



Disaster Response Plans for Museums, Historical Societies and Cultural Institutions

There are many resources available to guide historic societies and museums when dealing with collections damaged by flood or natural disaster.

Cultural institutions may get free telephone advice and possibly other services for cleaning up after a flood or natural disaster by contacting your regional conservation center. Members of the Regional Alliance for Preservation located in the Midwest can be found [here](#).

Another helpful phone resource for museums, historical societies and cultural institutions is the American Institute for Conservation of Historic and Artistic Works (AIC), which maintains a force of "national heritage responders" trained to assess damage and initiate salvage of cultural collections after a disaster. Cultural institutions needing assistance should contact National Heritage Responders at 202-661-8068 for a referral.

The following materials have been organized by the Wisconsin Historical Society's Division of Library, Archives and Museum Collections. Further resources are available at <https://www.wisconsinhistory.org/Records/Article/CS3164>. You can also email our staff at askcollections@wisconsinhistory.org.

Contents

Salvage Procedures: Books

- Cloth or Paper Bound
- Coated Paper
- Leather or Vellum Printed
- Scrapbooks

Salvage Procedures: Magnetic and Optical Media

- Computer (Floppy) Disks
- Hard Drives
- Reel to Reel and Cased Video
- Optical Discs (e.g., CD, DVD)

Salvage Procedures: Film

- Microfiche
- Microfilm
- Motion Picture Film

Salvage Procedures: Photographs (Prints and Negatives)

Salvage Procedures: Objects

- Ceramics
- Glass and Stone
- Leather and Rawhide
- Metals
- Organics: Bone, Hair, Horn, Ivory, Shell and Grass
- Wood
- Paintings on Canvas

Salvage Procedures: Paper

- Coated
- Framed or Matted
- Uncoated

Salvage Procedures: Vellum or Parchment

Salvage Procedures: Vinyl, Shellac and Acetate Discs

Salvage Procedures: Textiles and Clothing

- Textile Costume Accessories

Emergency Service Vendors

Emergency Supply Vendors (Local)

Books: Cloth or Paper Covers

Treatment:

Air dry or freeze within 48 hours to prevent mold growth. Vacuum freeze drying (not vacuum thermal drying) is suitable for large quantities of books. See vendor list in the resources section for sources of freezer space or freeze drying.

Packing Method:

In preparation for freezing, closed books that are muddy should be rinsed. Separate individual books with wax paper and pack spine down in milk crates, plastic boxes or cardboard boxes lined with plastic sheeting. Support oversize books when moving them.

Pack items that are to be vacuum freeze dried carefully since books packed with distortions will retain them after the vacuum freeze drying process.

Drying Method:

Preparation for Drying:

In preparation for air drying, set up the portable dehumidifier and fans, tilting fans slightly upward toward the ceiling. Prepare flat surfaces with blotting paper or unprinted newsprint.

Drying:

Air dry books by standing them upright with pages gently fanned open. Oversize volumes must be laid flat on blotters, their pages interleaved with unprinted newsprint that is slightly larger than the volume. Change blotters and newsprint repeatedly.

For vacuum freeze drying, send to appropriate vendor.

Supplies:

| | |
|------------------------------|-----------------------|
| wax paper | fans |
| milk crates or plastic boxes | portable dehumidifier |
| cardboard boxes | blotting paper |
| plastic sheeting | unprinted newsprint |

Books: Coated Papers

Treatment:

Air dry or freeze within 48 hours to prevent mold growth. Coated papers must not be allowed to air dry matted together or they will become permanently affixed. If the pages are slightly damp and separable, interleave them and air dry. If coated papers are saturated or sticking, they must be frozen as soon as possible and vacuum freeze-dried. Do not vacuum thermal dry. See vendor list in the resources section for sources of freezer space or freeze drying.

Packing Method:

In preparation for freezing, closed books that are muddy should be rinsed. Separate individual books with wax paper and pack spine down in milk crates, plastic boxes or cardboard boxes lined with plastic sheeting. Handle lightly and do not stack books. Oversize books need to be fully supported.

Pack items that are to be vacuum freeze dried carefully since books packed with distortions will retain them after the vacuum freeze drying process.

Drying Method:

Preparation for Drying:

In preparation for air drying, set up the portable dehumidifier and fans, tilting fans slightly upward toward the ceiling. Prepare flat surfaces with blotting paper or unprinted newsprint. Coated paper books that can be air dried need to have each page interleaved with wax paper prior to drying.

Drying:

Air dry books by standing them upright with pages gently fanned open.

For vacuum freeze drying, send to appropriate vendor.

Supplies:

| | |
|------------------------------|-----------------------|
| wax paper | fans |
| milk crates or plastic boxes | portable dehumidifier |
| cardboard boxes | blotting paper |
| plastic sheeting | unprinted newsprint |

Books: Leather or Vellum Covers

Treatment:

Leather:

Freeze or air dry within 48 hours to prevent mold growth. Vacuum freeze dry saturated leather books. Do not vacuum thermal dry. Those that are not saturated may be air dried. See vendor list in the resources section for sources of freezer space or freeze drying.

Vellum:

Separate all vellum covered books and freeze as soon as possible for later treatment by a conservator. Vellum is very susceptible to damage by water and must be dried in a controlled manner. Do not vacuum freeze dry or vacuum thermal dry vellum books. See vendor list in the resources section for sources of freezer space.

Packing Method:

Great care must be taken in handling leather covered books since old leather becomes delicate when wet. Be sure to support oversize books when moving them. In preparation for freezing, closed books that are muddy should be rinsed. Separate individual books with wax paper and pack spine down in milk crates, plastic boxes or cardboard boxes lined with plastic sheeting.

Pack items that are to be vacuum freeze dried carefully since books packed with distortions will retain them after the vacuum freeze drying process.

Drying Method:

Preparation for Drying:

In preparation for air drying, set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling. Prepare flat surfaces with blotting paper or unprinted newsprint.

Drying:

For drying of leather bound books, air dry books by standing them upright with pages gently fanned open. Oversize volumes must be laid flat on blotters, their pages interleaved with unprinted newsprint that is slightly larger than the volume. Change blotters and newsprint repeatedly. For vacuum freeze drying, send to appropriate vendor.

For air drying of vellum items by a conservator, see the salvage procedures for vellum and parchment.

Supplies:

| | |
|------------------------------|-----------------------|
| wax paper | fans |
| milk crates or plastic boxes | portable dehumidifier |
| cardboard boxes | blotting paper |
| plastic sheeting | unprinted newsprint |

Scrapbooks

Treatment:

Scrapbooks are comprised of various types of materials and so extra care must be taken in their drying. Materials of special concern are photographs and coated papers. See procedure pages for these if the scrapbook incorporates them. Care must also be taken for water soluble inks and adhesives.

Air dry items that are only damp or water damaged around the edges. Freeze saturated items so they can be worked on by a conservator later.

Packing Method:

Leave items in archive boxes if possible. If an item is removed from its archive box, make sure to keep a record of its box number. If an item's binding is not intact, wrap it in wax paper. Pack archive boxes and individual items in milk crates, plastic boxes or cardboard boxes lined with plastic sheeting in preparation for freezing. Separate individual scrapbooks with wax paper and pack spine down.

Drying Method

Preparation for Drying:

In preparation for air drying, set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling.

Drying:

For air drying items that are only damp or water damaged around the edges - interleave pages with blotters and change blotters regularly and often to speed drying. For books with failed bindings separate individual pages and air dry while taking care to maintain page order.

Do not vacuum freeze dry or vacuum thermal dry scrapbooks.

Supplies:

| | |
|------------------------------|-----------------------|
| wax paper | portable dehumidifier |
| milk crates or plastic boxes | Fans |
| cardboard boxes | blotting paper |
| plastic sheeting | |

Magnetic Media: Computer Discs ('Floppy' type)

Treatment:

Check to see if discs have backup copies. Discard discs with backup.

Do not allow discs to dry because dried impurities can etch the magnetic coating. Store discs upright in containers of cold distilled water until they can be removed from their jackets, washed and dried. Discs may be stored in water a maximum of 72 hours, after which time chemicals leach from the support. If discs cannot be dried within this time, they may be placed wet in plastic bags and frozen until drying is possible.

Packing Method:

Do not touch disc surfaces with bare hands. Pack upright in plastic crates or cardboard boxes padded with wadded unprinted newsprint or bubble wrap. Do not over pack or put pressure on discs.

Drying Method:

Preparation for Drying:

Remove discs from their jackets by cutting along the edge of the jacket with a scissors and removing the disc with gloved hands. Air dry jackets and keep them with their discs in order to retain labeling. Bathe discs in multiple baths of distilled water to remove dirt.

Drying:

Dry with lint-free toweling or cheese cloth.

For data recovery, insert discs into a jacket that has been removed from a new disc and copy using a disc drive. Clean drive heads frequently.

Supplies:

| | |
|---------------|------------------------------------|
| Scissors | distilled water |
| cotton gloves | lint-free toweling or cheese cloth |
| photo trays | |

Magnetic Media – Hard Drives

Priority Action:

- Act quickly
- The sooner a data recovery attempt can be made, the better the chance for successful recovery of data
- Do NOT attempt to recover the data yourself
- Salvage of electronic media and equipment is most successfully carried out by a firm specializing in data recovery
- Some issues to consider when discussing a contract with a data recovery vendor include: protection of the data from a security and access perspective; what to do if data cannot be recovered; how the recovered data should be returned; whether the original hardware should be returned or disposed of with appropriate documentation, etc.

Recommendations:

- Keep hard drives wet if that is the condition in which they were found
- Keeping hard drives wet will help prevent further corrosion of mineral deposits and crystallization on the platters
- Keep hard disk drives in a sealed container to keep the drives wet
 - Do not rinse hard drives in clean water
- Best practice is to leave hard disks alone until they can be salvaged by a firm that specializes in data recovery
 - Do not dry hard disk drives out or subject them to high temperatures
- When hard disk drives get wet and then dry out, contaminants are usually left on the platters and heads. Any residue will cause physical degradation of the platters and will result in loss of data
- NEVER attempt to power up wet or visibly damaged drives
 - Handle gently
 - Do not shake or disassemble hard drives that are wet or damaged
- Pack drives well to insulate them from shock
- When shipping hard drives, package them in a box twice the size of the drive that has enough room for both the drives and packing material that will allow for NO movement. Do not let multiple packed drives come in contact with each other

Magnetic Media: Reel to Reel Tapes and Video Tapes

Treatment:

Air dry within 48 hours. Do not freeze.

Packing Method:

Pack upright in plastic crates or cardboard boxes padded with wadded unprinted newsprint or bubble wrap. Do not over pack or put pressure on the sides of reels.

Drying Method:

Preparation for Drying:

Set up a portable dehumidifier and fans, tilting fans slightly upward toward the ceiling.

Often water and dirt have only affected the outermost layers and the sides of the tape. Do not unwind tapes or remove them from their reels. Rinse the exposed edges of the tapes with distilled water. For audio and video cassettes, dismantle cassette cases before rinsing. Air dry cassette cases and keep them with their tapes in order to retain labeling.

Drying:

Air dry by supporting vertically or laying on blotting paper and turning repeatedly.

After drying, the need for further cleaning or duplication of the tapes can be assessed. See vendor list in the resources section if these services are needed.

Supplies:

| | |
|-----------------------------------|-----------------|
| plastic crates or cardboard boxes | fans |
| unprinted newsprint | distilled water |
| bubble wrap | blotting paper |
| portable dehumidifier | |

Optical Media – CD/DVD

Priority Action:

- Clean and air dry discs within 48 hours
- Never freeze, vacuum dry, or expose wet discs to heat
- It is usually easier to discard wet discs if backup copies are readily available

Recommendations:

- Recovery of CDs/DVDs is time sensitive
- The metal reflective layer responsible for conveying disc data is thin and easily damaged
- High quality discs have an outer protective layer that is water resistant during short exposures (less than 2 days)
- Poor quality discs will incur damage sooner
- Avoid scratching the surface of the disc during the cleaning process

Immediate Salvage Procedures:

- Remove CDs/DVDs from their cases/cartridges
- If cases/cartridges cannot be replaced, clean them with soap and water
- Case and paper enclosures may be air dried or freeze dried
- Hold and handle discs by their outer edges
- Rinse discs in cool clean tap water followed by distilled water
- If residue remains on the discs, wipe gently from center out to edges in a straight line, not in a circular motion, with a soft, lint-free cotton cloth dampened with distilled water
- Rinse discs again in distilled water
- Blot off excess water with a soft, clean, lint-free cloth or cheesecloth
- Place discs flat on tissue with label side down to air dry or dry vertically on racks
- Never attempt mechanical removal of a label as this may result in delaminating the disc
- Play or analyze discs to determine if they must undergo more forceful spot removal techniques
- Copy information on discs to new media

Delayed Salvage Procedures:

(Use only when immediate response is not possible. Be aware that the success rate of recovery efforts is likely to be decreased the longer salvage is delayed.)

- Leave discs in their cases/cartridges
- Rinse discs in clean distilled water
- If discs have been immersed in sea water, rinsing in distilled water is highly recommended
- Store discs in cool water (41°F/5°C) until recovery can occur
- Recover discs as soon as possible using the procedures above

Recommended Supplies: Distilled water and Clean, soft, lint-free tissue, cloth, or cheesecloth

Microfiche

Treatment:

Freeze or air dry within 72 hours. Wet microfiche must be kept wet until it can be reprocessed or dried. Silver halide microfiche masters should be sent to a processing lab to be rewashed and dried. See vendor list in the resources section for labs. Vesicular and diazo microfiche copies can be air dried.

Remove all dry microfiche that is in a damp or wet container and keep together with the container until it can be rehoused.

Packing Method:

Pack fiches in containers lined with garbage bags. Do not put weight or pressure on wet microfiche.

Drying Method:

Preparation for Drying:

Ship silver halide microfiche to a processing lab to be rewashed and dried.

For air drying vesicular and diazo microfilm, set up portable dehumidifier and fans, tilting fans slightly upward toward the ceiling. Remove fiches from paper jackets. Rinse microfiche in cool water. Retain jackets to preserve information written on them, keeping fiches and jackets together.

Drying:

Ship silver halide microfiche to a processing lab to be rewashed and dried.

When air drying vesicular and diazo microfilm, air dry fiches and jackets on blotters. After drying, transfer information from the old jackets onto the new.

Supplies:

| | |
|-------------------------------------|-----------------|
| plastic containers and garbage bags | distilled water |
| portable dehumidifier | photo trays |
| Fans | blotters |

Microfilm

Treatment:

Dry within 72 hours. Wet film must be kept wet until it can be reprocessed or dried. Silver halide microfilm masters should be sent to a processing lab to be rewashed and dried. See vendor list in the resources section for labs. Vesicular and diazo microfilm copies can be air dried.

Remove all dry microfilm that is in a damp or wet carton and keep together with the carton until it can be rehoused.

Packing Method:

Do not remove wet microfilm from boxes. Hold the cartons together with cotton string if necessary. Do not put weight or pressure on wet microfilm. Fill microfilm cartons with cool water. Place boxes in containers lined with garbage bags. Do not over pack.

Drying Method:

Preparation for Drying:

Ship silver halide microfilm to a processing lab to be rewashed and dried.

For air drying vesicular and diazo microfilm, set up portable dehumidifier and fans, tilting fans slightly upward toward the ceiling. Remove microfilm from its carton and wash in cool water. Keep cartons with microfilm to retain labeling information. For aperture cards and strips in jackets, remove film from mounts or jackets before washing. Keep mounts and jackets with film to retain labeling information.

Drying:

Ship silver halide microfilm to a processing lab to be rewashed and dried.

For air drying vesicular and diazo microfilm, air dry microfilm and containers on blotters. After drying, transfer information from old cartons, mounts and jackets onto new.

Supplies:

cotton string
plastic containers
garbage bags
portable dehumidifier

fans
distilled water
photo trays
blotters

Motion Picture Film

Treatment:

Rewash and dry within 72 hours. Wet film must be kept wet until it can be reprocessed. See vendor list in the resources section for labs.

Packing Method:

Wipe the outside of film cans before opening for examination; there may be dry film or a combination of wet materials and dry materials inside. Make sure to carefully label all items separated from their labeled containers. Keep wet film wet by filling film cans with cold water. Pack wet film in a container lined with plastic garbage bags.

Drying Method:

Preparation for Drying:

Ship motion picture film to a professional processor to rewash and dry.

Drying:

Ship motion picture film to a professional processor to rewash and dry.

Supplies:

blotting paper
drying cloths

masking tape and pencil
containers and plastic garbage bags

Photographs

Treatment:

There are many different types of photographic materials. All cannot be treated in the same way. In general, photographs deteriorate quickly in water and some types will not survive immersion in water. Mold growth can appear within 48 hours, and photos left to dry on their own may stick to their envelopes or other photos. Therefore, photographs should be dried or frozen as quickly as possible. But note below that some types should not be frozen due to their extreme susceptibility to water damage.

Photographs can be vacuum freeze dried. Gelatin photographs may mottle during this process, but they will not stick together. Do not vacuum thermal dry photographs. Gelatin photographs will severely mottle and stick together in this process.

It is important to note that nitrate base film is highly combustible and must be treated with the same precautions that one would use with highly combustible chemicals.

Salvage Priorities by Type:

Treatment:

First priority: photographs made by these processes are most susceptible to water damage.

| | |
|--|---------------------------------|
| ambrotypes | immediately dry, never freeze |
| tintypes | immediately dry, never freeze |
| pannotypes | immediately dry, never freeze |
| daguerrotypes | immediately dry, never freeze |
| collodion wet plate glass negatives | immediately dry, never freeze |
| gelatin dry plate glass negatives | immediately dry, never freeze |
| glass lantern slides | immediately dry, never freeze |
| nitrate or deteriorated black & white film | immediately freeze, do not blot |
| carbon prints | immediately dry |
| woodburytypes | immediately dry |
| deteriorated or unhardened gelatin prints | immediately dry or freeze |
| color prints | freeze or dry within 72 hrs |
| color negatives | freeze or dry within 72 hrs |
| color transparencies | freeze or dry within 72 hrs |

Second priority: photographs that are more stable in water.

| | |
|---------------------|-----------------|
| salted paper prints | immediately dry |
| albumen prints | immediately dry |
| collodion prints | immediately dry |

| | |
|-----------------|-----------------|
| platinum prints | immediately dry |
| cyanotypes | immediately dry |

Third priority: treat these after treating the above types.

| | |
|------------------------------|-----------------------------|
| black & white prints | freeze or dry within 72 hrs |
| black & white negatives | freeze or dry within 72 hrs |
| black & white transparencies | freeze or dry within 72 hrs |

Packing Method:

Handle photographs with care. Do not touch emulsion. Hold by edges or margins. Always lay emulsion side up. Glass plate negatives and cased photographs should be packed horizontally in padded containers. Do not allow faces of negatives to rest against each other.

Prints, negatives and transparencies should be kept in cold water until they can be frozen or air dried. For transporting these, pack in containers lined with garbage bags to retain moisture.

In preparation for freezing, wrap or interleave individual photographs or groups of photographs that are stuck together with wax paper.

Drying Method:

Preparation for Drying and Drying:

Secure a clean area to work, free from particulates. Use a portable dehumidifier and fans tilted up toward the ceiling to minimize the risk of mold growth. Keep photos or negatives in cold water until they can be air dried. If they are allowed to partially dry in contact with each other, they will stick together.

For cased items, carefully open the case, remove the photograph and place it face up on blotters. Keep cases and labeling with items. If photographs are adhered to the glass, set them aside for freezing and later consultation with a conservator.

Carefully remove prints and film positives & negatives from their enclosures. Keep the enclosure or the file number with each item.

Follow the procedures below to prepare and dry each type of photograph.

| <i>Type: Procedures:</i> | <i>Preparation & Drying</i> |
|--|---|
| ambrotypes | Air dry face up. |
| tintypes | Air dry face up. |
| pannotypes | Air dry face up. |
| daguerrotypes | Air dry face up |
| collodion wet plate glass negatives | Do not wash or expose plates to further moisture. If any image remains, air dry immediately, emulsion side up (reverse of read right viewing). |
| gelatin dry plate glass negatives | Air dry immediately, emulsion side up. Consult a photograph conservator for later processing if there are particulates on the plate. |
| glass lantern slides | Do not attempt to clean debris or wash image. Air dry face up. |
| nitrate or deteriorated black & white film | Air dry face up. Test vacuum freeze drying. |
| carbon prints | Air dry face up. |
| woodburytypes | Air dry face up. |
| deteriorated or unhardened gelatin prints | Air dry face up. |
| color prints | Place the print in a tray filled with cool water (60-70 degrees). Agitate the tray and change the water several times. After 10 minutes, change the water and air dry. Reduce washing time for deteriorated and card mounted prints. The water temperature should not change radically from hot or cold because of reticulation. The order of preference for drying is 1) air dry 2) freeze, thaw & air dry 3) freeze dry. |
| color negatives | Soak the films in clean, cool water (60–70 degrees) for 30 minutes. Use caution to avoid reticulation. If there are particulates on the film, rinse for 10-15 minutes while gently brushing surfaces under water with a soft bristle brush, then continue washing for an additional 15 minutes. Air dry by hanging from a clothes line at room temperature in a dust free area. Use caution in the placement of clips, making sure not to crimp the transparencies. Consult a photo conservator after transparencies have dried, as some may require stabilization. The order of preference for drying is 1) air dry 2) freeze, thaw & air dry 3) freeze dry. |
| Kodachrome | Soak the films in clean, cool water (60-70 degrees) for 30 |

| | |
|--|---|
| transparencies | minutes. Use caution to avoid reticulation. If there are particulates on the film, rinse for 10-15 minutes while gently brushing surfaces under water with a soft bristle brush, then continue washing for an additional 15 minutes. Rinse with Kodak Photo Flo solution (1/2 ounce per gallon of water). Air dry by hanging from a clothes line at room temperature in a dust free area. Use caution in the placement of clips, making sure not to crimp the transparencies. The order of preference for drying is 1) air dry 2) freeze; thaw & air dry 3) freeze dry. |
| Ektachrome transparencies | Soak the films in clean, cool water (60-70 degrees) for 30 minutes. Use caution to avoid reticulation. If there are particulates on the film, rinse for 10-15 minutes while gently brushing surfaces under water with a soft bristle brush, then continue washing for an additional 15 minutes. Air dry by hanging from a clothes line at room temperature in a dust free area. Use caution in the placement of clips, making sure not to crimp the transparencies. Consult a photo conservator after transparencies have dried, as some may require stabilization. The order of preference for drying is 1) air dry 2) freeze, thaw & air dry 3) freeze dry. |
| salted paper prints | Air dry face up. |
| albumen prints | Air dry face up. |
| collodion prints | Air dry face up. |
| platinum prints | Air dry face up. |
| cyanotypes | Air dry face up. |
| black & white prints | Place the print in a tray filled with cool water (60-70 degrees). Agitate the tray and change the water several times. After 15 minutes, change the water and air dry. Reduce washing time for deteriorated and card mounted prints. The water temperature should not change radically from hot or cold because of reticulation. The order of preference for drying is 1) air dry 2) freeze, thaw & air dry 3) freeze dry. |
| black & white negatives (silver gelatin) | Soak the films in clean, cool water (60-70 degrees) for 30 minutes. Use caution to avoid reticulation. If there are particulates on the film, rinse for 10-15 minutes while gently brushing surfaces under water with a soft bristle brush, then continue washing for an additional 15 minutes. Rinse with Kodak Photo Flo solution (1/2 ounce per one gallon of water). Air dry by hanging from a clothes line at room temperature in a dust free area. Use caution in the placement of clips, making sure not to crimp the transparencies. The order of preference for drying is 1) air dry 2) freeze, thaw & air dry 3) freeze dry. |

| | |
|------------------------------|--|
| black & white transparencies | Soak the films in clean, cool water (60–70 degrees) for 30 minutes. Use caution to avoid reticulation. If there are particulates on the film, rinse for 10-15 minutes while gently brushing surfaces under water with a soft bristle brush, then continue washing for an additional 15 minutes. Rinse with Kodak Photo Flo solution (1/2 ounce per one gallon of water). Air dry by hanging from a clothes line at room temperature in a dust free area. Use caution in the placement of clips, making sure not to crimp the transparencies. The order of preference for drying is 1) air dry 2) freeze, thaw & air dry 3) freeze dry. |
| photo albums | To air dry, interleave the pages with blotting paper, placing a sheet of polyester web between each blotter and photographs. Change blotters as they become wet. If the binding structure is no longer intact or if the album can be easily disbound, separate the leaves and air dry on blotters covered with polyester web, turning the leaves periodically to promote even drying. To freeze, interleave each page with wax paper and wrap the volume in plastic. |

Supplies:

padded containers

wax paper

blotters

polyester web

portable dehumidifier

fans

photo trays

distilled water

clothes line

rustproof clips

Kodak Photo Flo solution

soft bristle brush

Ceramics

Treatment:

Dry sunbaked earth, terra cotta and low-fired objects within 24 hours to prevent loss of surface detail and disintegration. These should be attended to by a conservator. See the vendor list in the resources section for a ceramics conservator.

Begin drying other ceramics within 48 hours to prevent the growth of mold and softening of objects.

Packing Method:

Separate sunbaked, terra cotta and low-fired ceramics and pack separately. These may require treatment by a conservator before drying.

Handle all items with care, wrapping as need be for packing with unprinted newsprint or bubble wrap. Keep pieces of broken objects together in plastic bags or boxes lined with garbage bags.

Drying Method:

Preparation for Drying:

Set up a portable dehumidifier and fans, tilting fans upward toward the ceiling. Prepare flat surfaces with blotters or unprinted newsprint.

Drying:

Use blotters or paper towels to remove excess water. Brush off mud or dirt with a soft bristle brush. Air dry slowly, turning objects regularly to promote even drying.

Supplies:

| | |
|-----------------------|---------------------|
| plastic bags | fans |
| boxes | blotters |
| garbage bags | unprinted newsprint |
| bubble wrap | paper towels |
| portable dehumidifier | soft bristle brush |

Glass and Stone

Treatment:

These materials can be dealt with last in an emergency because they will suffer least damage from short-term exposure to water.

Packing Method:

Handle breakable items with care, wrapping as need be for packing with unprinted newsprint or bubble wrap.

Drying Method:

Preparation for Drying:

Set up dehumidifier and fans, tilting fans up slightly toward the ceiling, to reduce humidity in the room. Rinse items with clear water to remove mud or dirt before drying.

Drying:

Use sponges or clean paper towels to absorb excess moisture. Air dry. Check for mold growth daily. Raise large items off floor to circulate air on all sides as need be.

Supplies:

unprinted newsprint

bubble wrap

portable dehumidifier

fans

bucket

sponges

paper towels

Leather and Rawhide

Treatment:

Begin drying within 48 hours to prevent the growth of mold. Leather with the condition known as “red rot” needs to be dried quickly or it will irreversibly stiffen and darken.

Packing Method:

Handle leather items with care because wet leather may become fragile. Support all items when moving them.

Pack items either in boxes lined with plastic garbage bags or on slings made of polyethylene sheeting or cloth. Make sure to keep accession numbers or labels with all items. Label parts of any items that become detached.

Wrap items with red rot with wax paper or plastic sheeting to prevent them from soiling adjacent items and to prevent the red rotted areas from drying before the item can be treated.

Drying Method:

Preparation for Drying:

Set up dehumidifier and fans, tilting fans slightly upward toward the ceiling. Prepare flat surfaces or clean floor space with clean blotters or unprinted newsprint. Do not place items on top of each other when drying. Rinse or sponge items with clean water to remove mud or dirt before drying. Exercise extreme care when rinsing red-rotted or painted surfaces. Keep rotted surfaces damp until consolidation can be done.

Drying:

Remove excess water from items that are in good condition with a sponge or blotters. Cover items initially with blotters. Change support and cover blotters as they become saturated. Pad items out into correct shape with unprinted newsprint and air dry. Change padding material as it becomes saturated. For leathers that were intended to be flexible, manipulate during the drying process. Turn items frequently to allow air to circulate over all surfaces. Check for mold daily.

Supplies:

plastic sheeting
portable dehumidifier
fans

blotters
unprinted newsprint
sponges

Metals

Treatment:

Unstable objects (those that are corroded or those that incorporate minerals or copper chloride) should be treated within 48 hours since they can be damaged from long term exposure to water.

Objects that incorporate organic materials must be dried within 48 hours to prevent the growth of mold. See appropriate salvage procedure pages for the treatment of incorporated materials.

Packing Method:

Objects that incorporate organic materials should be wrapped in plastic to retain moisture until they can be dried in a controlled manner. Water sensitive objects, such as copper alloys, should be packed in silica gel in individual containers. Objects that have been coated with tannic acid & wax or acrylic resin may “flash” rust under the coating. These, too, should be packed in silica gel in individual containers to stabilize the rust until the coating can be removed and reapplied.

Drying Method:

Preparation for Drying:

Set up dehumidifier and fans, tilting fans up slightly toward the ceiling. Rinse with clear water and remove mud or dirt with a soft bristle brush.

Drying:

Use sponges or clean toweling to absorb excess moisture. Air dry. Raise large items off floor to circulate air on all sides as need be. Check daily for corrosion, shrinkage or fragmentation.

Supplies:

| | |
|-----------------------|--------------------|
| silica gel | soft bristle brush |
| plastic garbage bags | sponges |
| portable dehumidifier | paper towels |
| fans | |

Organic Materials: Bone, Hair, Horn, Ivory, Shell and Grass

Treatment:

Begin drying within 48 hours to prevent mold growth. Keep materials damp until they can be air dried in a controlled way. These materials can be damaged by water if allowed to be wet for an extended period of time.

Packing Method:

Handle items with care. Since these materials may split or fragment when wet, individually wrap items in damp paper towels or place them in plastic bags. Keep labels with objects that are moved. If you separate parts of an object or parts of a collection to dry in a different location, keep careful records.

Drying Method:

Preparation for Drying:

Set up dehumidifier and fans, tilting fans up slightly toward the ceiling, to slowly reduce humidity in the room. Rinse items with distilled water to remove mud or dirt before drying.

Drying:

Use sponges or clean toweling to absorb excess moisture. Air dry slowly on blotters, changing blotters as necessary. For baskets, stuff with unprinted newsprint to retain shape. Check for mold growth daily. Raise large items off of floor to circulate air on all sides as need be.

Supplies:

| | |
|-----------------------|-----------------|
| unprinted newsprint | fans |
| bubble wrap | bucket |
| plastic bags | sponges |
| paper towels | blotters |
| portable dehumidifier | distilled water |

Wood

Treatment:

Begin drying within 48 hours to prevent mold growth. Wooden items require slow drying; fast drying will cause warping and cracking. Decorated or fragile items should be attended to by a conservator.

Packing Method:

Saturated wood may become fragile: lift items from the bottom not from extending parts. Cover wooden items with plastic garbage bags to retain moisture. Pad with bubble wrap or unprinted newsprint as need be.

Drying Method:

Preparation for Drying:

Set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling.

Rinse items with clear water to remove mud and dirt before drying. Be careful not to damage finishes by scouring. Clean carvings or crevices with a soft bristle brush. If mud has dried, dampen it with a sponge and remove with a wooden spatula then rinse.

Drying:

Blot items to remove excess water before air drying. Be careful not to damage finishes by scouring.

Tent items with plastic sheeting to slow the dry process. Raise items off the floor and open doors and drawers as necessary to allow air circulation on all sides and within.

Supplies:

unprinted newsprint
blotters
garbage bags
plastic sheeting
bucket

sponges
soft bristle brush
wooden spatula
fans
portable dehumidifier

Paintings on Canvas

Treatment:

Dry within 48 hours to prevent mold growth. Paintings with unstable surfaces or water-soluble media should be attended to by a conservator. See the vendor list in the resources section for painting conservators.

Packing Method:

Transport paintings vertically. Stand upright with corrugated cardboard between paintings so that painting surfaces do not touch other surfaces. Wrap unstable frames in bubble wrap.

Drying Method:

Preparation for Drying:

Set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling.

Remove the painting from the decorative frame using the following procedures. Cover a smooth flat surface with blotting paper. Place the frame face down. Carefully remove the dust seal and hanging hardware. Remove the brads or screws that secure the frame to the stretcher. Using two hands invert the frame and stretcher assembly so that the image is face up. Carefully lift the frame off. Label the frame, stretcher and hardware with masking tape for later re-assembly.

Drying:

Cover the work surface with a new blotter and cover this with polyester web. Place the stretched painting face down on this. Remove any remaining backing or labels from the back of the painting to expose wet canvas. Retain and tag all labels, parts, documentation, etc that are detached from the painting or frame.

Place pre-cut blotters on the exposed canvas. Cover the blotters with plexiglas and light weighs. Weight the corners of the stretcher to prevent warping. Repeatedly change backing blotters to dry the canvas.

When dry to the touch, remove the backing blotters and gently pick up the painting. If the facing polyester web is attached to the painting, do not attempt to remove it; leave it attached until it can be attended to by a conservator.

Supplies:

corrugated cardboard
fans
bubble wrap
portable dehumidifier
mat knife
phillips screw driver
flat nose screwdriver

needle nose pliers
scissors
masking tape
blotting paper
polyester web
plexiglas
small weights

Paper: Coated

Treatment:

Freeze or air dry within 48 hours to prevent the growth of mold. Coated paper must not be allowed to dry in a clump or it will become permanently attached. If saturated, freeze within 6 hours and vacuum freeze dry. Do not use vacuum thermal drying. If damp, separate individual leaves with wax paper and air dry. See the vendor list in the resources section for sources of freezer space and freeze drying.

Packing Method:

Wet paper is very fragile and can easily tear if unsupported. Keep handling to a minimum as surface coatings are easily damaged.

Transport archive boxes as a unit. Remove drawers from flat files and transport these using strips of wood between file drawers to prevent damage from shifting. All other drawers and containers (file drawers, card boxes, etc) can be transported as units. Label appropriately if drawer or container is unlabeled.

Flat loose sheets should be packed in boxes lined with plastic garbage bags or on plywood sheets lined with mylar. Label items or group of items that are separated from their collection at the time of packing.

Drying Method:

Preparation for Drying:

Set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling. Cover flat surfaces with blotting paper or unprinted newsprint and cover this with polyester web for support. Keep folders, boxes or labels with their items during the drying process.

Drying:

Air dry by laying single sheets or small groups of interleaved sheets on prepared surfaces. Every sheet of coated paper must be interleaved with wax paper if it is allowed to rest against other sheets or else the sheets will stick together permanently on drying. Separate small groups as they dry and become safer to handle. Change wet blotters or newsprint when wet. Care should be taken to dry papers with water soluble inks face up and separately so that no offsetting occurs.

Remove items in polyester sleeves by cutting sealed edges and carefully rolling back and removing the top polyester sheet diagonally. If there are any problems with support or media, stop and consult the conservator. Air dry on the bottom polyester sheet.

Supplies:

boxes

garbage bags

plywood sheets

mylar

portable dehumidifier

fans

blotting paper

unprinted newsprint

polyester newsprint

wax paper

Paper: Framed or Matted

Treatment and Priorities:

Air dry or freeze within 48 hours. Framed and matted items must be disassembled before air drying. Prints with unstable media should be attended to by a conservator. See the vendor list in the resources section for sources of freezer space, freeze drying and conservators.

Packing Method:

Transport framed materials vertically. Stand upright with corrugated cardboard between items so that exposed paper surfaces do not touch other surfaces. Wrap unstable frames with bubble wrap. Once unframed, wet paper is very fragile and can tear easily if unsupported.

Drying Method:

Preparation for Drying:

Set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling. Cover tables, floors and flat surfaces with blotting paper or newsprint covered with polyester web for support.

Remove the item from the decorative frame using the following procedures. Cover a smooth flat surface with blotting paper. Place the frame face down. Carefully remove the dust seal and hanging hardware. Remove the brads that secure the backing board to the frame. Using two hands invert the frame and glass assembly so that the image is face up. Lift off the frame. Lift off the glass. If the paper is in direct contact with the glass be especially careful. If any sticking of paper and glass is noted, consult a conservator. Items with broken glass should be left to the care of a conservator. Label the frame, glass and hardware with masking tape for later re-assembly.

Carefully remove the window mat board. Detach the paper object from the backing material by carefully cutting the hinges. Do not attempt to remove items that are attached directly to the mat or back board; air dry these while still attached.

Drying:

Air dry sheets individually on prepared surfaces face up. Change wet blotters or newsprint as they become wet. Care should be taken to dry papers with water soluble inks separately so that no offsetting occurs.

Supplies:

corrugated cardboard
mat knife
phillips screw driver
flat nose screwdriver
needle nose pliers
spatula
scissors

masking tape
portable dehumidifier
fans
blotting paper
unprinted newsprint
polyester web

Paper: Uncoated

Treatment:

Air dry or freeze within 48 hours.

Freeze all papers with water soluble inks. Freezing is the best option if there is a large amount of water damaged material. See the vendor list in the resources section for sources of freezer space and freeze drying.

Packing Method:

Wet paper is very fragile and can tear easily if unsupported. Transport archive boxes as a unit. Remove drawers from flat files and transport these using strips of wood between file drawers to prevent damage from shifting. All other drawers and containers (file drawers, card boxes, etc) can be transported as units. Label appropriately if drawer or container is unlabeled.

Flat loose sheets should be packed in boxes lined with plastic garbage bags or on plywood sheets lined with mylar. Rolled items should be placed horizontally in boxes. Do not over pack. Label items or group of items that are separated from their collection at the time of packing.

Drying Method:

Preparation for Drying:

Set up the dehumidifier and fans, tilting fans slightly upward toward the ceiling. Cover tables, floors and flat surfaces with blotting paper or unprinted newsprint and cover this with polyester web for support.

Remove items in polyester sleeves by cutting sealed edges and carefully rolling back and removing the top polyester sheet diagonally. If there are any problems with support or media, stop and consult the conservator. Air dry on the bottom polyester sheet.

Drying:

Keep folders, boxes or labels with their items during the drying process.

Air dry single sheets or small groups of sheets on prepared surfaces. Separate small groups as they dry and become safer to handle. For very wet material, use extreme care in removing items from drawers, boxes, folders, etc. Use polyester web to support single items or small groups of items while moving. Change blotters or newsprint as they become wet.

Care should be taken to dry papers with water soluble inks separately and face up so that no offsetting occurs.

Supplies:

pencil

paper

boxes

garbage bags

plywood sheets

mylar

portable dehumidifier

fans

blotting paper

unprinted newsprint

polyester web

Vellum and Parchment

Treatment:

Freeze or dry within 48 hours to prevent mold growth. Vellum items require slow, carefully controlled drying. Vellum bindings in particular are difficult, and the drying process can damage the textblock. Freeze very wet documents and all vellum bindings if they cannot be attended to immediately by a conservator.

Do not vacuum freeze dry or vacuum thermal dry vellum/parchment items.

Packing Method:

In preparation for freezing, closed books that are muddy should be rinsed. Separate individual books with freezer paper and pack spine down in milk crates, plastic boxes or cardboard boxes lined with plastic sheeting. Oversize books need to be fully supported.

Drying Method:

Preparation for Drying:

Prepare flat surfaces with blotting paper or newsprint covered with polyester web for support.

Drying:

Wet vellum requires slow, carefully controlled drying. Items need to be restrained during the drying process in order to retain their shape.

Documents that have only been exposed to high humidity should be interleaved with blotting paper and weighted under plexiglas until dry. Change blotters as necessary.

Documents that are damp should be clipped to a board or weighted and air dried. As the item dries, it should be checked every 15 minutes and have the tension adjusted. When almost dry, it should be unclipped, placed between blotters and weighted under plexiglas to complete the drying process.

Vellum bindings need to be watched carefully. Dry slowly. Place blotters between the covers and textblock and on the outside of the covers. Weight the book or put it in a book press. Watch the drying process carefully since as the binding dries it may shrink and damage the textblock. In cases of extreme distortion, the textblock needs to be removed from the binding.

Supplies:

wax paper
milk crates or plastic boxes
cardboard boxes
plastic sheeting

blotting paper
plexiglas
weights
clips

Record Albums (Vinyl, Shellac and Acetate Discs)

Treatment:

Dry within 48 hours. Freezing is untested.

Packing Method:

Hold disks by their edges. Handle with care. Pack vertically in plastic crates, wrapping with bubble wrap or unprinted newsprint..

Drying Method:

Preparation for Drying:

Remove discs from their sleeves and jackets. If labels have become separated, remove the label and label the exposed center of the disc with a grease pencil.

Separate into groups of vinyl, shellac and acetate discs. If discs are dirty, wash in a 1% solution of Kodak Photo Flo in distilled water. Treat each media group separately, changing the solution and cleaning the photo tray between media. Rinse each disc thoroughly with distilled water.

Drying:

Air dry discs vertically in a rack that allows circulation of air around them.

Air dry jackets, sleeves and labels as per instructions for paper materials Make sure to dry the insides of jackets and sleeves thoroughly to prevent mold growth.

Supplies:

| | |
|-----------------|-----------------|
| grease pencil | distilled water |
| plastic crates | photo trays |
| bubble wrap | drying rack |
| Kodak Photo Flo | |

Textiles and Clothing

Treatment:

Dry fragile textiles and textiles with bleeding dyes as soon as possible. Dry all textiles within 48 hours to prevent the growth of mold.

Packing Method:

Handle with care: wet textiles become weaker when wet and may be easily torn or damaged. Support all items when moving them with solid supports or slings made of polyester web or cloth. Do not carry items by their hangers. Make sure to keep accession numbers or labels with all items. Label parts of any items that become detached. Remove as much wet packing materials from items as can be done without excessive handling. Do not unfold or spread items out at this time. Do not stack wet textiles on each other.

Drying Method:

Preparation for Drying:

Set up dehumidifier and fans, tilting fans slightly upward toward the ceiling. Prepare flat surfaces or clean floor space with clean blotters or unprinted newsprint.

Drying:

Remove excess water from items that are in good condition with a sponge or blotters. Cover items initially with blotters. Change support and covering blotters as they become saturated. When items have begun to dry, air dry uncovered, exposing folded areas as need be. Costumes may be padded out slightly with acid-free tissue or polyester web to speed drying and prevent creasing. Turn items frequently to allow air to circulate over all surfaces.

Textiles with bleeding dyes should be dried first. Dry the areas which are bleeding before the surrounding areas by carefully using a hair drier set on low heat. To do this, first cover the item with cheesecloth making close contact with the material. Leave the cheesecloth undisturbed until drying is complete.

Supplies:

portable dehumidifier
fans
blotters
unprinted newsprint
sponges

acid-free tissue
polyester web
hair driers
cheesecloth

Textile Costume Accessories

Treatment:

Dry items with bleeding dyes as soon as possible and begin drying all items within 48 hours to prevent the growth of mold.

Packing Method:

Support all items when moving them, either in boxes lined with plastic garbage bags or on slings made of polyester web or cloth. Make sure to keep accession numbers or labels with all items. Label parts of any items that become detached. Remove as much wet packing materials from items as can be done without excessive handling. Do not unfold or spread items out at this time.

Drying Method:

Preparation for Drying:

Set up dehumidifier and fans, tilting fans slightly upward toward the ceiling. Prepare flat surfaces or clean floor space with clean blotters or unprinted newsprint.

Drying:

Fans and parasols should be air dried without opening. Do not reshape hats while wet. Remove excess water from items that are in good condition with a sponge or blotters. As hats dry, they can be carefully reshaped and padded with acid free tissue or polyester web. Turn items frequently as need be to allow air to circulate over all surfaces. For leather shoes and gloves, see the salvage procedures for leather.

Textile accessories with bleeding dyes should be dried first. Dry the areas which are bleeding before the surrounding areas by carefully using a hair drier set on low heat. To do this, first cover the item with cheesecloth making close contact with the material. Leave the cheesecloth undisturbed until drying is complete.

Supplies:

| | |
|---------------------------------------|------------------|
| boxes lined with plastic garbage bags | sponges |
| portable dehumidifier | acid-free tissue |
| fans | polyester web |
| blotters | hair dryers |
| unprinted newsprint | cheesecloth |

Emergency Services Vendors

ACS Data Recovery

1005 Marlandwood Rd. Suite 117
Temple, TX 76502

Toll-Free: 1-800-717-8974
Fax: 1-800-717-8974

Services: Recovering data in the following situations: Drive damage due to power issues (over voltage, voltage spikes, etc.), Head stack failures; clicking hard drives and other physical failures, Spindle motor failures, Drive seen as RAW in Windows, or asks to Format, BIOS detects wrong drive model or size, or does not see the drive at all, Human error, accidental deletion, accidental format, OS reinstall, RAID failures, degraded arrays, RAID 0, RAID 1, RAID 5, Data loss due to virus attacks, or sabotage, Water damaged, flooded hard drives, Fire and Smoke damaged drives.

American Freeze-Dry, Inc.

P.O. Box 5740
Deptford, NJ 08096

Phone: 856-939-8160 ; 866-939-8160
24/7 Emergency Hotline: 609-458-0510

Services: Freeze Drying, Thermal Drying, Vacuum Drying, Forced Dry Air Drying, Rehumidify documents on airing tables, Deodorize or treat with Ozone to eliminate odor, Clean mud and debris from documents and trimmed burned edge, Prepare for storage or reproduction, Plastic Milk Crates Loan, Refrigerated Trucks.

Badgerland Pest Control

600 Harold Ct
Stoughton, WI 53589

Phone: 608-279-2565
Contact: Dave Hanneman

Services: Pest remediation.

Bay Area Video Coalition (BAVC)

2727 Mariposa Street, 2nd Floor
San Francisco CA 94110

Phone: 415-861-3282
Fax: 415-861-4316

Services: Video and Audio. Archival Collection Assessment, Preservation Planning and Cataloging and Metadata Consultation, Cleaning and Archival Transfer Analog Videotape Formats from: 1" Open Reel, 1/2" Open Reel, 3/4" Umatic and UmaticSP, Hi-8, Video8, S-VHS/ VHS, Betamax, MiniDV, DVCam, BetaSP formats, Archival Transfer to: Digital File (with associated metadata), Digital Betacam, DVD, and other access formats. Optional viewing copies on DVD and other access formats available, Logged documentation of signal imperfection.

Blackmon Mooring BMS CAT

315 North Great Southeast Parkway
Arlington, TX 76011

24/7 Emergency Line Phone: 877-730-1948

Services: Freeze Drying (Book and document drying, Document freeze-drying, Microbial removal), Document & media recovery, Fire & smoke damage restoration, Water damage restoration, Moisture control & dehumidification, Mold & microbial remediation, HVAC decontamination, Restoration project management, Reconstruction.

Chicago Audio Works, Inc.

Scott D. Smith
676 N. Lasalle St.
Chicago, IL 60654

Phone: 312-337-8282
Fax: 312-264-0247

Services: Preservation and migration services for a variety of audio formats, including all open reel formats, disk, cassettes, wire recordings and dictation recordings, film sound recording (including 16mm and 35mm magnetic and optical tracks)

Colorlab

5708 Arundel Ave
Rockville, MD 20852

Phone: 301-770-2128
Fax: 301-816-0798

27 W 20th St. #307
New York, NY 10011
Phone: 212-633-8172

Services: Film-to-tape video masters: 16mm, super 16, and 35mm color and black and white negative original and intermediate timing, processing, and wet-gate contact and optical printing; small-gauge services, including broadcast-quality transfers from 8mm, super 8, 9.5mm, 17.5mm, and 28mm; and full film preservation services in all formats, Tape-to-tape restoration, specializing in 3/4", 1", and 2" Quad, time-base corrected mastering to Digital Betacam in NTSC and PAL.

Conservation Center for Art & Historic Artifacts (CCAHA)

264 South 23rd Street

Philadelphia, PA 19103

Contact: Julie Heath (Director)

Phone: 215-545-0613

Fax: 215-735-9313

Services: Conservation treatment services for drawings, prints, maps, posters, historic wallpaper, architectural drawings, musical scores, photographs, rare books, scrapbooks, manuscripts, and related materials such as parchment and papyrus, Treating oversized materials and large groups of materials, Digital imaging, housing, and framing, Preservation and Disaster Planning, Emergency Assistance.

Document Reprocessors

West Coast Facility

1384 Rollins Road

Burlingame, CA 94010

Phone: 650-401-7711

Fax: 650-401-8711

24/7 Rapid Response: 1-800-437-9464

East Coast Facility

40 Railroad Avenue

Rushville, New York 14544

Phone: 585-544-4500

Fax: 585-554-4114

Services: Mobile vacuum freeze-drying equipment, *Books, Documents, Blueprints, & Maps:* Vacuum freeze-drying, Cryogenic freeze-drying of leather and vellum bound books, Removal of surface dirt, mold or mildew, and soot, Trimming of text blocks, Rebinding to LBI preservation standards, Deodorizing to remove smoke odors, Rejacketing of files, binders, books, Photocopying of damaged or undamaged materials, Relabeling, Indexing and reordering of files, Microfilming or scanning, *Microfilm & Microfiche:* Surface cleaning of dirt or mold, Drying, Rehousing and relabeling, Respooling roll film, Backfile conversions, Photographs and Negatives (20th Century B&W and Contemporary color): Surface cleaning, Air drying, Rehousing and relabeling, Processing and drying undeveloped film, Drying of large format aerial film, *Audio and Video Tapes:* Disassembly and cleaning, Vacuum drying, Respooling, Duplication, if needed, *Magnetic Diskettes and Disk Drives:* Surface cleaning, Drying, Copying to a new disk or uploading to tape; Assistance w locating freezer space.

Eastman Park Micrographics

6300 Cedar Springs Rd

Dallas, TX 75235-5809

Phone: 866-934-4376; 214-580-8390

Fax: 585-486-1902

Disaster Recovery Support:

1-800-352-8378

Services: Disaster Treatment/Restoration/Conservation of Kodak Microfilm & Fiche, Referrals to partners for treatment of other types of Microfilm/fiche.

EMSL Analytical, Inc.

200 Route 130 North
Cinnaminson, NJ 08077

24/7 Phone: 800-220-3675
Fax: 856-786-5974

Services: Analysis of fungi

Heritage Preservation

1012 14th Street, NW
Suite 1200
Washington, D.C. 20005

Phone: 202-233-0800
Fax: 202-233-0807

Services: Disaster Planning Resources

Intermuseum Conservation Association (ICA)

2915 Detroit Avenue
Cleveland, OH 44113

Phone: 216-658-8700
Fax: 216-658-8709

Services: Laboratory and on-site art conservation, Climate-controlled storage, Custom crate building and display work, Surveys and inspections, Studio-quality photo documentation, Disaster assistance

Maintenance Services of Madison, Inc.

1022 North Sherman Ave.
Madison, WI 53704

24/7 Phone: 608-229-1209
Fax: 608-246-9181

Services: Plumbing, Electrical, Hvac, Carpentry, and Repair Services, Fire and Flood Damage Restoration, 24-Hour Emergency Service, Construction Clean-up

Midwest Art Conservation Center

2400 Third Ave South
Minneapolis, MN 55404

24/7 Disaster Recovery: 612-870-3120 Fax:
612-870-3118
M-F 8:30-5pm CST

Services: Professional conservation treatment services of: Paintings, Murals, Western and Asian works on paper, Textiles, Furniture and decorative arts, Frames, Objects, Indoor and outdoor sculpture, Ethnographic artifacts, and Historic artifacts, Environmental assessments, Collections surveys, Storage analysis, Loans of environmental monitoring equipment, Emergency response planning

Mullins Group, LLC

401 North Carroll Street
Madison, WI 53703

Phone: 608-285-8095
Fax: 608-285-8085

Services: Rental of warehouse space in downtown Madison

Northeast Document Conservation Center (NEDCC)

100 Brickstone Square
Andover, MA 01810-1494

Phone: 978-470-1010
Fax: 978-475-6021
24/7 Emergency Hotline: 855-245-8303

Services: Conservation treatment of books, documents, photographs, art on paper and other paper-based objects; duplication of photographs and preservation microfilming, Digitization of photographs, maps, documents, works of art on paper, and other visual materials, Assessments and consultations, 24-hour Disaster Assistance Hotline

Paul Davis Restoration of South Central Wisconsin

3432 County Hwy N
Madison, WI 53527

24/7 Phone: 608-839-4100

Services: Loss containment; Contents cleaning, inventory, and storage; Soot clean-up and smoke deodorization; Water extraction and structural drying.

Polar King International, Inc.

4424 New Haven Avenue
Fort Wayne, IN 46803

Phone: 260-428-2530
Fax: 260-428-2533

Services: Freezer vans and walk-in freezers and coolers.

Polygon US Corporation

2008 Bloomingdale Road
Glendale Heights, IL 60139
Phone: 1-800-422-6379
Fax: 978-655-8511

Services: Vacuum Freeze Drying, Blast Freezing, Microbial Disinfecting, Deodorization, Soot Removal, Air Drying, Desiccant Air Drying, Vacuum Thermal Drying, Vacuum Free Drying, Cleaning Documents, Water Damage Restoration, Fire Damage Restoration

Preservation Directorate at the Library of Congress

101 Independence Ave SE
Washington, DC 20540
Public Contact: 202-707-5213

Services: Disaster Planning Resources

Restoration Specialists of Wisconsin, LLC

4250 Acker Rd #5
Madison, WI 53704

24/7 Phone: 608-274-4777
Fax: 608-587-2264

Services: Fire & Smoke Damage Restoration, Board-Up Services, Structural Cleaning, Ozone Cleaning, Water Damage Restoration, Complete Water Mitigation, Extraction, Moisture Testing, Dry Out, Microorganism Prevention

Specs Brothers

P.O. Box 195
Lodi, NJ 07644

Phone: 800-852-7732
Fax: 973-777-5065

Services: Library Cleaning & Inspection, Master Rejuvenation of Tapes, Treatment for Binder Hydrolysis, Resizing/Retensioning/Crease Removal, Hub & Shell Repair, Duplication, Oxide Readhesion, Chemical Decontamination, Fire Restoration, Flood Reclamation, Archival Management, Disaster Planning, On-site Evaluations

Smolian Sound Studios

Steve Smolian
1 Wormans Mill Court Suite 4
Frederick, MD 21701-3020

Phone: 301-694-5134
Fax: 601-694-5179

Services: Preservation and restoration of recordings on discs, dictation belts, wires, reels, cylinders, analog tapes, and other formats, Consultation for Preservation Projects

Solex Environmental Systems

P.O. Box 460242
Houston, TX 77056

24/7 Phone: 713-963-8600

Services: Mobile refrigerant dehumidification systems, Refrigerated compressed air dryers, Vacuum freeze-drying chamber, Microbiological sterilization, Portable HEPA air filtration systems, Spot cooling, A/C and room dehumidifiers, Emergency pumping, CryO2-Clean, cryogenic soot contain mate removal systems, On-site security storage containers, Refrigerated trailers, Evacuation of building contents, Fire and water damage restoration, Rare book and document conservators

UW-Madison Department of Entomology – Insect Diagnostic Lab

240 Russell Labs

1630 Linden Drive

Madison, WI 53706-1598

Phone: 608-262-3227

Contact: Patrick (PJ) Liesch

Services: Identify insects and insect damaged plant material

VIDIPAX

450 West 31st St. 4th Floor

New York, NY 10001

Phone: 718-482-7111; 800-653-8434

Fax: 718-482-1370

Services: Audio, video, film and data restoration; preservation and archiving services; recovery, management, and conversion of media assets; forensic migration and reformatting of content to any and all formats as well as audio-visual web streaming; Digital Media Services (DMS) to include evidentiary investigation, processing and analysis, audio and video restoration, triage and disaster recovery.

Wisconsin Occupations Health Lab (WOHL)

2601 Agriculture Drive

Madison, WI 53718

Phone: 800-446-0403

Fax: 608-224-6213

Services: The Bioaerosol Unit analyzes for bacteria and fungi from air, bulk, and wipe samples

Emergency Supply Vendors – Local

Audio Visual/Media Equipment

Available from many University of Wisconsin Campus Libraries, for a full listing (also includes private rental sources) see:

http://www.college.library.wisc.edu/technology/infolab/equipment_elsewhere.shtml

Blower – Turbo Dryer

A to Z RentAll

2209 S. Stoughton Road
Madison, WI 53716
Phone: 608-222-5004
Fax: 608-222-5063
Toll free: 800-848-4651

Blotter Paper (24 x 38, sheet and packet)

Artist & Craftsman Supply

203 W. Gorham St. #1
Madison, WI 53703
Phone: 608-251-2977

University Book Store

711 State Street
Madison, WI 53706
Phone: 608-257-3784

Boxes

Uhaul

602 W. Washington
Madison, WI
Phone: 608-256-3743

Bubble Wrap

Uhaul

602 West Washington
Madison, WI
Phone: 608-256-3743

University Book Store

711 State Street
Madison, WI 53706
Phone: 608-257-3784

Cheesecloth

Hancock Fabrics

150 Westgate Mall
Madison, WI
Phone: 608-277-7720

Jo-Ann Fabric and Craft

2021 Zeier Rd [east] / 6741 Odana Rd [west]
Madison, WI
Phone: 608-241-0782 / 608-826-4030

Dehumidifiers

Dehumidifier Rental:

A to Z RentAll

2209 S. Stoughton Road
Madison, WI 53716
Phone: 608-222-5004
Fax: 608-222-5063
Toll free: 800-848-4651

Badger Contractors Rental and Supply

1501 Gilson Street
Madison, WI 53715
Phone: 608-257-2349
Fax: 608-257-2366

Dehumidifier Purchase:

Farm & Fleet

2202 South Stoughton Road
Madison, WI 53716-2897
Phone: 608-221-3851
Hrs: M-F 8a – 9p, Sat 8a – 8p, Sun 9a – 6p

Distilled Water (*Limited quantity kept in Conservation Lab.)

Walgreens (Drug Store)

676 State St. / 311 E. Campus Mall
Madison WI 53703
Phone: 608-257-2556 / 608-251-0042

Extension Cords

Farm & Fleet

2202 South Stoughton Road
Madison, WI 53716-2897
Phone: 608-221-3851

Fans

Farm & Fleet

2202 South Stoughton Road
Madison, WI 53716-2897
Phone: 608-221-3851

Freezer Paper

Farm & Fleet

2202 South Stoughton Road
Madison, WI 53716-2897
Phone: 608-221-3851

Kodak Photo Flo Solution (*Limited supply kept in Conservation Lab.)

The Camera Company [Downtown]

24 North Carroll Street
Madison, WI 53703
Phone: 608-256-0011

The Camera Company [East/West]

4232 East Towne Blvd. / 6742 Odana Rd
Madison, WI 53704 / 53719
Phone: 608-246-9052 / 608-234-5280

Clean Newsprint

Webcrafters

2211 Fordem Avenue
Madison, WI 53704
Phone: 608-244-3561
Fax: 608-244-5120

Artist & Craftsman Supply

203 W. Gorham St. #1
Madison, WI 53703
Phone: 608-251-2977
[24 x 36 pads; 24 x 36 x 50 yard rolls]

Plastic Sheeting and Bags

Farm & Fleet

2202 South Stoughton Road
Madison, WI 53716-2897
Phone: 608-221-3851

Staples [4mm 10' and 6mm 20' x 100']

6580 Monona Dr
Monona, WI 53716
Phone: 608-216-0931
Fax: 608-216-0938

Plywood Boards and Sheets

Home Depot

4550 Verona Rd
Madison, WI 53711
Phone: 608-276-7922

Menards

2102 East Springs Drive
Madison, WI 53704
Phone: 608-245-1690

Polyester Webbing (Pellon)

Hancock Fabrics

150 Westgate Mall
Madison, WI
Phone: 608-277-7720

Jo-Ann Fabric and Craft

2021 Zeier Rd [east] / 6741 Odana [west]
Madison, WI
Phone: 608-241-0782 / 608-826-4030

Safety Supplies

(Hardhats, boots, gloves, respirators, safety glasses, waders etc.)

Staples

6580 Monona Drive
Monona, WI 53716
Phone: 608-216-0931
Fax: 608-216-0938

Dick's Sporting Goods (Waders)

350 East Town Mall
Madison, WI 53704
Phone: 608-241-2764

Grainger

501 Atlas Ave.
Madison, WI 53714-3107
Phone: 608-221-3861
Fax: 608-221-9818

Farm & Fleet

2202 South Stoughton Road
Madison, WI 53716-2897
Phone: 608-221-385

Silica Gel

Small amounts locally:

Michaels (Craft Store)

1700 Deming Way, Suite 120
Middleton, WI 53562-735
Phone: 608-824-8959

Michaels (Craft Store)

4271 Lien Road
Madison, WI 53704-3606
608-244-5754

Larger amounts locally:

The Rust Store

8376 Murphy Drive
Middleton, WI 53562
Phone: 877-256-9301
Fax: 608-203-1112

Trucks

Ryder

2400 Industrial Dr
Madison, WI 53713
Phone: 608-221-8550

Ryder

5904 Haase Rd
De Forest, WI 53532
Phone: 608-242-4028

Uhaul

602 West Washington
Madison, WI
Phone: 608-256-3743

Vacuum Wet/Dry - 12 gal and Wet 19 gal with pump

A to Z RentAll

2209 S. Stoughton Road
Madison, WI 53716
Phone: 608-222-5004
Fax: 608-222-5063
Toll free: 800-848-4651

Health and Safety Information

1. Reentering the building after an emergency

Personal safety is the first priority in an emergency. Reenter the building only after it has been declared safe by fire officers and safety personnel. Identify potential hazards and report them to safety personnel in order to minimize danger to staff.

2. Exposure to chemicals

Be aware that the fire department has posted emergency forms on the doors to areas in which potentially dangerous chemicals are stored. Exercise appropriate caution when entering these areas to salvage collection materials. In all areas of the building, if you are unsure about chemical damage or exposure, do not handle materials or breathe fumes. Notify safety personnel at once.

3. Mud or sewage damaged materials

Handle materials that have been soiled by mud with plastic gloves. If there is a possibility of sewage contamination, consult with the Wisconsin State Lab of Hygiene (224-6202) before treating. Label items that have been contaminated by sewage clearly so that other salvage workers may exercise appropriate caution. Items affected by sewage water may need to be irradiated before salvage.

4. Nitrate Films

Nitrate-base film is highly combustible, and produces toxic vapors upon combustion so much so that in rare conditions of high temperatures over a period of time coupled with poor ventilation has been known to cause film to ignite spontaneously. Treat nitrate-base film with the same precautions that you would use with highly combustible or toxic chemicals

5. Mold and mildew

Mold and mildew can sometimes be a significant health hazard. Just a few mold species are toxic to people. Secure the affected material from human contact. Contact the Wisconsin State Lab of Hygiene (224-6202) to determine if the mold represents a health hazard. Individuals who are allergic to mold, who are taking steroids, who have chronic respiratory problems, have diabetes or are pregnant should not work with moldy material. All workers who work with moldy objects should be properly equipped with gloves, eye protection, dust masks and lab coats, but must also be fitted and trained in the use of Personal Protective Equipment as per OSH CFR 49. See Conservation Lab Chemical Hygiene Plan for more info.

6. Basic safety rules for lifting

Proper lifting can prevent injuries. Test the load before lifting; if the load is too bulky or heavy get help in lifting from co-workers. Lift with your legs, not with your back. Bend your knees and use your stomach muscles.