

INTRODUCTION TO DISASTER PLANNING

Disasters do not consider one's state of readiness before striking. Knowing what (and what not) to do before, during, and after a disaster will prevent panic, lessen the severity of damage, and enable you to implement an organized recovery operation.

The following guidelines will assist the agency head or designated Records Management Official in the preparation of a disaster plan. The organization of procedures should be tailored to fit your agency's needs and idiosyncrasies. The Records Management Official and members of the disaster action team should receive two copies of the plan—one to keep at work and one to keep at home. The plan should be reviewed and updated at least annually to reflect changes in personnel, holdings, policies, and sources of supplies and equipment.

All staff and volunteers should read and have access to your disaster plan. Training in disaster recovery techniques should be available to all staff members and mandatory for those individuals serving on your recovery team. This training is available from **Steve Walker, State Archivist, (208) 334-2620**.

The number of individuals on your disaster action team will vary depending on the size of the agency. At a minimum, individuals should be assigned the following responsibilities. Note that alternates are required.

1. **Records Management Official**. Responsibilities are administrative and include overall management of recovery operation: coordination with administrative offices and media; budget allocation for wages, supplies, transportation and services; and public relations.
2. **Emergency Coordinator**. Responsibilities include assessing damage to facility and records, establishing salvage methodologies, coordinating salvage efforts and training work crews.
3. **Recorder**. Responsibilities include inventory control of damaged materials and photographic documentation.
4. **Work Coordinator**. Responsibilities include assembling and coordinating work crews, ordering supplies and equipment and controlling work flow.

DISASTER PREVENTION

An ounce of prevention is worth a pound of cure. Be aware of all hazards (situations that have the potential for causing damage) and correct them before they develop into disasters. Man-made disasters can often be prevented by routine inspections of a facility. Cleaning and pest management should be performed on a regular basis. Leaky pipes, frayed electrical wires, untended machinery, open windows, and structural damage can result in unnecessary destruction of materials and possible loss of life.

All electrical equipment should be plugged into surge suppressors and extension cords avoided. Policies regarding food, beverages, smoking, and unauthorized access should be established and enforced. Security checks should be made at closing time to ensure all exits and windows are locked, all equipment has been turned off or unplugged, all lights and water faucets are off, no cigarettes are smoldering in ashtrays or wastebaskets, and no unauthorized personnel are in the building.

Staff members should all be familiar with the layout of the building and of possible danger areas. They should know the location of all fire extinguishers and alarms and how to operate them. Fire exits and alternate escape routes should be clearly marked. Evacuation procedures should be established and practiced regularly.

The objective of a disaster plan is to ensure the protection of people and the collections. Invite your local fire department and fire marshal to inspect your facility and to conduct fire safety seminars. They can be very helpful in helping you develop a disaster prevention and response plan. The more they know about your facility, the better.

All vendors of supplies and services should be contacted in advance in order to explain your needs. When contacting vendors, talk with the person who can make a commitment, and list that individual as the contact. Sources should be contacted at least annually to determine whether those supplies and services are still available and to remind them of their commitment. Keep in mind that in a wide scale, major disaster, your sources may not be available, because they have their own damages with which to deal or because they are assisting someone else. In addition, outside help may not be available for one or two weeks.

Disasters are not linear. Seldom will a disaster occur as predicted or a salvage go as planned, so you must be ready and able to improvise, making decisions based upon sound information. No matter the cause (arson, leaking pipes, lightning, faulty wiring or flood) assume that the result will be wet materials that need attention as soon as possible.

Liability is a major concern for agency employees and volunteers during a salvage operation. Individuals with health problems such as high blood pressure, asthma or back problems may not be suitable for salvage work. Check with your attorney.

The Disaster Prevention/Safety Checklist at the back of this document should be photocopied and used during periodic inspections of your facility.

INVENTORY/PRIORITY LISTS

The time to make a list of salvage priorities is before disaster strikes. It is impossible to make good decisions while your books and records are floating in the halls and aisles.

If you do not have a location guide to your records, create one. Like the disaster plan itself, it will prove vital in case of a disaster. After you have a location guide, duplicate it and keep a copy away from the office—it'll do no good if it burns up or gets washed away.

Another list to prepare or update is an inventory of supplies and equipment. Include costs and purchase dates, and keep a duplicate off-site.

Once you have documented what your facility contains, establish a priority salvage list. This is a triage approach and includes three categories:

#1 - Salvage at all costs

#2 - Salvage if time permits

#3 - Salvage as part of general clean-up

The following questions may be helpful in determining priorities:

- A. **Is the item unique**, especially important to the community, perhaps a piece of local history?
- B. **Can the item be replaced**? At what cost? Can you afford it?
- C. **Would the cost of replacement be less or more than restoration** of the item? Will insurance pay for one and not the other?
- D. **How important is the item intrinsically**? To the collection? To the public?

DISASTER RECOVERY

If a disaster strikes when the building is occupied, your first concern must be for the safety of the individuals inside. Escape routes, alternate routes and procedures for evacuating the building should be clear to all personnel and visitors. Practice drills should be conducted on a regular basis to eliminate panic during "the real thing." Keep in mind that you must make plans for evacuating people with disabilities. Your local fire officials will be happy to help you with evacuation procedures.

Most disasters tend to occur when the building is unoccupied— during the night, on weekends or during holiday closings. In the event of a major disaster, do not enter the building until it has been declared safe to do so by the local authorities.

Over ninety percent of all disasters will result in water-damaged materials. Mold can develop within forty-eight to seventy-two hours in a warm, humid environment, so you must work quickly to salvage damaged materials and to prevent additional damage from occurring.

The following steps are recommended for an effective recovery operation:

ASSESS THE DAMAGE

How much damage has occurred? What kind of damage is it (fire, smoke, soot, clean water, dirty water, heat, humidity)? Is it confined to one area or is the entire building damaged? How much of the collection has been affected? What types of materials have been damaged (books, documents, microforms, photographs, computers)? Are the damaged items easily replaced or are they irreplaceable? Can they be salvaged by the recovery team or will outside help be required?

Walk through the entire area and take extensive notes (use a pencil, as ink will run). Photographs should be taken to document the damages. Contacts should be made at this time with the insurance carrier, vendors of supplies and services, and the State Archivist at the Idaho State Historical Society.

STABILIZE THE ENVIRONMENT

The environment must be stabilized to prevent the growth of mold. The following equipment may be required to stabilize the environment:

- A. **Portable generators**, in case of power failure.
- B. **Pumps**, to remove large quantities of standing water.
- C. **Fans**, to circulate the air.
- D. **Instruments to measure the temperature and humidity**.
- E. **De-humidifiers**, to lower the humidity, although they usually are only effective in relatively small, enclosed areas.

DISASTER RECOVERY

Raising the temperature will accelerate mold growth. Temperature and humidity should be monitored constantly. Good air circulation should be maintained in the damaged area. This may be accomplished by running fans constantly. If possible, they should expel the humid air from the area. Any standing water should be pumped from the area. Extreme caution must be taken, as standing water can conceal hazards.

ACTIVATE THE DISASTER RECOVERY TEAM

Organize work crews and be sure their responsibilities are clearly defined. No salvage activity should begin until a plan of action has been determined by the team leader. Disaster and recovery areas should be inaccessible to the public.

Remember: some staff and volunteers, no matter how willing, should not be allowed to participate in certain salvage activities because of health problems. Frequent rest breaks and refreshments should be provided for workers.

RESTORE THE AREA

After the damaged items have been removed and the environment has been stabilized, the damaged area must be thoroughly cleaned. Removal of smoke odor and fogging with fungicides or insecticides should be performed only by professionals.

DISASTER PHONE TREE

In the event that emergency conditions (fire, water, sabotage, etc.) cause damage to any record collection, the following people should be notified:

Name

Office Phone

Home Phone

Records Management Official (should be notified first in the event of an emergency)

Emergency Coordinator (will assess the situation and determine courses of action. The Emergency Coordinator will contact other member's of the Disaster Action Team as needed.)

Disaster Action Team (The team consists of members who have indicated a willingness to assist in recovery activities. At least one team member should be trained in handling and air drying wet material. Those who have been trained are indicated with an asterisk.)

Also, be sure to notify:

Steve Walker, State Archivist (208) 334-2620 (208) 376-4359

Idaho State Historical Society (in the event of a major emergency)

OFF-SITE SERVICES TO BE CALLED AS NEEDED

	<u>Name of Contact</u>	<u>Phone #</u>
Service		
Fire Department		
Police Department		
Insurance Company		
Legal Advisor		
Electric Company		
Gas Company		
Telephone Company		
Electrician		
Plumber		
Carpenter		
Locksmith		
Freezer Space		
Janitorial Service		
Photo Processing Lab		
Computer Vendor		
Paper for Interleaving		
Portable Toilets		
Work Tables		
Individuals and/or organizations to assist in salvage		

COLLECTION SALVAGE PRIORITIES

Determine which are your most important collections and list them here. Vital records (i.e. those needed for the day to day operation of the local government) and archival records (irreplaceable one-of-a-kind information) should be listed first as their removal is a top priority. Copies of this list should be distributed to local police and fire officials as well as appropriate authorities in state or local government.

<u>Collection</u>	<u>Location</u>	<u>Type of record</u>	<u>Quantity</u>
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1.

2.

3.

4.

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6.

7.

8.

9.

10.

11.

12.

STORM AND FLOOD WATCH CHECKLIST

- ___ Move or secure outside furniture, plants, etc. that can be blown or floated into windows or glass doors.
- ___ Remove all records from floor, window, and desk areas.
- ___ Check floors for additional objects that can be water damaged.
- ___ Cover computer, printers, and microfilm reader/printers.
- ___ Complete computer and film backup and move duplicates off-site.
- ___ Disconnect computers, printers, and microfilm reader/printers.
- ___ Place plastic protective coverings over open record shelves.
- ___ Close and lock all records storage files, cabinets, drawers, and doors.
- ___ Close shutters and storm windows; secure all windows.
- ___ Check climate monitors.
- ___ Make sure emergency equipment and supplies are adequate.
- ___ Turn off lights and fans.
- ___ Turn off designated circuit breakers.
- ___ Close and secure doors to all offices.
- ___ Make certain alarms are active and all outside doors are securely locked.
- ___ Make sure Maintenance, Local Police and Firefighters, Records Management Official
and
Emergency Coordinator have current Disaster Reaction Plan and Disaster Phone Tree List.

MINOR EMERGENCIES

Immediate Steps

The following steps should be taken in the event of an emergency that can be handled on the premises and that does not pose a threat to physical safety. In a major emergency, (such as after major fire, flood, or storm damage), large scale salvage of vital and archival records from affected areas should be part of every state or local government's Disaster Preparedness Plan.

FIRE:

1. Pull fire alarm or alert fire department.
2. Follow emergency evacuation plan for your building.
(Only if you are trained and the fire is small, use a fire extinguisher to put out the fire. Otherwise, get out of the building, no record is worth injury.)
3. Notify Records Management Official and Emergency Coordinator.

WATER:

DO NOT EVER ENTER AN AREA THAT IS FLOODED UNTIL MAINTENANCE AND SERVICE ELECTRICIANS HAVE DISCONNECTED THE ELECTRICITY -- EXTREME DANGER OF SHOCK MAY BE PRESENT.

1. Notify:

Name

Office Phone

Home Phone

Building or Facilities Coordinator

2. Notify Records Management Official and Emergency Coordinator.
3. Once it has been determined safe to enter the area, cordon it off to prohibit the public from entering.
4. For water coming overhead:
 - a. Cover cabinet or shelving with plastic sheeting located in your emergency supply box: _____

(LOCATION)
 - b. Or move materials threatened by water damage to a dry, clean area.
5. For water coming from underneath:
 - a. Move materials threatened by water damage to a dry, clean area.
 - b. Or move threatened materials to higher areas.

SALVAGE PROCEDURES FOR WATER-DAMAGED MATERIALS

Several options are available for treating water-damaged materials. The choice of treatment will depend on the extent and type of damage incurred, and the personnel, expertise, funding and facilities available.

Air drying

Air drying is labor-intensive and requires a great deal of space, but it is tried, true and cheap. It also offers security, as it can be done on-site and materials can be watched. Air drying should be performed only in a stable environment to inhibit the growth of mold. The ideal environment for air-drying is cool and dry.

Instructions are outlined below. This process is not recommended for coated stock, paper similar to that in magazines, because pages will become permanently stuck together unless extreme care is taken.

Freezing

Freezing wet materials will stabilize them and provide you with time to determine your course of action. Mold will not grow and further deterioration from water will not occur when materials are in a frozen state. Books have been left in freezers for more than ten years and successfully thawed and air dried with no resultant damage. Freezing will also help to minimize, but not eliminate, smoke odor.

Rapid freezing minimizes damage from ice crystals (the faster the materials are frozen, the smaller the ice crystals will be). Blast freezing services are available commercially.

Temperatures below 15°F will freeze and tend to dry wet materials. If freezer space is not immediately available, and the outside temperature is below 15°F, place the materials in a secure area outside. Cover them with plastic, if rain or snow is expected. Freezing is an intermediate step. Materials must be dried afterwards.

Vacuum freeze drying

Vacuum freeze drying is the safest and most successful salvage method for paper, although it is also the most expensive. Materials must be frozen when they are placed in a sublimation chamber. This type of chamber operates under high vacuum and applied heat. During the process, the ice sublimates, turns directly into water vapor without becoming liquid. The vapor is like a dense fog and migrates to a cold panel in the chamber and returns to ice.

SALVAGE PROCEDURES FOR WATER-DAMAGED MATERIALS

Vacuum drying

Vacuum drying differs in that wet materials are placed in a chamber that pulls the moisture by means of a vacuum. If frozen materials are vacuum dried, most of the water will pass through the liquid state before vaporizing. As a result, water soluble inks and dyes are more likely to bleed.

Materials dried by either vacuum method will not look like new. They will show signs of swelling and distortion, and tide lines may be present. Costs may range from \$35 to \$75 per cubic foot, depending on the amount and type of materials affected and the type of damage. The following vendors provide a variety of salvage services ranging from handling the total effort (trained personnel, equipment, transportation, etc.) to drying a few books shipped to them. Some also salvage films and electronic media. Check the Internet for details.

Blackmon-Mooring-Steamatic Catastrophe (BMS CAT), Fort Worth, TX, 817-332-2770,
1-800-433-2940

Document Reprocessors, San Francisco, 415-362-1290, 1-800-437-9464

Disaster Recovery Services, Fort Worth, TX, 817-535-6793, 1-800-856-3333

Munters Moisture Control Services, nationwide offices, 1-800-422-6379

VidiPax, New York, 212-982-5676, 1-800-653-8434, specializes in magnetic media.

PREPARATION FOR AIR DRYING OF MATERIALS

1. Emergency Coordinator should assemble Disaster Action Team. At least one team member should be trained in handling and air drying wet materials.

2. A clean, dry, secure area with good air circulation and as low temperature and humidity as possible is required for air drying of books ledgers and papers. Air drying can take from one day to up to one week and the area chosen should be available for that time. Areas for air drying should be considered: for accessibility (i.e. for wheeled carts or dollies); proximity to collection; air circulation and potential for controlling the environment; security; and availability of open flat surfaces.
Designated areas for air drying are:

- a. _____
- b. _____
- c. _____

Person(s) to contact for above areas (i.e. access to keys and permission to use area):

Name

Office Phone

Home Phone

- a. _____
- b. _____

3. Air drying without freezing is the preferred method for treating wet photographic prints. Place prints on flat surface emulsion side up. Prints may also be hung on lines if care is made that clips used for line attachment do not touch the image area. Some curling will take place as the result of air drying, however items can later be flattened with the advise of a professional photographic conservator.

4. Wet microforms should be cleaned with distilled water and placed in clean, cool (below 65 degrees Fahrenheit) distilled water in a sealed dark container for up to 48 hours for color film and up to 72 hours for black and white film until professional recovery techniques can be employed. The water should completely cover the film and may be kept cool with the addition of ice (do not use dry ice).

5. Magnetic media and other disks should be regularly backup with copies stored at an off-site location. In absence of backups, cool (not heated) air drying tapes and disks is possible, but a conservator should be contacted as soon as possible regarding the recovery of information. Wet or damp tapes and disks should ***never*** be inserted in any electrical

device such as a disk or tape drive.

6. Reduce temperature and humidity of the affected area.

PREPARATION FOR AIR DRYING OF MATERIALS

7. Assemble necessary emergency equipment and supplies. Typical emergency supplies include:
 - a. **Polyethylene Sheeting**. In at least 10' x 25' rolls, 4 mil thickness. Use to cover cabinets and shelves.
 - b. **Scissors**. To cut sheeting.
 - c. **Duct Tape**. To secure sheeting only, *not* repair materials.
 - d. **Paper Towels**. White, no colors, for partial interleaving in air drying.
 - e. **Grounded (3-prong plug) Heavy-Duty Extension Cable**. In 100' length.
 - f. **Power-bar Multi Outlet with fuse or circuit breaker**.
 - g. **Wax or Freezer Paper**. Cut in sheets for freezer packing.
 - h. **Pads, Pencils, and Pens**. For marking boxes and documentation.
 - i. **Flashlight**. Plus extra batteries.
 - j. **Hard Hat**.
 - k. **Safety Gloves**.
 - l. **Safety Goggles**.
 - m. **Protective aprons or smocks**.
 - n. **Fishing Line and clips**. For air drying, not for catching dinner.
 - o. **Mylar Sheets**.
 - p. **Cordoned Area Emergency Tape**.
 - q. **Safety Mask and Filter**.
 - r. **Electric Fans**. To create air circulation and prevent mold.
 - s. **Wet-Dry Vacuum**. To remove small amounts of standing water.
 - t. **Mops, Buckets**. To keep areas clean and dry.
 - u. **Floor Squeegee**. To control flow of floor surface water.
 - v. **Garbage Containers and Plastic 5 gal. Buckets with lids**. To deposit and remove wet paper towels and other discarded materials and to temporarily store microforms.
 - w. **Copy of Disaster Phone Tree and Copy of Disaster Planning and Recovery Manual**. To contact appropriate people.
 - x. **Locations of Drying Areas**. Make sure there are several location in case one is unavailable.
 - y. **Wheeled cart, hand truck, or dolly**. For transport of materials.
 - z. **A Smile**. This too will pass.

STEP-BY-STEP RECOVERY PROCEDURES FOR :

AIR DRYING BOOKS AND LEDGERS

The main objective in the air drying of books and ledgers is to remove the water as efficiently as possible and contain structure distortion. Depending on the degree of saturation a book can take anywhere from a day up to a week to dry.

1. **Books Or Materials That Are Thoroughly Wet.** Caution: If the item is bound in vellum or leather, do not air dry except under the advice and direction of a specialist. If the item is composed of water soluble inks (i.e. manuscripts, drawings, water colors), non-paper (i.e. film, magnetic media, oil paintings), or unique (i.e. irreplaceable), contact a specialist immediately. Take care that contents of folders and boxes are not separated from each other. New boxes or drying areas should be labeled as necessary to expedite returning the collection to order after drying. Coated paper (shiny paper used in illustrations or periodicals requires immediate attention as once the paper starts to dry it sticks together and can rarely be separated without damage. It may be possible to salvage the item by interleaving every sheet with changes of wax paper. If time and staff are in short supply, make arrangements to either freeze the book and to keep it wet until it is placed in a freezer. Muddy books can be gently rinsed and carefully blotted with paper towels.

Place wet books in a closed position on their heads on top of paper towels. Place absorbent sheets of paper between text block and the binding. Change paper towels as they become wet. Providing that the books are placed in a moving cool current of air, they should soon dry to the point where they may be opened for the next step.

2. **Books That Are Partially Wet.** Books may be opened partially and interleaved with absorbent paper towels. Begin at the back of the book and interleave every 20 leaves or so. Given good drying conditions, the book may be left flat for up to one hour when the paper towels should be changed. Change the paper towels periodically until the book is only slightly wet, then proceed to the next step.
3. **Books That Are Damp.** Books should be stood on edge, lightly fanned, and allowed to dry in a current of air. When almost dry, proceed to the final step.
4. **Books That Are Almost Dry.** When almost dry, lay the book flat, push the back and boards gently into position, place under a light weight and leave in this position until the book is thoroughly dry.
5. **Pamphlets.** Should be hung over fish line to dry.
6. **Single Pages Or Small Stacks Of Documents.** Should be laid out on clean tables, floors, and other flat surfaces protected by paper towels. Fishing line (or mono-filament line) may be

strung close together and documents laid across them for drying.

STEP-BY-STEP RECOVERY PROCEDURES FOR :

AIR DRYING DOCUMENTS/UNBOUND MATERIALS

Note that separating wet sheets is very labor intensive and tricky.

1. **Place a sheet of thin polyester film** on top of a stack of wet, unbound papers. Misting the film with water helps this procedure— place misted side on papers.
2. **Rub gently with a squeegee or other flat edge**— surface tension will cause the paper to adhere to the film.
3. **Peel back the top sheet and place it on top of a piece of polyester web.** Non-woven interfacing, such as Pellon, is most effective.
4. **Peel back and remove the polyester film.**
5. **Place another piece of polyester web on top of the wet sheet.**
6. **Repeat the entire process,** separating the wet sheets one at a time and interleaving them with polyester web.
7. **Air-dry the sheets (supported by the polyester web) by placing them on absorbent paper on tables or other flat surface, even the floor.** Air in the room should be kept circulating, but fans should not blow directly on the materials.
8. **The papers may be flattened when they are almost dry** by placing them between two sheets of blotting paper (to remove excess moisture) and applying even pressure with light weights.

STEP-BY-STEP RECOVERY PROCEDURES FOR :

BOOKS TO BE FROZEN

Removal

1. **Clear the floors and aisles first.**
2. **Begin with the wettest materials.** These will usually be on the lowest shelves, unless water has come in through the ceiling.
3. **Pack materials on-site,** if possible. If not possible, remove by human chain.
4. **Keep accurate records of the locations from which materials are removed.**

Packing

1. **Remove volumes from shelves in order.**
2. **Wrap freezer paper (waxed side next to the volume) or waxed paper around each volume** as a sling and place in plastic crates or cubic foot boxes spine down. This will prevent items from sticking to each other. Do not wrap as you would a gift.
3. **Pack boxes or crates one layer deep only,** snugly enough that volumes will not slide or lean. You should be able to slide a flat hand between the books and one end of the box. Books and papers will swell as they are frozen.
4. **Wrap open books as found and place on top of a packed container.** Do not place more than one open volume in a container. Be sure there is a freezer paper barrier between the packed volumes and the open volume to prevent staining from binding dyes.
5. **Do not attempt to separate books that are stuck together,** but pack them as one volume.
6. **Oversize books such as ledgers should be frozen as individual items on their sides.**

Record keeping

1. **Label each container on three sides** with your agency's name and assign it a number. Use waterproof markers.
2. **On a separate sheet of paper, record the box number and its contents.**
3. **If the containers are sent to more than one freezer, note which container numbers are sent where.**

Transporting

1. **Materials should be placed in a freezer facility as quickly as possible** to prevent the growth of mold and excessive swelling. Care should be taken that containers do not fall over during transport, as further damage may result. Use stretch wrap as needed.
2. **Materials should be placed in refrigerated trucks if they cannot be frozen** within forty-eight hours. This will slow mold growth, but not prevent it.

STEP-BY-STEP RECOVERY PROCEDURES FOR :

FOR DOCUMENTS TO BE FROZEN

Drawers from filing cabinets may be frozen as is, complete with file folders. This will preserve the original order. Files may also be removed from drawers with their folders and placed in boxes. There is no need to use waxed paper between files. Placing boxes on edge allows wet files to be stacked.

FOR PHOTOGRAPHIC MATERIALS

Salvage prints first, followed by negatives and slides. Water can cause the emulsion to soften and separate from its support.

Photographic materials should not be allowed to dry untreated after they become wet, as they will stick to their enclosures or to each other. Any attempt to separate them after they have dried together may result in irreparable damage. Remove materials from their enclosures and wash off any mud or dirt under cold, clean, running water.

The following options are available for salvaging photographic materials. Note that air drying is the preferred method.

1. **Air dry prints flat, face up, on screens or clean, smooth surface.** Hang films from lines of heavy fishing line with plastic spring-type clothes pins.
2. **If there are too many to air-dry immediately, they may be stored temporarily in cold water.** Ice may be added to the water, but do not add dry ice or allow the materials to remain under water longer than three days. Transport the wet materials (in sealed polyethylene bags inside plastic garbage pails) to a professional laboratory within twenty-four hours, if possible.
3. **If time does not permit air drying, the materials may be frozen, but they will probably be damaged.** If necessary, freezing as quickly as possible is recommended (smaller ice crystals will cause less damage). Negatives should be separated before freezing as they tend to stick together when thawed.

STEP-BY-STEP RECOVERY PROCEDURES FOR :

FOR MICROFORMS

Silver halide microfilm

1. **Keep under water and send to a commercial processing laboratory.**
2. **The Eastman Kodak Company provides free emergency service for cleaning and drying its own black-and-white roll microfilm.** Call the Kodak Testing Lab in Chicago (800 EKC-TEST) for information on how to package and ship.
3. **Fuji Photo Film U.S.A., Inc., offers "No Charge Disaster Recovery Services" for restoration of water-damaged Fuji film.** Call the Fuji office in Dallas (800 927-FUJI, extension 9326) for information on how to package and ship.

Vesicular and diazo microfilm and microfiche

1. **Keep under water.**
2. **Air dry, dry with cheesecloth, or contact commercial vendor.**

FOR MAGNETIC AND ELECTRONIC MEDIA

The more high tech the media, the more likely catastrophic failure.

Water is especially damaging to magnetic and electronic media. The longer they have been wet, the greater the damage will be. Salvage is very difficult, even for experts. Check with the vendor of your products for guidelines.

STATEWIDE RECOVERY ASSISTANCE may be available. Contact the Idaho State Archivist at (208) 334-2620. Be sure to provide the following information when requesting on-site disaster recovery assistance:

1. **Your name, title, institution, and telephone number.**
2. **A description of the disaster and the time it occurred.**
3. **The extent and type of damage involved,** including the types of materials affected.
4. **Whether or not the in-house recovery team has been activated** and the type of salvage operation planned or underway.
5. **The salvage and recovery supplies on hand and those that will be needed.**
6. **Whether or not funding is available for the purchase of additional supplies and the name and telephone number of the individual authorized to approve such purchases.**
7. **Whether or not the utilities are functioning.**
8. **Directions for reaching the site and the name of the individual to contact upon arrival.**

PACKING AND REMOVAL OF WET BOOKS AND MATERIALS

Care and organization at the removal stage can make the whole salvage and rehabilitation process more efficient and less costly.

1. **Organization**. Identify and secure *before* packing starts:

- a. A place to which the materials will be moved (i.e. air drying location, freezer, storage).
- b. A means of transport to new location.
- c. A packing area, with room to sort and pack materials
- d. A loading area with accessibility for vehicles bringing supplies and removing boxes.
- e. A route by which materials will be removed from the building.
- f. Alternative lifting devices (i.e. pulleys, conveyor belts, cranes) if elevators not functioning.
- g. A rest area for workers with refreshments and, if necessary, portable toilets.

2. **Personnel**. Salvage work is arduous, dirty and exacting. Plan breaks for rest and refreshments about every 1.5 hours and augment workers with relief shifts as necessary.

- a. Identify local government employees who have recovery training.
- b. Identify other local government employees willing to assist with salvage.
- c. Identify possible a source of paid temporary employees.
- d. Identify commercial document recovery businesses.
- e. Identify potential volunteers.

3. **Equipment**. Locate sources of:

- a. Plastic crates or cardboard boxes.
- b. Waxed paper or freezer wrap.
- c. Waterproof marking pens, clipboards, paper, tags for labeling boxes.
- d. Protective clothing (i.e. hard hats, aprons, rubber boots, rubber gloves, respirators).
- e. Book trucks, carts, dollies, and hand trucks to help move boxes.

4. **Sorting and Packing**. The Emergency Coordinator organizes the workers into teams of 3 or 4 workers and assigns the following tasks:

- a. Bring, prepare, and assemble packing materials (i.e. boxes, cut wax paper).
- b. Remove and pack damaged material. During packing material will be identified and routed for air drying, freezing, special processing, direct return to shelves when conditions permit, and for discard.
- c. Record, in summary, what is being removed and be sure to label boxes.
- d. Move crates and boxes to loading point and load vehicles.

PACKING AND REMOVAL OF WET BOOKS AND MATERIALS

5. **Priorities.** Collection salvage priorities have been determined and the list should be consulted to determine the order of removal.

- a. Discard easily replaceable materials unless damage is minimal.
- b. Start from areas closest to the point of access and work back.
- c. Clear aisles and passageways first. Use a human chain to pass items out separately to
a packing area. When the aisles are clear, bring the packing crates directly to the shelves.
- d. Assign a low priority to material with a low chance of recovery (i.e. materials of a coated paper that have already dried and fused together).
- e. Remove the wettest material first. If the water has come from above, start working with the top shelves; if from below, start from the floor up.
- f. If the packing and removal operation will take more than 10 hours, loosen tightly-packed shelves, boxes, or cabinets so the books and paper do not jam as they swell with water. Otherwise leave material packed together on shelves or in record boxes where it will present less surface area for mold growth.
- g. Materials that are actually submerged in cold water are likely to be in less danger than materials that are wet, but no longer submerged. After the damage of the initial wetting, submerged books and other materials will remain more stable and be less vulnerable to mold attack than wet materials exposed to air.

6. **Mud and Dirty Water.** Washing of mud and dirt from materials should be carried out only under the direction of a trained conservation specialist. Skip the washing step if time or staff are short. The top priority is to remove the materials from further danger or from conditions that would promote mold growth.

If time and staff permit, some mud or dirt can be removed from water-damaged materials as they are assembled for packing. Set up an area with a source of clean, running water, drainage, and a succession of non-rusting containers (i.e. plastic garbage cans) in which to rinse the material. Have workers use care when removing materials from water as prolonged exposure to contaminated water can cause serious health problems.

TOP 10 THINGS TO DO WHILE YOU AWAIT CLEARANCE TO ENTER DAMAGED AREA

1. Review Disaster Preparedness and Recovery Plan.
2. Review collection inventory to determine which records can be reconstructed from other sources (i.e. tape backups, microforms) and which original records must be recovered.
3. Establish priorities for reconstructing and salvaging records.
4. Identify relocation area for reconstruction of records as well as resuming office operations.
5. Identify large equipment needs for resumed operations (i.e. computers, phones, microfilm reader/printers, portable generators, water pumps, etc.).
6. Gather additional emergency salvage supplies if needed.
7. Contact Emergency Safety personnel (police, firefighters, civil defense officer) as needed. Also contact State Archivist.
8. Arrange for photograph evidence of the disaster for insurance, potential State and Federal government assistance, and public appeals.
9. Designate someone to keep an hourly written journal and photographic record of the recovery effort for entry on TV's Funniest Disaster Recovery Videos.
10. Alert vendors, consultants, suppliers, storage centers with freezer space, etc. to be on standby for salvage efforts.

DISASTER PREVENTION/ SAFETY CHECKLIST

AGENCY DATE AREA INSPECTED INSPECTOR

NOTE: If an item does not apply, write N/A (Not Appropriate) in the Remarks column. DO NOT leave any items blank.

ELECTRICAL

1. **All necessary extension cords of proper rating.**
 YES /NO REMARKS

2. **Electrical cords free of splices, cuts, and other damage.**
 YES /NO REMARKS

3. **Electrical switches, plugs and surge suppressors operate properly.**
 YES /NO REMARKS

4. **Electrical equipment properly grounded.**
 YES /NO REMARKS

5. **Appliances (coffee pots, radios, etc.) properly maintained and turned off when not in use.**
 YES /NO REMARKS

6. **Electrical equipment disconnected during maintenance.**
 YES /NO REMARKS

7. **Adequate lighting available.**
 YES /NO REMARKS

8. **Electrical boxes easily accessible with no storage within 3 feet minimum.**
 YES /NO REMARKS

9. **Major electrical rooms contain no stored materials.**
 YES /NO REMARKS

10. **Multiple-outlet sockets avoided.**
 YES /NO REMARKS

11. **Extension cords positioned to avoid tripping hazard.**
 YES /NO REMARKS

DISASTER PREVENTION/ SAFETY CHECKLIST

AGENCY DATE AREA INSPECTED INSPECTOR

NOTE: If an item does not apply, write N/A (Not Appropriate) in the Remarks column. DO NOT leave any items blank.

STORAGE AREAS

1. **Area is clean and orderly.** Aisles uncluttered.
 YES /NO REMARKS

2. **Materials are needed by Division.**
 YES /NO REMARKS

3. **Items are accessible without undue risk.**
 YES /NO REMARKS

4. **No materials are stored on the top of shelving.**
 YES /NO REMARKS

5. **All materials, except those expendable, are stored at least 3" above floor level.**
 YES /NO REMARKS

6. **Shelving is securely anchored to wall or floor.**
 YES /NO REMARKS

7. **Lighting is adequate.**
 YES /NO REMARKS

8. **Step stools or similar devices available and safe to use.**
 YES /NO REMARKS

9. **Materials stacked or piled properly.**
 YES /NO REMARKS

10. **Flammable or potentially dangerous chemicals properly stored.**
 YES /NO REMARKS

DISASTER PREVENTION/ SAFETY CHECKLIST

AGENCY DATE AREA INSPECTED INSPECTOR

NOTE: If an item does not apply, write N/A (Not Appropriate) in the Remarks column. DO NOT leave any items blank.

FIRE AND SAFETY FEATURES

1. **Fire extinguishers properly charged.**
 YES /NO REMARKS

2. **Emergency exit signs illuminated.**
 YES /NO REMARKS

3. **Emergency exits accessible and illuminated.**
 YES /NO REMARKS

4. **Emergency lights functional.**
 YES /NO REMARKS

5. **Smoke detectors operable.** Last date checked.
 YES /NO REMARKS

6. **Fire alarms operable.** Last date checked.
 YES /NO REMARKS

7. **Sprinkler system operable.** Last date checked.
 YES /NO REMARKS

8. **At least 18" of clearance exists between sprinkler heads and anything beneath.**
 YES /NO REMARKS

9. **Halon or similar fire suppression system charged.**
 YES /NO REMARKS

10. **Emergency exits easily opened.**
 YES /NO REMARKS

11. **Alarm sounds when emergency exits opened.** Last date checked.
 YES /NO REMARKS

12. **Pull fire alarms operable.** Last date checked.
 YES /NO REMARKS

13. **Signs indicating fire extinguisher placement obvious.**
 YES /NO REMARKS

14. **Fire extinguishers of proper type.**
 YES /NO REMARKS

15. **Fire extinguishers available within 75 feet of any place in area.**
 YES /NO REMARKS

DISASTER PREVENTION/ SAFETY CHECKLIST

AGENCY DATE AREA INSPECTED INSPECTOR

NOTE: If an item does not apply, write N/A (Not Appropriate) in the Remarks column. DO NOT leave any items blank.

STRUCTURE

1. **Windows and exterior doors seal properly.**
 YES /NO REMARKS

2. **Previous water damage noted.**
 YES /NO REMARKS

3. **New water damage discovered.**
 YES /NO REMARKS

4. **Exposed pipes and joints dry.**
 YES /NO REMARKS

5. **Handrails secure and adequate.**
 YES /NO REMARKS

6. **Steps include non-slip surface.**
 YES /NO REMARKS

7. **Walking surfaces secured to floor.**
 YES /NO REMARKS

8. **Non-public areas secured.**
 YES /NO REMARKS

9. **Air ducts unobstructed.**
 YES /NO REMARKS

10. **Ceiling panels in place.**
 YES /NO REMARKS

DISASTER PREVENTION/ SAFETY CHECKLIST

AGENCY

DATE

AREA INSPECTED

INSPECTOR

NOTE: If an item does not apply, write N/A (Not Appropriate) in the Remarks column. DO NOT leave any items blank.

OFFICE AREAS AND EQUIPMENT

1. **Equipment properly maintained.**
YES /NO REMARKS

2. **Furniture stable and safe for intended use.**
YES /NO REMARKS

3. **Carts and other handling equipment in good repair.**
YES /NO REMARKS

4. **File cabinets stabilized to prevent tipping.**
YES /NO REMARKS

5. **Shelving units securely anchored.**
YES /NO REMARKS

6. **Portable partitions secure.**
YES /NO REMARKS

DISASTER PREVENTION/ SAFETY CHECKLIST

AGENCY DATE AREA INSPECTED INSPECTOR

NOTE: If an item does not apply, write N/A (Not Appropriate) in the Remarks column. DO NOT leave any items blank.

STAFF

1. **Trained in proper use of office equipment.**
 YES /NO REMARKS

2. **Smoking restricted to designated areas.**
 YES /NO REMARKS

3. **Instructed in proper lifting techniques.**
 YES /NO REMARKS

4. **Trained in use of fire extinguishers.** Date of last training session.
 YES /NO REMARKS

5. **Eating and lounge areas clean and tidy.**
 YES /NO REMARKS

6. **Aware of emergency exits and procedures.** Date of last fire drill.
 YES /NO REMARKS

7. **Instructed in overall safety program.**
 YES /NO REMARKS

8. **Have established routines and duties for closing office.**
 YES /NO REMARKS

REQUEST FOR CORRECTION OF HAZARD

Agency Date

Person making request

Person receiving completed form

Description of hazard or problem

Location of hazard or problem

Action taken

Correction made by Date