

**DISASTER PREVENTION,
PREPAREDNESS, AND RECOVERY
MANUAL
FOR
THE ARKANSAS STUDIES
INSTITUTE**

**Prepared by the ASI
Disaster Prevention, Preparedness, and Recovery
Committee**

NOTE: Access to the building in order to implement this disaster recovery plan goes into effect only after first responders, CALS Director, CALS Deputy Director and the Head of ASI give permission to access the building. The Chancellor and Associate Provost for UALR at ASI will be notified as soon as the decision regarding the safety of re-entering the building is made.

Revised, October 2011

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INTRODUCTION

The Disaster Prevention, Preparedness, and Recovery Manual for the Arkansas Studies Institute (ASI DPPR Manual) has been prepared in response to the need for a systematic and centralized approach to prevention of and response to large or small disasters at the Arkansas Studies Institute (ASI). The ASI is a joint project of the Central Arkansas Library System (CALs) and the University of Arkansas at Little Rock (UALR). This manual will describe how to help prevent disasters, to enumerate steps to minimize loss and destruction when a disaster does occur, and to recover from the disaster methodically and effectively in order to resume services. For purposes of this manual, disaster is defined as an occurrence causing damage, destruction and loss of property. Small, contained damage should be handled without convening the Disaster Recovery Team. The Head of ASI (CALs) and the Associate Provost for UALR at ASI will make that determination.

The ASI DPPR Manual will be reviewed and updated as needed.

All ASI Butler Center and UALR staff members are required to read the ASI DPPR Manual. Appropriate training will be provided for staff involved in assessment, recovery and salvage operations. All staff will be trained to help prevent library disasters (e.g., infestations of insects and/or rodents, water leaks, fire hazards).

Copies of the ASI DPPR Manual will be kept in every department of the ASI. In addition, copies will be kept by each member of the Disaster Assessment Teams, each member of the Disaster Recovery Teams and leaders of salvage crews.

Part One: DISASTER PREVENTION

Disaster **prevention** is the first line of defense in disaster preparedness. Fires, floods, insect infestations, thefts—all these and more can be avoided through proper planning and on-going efforts. A few minutes spent in systematic inspection and review will help us avoid days or weeks of trying to put things back together after a disaster.

It is imperative that each ASI staff person feels a sense of obligation to disaster prevention. Every staff person is crucial to prevention—and also crucial to recovery. The Head of ASI and the Associate Provost for UALR at ASI must make disaster prevention a priority, and this includes making staff feel a sense of ownership of the disaster plan. Staff must be encouraged to report problems in any part of ASI.

1.A Periodic Inspections

Once each year in the fall, the ASI will be inspected for potential disaster problems. Inspections will be conducted by the CALS Head of Maintenance or his/her representative and reports will be submitted to the Head of ASI and to the Associate Provost for UALR at ASI. The inspection will include the following areas and/or potential problems:

Leaks - Water leaks are probably the single greatest cause of disasters. Special attention will be given to all **plumbing**. **Roof drains** will be carefully inspected to make sure they are free of obstruction and that they are large enough to handle a large amount of water.

Fire Hazards - While fires are not a common problem, they can result in heavy losses when they do occur. Keep in mind that even if a fire does not get out of control, suppression measures can in themselves cause great damage. Indeed, after a fire, staff often discovers that the fire fighters were prompt in putting out the fire, but they did more damage than the fire itself. Water gets sprayed indiscriminately during the rush to fight a blaze and chemical suppressants can coat a building and its contents with a pervasive (and damaging) powder. The following items/areas should be checked often:

Electrical Systems - Maintenance staff will conduct a visual inspection of all power supply controls, including breaker boxes, etc.

Gas Connections - Maintenance staff will inspect all natural gas connections to insure that they are free of leaks.

Break Rooms/Kitchen Facilities - Just as with private residences, public building disasters often start in areas where food is prepared. Maintenance staff will check the condition of all kitchen appliances, especially stoves. Each food preparation area must have a working smoke detector.

Chemical Storage Areas - Areas where paint, varnish, solvents, etc. are stored are generally considered to be at high risk for fires. Maintenance staff will check for improperly

stored items, cans with loose lids, and odors that might hint at problems. Such storage areas must be well ventilated. Gasoline and other highly combustible fuels must be stored in OSHA-approved containers. A good smoke detector will be mounted in each area where chemicals are stored.

Insect/Vermin Infestations - Insects and rodents are like “silent fires.” They do their damage over long periods of time, but the damage can be just as bad as that caused by fires. Maintenance staff will check for rodent droppings, a sure indication of a problem.

Contact your supervisor if rodents or insects are discovered in any area of the building. *Do not call an exterminator* since the poisons they use can be highly toxic to humans and are often applied without regard to collections.

Mold/Mildew - Excessive humidity, especially when combined with stale air and heat, causes mold and mildew problems. Maintenance staff will need to be alert to these problems. Often the covers of a book will have mildew while the exposed spine remains spotless. Maintenance staff will bring a hygrometer to accurately test humidity readings throughout the structures being inspected.

Security - Every year public institutions across the country are subject to rampant vandalism and theft. Even the Library of Congress reports massive losses—a recent inventory documented more than 60,000 instances of stolen items at the Library of Congress. The unregulated manuscripts/rare books market encourages theft for resale. Supervisors will look for obvious security shortcomings, including such considerations as working security gates, whether reference and/or gallery staff can directly observe patrons at all times and whether staff makes it a point to monitor the condition of rare volumes or other at-risk items.

1.B Periodic Training

Most disaster prevention and recovery programs lose much of their effectiveness over time as staff changes and the program becomes a lower-profile matter. To avoid this problem, the Butler Center and UALR staff will be trained in the following manner:

Each new employee will read the ASI DPPR manual. Also, as part of the orientation process, new employees will receive disaster prevention and recovery training. This training will include, among other things:

Use of fire suppression equipment - Security staff will assist with this.

Utilities service cut-off - The list of utilities shut-off locations for the ASI is attached to this manual as Appendix A.

Part Two: DISASTER PREPAREDNESS

Disaster preparedness is the most efficient way of providing information that will help prevent panic, lessen the severity of damage, and enable ASI staff to implement organized recovery procedures after a disaster occurs. To that end, this section provides the following information: lists of the various groups of disaster recovery supplies and the responsibilities of the Assessment Teams, the Recovery Teams and the salvage crews.

2.A Supplies

Assessment Team emergency bags - Each member and alternate member of the Assessment Teams will store an emergency bag in her/his home or vehicle. Contents and storage of emergency bags should be checked often. Contents of bags are included in this manual as part of Appendix B.

General salvage - General salvage supplies will be kept in an appropriate area in the basement of the Arkansas Studies Institute. These supplies will not be removed or used except for a disaster. Supplies and their placement should be checked often. (See Appendix B)

2.B Vendors and Outside Contractors

The CALS Associate Director - Operations and the UALR Vice Chancellor for Finance and Administration will maintain a list of contractors used by ASI.

2.C CALS and UALR Administration, Assessment Teams, Recovery Teams, and Recovery Crews

NOTE: The CALS Director, Deputy Director and Head of ASI and the University of Arkansas at Little Rock Chancellor and Associate Provost for ASI must be notified immediately of any and all disasters.

The CALS Director, Deputy Director and Head of ASI will be in charge of all disaster recovery efforts related to the Butler Center for Arkansas Studies, including public relations activities and media coverage for the library. The Chancellor of UALR and the Associate
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Provost of ASI for UALR will be in charge of all disaster recovery efforts related to the UALR material, including public relations activities and media coverage for the university.

The Assessment Teams for CALS and for UALR (Appendix C) will make an *undetailed* assessment of the scope and type(s) of damage and, if warranted, notify the Disaster Recovery Teams for CALS and UALR. *The Assessment Teams will then disband.* The Disaster Recovery Teams for CALS and for UALR will arrange for all activities necessary to begin and maintain recovery operations.

Five crews make up the Disaster Recovery Team for CALS (Appendix D). Crews are responsible for the following activities:

Crew 1: (Business Office) Fiscal and Supplies--Wages, purchase of supplies, and payments to vendors.

Crew 2: (Associate Director – Operations) Distribution and Documentation--Supervise distribution of supplies; liaison between insurance provider and library; photographs and video of damage; food for workers.

Crew 3: (Maintenance Department) Transfer--Arrange and/or provide transportation for personnel and supplies and/or transfer of damaged materials; assemble and disburse supplies.

Crew 4: (To be assigned) Workflow--Assemble work crews and assign duties (General Salvage, Computer Network, Special Collections); direct and manage workflow; record/inventory control of damaged materials; coordinate computer network services.

Crew 5: (Head of Security) Security--Secure premises; liaison between police department, fire department, and library.

Five crews make up the Disaster Recovery Team for UALR (Appendix D). Crews are responsible for the following activities:

Crew 1: (Associate Vice Chancellor for Finance and Administration) Fiscal and Supplies--Wages, purchase of supplies, and payments to vendors.

Crew 2: (Associate Vice Chancellor for Finance and Administration) Distribution and Documentation--Supervise distribution of supplies; liaison between insurance provider and library; photographs and video of damage; food for workers.

Crew 3: (Director of Physical Plant) Transfer--Arrange and/or provide transportation for personnel and supplies and/or transfer of damaged materials; assemble and disburse supplies.

Crew 4: (To be assigned) Workflow--Assemble work crews and assign duties (Computer Network, Special Collections); direct and manage workflow; record/inventory control of damaged materials; coordinate computer network services.

Crew 5: (Public Safety Director) Security--Secure premises; liaison between police department, fire department, and library.

Part Three: DISASTER RECOVERY

Disaster recovery efforts assume that, depending on the nature and extent of the disaster, all occupants of the building are either safe or have been evacuated.

In the event of a disaster at ASI, the Director of the Central Arkansas Library System, the Deputy Director, the Head of ASI, the Chancellor of the University of Arkansas at Little Rock and the Associate Provost of ASI for UALR shall be notified *immediately*. The assessment teams should also convene immediately to identify the type(s) and scope of damage. Staff members assigned the task of photographing and/or taking video of damage should begin the process as soon as it is safe to do so.

In order to prevent further damage from water and/or mold, salvage operations must begin as soon as the area or building has received official safety clearance from local public safety officials.

3.A Activate Disaster Assessment Teams

Assessment team emergency bags should be used at this point in the recovery process.

The CALS Director, Deputy Director or Associate Director for Institutional Services will, if possible, give directions and/or suggestions to the Disaster Assessment Team leader or alternate team leader for CALS. The UALR Chancellor or Associate Provost of ASI for UALR will, if possible, give directions and/or suggestions to the Disaster Assessment Team leader or alternate team leader for UALR.

The Assessment Teams will exist only as long as it takes to make an assessment of the scope and type(s) of damage. (See "Assess Damage" section 3.B below.) If the disaster is significant enough to warrant the use of the Disaster Recovery Teams, the Assessment Teams will notify Recovery Team leaders. As soon as the Disaster Recovery Teams are in place, the Assessment Teams will disband.

3.B Assess Damage

The goal of the Assessment Teams is to gather as much of the information listed below as possible, and to do it quickly and **without** detail:

- How much damage took place?
- What kind of damage occurred?
- What types of materials have been affected?
- How long have affected materials been exposed to harmful elements?
- What priorities need to be established regarding salvage of materials?

What action is indicated regarding damaged materials?

The Damage Assessment Form is included in this manual as Appendix E.

3.C Activate Recovery Team

The CALS Disaster Recovery Team leader is responsible for the overall management of all salvage/recovery operations/activities pertaining to Butler Center materials. The UALR Disaster Recovery Team leader is responsible for the overall management of all salvage/recovery operations/activities pertaining to UALR materials. Each Recovery Team leader should establish a command post, one specific location from which to supervise recovery operations for their materials, so that their respective Recovery Team members and work crews can locate them easily. The CALS Disaster Recovery Team leader will coordinate his/her recovery activities with the CALS Director, Deputy Director and/or Head of ASI. The UALR Disaster Recovery Team leader will coordinate his/her recovery activities with the UALR Chancellor and/or Associate Provost of ASI for UALR. Other members of the Recovery Teams will arrange for all activities necessary to begin and maintain recovery operations.

The Recovery Team leaders will assemble their respective Recovery Teams and review each Recovery Team member's responsibilities. The Recovery Teams are comprised of several members in addition to the Recovery Team leaders. Each Recovery Team member's work crew must have an adequate number of workers. If a crew is too small to handle the workload, staff not already participating in the recovery effort will be assigned as needed.

3.D Stabilize the Environment

Check for the possibility of further damage to premises.

The Recovery Team leaders will arrange for and have activated maximum ventilation systems with the primary goal of lowering air temperature to 65 degrees and relative humidity to 35 percent using dehumidifiers, air conditioners, fans, and opened doors and windows. The environment of the disaster and disaster recovery area must be controlled throughout the recovery process. Thermometers and hygrometers (or hygro-thermometers) should be used to help control temperature and humidity.

3.E Removal and Salvage Procedures for Damaged Material

The following is a list of activities which, if performed, will very likely result in the loss of library materials, money, and recovery time. Copies of this list will be distributed to all recovery and salvage crews. The list is included in this manual as Appendix F.

DO NOT remove any materials until the overall approach to recovery has been established and work crews have been instructed.

DO NOT enter any area that has not been declared safe.

DO NOT open a wet book.

DO NOT close an open book that is wet.

DO NOT separate single sheets.

DO NOT remove covers on wet items.

DO NOT open wet manuscripts file boxes.

DO NOT touch prints, drawings, or photographs.

DO NOT use book presses on damp or wet material.

DO NOT try to separate books that are stuck together.

DO NOT write on damp or wet paper.

DO NOT use bleach, detergent, adhesive tape, paper clips, or staples on damp or wet material.

DO NOT use colored paper of any kind during salvage procedures.

DO NOT pack recently dried items in boxes or leave unattended for more than two days.

3.E.1 Preliminary Steps

Set up triage to determine which items/collections can be salvaged and which are beyond repair. Top priority should be given to materials that are difficult or impossible to replace or replicate. For example, first priority should be given to items necessary for the ASI's operation, items/collections that have prime research value, or items/collections that have high monetary value. Second in priority should be items/collections difficult to replace and/or significant to the operation of the ASI and/or significant research materials. Last in line should be materials that can be replaced or are expendable.

Remove standing water and clear main passageways and aisles between stacks completely before moving or packing damaged materials. Items that are thoroughly wet should be removed first in order to help cut down on humidity. (This step assumes that priorities regarding salvage of materials have already been set and are being taken into consideration.)

Record-keeping should progress in conjunction with removal work. Forms for damaged and undamaged materials are included in this manual as Appendix G (Undamaged Materials) and Appendix H (Damaged Materials). Ranges, cases, and shelves should be labeled in preparation for any disaster.

Note: ***Undamaged items should not be mixed with damaged items.*** Undamaged items should be removed by book truck (without wrapping and packing into milk crates) to a safe area where air circulation, temperature, and relative humidity are controlled and constant, so that mold spores that are very likely on the exteriors of the items will not be given the opportunity to grow.

3.E.2 Water Damaged Materials

IF THERE IS ANY PROBLEM WITH CARRYING OUT THE FOLLOWING PROCEDURES, STOP AND SEEK THE HELP OF THE DISASTER RECOVERY TEAM LEADER.

Note: Water damaged materials should always be salvaged first.

3.E.2.a Packing

Do not leave undamaged items in stacks area during clean-up or salvage work.

Books - Remove damaged items in exact condition in which they are found. *Do not stack items in boxes or crates. Do not close wet books. Do not open wet books. Do not separate books that are stuck together.* Staff should form human chains to remove and pack items in milk crates that have been sequentially numbered. *(If it is necessary to pack damaged items in **cardboard boxes**, do not stack boxes. Place packed cardboard boxes on pallets for removal.)* Every chain must have a wrapper and packer assigned to it in order to prevent damaged materials from being stacked on the floor. If possible, pack damaged materials on site, in the closest logical, safe, clean, dry area of the building or grounds. Packing in the area helps lessen the probability that workers will further damage materials while brushing past them or stepping over items that are still on or falling off shelves. Removing damaged items from outer shelves to inner shelves will also help prevent further damage to items by clearing the shelves before walking past them. Pack wettest items first (usually top or bottom shelves). Wrap each volume in one sheet of unprinted newsprint. Place spine down in labeled milk crate. Pack closely enough so books will not slide or lean, *but do not pack tightly*. Twelve to fourteen normal-size books will fit into each milk crate. Wet books that are open should be wrapped as they are found. Each milk crate can accommodate one such book laid on top of books packed spine-down in milk crate.

Using pencil (*not pen*), record-keepers should code each box and record the box number and general contents on two forms, one for the team and one **attached** to the box. Possible insurance claims and replacement acquisitions require that record-keepers must account for **all** items (undamaged, discarded, and those being salvaged) for insurance companies. In order to document discarded items, record-keepers can keep the title page or some other identifying portion of the item. If milk crates are sent to different locations (more than one freezer facility and/or state conservation facility and/or air-dried in-house), record-keepers should record the destination of each milk crate.

Documents (Paper) - *Do not turn file cabinet drawers, document cases, or folders upside down to empty or drain.* If documents are to be frozen, *do not remove from file cabinet drawers, document cases, or folders.*

Handling of documents should be kept to a minimum; water soluble dyes and inks can cause obliteration of document information.

Remove damaged items in exact condition in which they are found. Staff should form human chains to remove and pack items in milk crates that have been sequentially numbered. (*If it is necessary to pack damaged items in **cardboard boxes**, do not stack boxes. Place packed cardboard boxes on pallets for removal.*) Every chain must have a wrapper and packer assigned to it in order to prevent damaged materials from being stacked on the floor. If possible, pack damaged materials on site, in the closest logical safe, clean, dry area of the building or grounds. Packing in the area helps lessen the probability that workers will further damage materials while brushing past them or stepping over items that are still on or falling off shelves. Removing damaged items from outer shelves to inner shelves will also help prevent further damage to items by clearing the shelves before walking past them. Pack wettest items first (usually top or bottom shelves). Pack flat documents in bread trays, flat boxes, or on polyethylene-covered sheets of plywood. Pack as found and remove to drying area or transport to freezer facility.

Photographs, negatives and transparencies - If photographic materials are to be air-dried immediately, they can be stored for a short time in very cold water (65 degrees Fahrenheit or below). *Do not use dry ice to keep the water temperature down.* If materials are to be cleaned and dried at a professional laboratory, *do not attempt to pack. Contact the Disaster Recovery Team Leader before making packing decisions.*

Microforms - Silver halide microfilm: Keep under water and transport to a microprocessing laboratory within twenty-four hours. *Contact the Disaster Recovery Team Leader before making packing decisions.*

Vesicular and diazo microfilm, microfiche, audio cassettes, video cassettes, and floppy disks: Packing is not necessary if media is to be cleaned immediately. *Contact the Disaster Recovery Team Leader before making packing decisions.*

Computer diskettes - *Do not attempt to pack. Contact the Disaster Recovery Team Leader before making packing decisions.*

Art work - *Do not attempt to pack. Contact the Disaster Recovery Team Leader before making packing decisions.*

3.E.2.b Salvage Procedures

3.E.2.b.1 Books

Freezing damp or wet books - Damp or wet books of any material should be frozen or dried within 48 hours. Freezing the materials stabilizes them and provides recovery staff time to determine which salvage methods will be used in the recovery process. Freezing also arrests growth of mold and further deterioration from water. Rapid freezing to a temperature of 15-20 degrees Fahrenheit will also help dry out materials. Freezing allows materials to be salvaged one box at a time, thereby giving recovery staff the time necessary to correctly salvage materials. Books should be packed according to "Packing" instructions at the

beginning of this section. Milk crates (not cardboard boxes) can be stacked to a reasonable height and transferred to trucks for transport to a freezer facility.

Freeze-drying damp or wet books - *Do not use this method to dry books with coated paper.*

Damp or wet books of all other materials can be dried using this method. Pack as described in "Packing" instructions at beginning of this section. Transport to a facility that is equipped to carry out this procedure.

Vacuum freeze-drying damp or wet books - *Do not use this method to dry books of leather or vellum.*

This method is the safest, most successful, and costliest method for recovering all other books. It is also the only satisfactory method for recovery of books with coated paper. Pack as described in "Packing" instructions at the beginning of this chapter. Pack books carefully as they will retain any distortions from damage before freezing. All materials must be completely frozen before vacuum freeze-drying process is begun. Transport to a facility that is equipped to carry out this procedure.

Air-drying clean or barely soiled *slightly* damp hard-cover books - **Slightly damp** books or books damp only on exterior should be removed from shelves and taken to a drying area. If removal, cleaning, and drying processes are done immediately, items can be loaded on book trucks without being wrapped and packed. If there will be a few hours delay between removal from shelves and the beginning of the drying process, even slightly damp books should be wrapped and packed as per packing instructions for wet books.

Slightly damp volumes can be opened carefully to no more than a **45 degree** angle. Stand each volume on its head. Standing books alternately on their heads and bases will help keep books from tearing loose from their bindings (supers, pastedowns, and endsheets). Place groups of volumes on absorbent paper in an area of circulating fresh air. (Fans will probably be necessary, but do not aim air flow directly at drying books.) Move and turn drying books at regular intervals (every hour or two). Replace damp or soiled absorbent paper as needed. When books are dry, interleave text block approximately every inch with absorbent paper. Lay volumes flat and place weights on them. Dry volumes can be stacked, but no more than 6 to 8 per stack. Books in stacks must be separated from each other by double thicknesses of waxed paper. Check stacks of books frequently for several hours after stacking. If waxed paper has crinkled significantly or moisture has collected on absorbent paper, transport books back to the drying area and repeat air drying procedure.

Lightweight damp books (five pounds or less) can also be dried on lines of monofilament nylon (no more than 1/32" in diameter). Arrange lines of monofilament in lengths of six feet or less and approximately one half inch apart. Carefully hang books over lines, placing books so that the monofilament supports book spines without threatening to tear through. For example, a one inch thick book should be positioned spine-up over three parallel lines--through the center of the book, near or at the end of the book, and near or at the beginning of the book.

Slightly damp oversized books must lie flat during air-drying process. Use uninked newsprint or other clean, absorbent paper to interleave pages. Change paper as soon as it is

saturated.

Books with **slightly damp coated paper** pages (glossy) can be air-dried as described above if each page is interleaved with absorbent paper. Absorbent paper must be changed often. However, books with **damp or wet coated paper** pages (glossy) cannot be air-dried. Pages will stick together forming clumps that are impossible to separate without significant damage.

*Books with **both** coated and uncoated pages should be air-dried only if entire book is **slightly damp**. Follow instructions for **slightly damp coated paper**.*

Air-drying muddy slightly damp hard-cover books - Slightly damp books with muddy exteriors can be washed. Keep the book tightly closed. Maintaining pressure on book exterior, hold the book briefly under cold clean running water. Then quickly remove as much mud as possible from the **binding only** by dabbing gently with a sponge. *Do not rub or brush binding. Do not sponge, rub, or brush pages or edges of book; these actions will further damage the book by forcing mud into the book.* Finish this part of the cleaning process by pressing absorbent paper against outside of book. Volumes can then be air-dried using the instructions for air-drying clean or barely soiled damp books.

Do not wash open or swollen books, vellum or parchment bindings or pages, full or partial leather bindings, books with coated paper (glossy pages), or books with water-soluble inks.

Air-drying clean or barely soiled damp hard-cover books - **Damp** books or books wet only on exterior should be removed from shelves and taken to a drying area. If removal, cleaning, and drying processes are done immediately, items can be loaded on book trucks without being wrapped and packed. If there will be a few hours delay between removal from shelves and the beginning of the drying process, even damp books should be wrapped and packed as per packing instructions for wet books.

Damp volumes can be opened carefully to no more than a **30 degree** angle. Place interleaving sheets of absorbent paper at intervals of twenty-five leaves (or fifty pages). Stand each volume on its head. Standing books alternately on their heads and bases will help keep books from tearing loose from supers, pastedowns, and endsheets. Place groups of volumes on absorbent paper in an area of circulating fresh air. Move and turn drying books at regular intervals. Replace damp or soiled absorbent paper as needed (both interleaving sheets and paper on which books are drying). *Do not reuse absorbent paper.* When dry, interleave book block approximately every inch with absorbent paper. Lay volumes flat and place weights on them. Dry volumes can be stacked, but no more than 6 to 8 per stack. Books in stacks must be separated from each other by double thicknesses of waxed paper. Check stacks frequently for several hours after being stacked. If waxed paper has crinkled significantly or moisture has collected on absorbent paper, transport back to the drying area and repeat air drying procedure.

Air-drying muddy damp hard-cover books - Damp books with muddy exteriors can be washed. Keep the book tightly closed. Maintaining pressure on exterior of book, hold the book briefly under cold clean, running water. Then quickly remove as much mud as possible from the **binding only** by dabbing gently with a sponge. *Do not rub or brush binding. Do not sponge, rub, or brush pages or edges of book; these actions will further damage*

the book by forcing mud into the book. Finish this part of the cleaning process by pressing absorbent paper against outside of book. Volumes can then be air-dried using the instructions for air-drying clean or barely soiled damp books.

Do not wash open or swollen books, vellum or parchment bindings or pages, full or partial leather bindings, books with coated paper (glossy pages), or water-soluble inks.

Air-drying slightly damp, damp, and wet paperback books - Paperback books are generally easily replaced. If, however, the decision has been made to try to salvage paperbacks, air-drying procedures can be used. Because paperback covers provide no support for the text block, supports must be used when air-drying paperback books on absorbent paper. One half inch to one inch thick styrofoam sheets or sections of cardboard can be used to help support paperbacks. (Cardboard must be discarded as soon as it becomes noticeably damp.) Paperbacks must be arranged close together if this method is used. The alternative method is to dry paperbacks on nylon monofilament line according to the directions given above. *Do not attempt to line-dry wet paperback books; spines will not generally support the weight of the book.*

Air-drying clean or barely muddy wet (saturated) hard cover books - This procedure should be undertaken only if the number of damaged books is small and recovery can be performed immediately.

Do not open books; wet paper tears easily.

Place books on their heads on absorbent paper. Change absorbent paper as soon as it is saturated. Each time the paper is changed, reverse the book, standing it first on its head and then on its base. This will help eliminate sagging text block and binding (torn supers, pastedowns, and endsheets). Covers can be opened slightly to help support book, but *do not fan wet books*. Place aluminum foil between book cover and endleaf to prevent staining from binding dyes.

Air-drying muddy wet (saturated) hard cover books - This procedure should be undertaken only if the number of damaged books is small and recovery can be performed immediately.

Do not open books; wet paper tears easily.

Wet books with muddy exteriors can be washed by immersing them one-by-one in a series of large waste baskets (5 or 6) filled with clean water. In order to keep the water clean, run a garden hose down to rest at the bottom of the can. Maintain a continuous flow of water running through the hose so that it pushes dirty water up and over the sides of the garbage can. The area in which this procedure is done will be, by necessity, messy and wet; therefore, provide all crew members with rubber boots, rubber gloves, and plastic aprons. Keep books tightly closed during this procedure. Immerse quickly in the first can, hand to the next crew member who will immerse quickly a second time, and continue the process through all 5 or 6 garbage cans. The book should be fairly clean by the last immersion and can then be air-dried in the same way as clean or barely muddy wet hard-cover books.

Books with leather or vellum covers - *Do not attempt to salvage. Contact the Disaster Recovery Team Leader before making packing decisions.*

3.E.2.b.2 Documents (Paper)

Freezing damp or wet documents - Damp or wet documents should be frozen or dried within 48 hours. Freezing the materials stabilizes them and provides recovery staff with time to determine which salvage methods will be used in the recovery process. Freezing also arrests growth of mold and further deterioration from water as well as minimizing migration of moisture that will cause some inks to blur or feather. Rapid freezing to a temperature of 15-20 degrees Fahrenheit will also help dry out materials. Freezing allows materials to be salvaged one box at a time, thereby giving recovery staff the time necessary to correctly salvage materials. Documents should be packed according to "Packing" instructions at the beginning of this section. Milk crates (not cardboard boxes) can be stacked to a reasonable height and transferred to trucks for transport to a freezer facility.

Freeze-drying damp or wet documents - *Do not use this method to dry documents with coated paper.*

Damp or wet documents of all other materials can be dried using this method. Pack as described in "Packing" instructions at beginning of this section. Transport to a facility that is equipped to carry out this procedure.

Vacuum freeze-drying damp or wet documents - *Do not use this method to dry documents of leather or vellum.*

This method is the safest, most successful, and costliest method for recovering all other documents. It is also the only satisfactory method for recovery of documents with coated paper. Pack as described in "Packing" instructions at the beginning of this chapter. Pack documents carefully as they will retain any distortions from damage before freezing. All materials must be completely frozen before the vacuum freeze-drying process is begun. Transport to a facility that is equipped to carry out this procedure.

Vacuum drying documents - *Do not use this method to dry books, leather, or vellum.*

This method should be used for loose papers and newspapers only. Materials must be completely thawed before the vacuum process is begun. Transport to a facility that is equipped to carry out this procedure.

Air-drying damp uncoated (non-glossy) documents - *Wet paper tears easily. Paper with water soluble inks should be frozen immediately. Paper with signs of previous growth of molds should be frozen if they cannot be dried immediately.*

Damp paper items that are to be air-dried immediately can be carefully transferred to

shallow cardboard boxes lined with plastic or to flatbed dollies covered with plastic for transport to drying area. The drying area should be a clean, dry space with the temperature and humidity as low as possible. Use fans to keep air circulating; aim fans above, not on, the drying area. Cover tables, floors or other flat drying surfaces with plastic, and then with absorbent paper or uninked newsprint.

Lay single sheets or small groups of paper records on prepared dry, flat surfaces. Turn small groups often to encourage evaporation on both sides. If water-soluble media is apparent, dry document face up; do not blot. Change absorbent paper on which documents are drying as soon as it is wet. Do not reuse paper on which documents have been drying.

Air-drying wet uncoated (non-glossy) documents - *Paper with water soluble inks should be frozen immediately.*

Paper with previous growth of molds must be frozen if they cannot be dried.

Wet paper tears easily. Recovery crew staff must be extremely careful when transferring wet paper items that are to be air-dried immediately.

The following procedure is effective, but very time-consuming and labor-intensive. Single sheets can be lifted and transferred by placing a sheet of polyester film on the top sheet of a stack of wet, unbound papers. Rub the sheet of polyester film gently with a bone folder or the side of a ruler. (Surface friction causes the paper to adhere to the film.). Peel back the sheet of polyester film in a diagonal direction. The document will come up attached to the film. The document will separate from polyester film as it dries. Or, alternately, lay the wet document attached to the polyester film flat on a piece of polyester web (non-woven interfacing such as Pellon) or wax paper. Carefully peel back the polyester film. Place another piece of polyester web on top of document. Repeat this process until all documents are on webbing. (Stacks can be frozen at this point, if necessary.) To dry documents, lay each document (still attached to webbing) on clean flat surface using instructions for damp documents. Documents can be flattened when they are dry by placing them under evenly distributed weight.

Wet documents that are encapsulated in polyester sleeves must be removed from sleeves. Cut all edges of the film in the border between the document and the seal. Carefully peel back one cut edge of the film in a diagonal direction until document is completely exposed. Leave document to dry on polyester film or remove to polyester webbing or wax paper. Continue drying process according to above instructions.

Air-drying damp or wet coated (glossy, clay-coated) documents - *Coated paper must not be air-dried in a clump, block, or group or it will permanently bond together.*

Handling should be kept to a minimum to avoid disturbing the water-soluble coating and media (inks or dyes).

Separate and air-dry documents using the instructions for separating and drying wet, uncoated paper.

3.E.2.b.3 Microforms

Do not attempt to salvage. Contact the Disaster Recovery Team Leader before making packing decisions.

3.E.2.b.4 Computer diskettes

Do not attempt to salvage. Contact the Disaster Recovery Team Leader before making packing decisions.

3.E.2.b.5 Art work

Do not attempt to salvage. Contact the Disaster Recovery Team Leader before making packing decisions.

3.E.2.b.6 Photographs and Transparencies

Do not attempt to salvage. Contact the Disaster Recovery Team Leader before making packing decisions.

3.E.2.c Returning Water-Damaged Items to The Collection

After items are **completely** dry, place in an established "rehabilitation" or "pre-return" area of the library. Designated staff should inspect the items frequently and on a regular basis, looking for mold infection. The temperature in the rehab area should be a constant 65 degrees Fahrenheit with 35 percent relative humidity. If possible, materials should not be returned to their regular collections for a period of six months.

3.E.3 Smoke/Fire Damaged Materials

Books damaged by soot and smoke can be vacuumed, brushed or dusted. Point the fore edge of the book down in order to prevent particles from working into the text block. Non-rare books with leather binding can be cleaned in this manner using extra-fine steel wool. Smoke sponges can also be effective in cleaning materials damaged by smoke, soot, and/or dirt. (Because this type of damage does not require immediate attention, sponges need be ordered only if damage occurs.)

Materials damaged by **fire and/or very high temperatures** are usually not salvageable. *Contact the Disaster Recovery Team Leader for instructions.*

3.F Recovery Procedures Evaluation

In order to improve disaster recovery techniques, the CALS Director, CALS Deputy Director, Head of ASI, Chancellor of UALR, Associate Provost of ASI for UALR, Assessment and Recovery Team leaders and recovery crew leaders will meet to evaluate the effectiveness of

the recovery effort. The Recovery Procedures Evaluation Form is included in this manual as Appendix I. Items to be considered are:

Prevention procedures - Evaluation staff should review staff training and frequency and regularity of prevention inspections.

Preparedness procedures - A review of the usefulness of recovery supplies, list of vendors of supplies and services, and agencies should be made in order to evaluate their application during the disaster. The ability of the Assessment Teams to convene, evaluate, delegate, and disband should be reviewed, as should their decisions about discarding or salvaging materials, and their decisions to perform salvage on-site or ship materials out.

Recovery procedures - An evaluation should be made regarding the duties assigned to the five recovery crews. Activities to be reviewed include payments to staff and vendors, supplies procurement, documentation of recovery procedures, workflow, salvage techniques, return of materials to collections and security procedures.

APPENDIX A

Utilities Shut-off Locations for ASI

Electrical – southeast corner, in brick enclosure

Water – north/front of building

Gas – south wall

APPENDIX B

Recovery Supplies

Assessment Team Emergency Bag Supplies:

- Poncho
- Flashlight
- Hygrometer
- Umbrella
- Rubber boots
- Mask
- Rubber gloves
- Mechanical pencils
- Clip board
- Appendix E: Disaster Assessment Form

General salvage supplies:

- 4 Staple guns
- 4 Rolls duct tape
- 4 Box cutters
- 8 Ponchos
- 8 Masks
- 12 Vinyl aprons
- 4 First aid kits
- 12 pairs safety glasses
- 2 Rolls polyvinyl covering
- 200 Plastic milk-type crates
- 20 Bundles print-free newsprint paper
- 6 Rolls butcher/freezer paper
- 1 Roll absorbent paper for large items
- 6 Box-style floor fans
- 6 20-gallon plastic garbage cans
- 6 Lengths of garden hose with couplings
- 6 Garden hose adapters
- 20 36" x 72" pieces plywood (for utility and drying tables)
- Sawhorses, boxes, or supports for 20 pieces of plywood
- 24 Large sponges
- 48 Rolls paper towels
- 24 Packages re-useable wipes
- 40 Pairs rubber gloves - 20 medium, 20 large
- 12 Rolls waxed paper

APPENDIX C

Assessment Team Members for CALS

Assessment Team Leader: Frances Morgan

Alternate Assessment Team Leader: Brian Robertson

Alternate Assessment Team Leader: Stephanie Bayless

Possible Assessment Team Members: Head of Main, East Zone Manager, West Zone Manager

Disaster Recovery Team/5 Crews for CALS

Crew 1: **(Business Office)** Fiscal and Supplies--Wages, purchase of supplies, and payments to vendors.

Crew 2: **(Associate Director – Operations)** Distribution and Documentation--Supervise distribution of supplies; liaison between insurance provider and library; photographs and video of damage; food for workers.

Crew 3: **(Maintenance Department)** Transfer--Arrange and/or provide transportation for personnel and supplies and/or transfer of damaged materials; assemble and disburse supplies.

Crew 4: **(To be assigned)** Workflow--Assemble work crews and assign duties (General Salvage, Computer Network, Special Collections); direct and manage workflow; record/inventory control of damaged materials; coordinate computer network services.

Crew 5: **(Head of Security)** Security--Secure premises; liaison between police department, fire department, and ASI.

Assessment Team Members for UALR

Assessment Team Leader: Deborah Baldwin

Alternate Assessment Team Leader:

Alternate Assessment Team Leader:

Possible Assessment Team Members:

Disaster Recovery Team/5 Crews for UALR

Crew 1: **(Associate Vice Chancellor for Finance and Administration)** Fiscal and Supplies--Wages, purchase of supplies, and payments to vendors.

Crew 2: **(Associate Vice Chancellor for Finance and Administration)** Distribution and Documentation--Supervise distribution of supplies; liaison between insurance provider and library; photographs and video of damage; food for workers.

Crew 3: **(Director of Physical Plant)** Transfer--Arrange and/or provide transportation for personnel and supplies and/or transfer of damaged materials; assemble and disburse supplies.

Crew 4: **(To be assigned)** Workflow--Assemble work crews and assign duties (Computer Network, Special Collections); direct and manage workflow; record/inventory control of damaged materials; coordinate computer network services.

Crew 5: **(Public Safety Director)** Security--Secure premises; liaison between police department, fire department, and ASI.

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APPENDIX D

Damage Assessment Form

The goal of the assessment team is to gather as much of the information listed below as possible, and to do it quickly and **without** detail.

List amount of damage:

Was the damage confined to one area of the building or the entire building? _____

What percentage of the collection(s) has been affected and damaged? _____

List nature of damage:

Was/were materials and/or building damaged by water, smoke, wind, or a mixture of several of these? _____

Was the structure damaged? _____

Was the exterior damaged? _____

Was the interior damaged? _____

Were materials damaged by clean water, dirty water, soot, fire, mud? _____

Are materials distorted, soaked, damp, muddy, burned? _____

List types of materials that have been affected:

List conditions materials have been exposed to:

Are materials beginning to develop mold? _____

How long have materials been wet? _____ What has been approximate temperature? _____ Humidity? _____

Prioritize order in which materials need to be salvaged:

Indicate salvage decisions for damaged materials:

Are some materials easily or more cost-effectively replaced? _____

Can damaged materials be salvaged in-house? _____

What groups of materials should be sent to an outside source for salvage? _____

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APPENDIX E

DO NOT

- **DO NOT REMOVE ANY MATERIALS UNTIL THE OVERALL APPROACH TO RECOVERY HAS BEEN ESTABLISHED AND WORK CREWS HAVE BEEN INSTRUCTED.**
- **DO NOT ENTER ANY AREA THAT HAS NOT BEEN DECLARED SAFE.**
- **DO NOT OPEN A WET BOOK.**
- **DO NOT CLOSE AN OPEN BOOK THAT IS WET.**
- **DO NOT SEPARATE SINGLE SHEETS.**
- **DO NOT REMOVE COVERS ON WET ITEMS.**
- **DO NOT OPEN WET MANUSCRIPTS FILE BOXES.**
- **DO NOT TOUCH PRINTS, DRAWINGS, OR PHOTOGRAPHS.**
- **DO NOT USE BOOK PRESSES ON DAMP OR WET MATERIAL.**
- **DO NOT TRY TO SEPARATE BOOKS THAT ARE STUCK TOGETHER.**
- **DO NOT WRITE ON DAMP OR WET PAPER.**
- **DO NOT USE BLEACH, DETERGENT, ADHESIVE TAPE, PAPER CLIPS, OR STAPLES ON DAMP OR WET MATERIAL.**
- **DO NOT USE COLORED PAPER OF ANY KIND DURING SALVAGE PROCEDURES.**
- **DO NOT PACK RECENTLY DRIED ITEMS IN BOXES OR LEAVE UNATTENDED FOR MORE THAN TWO DAYS.**

APPENDIX F

Undamaged Materials Forms

UNDAMAGED BUTLER CENTER MATERIALS

BR/DEPT _____

BOX _____

From:

RANGE _____

CASE _____

SHELF _____

First 3 digits of

CALL # _____

Indicate type of materials:

BOOKS DOCUMENTS AUDIO
MICROFORM VIDEO OTHER

NOTES: _____

UNDAMAGED

UALR MATERIALS

BR/DEPT _____

BOX _____

From:

RANGE _____

CASE _____

SHELF _____

First 3 digits of

CALL # _____

Indicate type of materials:

BOOKS DOCUMENTS AUDIO
MICROFORM VIDEO OTHER

NOTES: _____

APPENDIX G

Damaged Materials Forms

DAMAGED BUTLER CENTER MATERIALS

BR/DEPT _____

BOX _____

From:

RANGE _____

CASE _____

SHELF _____

First 3 digits of

CALL # _____

Indicate salvage action:

DISCARD AIR-DRY FREEZE

Indicate type of materials:

**BOOKS DOCUMENTS AUDIO
MICROFORM VIDEO OTHER**

Indicate type of damage:

FIRE/HEAT/SMOKE WATER

Indicate extent of damage:

**BRITTLE SOOT BURNS
SLIGHTLY DAMP DAMP WET
CLEAN SLIGHTLY DIRTY
SLIGHTLY MUDDY MUDDY**

NOTES: _____

DAMAGED

UALR MATERIALS

BR/DEPT _____

BOX _____

From:

RANGE _____

CASE _____

SHELF _____

First 3 digits of

CALL # _____

Indicate salvage action:

DISCARD AIR-DRY FREEZE

Indicate type of materials:

**BOOKS DOCUMENTS AUDIO
MICROFORM VIDEO OTHER**

Indicate type of damage:

FIRE/HEAT/SMOKE WATER

Indicate extent of damage:

**BRITTLE SOOT BURNS
SLIGHTLY DAMP DAMP WET
CLEAN SLIGHTLY DIRTY
SLIGHTLY MUDDY MUDDY**

NOTES: _____

APPENDIX H

Recovery Procedures Evaluation Form

The goal of the disaster procedures Evaluation Committee (the Assessment Teams and the Recovery Teams combined) is to gather information about the effectiveness of disaster prevention, preparedness, and recovery efforts at the conclusion of disaster recovery procedures/activities. This information should be compiled and given to the CALS Director, Deputy Director, and Head of ASI for review and/or to the Chancellor of UALR and the Associate Provost of ASI for UALR for review. The ASI DPPR Manual will then be revised according to their directions.

Prevention procedures:

How effective was prior training regarding prevention measures?

Should prevention training be revised? If so, how?

Can annual inspections be revised to better assess possible problems? If so, how?

Preparedness procedures:

Were recovery supplies adequate for the recovery efforts?

What recovery supplies should be added to Assessment Team bags?

What recovery supplies should be added to general salvage materials?

Did Assessment Teams assemble quickly, assess the scope and type(s) of damage, and promptly notify recovery team leaders?

Was assessment of damage correct?

Would additional information about damage have been useful?

Recovery procedures:

Were the five recovery crews sufficient?

Were payments to staff and vendors made quickly and correctly?

Were supplies not already at the library ordered and delivered quickly?

Was insurance provider notified and responsive regarding the needs of CALS and/or UALR?

Were photographs and videos of the damage adequate?

Was transportation for workers, supplies, and damaged materials adequate?

Were supplies assembled and dispersed systematically?

Were work crews assembled and dispatched to their assigned duties quickly and without confusion?

Was workflow steady or were there bottlenecks, breakdowns, or unfilled gaps?

Was documentation of the disaster recovery procedures adequate?

Was the physical location of damaged and undamaged library materials easy to track?

Was security adequate?

Was communication with police and/or fire agencies adequate and well-managed?

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