator for advice and assistance.

VACUUM FREEZE-DRYING

This is best suited for large numbers of wet books and records as well as for materials with water-sensitive inks and coated paper. Boxes of frozen books and records are placed in a vacuum chamber. A vacuum is pulled and a source of heat is introduced while the overall temperature remains below 32° F. The materials are dried by a process called sublimation; the water in the solid state (ice) is removed from the materials in a gaseous state without passing through the liquid state. Thus there is no additional wetting to cause distortion beyond that incurred before the materials were frozen. If materials have been stabilized quickly after becoming wet, very little extra shelf or storage space will be required when they are dry.

Although this method may initially appear to be more expensive because of the equipment required, the results are often so satisfactory that additional funds for rebinding are not necessary, and mud, dirt, and/or soot are lifted to the surface, making cleaning less time-consuming. If only a few books are dried, vacuum freeze-drying can be expensive. However, companies that offer this service are often willing to dry one client's small group of books with another client's larger group, reducing the per-book cost and making the process affordable. When dealing with commercial vendors for drying, communicate clearly from the beginning about costs, handling, and expectations.

VACUUM THERMAL-DRYING

It is possible to dry non-unique books and records that are slightly wet or wet in a vacuum thermal-drying chamber. A vacuum is drawn, the temperature is dropped below freezing, heat is introduced, the temperature rises above 32° F, and the materials are dried. This process removes the water from the materials in the solid state, through the liquid, to the gaseous state. Because this process occurs in cycles, it introduces considerable distortion, and items

require flattening or rebinding. The freezing and heating cycle can result in a series of tidelines as well.

IT IS NOT RECOMMENDED unless the materials have a short retention period.

HOW TO AIR DRY WET RECORDS

Air drying is most suitable for small numbers of records that are damp or slightly wet. If there are hundreds of single pages, or if the records are wet, professional dehumidification, freezing, or vacuum freeze-drying will be cost effective and result in a better end product. As explained above, stacks of documents on coated, or shiny, paper must be frozen immediately. If they cannot be frozen, separate the sheets immediately to prevent adhesion. Again, care must be taken with water-soluble inks as well. Records with running or blurred inks should be frozen immediately to prevent further loss. After the items are frozen, contact a conservator for advice and assistance.

If air drying is selected as the preferred salvage method, use the following steps. Note that wet paper is extremely fragile and easily torn or damaged, so handle these materials gently.

1. Identify a clean, dry, secure space where the temperature and humidity can be controlled. Reduce the relative humidity as low as you can to prevent mold and improve drying capabilities.
2. Keep the air moving at all times using fans in the drying area. This will accelerate the drying process and discourage mold growth. Aim fans to direct the airflow parallel to the drying records. **DO NOT** point the fans directly at the records!
3. Single leaves can be laid out on tables, floors, and other flat surfaces protected by paper towels or clean, unprinted newsprint.
4. If records are printed on coated paper and there is no means to freeze them, they must be separated from one another to prevent them from sticking. This is a tedious process that requires skill and patience.
 - Place a piece of polyester film on the stack of records.
 - Rub it down gently on the top sheet.
 - Slowly lift the film while peeling off the top sheet at a low angle.
 - Hang the polyester film up to dry on a clothesline.
 - As the document dries, it will separate from the surface of the film, so it must be monitored carefully.
 - Before it falls, remove it and allow it to finish drying on a flat surface as described in step 3.

5. Once dry, records may be rehoused in clean folders and boxes, or they may be photocopied or reformatted in other ways. Dried records will always occupy more space than ones that have never been water damaged.

HOW TO AIR DRY WET BOOKS

Air drying is most appropriate for books that are only damp or slightly wet. Books that are wet — and especially books that are saturated — should be frozen and vacuum freeze-dried to minimize cockling of the pages and distortion of the text block and binding.

Remember that books containing coated paper should be frozen while still wet and then vacuum freeze-dried, and that books with running or blurred inks or colorant must be frozen immediately to preserve the contents.

1. Identify a clean, dry, secure space where the temperature and humidity can be controlled. Reduce the relative humidity as low as you can to prevent mold and improve drying capabilities.
2. Keep the air moving at all times using fans in the drying area. This will accelerate the drying process and discourage mold growth. Aim fans to direct the airflow parallel to the drying volumes.
 - a. **DO NOT** point the fans directly at the books!
3. If the book is damp or the edges of the book are only slightly wet, the book may be stood on end and fanned open slightly in a space with good air circulation, but again, do not aim fans directly at the books. To minimize distortion of the edges of the text block, place volumes in a press or press under a board with a weight just before drying is complete. Paper- or cloth-covered bricks work well for weights.
4. If the book is slightly wet, interleave approximately every 16 pages, starting from the back of the book, turning pages carefully.
 - For interleaving, use paper towels or clean, unprinted newsprint.
 - Do not interleave too much or the spine will become concave and the volume distorted. A good rule of thumb is to insert no more than one-third of the number of text pages.
 - Complete the interleaving by placing clean blotter paper inside the front and back covers. Close the book gently and place it flat on several sheets of absorbent paper.
 - Change the interleaving and absorbent paper frequently. Turn the book from front to back each time it is interleaved. When the book is damp, proceed as in step 3.
5. Dampness will persist for some time inside the book in the gutter, along the spine, and in the boards. Due to their thickness, the boards retain moisture much longer; mold is often found between the boards and flyleaves if the book is not allowed to dry completely.
 - Check for mold growth frequently while books are drying.

6. When books are dry but still cool to the touch, they should be closed, laid flat on a table or other horizontal surface, gently formed into their original shape, and placed in a press or held in place with a board and weight.
 - Press overnight and set up to dry during the day and repeat until books are dry.
 - In no case should books be returned to the shelves until thoroughly dry; otherwise mold may develop, particularly along the gutter margin.

7. If you can establish an air-conditioned room capable of maintaining a constant relative humidity of 25% – 35% and temperature between 50° F and 65°F, books with only wet edges can be dried successfully in approximately two weeks without interleaving.
 - As stated earlier, exceptions are books printed on coated paper and those with water-sensitive media.