INTRODUCTION
Disasters, both natural and man-made, have the potential to damage or destroy cultural collections. Despite awareness of risk, some institutions lack time and resources to devote to emergency planning. Keeping up with day-to-day operations often takes precedence over the significant effort of planning for events that appear unlikely to happen. Nevertheless, time spent on emergency planning may, in the end, turn out to be the most cost-effective use of resources in the history of an institution.

When creating an emergency plan, it is important to break down the process into manageable steps, to address the most likely emergencies first, and to use existing resources to make the process easier. Although major disasters receive a lot of attention, most emergencies are small and limited to a single institution. Even basic risk reduction and preparedness can greatly reduce the impact of an event, ensuring that a small emergency does not turn into a disastrous loss.

This leaflet is organized into the following sections: Definitions and Terminology, Risk Analysis and Mitigation, Preparedness, The Emergency Planning Process, Plan Maintenance and Staff Training, Emergency Response and Recovery, Conclusion, and Additional Reading and Resources.

DEFINITIONS AND TERMINOLOGY
In the context of cultural institutions, emergency management encompasses all the activities undertaken by an institution to prevent, prepare for, and respond to an emergency involving its collections. Planning focuses on the collections themselves—both physical and digital—as well as for continuity of operations. Emergency planning also encourages interaction between cultural institutions and the larger emergency management community during the planning process to build better understanding and stronger relationships.

There are four phases of emergency management: mitigation, preparedness, response, and recovery. These phases are ongoing, and their review is never finished.

• Mitigation/Risk Analysis. The process of identifying risks to which an institution is vulnerable and determining how the impacts of these risks might be diminished or eliminated.

• Preparedness. This encompasses a wide range of activities including, but not limited to, creating emergency procedures, gathering information about people, supplies, and services, arranging for insurance, assigning collection salvage priorities, undertaking business recovery planning, and protecting information technology.

• Response. Response activities are all the steps taken immediately upon identifying a disaster, no matter the size. The plan is reviewed, the building is stabilized, damage is assessed, and collections are triaged (sorted for more efficient salvage).

• Recovery. Collection materials are salvaged, additional long-term rehabilitation activities are performed. Activities may include rehabilitation of the building, acquiring replacements, conservation, rehousing, re-shelving collections, and updating the catalog or finding aid to reflect any lost or withdrawn items.

Historically, cultural institutions have not used consistent terminology to describe the various activities and roles associated with emergency preparedness, response, and recovery. Due to increased awareness of the advantages of communication and collaboration between the cultural and emergency response communities, it is recommended that cultural institutions adopt the terminology and procedures used by emergency responders.

The term “emergency responders” describes both first responders (e.g., firefighters, police) and emergency managers (at the city, county, state, or federal level) who coordinate planning and response activities before, during, and after emergencies.

The term incident is used by emergency responders to describe any natural or manmade event that requires a response to protect life or property. The Incident Command System (ICS) is a management system for emergency response that is organized by function or activity. It uses a consistent structure and procedures designed to allow successful cooperation among differing organizations during an emergency, and to facilitate
efficient and effective response. A key feature of ICS is its flexibility; it can be used in both large and small events by expanding or contracting its structure. Thus, “disaster team leader,” a term commonly used in the cultural community, becomes “incident commander.” Similarly, “emergency or disaster response team” becomes “incident management team,” and “command center” becomes “incident command post.” The use of consistent terminology and procedures makes it easier to integrate individual institutional plans with community emergency plans, increasing the efficiency and effectiveness of response, particularly in area-wide disasters. Additional information about ICS is included later in this leaflet.

Emergency managers define a hazard as a source of potential danger or adverse condition; a risk is defined as the likelihood of a hazard event occurring and the impact that event would have on people, services, facilities, and structures. In the context of cultural collections, risk would mean the likelihood that a particular hazard would affect an institution, and the consequences of that incident on the buildings housing the collections, the collections themselves, the institution’s staff, and/or the services provided by the institution.

**RISK ANALYSIS AND MITIGATION**

The overall process of risk analysis involves identification of potential risks, assessment of the likelihood of specific incidents occurring, and analysis of the relative effect of each of these incidents on the institution. Risks are often described in relative terms such as high, moderate, or low.

Every institution has its own unique set of risks. Hazards can be divided into two general categories: external to the institution and internal to the institution (see lists below for examples). Hazards may be the result of geography, physical location, the condition of the building, or even the political environment; common or uncommon, and happen suddenly or have early warning.

**External Hazards**
- Hurricanes, tornadoes, flooding
- Winter storms, Nor’easters
- Earthquakes
- Wildfires
- Water main breaks, sewer system backups
- Proximity to hazardous materials or activities
- Civil disturbances, terrorist attack

**Internal Hazards**
- Poor maintenance of roof, gutters, and drains
- Pipes, skylights, or equipment over collections
- Leaking or wet basements
- Collections on the floor
- Book drop (fire hazard)
- Fire exits obstructed, fire protection systems inadequate
- Electrical system inadequate
- Shelving not braced

For most institutions, prevention and mitigation efforts will focus primarily on protection from water and fire damage, although it also may be necessary to protect collections against specific types of emergencies (e.g., bracing shelves for earthquake protection, building window coverings in case of hurricane). Additional mitigation activities can be undertaken once the highest risks have been addressed.

**Water Damage**

Water damage can result from many different disaster scenarios, ranging from hurricane or flooding to roof leaks or clogged pipes. Paper-based collections are highly susceptible to damage from water, as are water-soluble inks, pigments, and adhesives. Photographs are also very susceptible to water damage from dissolved emulsions, adherence to other photos or folders, and separation from their mounts. Mold growth is an additional danger, developing within 24–48 hours if the relative humidity and temperature is high and the materials remain wet or damp. See NEDCC’s Preservation Leaflet 3.1: Protection from Loss: Water and Fire Damage, Biological Agents, Theft, and Vandalism for more information on preventing water damage (listed under Preparedness in the Resources at the end of this leaflet).

**Fire Damage**

Fire damage can be caused by a variety of scenarios, including fire in an adjacent building, sparks from renovation work, faulty electrical wiring, and arson. Collections may not survive fire damage at all. If they do, they may be charred, be covered with soot, be brittle from exposure to high heat, smell of smoke, or be wet from sprinkler or hose activity, which may result in mold. See NEDCC’s Preservation Leaflet 3.1: Protection from Loss:
Preparedness focuses on pulling together information, incident and a disaster. An emergency can make the difference between a minor insurance, salvage priorities, business recovery planning, and addressed here: emergency procedures, supplies and services, how to respond, and how to evacuate the building if needed? A calm, quick, and reasoned response to a bomb threat, do all staff members know who to call, how to respond, and how to evacuate the building if needed? 

Overall, facilities improvements, increased vigilance, and changes in procedure can all prevent or lessen damage to collections in a water or fire emergency. Be aware that both short- and long-term solutions to the identified problems may be needed. For example, collections may need to be relocated or covered with plastic sheeting until money is available for roof repair, or multiple daily checks of the building may be needed until a fire detection system that is monitored 24 hours a day can be installed.

Remember to prioritize prevention activities so that the planning committee does not become overwhelmed. (See “The Emergency Planning Process” later in this leaflet for more information about planning committees.) The committee may choose to address risks that are most likely to cause serious damage first, or they may choose to address those risks that can be mitigated without investing a great deal of time or expense—or some combination of both. To keep track of progress over time, it is a good idea to prepare a timeline for the activities that need to be undertaken to mitigate risks.

**PREPAREDNESS**

Risk management may prevent emergency situations, or at least lessen the impact of an incident, but knowing what to do when an emergency does occur is also important. Consider how your institution would respond during an actual emergency. Would staff know what to do? Would necessary information and supplies be available? A calm, quick, and reasoned response to an emergency can make the difference between a minor incident and a disaster.

Preparedness focuses on pulling together information, procedures, and resources that may be needed in an emergency. Several categories of preparedness will be addressed here: emergency procedures, supplies and services, insurance, salvage priorities, business recovery planning, and information technology considerations.

**Emergency Procedures**

If the fire alarm goes off in the building, or a staff member receives a bomb threat, do all staff members know who to call, how to respond, and how to evacuate the building if needed? Advance preparation of emergency procedures, wide distribution of these procedures, and staff training in implementing them are crucial to emergency preparedness.

At a minimum, every cultural institution should prepare building evacuation procedures, basic water damage procedures, and an emergency call list.

Emergency procedures can be prepared for many possible scenarios, including various natural disasters, mold outbreak, terrorist attack, power outage, gas or oil leak, and so on. If the institution is subject to emergencies that have advance warning (such as hurricanes, some types of flooding, and wildfires), it will be helpful to prepare a list of actions to take once a warning is received. In general, prepare response procedures for those hazards that were identified as the most serious during the risk assessment.

**Communication with Emergency Responders**

Ongoing communication with emergency responders can pay dividends during an emergency. If first responders are familiar with the institution and its collections, they can be very helpful in saving collections and preventing further damage. Contact your local first responders and explain to them who you are, what you do, and why your institution is important to the community. Also find out how they work and how you can better work with them in the event of an emergency. In other words: begin building a relationship. For assistance in doing this, see Heritage Preservation’s poster “Working With Emergency Responders.”

**Supplies and Services**

A number of basic supplies should be kept on hand for immediate response to minor water emergencies. Harvard Library’s Preservation Department has a well-organized supply list available online; see the link in the Resources section at the end of this leaflet.

During the planning process, gather information about services and supplies, including their cost. Be sure to provide telephone numbers and after-hours contact information for all services and sources of supplies, and to keep this information up to date. Remember to include crucial information (e.g., names, phone numbers, account numbers, passwords, and so on) for important information technology services such as the institution’s web site host, its internet service provider, and online subscription services. Persons on the incident management team should keep a copy of all supplier/services information at home.

Arrange ahead of time for temporary storage space in case relocation of collections is needed, as well as for secure space that could be used for air-drying wet collections. Depending on the scope of your collections, other services that might be needed include microfilm salvage, audiovisual salvage, and/or data recovery.

Also, build a relationship with a commercial recovery vendor that specializes in cultural heritage materials. Many of these companies will conduct a free walkthrough of your site to assist in risk management and to become familiar with your space and collections. Making this contact ahead of time will allow an institution move forward more quickly with outsourcing when an incident is too big to handle in-house.
There are several types of insurance: self-insurance, purchased commercial insurance, or a combination of the two. Self-insurance refers to the practice of putting funds aside within the institution to be used in case of loss. Some larger institutions or those that are part of a larger entity (e.g., a university or government agency) choose self-insurance or a combination of commercial and self-insurance. Commercial insurance is more common for smaller institutions that do not have the resources to allow for self-insurance.

Different collection materials may need different types of insurance coverage. In libraries, special collections are often covered by a Valuable Papers and Records policy that is separate from the policy for general collections. Do not neglect insurance for the building and for equipment (e.g., furnishings, photocopiers, computers, etc.). Sometimes a separate computer rider is needed to cover replacement of computer hardware and software. Also, consider purchasing business interruption and extra expense insurance: these cover loss of income and extra expenses that may be incurred while providing services during the period of response and recovery after an incident.

Regardless of the materials covered or the method of insurance coverage, every institution must establish the value of the item(s) to be insured, decide on the appropriate type of coverage, and establish the procedures and documentation that will be required in the event of damage or loss. It is strongly recommended that cultural institutions consult with their insurance agent to determine the proper type and amount of coverage.

### Salvage Priorities

Setting salvage priorities is one of the most difficult aspects of emergency planning. To prevent delay and disagreements among staff during a crisis, it is best to identify high-priority holdings in advance of an emergency. This requires staff to have a good overall sense of the content of the collections; ideally, a detailed inventory of collections will be available to assist in the prioritization process.

As a first step, set priorities by department or by sections of the collection. Since it is most likely that an emergency will affect only a portion of the collections, these priorities are important in themselves. They can then serve as a basis for setting overall collection salvage priorities for the institution.

If the institution has an up-to-date collection development policy or retention/disposition schedules (in the case of archivists and records managers), use them to help determine which collections are most important. Generally, do not to try to set salvage priorities on an item-by-item basis. While there may be the occasional object of value that deserves to be considered on its own, it is more practical to designate groups of items for salvage.

High-priority materials will vary from institution to institution. However, all cultural institutions must give priority to essential records (e.g., accounts payable, payroll and personnel records, and/or legal documents). Without these materials, it may be difficult to restart operations in a timely manner. Computer data must be included in salvage priorities; priority for salvage should go to data that are not backed up at all, and to data that do not have offsite backups.

### Types of collections that may be considered high priority:

- Materials that support the institution’s primary mission
- Unique collections
- Heavily used collections
- Collections with legal retention requirements
- Collections that are difficult or expensive to replace
- Collections with scholarly research value
- Collections with monetary or artifactual value
- Formats that are particularly vulnerable to damage (e.g., leather bindings)
- Materials that are particularly fragile
- Materials on loan from other institutions

A color-coded map can be used to identify the location of high-priority items (although this information must be kept secure). Collection priorities should be shared with the local fire department and local emergency management director prior to an emergency.
Business Recovery Planning
Historically, emergency planning for cultural institutions has focused on protecting collections. In recent years, however, more emphasis has been placed on business recovery planning, which refers to the process of analyzing institutional activities and resources, determining which of these are most critical to the institution’s mission, and planning to recover them as quickly as possible. In the business community, this is called business continuity of operations planning (COOP).

In the context of cultural institutions, staff must consider who their most important user groups are, what services are critical to provide, what resources are needed to provide them, and what steps would be needed to get those services up and running within 24 hours of an emergency. Keep in mind that relocation of services may be needed if the building is inaccessible for some time, requiring alternate locations to which phone service, telecommunications, staff workspace, and/or computer operations can be moved.

Consider what information and materials staff members would need to maintain services if they do not have access to the building and collections. These might include up-to-date lists of staff home telephone numbers and home email addresses; critical passwords, account numbers, ID numbers, and contact information for services; shelf lists and unique in-house indexes; and basic reference materials used daily by staff, particularly those that are difficult to find. Where would backups for this information be stored, and how would staff access them in an emergency?

Financial resources will be required to restore services; appropriate arrangements should be made ahead of time so that funds will be available when needed. This might include arranging for lines of credit and providing emergency cash or pre-arranged contracts with vendors. Business interruption and extra expense insurance can provide additional resources.

Considering emergency preparedness from a business continuity perspective rather than only from a collections perspective will put cultural institutions in a far better position to recover quickly from an incident.

Information Technology Considerations
Like most modern organizations, cultural institutions are increasingly dependent on technology to provide electronic access to many different types of information. As a result, protecting information technology is essential to successful emergency planning and business recovery. Information technology resources in cultural institutions might include online public catalogs, circulation systems, web sites, and internal computer networks that provide public and staff access to databases and other shared information. Individual staff computers may contain databases, collection descriptions, scanned collections, financial information, and/or other important data. Some of this data may not be duplicated elsewhere.

While in the case of collections, the focus is primarily on recovering the original item, information technology resources are usually recovered by using backups to replace or reconstruct data. Institutions must consider various issues: the frequency of backups, the number of backups to be created for each type of data, storage and access procedures for backups (e.g., onsite and/or offsite), maintenance procedures for backups (e.g., checking backups for deterioration), and who will restore backups if necessary. Remember that during an emergency, it may be necessary to switch temporarily to manual operations for computerized services such as circulation or financial record keeping; instructions should be provided for conducting these activities manually.

THE EMERGENCY PLANNING PROCESS
The emergency planning process pulls together the various activities involved in emergency management into a written plan.

The first step in creating an institutional emergency plan is to gain commitment for the planning process from administrative decision-makers. The administration must approve the expenditures of time and money required to draft and implement the plan, and provide for staff training.

The Emergency Planning Committee
Put together an emergency planning committee that is responsible for moving the planning process along. In smaller institutions, one person may be primarily responsible for preparing the plan, while in larger institutions, the emergency planning committee might include library/archives/museum professionals, a conservator, facility management personnel, security personnel, and/or information technology staff. Input from local first responders, local/regional/state emergency managers, and any other interested parties will provide added energy and visibility to the planning process, and broaden perspectives on various issues. The emergency planning committee’s leader should be appointed by the institution’s director.

Preparing a Plan
The process of writing an emergency plan can be complex and time-consuming. While it is important to be as comprehensive as possible, the plan must also be simple enough to use easily. Trying to plan for too many different scenarios is confusing, bogs down the planning process, and complicates the written plan. Focus first on those incidents that are the most likely to occur and those that might cause the most serious damage if they did occur. Additional scenarios can be added to the plan later.

The written plan should summarize risk management activities, provide preparedness information, and give instructions for response. In general, the plan should include:
• Introductory information (how to use the plan, how it has been distributed);
• Scope and goals (what emergency scenarios are addressed in the plan);
• Response (evacuation procedures, emergency call list, instructions for responding to various types of emergencies);
• Salvage (general procedures, salvage instructions for specific media);
• Long-term rehabilitation.

Additional information such as salvage priorities, insurance information, services and supplies, and risk mitigation activities is normally included in appendices.

Keep in mind that many sample emergency plans available in the library, archives, and museum literature can be adapted; it is certainly not necessary (or desirable) to reinvent the wheel when drafting a plan. Plan templates are listed in the Resources at the end of this leaflet.

The emergency plan should be approved in writing by senior management. The approval should list all staff members (and any others, such as the fire department) who will be given a copy, and it should indicate where the plans will be stored. Printed copies should be placed in all departments and at all points of contact (e.g., reference desk, information desk), and additional copies should be stored off site.

Planning for an Area-Wide Emergency
Emergency planning is needed beyond the institutional level. There is a definite need for a coordinated response by the cultural community to area-wide disasters that simultaneously affect a large number of cultural institutions. Effective response to collections damage in an area-wide disaster requires significant coordination with the larger emergency management community, and several recent nationwide projects have focused on improving these relationships.

Ideally, each individual cultural institution’s emergency plan would ultimately be coordinated with those of other cultural institutions in the geographic area, as well as with municipal, county, statewide, or regional emergency plans that are in place for the larger community. In working toward this goal, it is essential for cultural institutions to develop an understanding of how the emergency response process currently works on the local, state, regional, tribal, and federal levels. Resources related to area-wide emergency planning can be found in the Resources at the end of this leaflet.

PLAN MAINTENANCE AND STAFF TRAINING
Once an emergency plan has been prepared, remember that it will not be effective without ongoing updating. The plan should be reviewed and updated yearly. It is a good idea to assign each member of the emergency planning committee responsibility for updating specific sections. Once updating has been completed, make sure that all existing copies of the plan (in all locations) are replaced with the updated version.

The importance of training all staff in emergency procedures and implementation of the emergency plan cannot be overstated. Staff members are the first line of defense against emergencies, observing problems as they occur. At a minimum, include periodic reviews in staff meetings to go over basic preventive measures, proper implementation of the emergency plan, specific evacuation routes, and general emergency procedures.

Periodic emergency drills and testing of the plan can give staff members confidence, as well as point out “weak spots” in the plan. Even if a full-scale disaster drill cannot be held, consider a “table-top” exercise, in which staff members meet to go through a scenario and discuss how they would respond.

EMERGENCY RESPONSE AND RECOVERY
In all emergencies, human safety will be the highest priority. Once that has been assured, assessment, salvage, and recovery of damaged collections should be addressed as soon as possible. The primary goals are to stabilize the condition of collections so no further damage occurs and to salvage the maximum number of valuable materials. Time is a crucial factor. If conditions are wet and warm, mold can develop in less than 48 hours. A mold outbreak will compromise successful collections recovery and can pose serious health risks. It is helpful to assign responsibility for response and recovery efforts in advance of an emergency, as well as to consider how the recovery process will be managed. The designated incident commander (be sure to also name an alternate) will be in charge of implementing the institution’s emergency plan, coordinating response and recovery efforts, and interacting with emergency responders.

Interaction with emergency responders may be brief, or it may be extensive, as in the case of a large-scale or widespread emergency where emergency responders have extended authority over the scene and the resources needed for response. Whatever the circumstance, it is important for cultural institutions to be familiar with the Incident Command System (ICS), which is the primary means for organizing emergency response at all levels within the emergency response community. Training in ICS, both traditional and online, is available from the Federal Emergency Management Agency (FEMA). Cultural resource professionals are encouraged to become familiar with ICS principles, procedures, and terminology, and to incorporate them into their emergency planning effort by taking, at minimum, the ICS-100 independent study course. For more information about ICS, see the Response section of the Resources at the end of this leaflet.

The Incident Management Team
Every cultural institution should have an incident management team that will manage response and recovery in the event of the institutional emergency. The team will coordinate first response, salvage, and long-term rehabilitation of damaged
materials and restoration of institutional services. The incident management team is led by the incident commander. Small incidents may be managed solely by the incident commander, with additional team members added for incidents that are more serious. This follows the ICS principle of modular organization, in which the organizational structure for response develops from the top down, according to the size and complexity of the incident.

Members of the incident management team should be able to think clearly under pressure, consider all options quickly but carefully, communicate clearly with other members of the team, make decisions, and act on them. In particular, the incident commander will need to provide strong leadership in stressful circumstances. Backups/alternates should always be provided for all positions on the incident management team. The composition of the incident management team may or may not reflect the institution’s organizational hierarchy or the membership of the emergency planning team.

The team should be put together according to ICS organizational principles. Key roles that are likely to be needed during response are:

- Incident commander. Coordinates all response and recovery activities, reports to the director or governing body of the institution, as appropriate.
- Public information officer. Responsible for all communication with the media and the public.
- Safety officer. Includes security of the collections, the building(s), and the property during response and recovery, as well as the safety of staff and workers.
- Operations section chief. Manages all activities and resources required to recover the collections, the building, and institutional services.

To avoid confusion about responsibilities during response, there must be an orderly line of authority within the incident management team, and every person involved in the response must have a single designated person to whom he or she reports; this is known in ICS as maintaining the chain of command and unity of command. Maintaining a manageable span of control is also crucial (e.g., each individual within the incident management team should supervise only three to seven people).

Managing the Process of Response

In addition to a command structure, the ICS provides a standard planning structure for incident response. In small incidents, the incident commander will communicate the response plan verbally to his or her subordinates. In complex incidents, a written Incident Action Plan (IAP) is used.

There are four overall steps in planning the response process, some of which may need to be carried out concurrently. Actions that may be required for cultural collections within each step are:

1. Assess the situation.
2. Determine what resources will be used to implement these strategies.
3. Select strategies for accomplishing the incident objectives.
4. Develop general and specific incident objectives.

Remember that, depending on the scope of the incident, some of the actions noted above may not be needed, and some of them may be carried out concurrently.

CONCLUSION

Planning for disasters may appear to be a daunting task, but the alternative is much worse. By taking small steps and working to a defined timeline, the emergency planning process can be broken down into manageable pieces and successfully completed. Having a plan and updating it regularly is essential for efficient and cost-effective response and recovery.
ADDITIONAL READING AND RESOURCES

**General Resources**


**Business Recovery Planning and Information Technology**


**Insurance**


**Planning for Area-Wide Emergencies**


**Prevention/Preparedness**


**Risk Assessment**

Response


Salvage Techniques and Procedures


**Templates for Writing a Plan**


NEDCC. “dPlan™: The online disaster-planning tool.” [https://www.nedcc.org/free-resources/dplan-the-online-disaster-planning-tool](https://www.nedcc.org/free-resources/dplan-the-online-disaster-planning-tool)

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