University Archives Natural Disaster Recovery Plan

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INTRODUCTION

The purpose of this document is to outline the procedures for the recovery of archival materials in the event of a major disaster. As defined by the Intergovernmental Preparedness for Essential Records (IPER) Project, a *disaster* is "an occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries." There are three major types of disasters identified by IPER: natural disasters, technological disasters, and civil documents. This document will help archives employees respond to two common types of natural disasters that archives face: flooding and other water damage from hurricanes or other storms, and fire.

PREVENTION MEASURES

Storage

1. In general, maintain a temperature of 65°F with a relative humidity (RH) of 45%, with daily fluctuations no greater than +/- 5 degrees or +/-5%. The following are exceptions for the long-term storage of specific types of data storage media:
    - Magnetic cassette tapes, 12.7-mm: 64.4-71.6°F at 35-45% RH
    - Magnetic tape cartridges: 64.4-71.6°F at 35-45% RH
    - Magnetic tape, 4- and 8-mm helical scan: 41-89.6°F at 20-60% RH
    - CD-ROM: 64.4-71.6°F at 35-45% RH
2. Storage materials away from steam, water, or sewer pipes.
3. Store materials away from electrical or fire alarm systems.
4. Storage areas should be adequately lit to allow for ease of access and retrieval, but the materials themselves should be stored in archives-safe boxes to prevent light damage.
5. Keep walking paths in storage areas free of any obstructions or tripping hazards.
6. Do not store materials where they can obstruct exits, fire extinguishers, or air conditioning ducts.
7. Materials on shelves should be stored above the initial flood level of any potential water source.
8. Store materials in such a way as to ensure adequate ventilation and prevent insect infestation or mold formation.
9. Store materials at least 1.5 ft (18 in.) away from ceilings, suspended lights, and
10. Keep materials
11. Do not store anything aside from archival materials in designated storage areas.

Water Damage Prevention

1. Regularly inspect the ceiling for leaks.
2. Fix all leaks immediately.
3. Keep plastic sheets near storage areas to quickly cover records threatened or damaged by water.

Fire Damage Prevention

1. Since fire-damaged records are much less likely to be recoverable than water-damaged records, digitize, microfilm, photocopy, or otherwise duplicate records whenever possible, especially photographs or records stored on magnetic media.
2. Smoking is only allowed outside the library building.
3. Train all employees where any fire extinguishers are located and how to use them.

Theft Prevention

1. Limit access to storage areas to staff and facilities personnel. Patrons and other unauthorized personnel should be approved by management and always be accompanied by a staff member.
2. When leaving for the day, make sure doors and windows are locked, and check for any unauthorized personnel.
3. Always monitor patrons in the reading room. If you need to leave the reading room for whatever reason, make sure another student employee or staff member is available to take over for you.
4. When patrons are let into the reading room, check their ID to ensure that they are the person scheduled to visit at that time.
5. Instruct patrons to
6. Instruct patrons to use only one box of materials at a time so as not to block their activities from view.
7. Check patrons' bags before they leave for any archival materials.

IMMEDIATE RESPONSE: NATURAL DISASTERS

1. Notify by phone the Recovery Coordinator and the library's building and security operations team.
2. Notify by phone all members of the disaster recovery team.
3. Contact the appropriate insurer.
4. Gain access to the damage site. (Note: DO NOT enter the building/site until any emergency personnel called have communicated that it is safe to do so.) The Recovery Coordinator should be the first member of the disaster team to access the site.
5. Stabilize and secure the site.

- Shut off electricity, gas, and any other damaged utilities for repair.
- Stabilize leaning or collapsed shelving.
- Clean up any debris.
    - Contact the appropriate local public health authorities for any hazardous materials (e.g., sewage, chemicals, biological agents).
    - Wear PPE (closed-toe shoes, face masks, gloves, long pants and sleeves).

6. Conduct an initial damage assessment.
7. Conduct a more detailed damage assessment.
8. Create a detailed action plan according to the findings of the second damage assessment.
9. Determine the necessary supplies and services needed for recovery operations.
10. Begin the recovery process.

PROCEDURES FOR SALVAGING MATERIALS

Water Damage

Paper Documents/Pamphlets

1. Interleaf drying
    1.1 Set up tables and cover them with blotting materials (e.g., unused newsprint, cloth rags, paper towels, blotter paper, etc.).
    1.2 Remove documents from their folders and place them individually on the table.
    1.3 Change the blotting materials at regular intervals.
    1.4 Once the documents are completely dry (30-48 hours), create new folders for them.
2. Air drying
    2.1 For pamphlets:
        2.2.1 Set up a clothesline between 2 objects and hang up individual brochures and documents using plastic clothespins.

3. Freezing

3.1 Freeze materials that cannot be completely dried within 48-72 hours in the in-house freezer.

Non-Print/Photographic Materials

1. Collodion photographs
    1.1 Freeze immediately
2. Photographic prints, negatives, and transparencies
    2.1 Freeze or dry within the first 72 hours.

2.2.1 Salvage color photographs first, followed by prints, then negatives, and transparencies.

3. Microfilm rolls
   3.1 Prepare for shipment to a microfilm processor within the first 72 hours:
      3.1.1 Line cardboard boxes with garbage bags and secure them with tape.
      3.1.2 Fill boxes with water.
      3.1.3 Wrap 5 cartons of film together at a time with plastic wrap.
      3.1.4 Pack film into boxes.
4. Motion pictures
   4.1 Prepare for shipment to a film processor within the first 72 hours:
      4.1.1 Fill film cans with water.
      4.1.2 Pack cans into cardboard cartons lined with garbage bags.

Audio and Sound Recordings

1. Magnetic media (reel-to-reel tapes)
   1.1 Blot excess moisture from the tape and let it air dry.
      1.1.1 If the reels are dirty, wash with detergent and water.
         1.1.1.1 If still dirty, replace the reels.
   1.2 Air dry the box.
2. Audio cassettes
   2.1 Take apart the cassette.
   2.2 Blot out excess moisture and air dry on tables covered with plastic sheeting and newspaper.

Computer Media

1. CD-ROMs and optical disks
   1.1 Rinse using cool water.
   1.2 Dry with a non-abrasive sponge.
      1.2.1 Can use a blow dryer on “cool” to expedite the drying process
2. Diskettes
   1.1 Remove the disk from the diskette (the plastic casing).
   1.2 Remove the magnetic medium with gloves.
   1.3 Rinse the medium with cool water and dry with a lint-free cloth.
   1.4 Place the magnetic medium into a new diskette.
   1.5 Copy the damaged diskette onto the new diskette using the floppy drive of a computer.
   1.6 Discard the recovered magnetic medium. Keep the diskette to recovery information from any other damaged diskettes.

Fire Damage

Charred Documents

1. If materials have both fire and water damage, dry the materials prior to cleaning.
2. Set up tables and cover them with disposable materials (paper towels, newsprint, etc.).
3. Remove documents from folders.
4. Use a Hake brush or chamois cloth to clean the materials.
5. Copy significantly damaged materials using a copier or microfilm machine.
6. Use a low-suction vacuum to clean records only covered in soot.
7. Create new folders to put cleaned records in.

Burnt Materials

1. If any extremely valuable materials have been severely burnt—i.e., if they have intrinsic value—arrange for the materials to be sent to a forensic laboratory to have the information salvaged via ultraviolet light reading if they have not.
2. Evaluate brittle paper materials.
    2.1 Microfilm or photocopy materials that are strong enough if this has not been done already.
    2.2 Materials that are too brittle to use and that have not been duplicated elsewhere should be discarded.
3. Send bound volumes to a certified library binder for repairs.

Soot Deposits and Smoke

1. Consult with the library's conservator before approving any in-house soot removal treatments.
2. If approved, use pure latex rubber sponges to remove soot particles.