

Tips for Salvaging Flood & Water Damaged Photos

By [Kimberly Powell](#), About.com Guide

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When disasters hit, most people don't mourn the refrigerator or the couch. Instead, the loss of precious family photographs, scrapbooks and memorabilia is what brings them to tears. While it may seem unlikely when facing piles of soggy, mud-spattered photos, papers and other valuables, saving them may be possible by following a few simple steps.

Saving Water-Damaged Photos

Most photos, negatives and color slides can be cleaned and air-dried using the following steps:

1. Carefully lift the photos from the mud and dirty water. Remove photos from water-logged albums and separate any that are stacked together, being careful not to rub or touch the wet emulsion of the photo surface.
2. Gently rinse both sides of the photo in a bucket or sink of clear, cold water. Don't rub the photos and be sure to change the water frequently.
3. If you have time and space right away, lay each wet photo face up on any clean blotting paper, such as a paper towel. Don't use newspapers or printed paper towels, as the ink may transfer to your wet photos. Change the blotting paper every hour or two until the photos dry. Try to dry the photos inside if possible, as sun and wind will cause photos to curl more quickly.
4. If you don't have time right away to dry your damaged photos, just rinse them to remove any mud and debris. Carefully stack the wet photos between sheets of wax paper and seal them in a Ziploc type plastic bag. If possible, freeze the photos to inhibit damage. This way photos can be defrosted, separated and air-dried later when you have the time to do it properly.

More Tips for Handling Water Damaged Photographs

- Try to get to flood-damaged photos within two days or they will begin to mold or stick together, making saving them much more unlikely.

- Begin with photographs for which there are no negatives, or for which the negatives are also water damaged.

- Photos in frames need to be saved when they are still soaking wet, otherwise the photo surface will stick to the glass as it dries and you will not be able to separate them without damaging the photo emulsion. To remove a wet photo from a picture frame, keep the glass and photo together. Holding both, rinse with clear flowing water, using the water stream to gently separate the photo from the glass.

It is important to note that some historical photographs are very sensitive to water damage and may not be recoverable. Older photographs should also not be frozen without first consulting a professional conservator. You may also want to send any damaged heirloom photos to a professional photo restorer after drying.

Marriage licenses, birth certificates, favorite books, letters, old tax returns and other paper-based items can usually be saved after a drenching. The key is to remove the dampness as soon as possible, before mold sets in.

The simplest approach to salvaging water-damaged papers and books is to lay the damp items on blotter paper, which will absorb moisture. Paper towels are a good option, as long as you stick to the plain white ones without the fancy prints. Newspaper should also be avoided because its ink may run.

Saving Water-Damaged Papers & Books

As with photos, most papers, documents and books can be cleaned and air-dried using the following steps:

1. Carefully remove the papers from the water.
2. If the damage is from dirty flood water, gently rinse the papers in a bucket or sink of clear, cold water. If they are especially fragile, try laying the papers on a flat surface and rinsing with a gentle spray of water.
3. Lay the papers individually on a flat surface, out of direct sunlight. If the papers are soggy, lay them in piles to dry out a bit before attempting to separate them. If space is a problem, try stringing fishing line across the room and use it like a clothesline.
4. Use an oscillating fan in the room where your papers are drying to increase air circulation and speed drying.
5. For water-logged books, the best option is to place absorbent paper between the wet pages - "inter-leaving" - and lay the books flat to dry. You don't have to place blotter paper between every page, just every 20-50 pages or so. Change the blotting paper every few hours.
6. If you have wet papers or books that you just can't deal with right away, then seal them in zip-loc type bags and stick them in the freezer. This stops the deterioration of the paper and, if it's a frost-free freezer, the fan will pull the moisture right out of the materials as well.

When cleaning up after a flood or water leak, remember that books and papers don't have to be directly in the water to suffer damage. The extra humidity from all of the water in the vicinity is enough to trigger the growth of mold. It is important to remove these books and papers from the wet location as soon as possible, moving them to a location with fans to speed air circulation and lower humidity.

After your papers and books are completely dry, they may still suffer from a residual musty smell. To combat this, place the papers in a cool, dry place for a couple of days. If the musty smell still lingers, put the books or papers in an open box and put that inside a larger, closed container with an open box of baking soda to absorb odors. Be careful not to let the baking soda touch the books, and check the box daily for mold.

If you have important papers or photos that develop mold, have them copied or digitally scanned before throwing them out.

Emergency Salvage of Flood Damaged Family Papers

National Archives and Records Administration

August 1993

As the national repository of the records of the Federal government, the National Archives & Records Administration recognizes the importance of family records. During the mid-west floods of 1993, the staff of the National Archives developed some technical tips to guide individuals in emergency stabilization and salvage of damaged documents, photographs, books, and other personal papers. It is important to note that flood damage to some items may be irreversible. The treatment of objects of high monetary, historic, or sentimental value should only be performed in consultation with a conservator.

MOLD

Many people are sensitive to mold. Also, some mold species are toxic. If any health effects are observed when treating mold consult a doctor or mycologist (the local extension service may be able to help) before proceeding.

The best way to prevent or stop an outbreak of mold is to remove items from environmental conditions that encourage mold growth: high temperature, high relative humidity, stagnant air, and darkness. The first priority is to dry moldy items (see instructions for drying below). If wet and moldy materials cannot be dried immediately they may be stabilized by freezing. Placing damaged items in a personal or commercial freezer will not kill mold. It will, however, put the mold in a dormant state until time and an appropriate treatment environment are available. Manageable quantities of frozen items may then be defrosted and treated at leisure.

Active mold looks fuzzy or slimy. Dormant mold is dry and powdery. Do not attempt to remove active mold; it may only spread or smear. Mold which remains active after freezing or after the host material appears dry may be treated with brief (1-2 hours) exposure to ultraviolet radiation from the sun. Extreme caution must be exercised when treating materials outdoors: too much radiation will accelerate deterioration and may cause fading; wind may cause physical damage if items are blown about; and high relative humidity or condensation caused by quick temperature changes may actually exacerbate mold growth.

Dormant mold spores will reactivate as soon as conditions are favorable. They should, therefore, be removed from items and may be brushed or vacuumed away. This treatment should be performed outdoors where other materials and spaces will not be "infected." When brushing mold use a soft, clean, light-colored brush and a gentle pushing motion. Change soiled brushes often to prevent spreading mold from one object to another. When vacuuming, screening material placed over the nozzle of a low suction vacuum will capture loose bits of the item which may inadvertently dislodge.

CLEANING AND DRYING

Paper is very fragile when it is wet. Handle it carefully. In some cases it may be desirable to remove caked on mud and dirt. Dirt left by receding flood waters may be contaminated. Precautions such as the use of rubber gloves should be taken. If items are still wet, agitating them in a bath of clear water will remove excess dirt. This treatment should never be attempted for images which are blurred, feathered, or faded as a result of flood damage.

AIR DRYING

Wet books, documents, or photographs which cannot be air dried within two days should be frozen to inhibit mold growth. Circulating air will effectively dry most items. Physical distortions may result, but document information will be saved. To provide optimal air drying conditions, fans should be positioned for maximum air circulation (do not aim air flow directly at drying materials). Blotting material for air drying should be clean and absorbent. Options include: blotter paper, unprinted newsprint paper, paper towels, rags, mattress pads, etc. Screening material (such as window screens) well supported and stacked with space between them provide an excellent compact drying surface. The porous surface assists air circulation and promotes drying.

Without intervention glossy materials such as paperback book covers, magazines, art books, etc. are likely to stick together. If they are highly valued, these items should be the first priority for salvage. Loose glossy materials should be spread out in one layer for air drying. Bound glossy materials must be interleaved between every page to prevent sticking. Wax paper should be used as interleaving material. Volumes of glossy paper dried in this way may suffer considerable physical distortion.

Books

Place interleaving material between the text block and the front and back covers. If time and supplies allow interleaving material should be placed intermittently throughout the text as well. Fan volumes open and stand them on edge with the interleaving paper extending beyond the edges of the book. Evaporation of water as it wicks into the interleaving paper will enhance drying. Replace interleaving paper as it becomes soaked and invert the volume each time to insure even drying.

Documents

Air dry flat in small piles (1/2 inch) or individually if possible. Change blotting material beneath the materials as it becomes soaked.

Photographs, Negatives, Motion Picture Film

Several classes of photographs are highly susceptible to water damage and the recovery rate will be very low. Avoid touching the surface of photographic prints and negatives. If an old photographic process cannot be identified, observe the item carefully and contact a conservator for advice. Never freeze old photographs or negatives.

Most prints, negatives, and slides may successfully be individually air dried face up. Change blotting material beneath the photographs as it becomes soaked. Contemporary photographic prints and negatives which are still wet and have stuck together may separate after soaking in cold water. However, this type of treatment could cause irreversible damage. Highly valued items, especially prints for which there is no longer a negative, should be referred to a conservator immediately.

Framed Items

Remove the backing material from the frame. If the item is not stuck to the glass, carefully remove it from the frame and air dry. If the object appears to be stuck to the glass, do not attempt to remove it from the frame. Dry intact with the glass side down.

Occasionally object damage is irreversible. The treatment of items of high monetary, historic, or sentimental value should only be performed in consultation with a conservator. Decisions about the treatment of materials belonging to an institution should only be made by appropriate personnel. The American Institute for Conservation (202-452-9545) maintains a referral list of conservators who will be able to provide guidance for treating private collections.

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The editors of this publication will be collaborating on additional projects. If there are issues which you would like to see addressed in the future please send your ideas to:

Preservation Programs
National Archives at College Park
8601 Adelphi Road
College Park, MD 20740-6001

How to Care For and Salvage Your Textiles After a Flood

Use this information at your own risk! It is provided as a general guide which might not be appropriate for all textiles. If you have additional questions, contact a conservator or museum personnel.

Many of you have quilts, wedding gowns, baby dresses, military uniforms, etc. which are very precious to you. When you get to them they will probably be wet, mud covered, and maybe even covered in mildew. Sanitation must be your first concern. If there has been sewage spilled in the area, local health officials will advise you what to do with all of the items in your house.

If the items appear to be salvageable a variety of things can be done. The rarity of the item should be considered. A museum quality piece should be treated by a professional conservator or a similarly qualified person. An item that is purely a sentimental/utilitarian item should be viewed a bit differently. All items should be treated with steps 1-8 and then an option chosen.

Follow These Steps with All Items That Are Wet

- Put on rubber gloves to handle the textiles, and wear a mask if contaminants or molds are present. Be aware of any health hazards in the area before proceeding.
- Take photographs to document condition.
- **Information Regarding Documentation** - If the item is of special value your insurance adjuster will need to be made aware of this and he will give you forms to accompany it. An appraisal will also be necessary.
- If it is a fragile textile do not unfold. Textiles which run the risk of the dye running or fading into another layer should have waxed paper, freezer paper or aluminum foil placed between the layers of fabric if it cannot be spread out flat. This will help prevent transfer of colors.
- The wet textile will be very heavy if it is large, so have a support to lift it on to try to avoid tearing. Brush off any crusty dirt and mold. Sunlight will help "cure" mildew but remember that excessive sunlight can also damage textiles.
- Rinse with gentle flowing clean cold water.
- Press water out by hand. Do not wring or twist item. Blot with towels or unprinted newsprint.
- Do not stack items on top of each other when wet.

General Considerations for storage areas:

- Do not store in plastic bags.
- Circulate air using fans, air conditioning, and open windows to help alleviate mold. Use dehumidifiers when possible.
- Light deters mold, so until the item is totally dry do not store in a dark closet. Even after the item is cleaned, check periodically for mold because it never totally goes away.

CHOOSE AN OPTION FOR WET CLEANING

(The term "quilt" is used, but the methods could also apply to any other cottons or washable fabrics.)

Option A (No Time to Wash at Present) If you have to wait on the washing process the item would do best if it could be placed in a plastic bag or container and frozen. When it is removed from the freezer follow one of the suggested methods of cleaning.

Option B (No Freezer Space & No Time to Wash) If this is your option you should try to dry the item as thoroughly as possible. This is not the preferred method because often stains "set" when dried, however, this is an emergency situation. The biggest concern at this point is to avoid mold and mildew.

This is done best by blotting excess moisture with toweling. Place the item(s) on clean, dry towels or sheeting and cover with the same type of material. This can be laid out on the grass to dry in the sun or over tables and chairs inside. When drying inside, use fans to assist the drying process. Any item dries faster if air can flow around it.

Using an automatic dryer can be an option if the quilt is sturdy. This is the second choice, but might be necessary if it is wet outside and there is no room inside to spread it out.

Option C (Wash in Bath Tub) *This is the preferred home method to wash a quilt when a more suitable facility is not available because it puts less stress on the wet fibers of the fabric and the thread.*

- Line the tub with a clean white bed sheet and fill with warm water. Put in 2 or 3 tablespoons of chlorine bleach. (SEE "possible problems".)
- Put in several tablespoons of Orvus quilt washing soap or Ivory Liquid.
- Place the quilt in the water to soak for 15 -- 30 minutes.
- Drain the water.

If the water was very dirty repeat the above. Also you may add a small amount of Clorox 2 if the quilt still looks extremely stained. (SEE "possible problems".)

- Rinse in tepid water until all suds are out of the quilt.
- Roll in the sheet and squeeze out as much water as possible.
- Place a sheet on the grass, on a trampoline, or any other large flat area. Spread out the wet quilt aligning it so that it is squared on the comers. Place another sheet or towels over the top. When these are soaked with water replace with a dry sheet. On a sunny day it should be mostly dry within a few hours. If it is STURDY, put in dryer to "fluff" and to finish drying for a few minutes. Remove promptly.
- It might still be damp in the batting so allow it to dry laying flat on a bed for several days before putting away.

Option D (Wash in Washing Machine)

- Wash only cotton or polyester bat quilts in a washing machine.
- **DO NOT LET YOUR MACHINE AGITATE YOUR QUILT. STAY BY THE MACHINE THE ENTIRE TIME YOU ARE WASHING TO AVOID DAMAGE!!!!!!** Wet cotton batting is very heavy and can act as a wet baseball inside a quilt if allowed to agitate.
- Set the machine for an extra large load using the "soak cycle". Read your manufacturers instruction booklet on soaking. The water temperature should be warm or cold. (If mold is present you may have to consider rinsing first with cold and then washing with hot. Remember that hot is more harsh on the fabric so give the condition of the item careful consideration before doing.)
- Fill the machine with water and then pour in one or two tablespoons of Clorox and liquid soap. (SEE "special problems".) - Use Orvus or Ivory Liquid. If the machine begins to agitate, turn it off while soaking the quilt.
- Place the quilt in the water and push it below the water level.
- Soak for 10 minutes and manually push up and down in the water to create gentle agitation.

- Drain water from machine. (This will be explained in the washing machine instruction booklet.)
- Turn knob to spin. **DO NOT PUT YOUR HANDS IN THE WASHER AT THIS POINT!**
- Fill tank again with water only and agitate with your **HANDS** to remove soap.
- Drain and spin again.
- Continue in this manner until all soap suds are removed.

NEVER LIFT THE QUILT WITH WATER IN IT. IT WILL TEAR!!!! Only lift after the spin cycle.

- Dry as per the instructions in the section on bath tub washing.

Option E (Contact Your Dry Cleaners) Do this if the item would normally be dry cleaned (wool, rayon, silk). This applies to, wedding dresses, suits, etc.

Option F (Contact a Professional)

You may contact us at our textile conservation facility, Historic Textiles Studio/Battleground Antiques. We have an 8 foot X 10 foot stainless steel wet cleaning tank and a de-ionized water system. All conservation/restoration services are available. We specialize in treatment of military uniforms, antique quilts, flags, and vintage clothing.

Possible Problems with All Types of Washing

The quilt might have dyes that run. A conservator would test each dye to try to determine if the dyes are stable before washing. If you want to test the dyes, rub over each fabric a Q-tip which has been dipped in a soapy water mixture to determine if the dye transfers. With a flood damaged quilt, one must make a quick judgment call and decide what is best for the item.

If a dye begins to run, pour a cup of salt into the water and soak. Rinse and proceed with washing in soap mixture.

The quilt might have an odor. Put 1/2 cup of baking soda in the water and soak the quilt. Proceed with washing in soap mixture.

Once washed the thread in the seams might break and fabrics might ravel or fray. Re-stitch the areas and if possible consult with a person who does quilt restoration.

Using Chlorine bleach in the wash water might remove some of the color from the fabric. Using this is a personal choice. It is suggested on this sheet due to the mildew/mold and bacterial problems associated with floods. *Otherwise it is not advised.*

FOR INFORMATION REGARDING Salvage of PAPER, PHOTOGRAPHS, and BOOKS contact your local librarians, Extension Service, and Internet Sites listed below.

Reference Sites on the Internet used as references for this paper were:

<http://lcweb.loc.gov/preserv/emerg/dry.html> (Library of Congress Emergency Drying Procedures for Water Damaged Collections)

salvage textiles-flood.htm (Salvaging Water Damaged Textiles)

emergency-AIC.htm (Emergency: If You're First ...) American Institute of Conservators Saving Photos-Flood.htm (Saving Photographs After the Flood) FEMA site

heirlooms rescue.htm (Tips for the Care of Water-Damaged Family Heirlooms and other Valuables) FENLK site

<http://www.exnet.iastate.edu/Information/Flood/> (After the Flood-Clean and Sanitize Textiles in Your Home) Iowa State University Extension

saving paintings.htm (Disaster Preparedness and Recovery for Works of Art on Paper)

flood wet papers.htm (Emergency Salvage of Flood Damaged Family Papers) National Archives and Records Administration

disasterresourelist.htm (Disaster Recovery Resource List and several articles on mold) Colorado Preservation Alliance

Colo.Extension Services.htm (Extension Offers Tips on Controlling Mold and Mildew After a Flood) Colorado State University

I would like to also add that the members of the Quilters Heritage List shared a great deal of information regarding the washing of quilts. Many thanks to them for their concern regarding the disaster that faced Eastern NC. (This was written when Hurricane Floyd created massive flooding in Eastern NC.)

This information is provided by Lynn Lancaster Gorges, Textile Consultant and Quilt Restoration Specialist. Ms. Gorges is a member of the Costume Society of America (Board Member Region IV), American Quilt Study Group, Twin Rivers Piecemakers Quilt Guild, AIC and the Crystal Coast Quilters Guild. Historic Textiles Studio is located 5 miles east of New Bern on Highway 70. Hours for consultation are by appointment only.

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