



Emergency Response Planning Manual

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List of abbreviations

CCI

Canadian Conservation Institute

CPR

cardiopulmonary resuscitation

EMO

emergency management organization

HVAC

heating, ventilation and air conditioning

PPE

personal protective equipment

RH

relative humidity

Introduction

Being prepared means being ready to respond effectively to a wide range of emergencies, each presenting unique challenges. While it is impossible to anticipate every possible scenario, having a well-developed emergency plan in place can significantly reduce the impact of unexpected events and prevent a crisis from escalating into a disaster.

To support heritage institutions in creating these vital plans, the Canadian Conservation Institute (CCI) has developed this comprehensive manual, and a customizable [emergency plan template](#), helpful [worksheets](#) and a webinar recording. For those who prefer a more interactive learning experience, CCI also offers an online workshop, “[Response Ready: Developing an Emergency Plan for Heritage Institutions](#),” which provides the opportunity to collaborate with peers and conservators while ensuring your plan is completed.

Whether you are starting from scratch or looking to refine an existing plan, this manual is designed to guide you through the process. It will also help you build up your team and emergency resources. Although an emergency plan template is provided, not every plan must look the same. Ultimately, your emergency plan should reflect the specific needs and circumstances of your institution. And if the task seems overwhelming, do not worry. Tackling the five sections one at a time, over several months, will make the process more manageable.

In this manual, we use the word “object” to indicate collection objects of any kind. However,



we recognize that institutions may use other words that better reflect their collections, such as “artifacts,” “artworks,” “archival records” or “natural history specimens.”

Prepare to meet emergency response objectives

Having a framework to organize emergency planning and response is helpful. For this purpose, we use a set of ten emergency response objectives:

- Protect people.
- Coordinate the responders.
- Secure the site.
- Limit the damage.
- Save the collections.
- Restore the building.
- Obtain supplies and equipment.
- Inform the relevant publics.
- Document the incident.
- Pay for it all.

These ten objectives can guide the development of a comprehensive emergency preparedness and response program and act as prompts during the often-hectic activities of an actual emergency. They are also useful if an emergency strikes before your plan is completed or if no plan exists.

Descriptions of the ten emergency response objectives follow. These objectives provide a foundation for the emergency plan development process presented in this manual. Table 1 provides a list of key activities for each objective.

Protect people

Health and safety first! The well-being of staff, visitors, volunteers and other responders should always be the top priority when making emergency response decisions. Saving collections should never be done in a way that endangers people.

Meeting this objective requires a keen awareness of the potential hazards that arise during emergencies, of the procedures that prevent harm and of the appropriate personal protective equipment (PPE) for response crews.

Coordinate the responders

Good communication is key to the optimal performance of the emergency response team. When chaos is kept under control at the response site, the response to an emergency is more likely to be effective. Roles and responsibilities should be clear to everyone from the beginning. Team communication needs to be maintained throughout the response.



Secure the site

Safe response depends on access control. Emergencies often create new hazards or disrupt security measures in an institution, which may increase the risk of theft, looting or injury. Effective response to emergencies includes control over who goes where.

Limit the damage

Once an emergency occurs, damage is to be expected. The time for total prevention has passed, but quick action can keep objects that are not yet affected from being damaged and keep those that are damaged from being destroyed. Actions that limit damage can protect the collections, buildings, furnishings and equipment.

Save the collections

Protecting collections is a core mandate of heritage institutions. When collections are affected by an emergency, a significant part of the response will be devoted to ensuring that objects and records are not lost.

Restore the building

If all or part of the building is damaged due to an emergency, repairs will be necessary before activities can return to normal. When the building is a heritage asset, response and restoration strategies must respect the building's heritage values. If the building cannot be saved, a new one will need to be built. If the damage is extensive, temporary facilities may be required for museum operations in the meantime.

Obtain supplies and equipment

Most emergency activities rely on specific supplies and equipment. Some things will be kept on hand for day-to-day building maintenance and museum activities. Others may be stored for emergencies only. More specialized equipment may be brought in only when needed. Knowing where to get things in advance can reduce the time needed to outfit crews, enabling them to get to work faster.

Inform the relevant publics

When emergencies affect the everyday activities of a heritage institution, it is not just the emergency response team that needs to be kept up to date. Other staff, volunteers, visitors, lenders, officials and, in some cases, the community at large will be interested in the impact of the emergency. The media will come calling when the incident is newsworthy. It is in your best interest to keep everyone informed of your ability to deliver services and to continue operations. Messages to these groups are often distinct. Internal communication channels may work for staff and volunteers, but other approaches may be needed for those outside the institution. Depending on the incident, you may want to use traditional or social media to aid your response.



Document the incident

Emergencies are exceptional events. Although they may seem unforgettable at the time, the details of how you responded will be lost if they are not recorded. So, keep track of what happens during an incident. A good record is essential for insurance purposes. Effective tracking of collections that are moved will make later recovery easier and less costly. Good pictures and statistics on the response effort can be used to solicit aid and support for response and recovery. A good summary report may come in handy for your successors or colleagues as they update plans or deal with their own emergencies.

To meet your insurance company's requirements, provide an up-to-date inventory of your collections (pre-damage) and photodocumentation of the damage. The insurance company will ask for documents substantiating amounts paid, such as invoices and a proof of deed, and a post-damage inventory with associated costs.

Pay for it all

The cost of responding to an emergency is not usually built into the budgets of heritage institutions. Meanwhile, an emergency may reduce revenues if services to the public are interrupted. Securing funds, whether through insurance, grants or donations, is a critical component of financing effective response and recovery.

Table 1: key activities related to the ten emergency response objectives

Emergency response objective	Key activities
Protect people	Evacuate the site. Call 911. Inform staff and visitors of emergency refuge locations. Contract qualified personnel to determine when the building is safe to enter. Alert response workers to hazards. Assemble and distribute necessary PPE. Provide food and refreshments for crews when the response takes longer than a few hours.
Coordinate the responders	Declare an emergency. Contact emergency authorities. Assemble and brief the incident management team. Contact others who can help or hire extra help. Establish a command post. Schedule periodic incident management team meetings to review emergency response strategies. Liaise with emergency officials and monitor the emergency response for the institution.
Secure the site	Secure access to the affected area. Check that the security system is working. Set up safety barriers or fencing. Set up a sign-in system for workers, for example by keeping an attendance log.



Limit the damage	Cover undamaged collections. Move collections to a safe location. Cover or otherwise protect the building and furnishings. Block or contain water leaks. Reinforce the building. Remove standing water or wet building materials. Reduce relative humidity (RH) and temperature. Close HVAC dampers or air intake to control the spread of smoke or soot.
Save the collections	Plan for collections salvage and recovery in advance of allowing access to the building. Assess the type and extent of damage or loss to the collections. Check to ensure that collections near the affected area(s) are not damaged or at risk. Move affected objects away from the incident site. Set priorities for salvage. Manage salvage and recovery of affected objects. Stabilize affected objects by cleaning and drying them. Buy time by freezing or keeping objects wet if they cannot be treated quickly or properly.
Restore the building	Manage the repair of the building. Replace or repair damaged furniture and equipment. Find temporary storage space for collections. Establish alternate workspaces. Procure off-site space, if necessary.
Obtain supplies and equipment	Access stocked supplies and equipment. Buy, borrow or rent supplies and equipment. Assemble necessary PPE.
Inform the relevant publics	Decide whether to contact the media. Respond to media requests. Inform visitors, staff and volunteers about the closure of the institution. Establish a communications network for staff updates.
Document the incident	Document the incident in writing, photographs and video. Create an incident report. Track the movement of collections. Discuss the response and recommend improvements to the emergency plan. Update the emergency plan.
Pay for it all	Manage finances for recovery. Contact the insurance broker and work with the insurance adjuster. Clarify what is and is not covered by insurance policies. Set up emergency funds or emergency payment procedures.

Prepare or update an emergency plan

Although objectives are useful, you still need an emergency plan. The emergency planning process described in this manual is divided into five sections that make the work involved more manageable:

- Build an emergency response team
- Develop risk-based immediate response procedures.



- Define all-hazards incident management procedures.
- Identify emergency response strategies for collections.
- Provide resources for effective response to emergencies.

Each section is linked to specific tasks that will help you figure out what you need in your emergency plan. They can be used to update an existing plan or to customize the [Emergency Plan Template](#) to meet your needs. The process is intended to be completed by a team, not one individual. Each person involved can expect to spend at least a few hours on each section. We suggest tackling one section per month to accommodate the work within your busy schedules. Completing sections in the order presented is recommended, but not necessary. If you are updating an existing plan, feel free to focus only on the sections that need review.

Build an emergency response team

The emergency response team includes everyone who responds to an emergency and assists with bringing your institution back to normal operations. The team includes institutional staff and sometimes members of the community who play one of the three following roles: manager, advisor and worker (Table 2). A well-rounded team facilitates an effective response to emergencies.

Table 2: roles played by institutional and community members of the emergency response team

Role	Institutional members	Community members
Manager	Incident management team	Police Fire service Paramedics Emergency management officials
Advisor	Curators Collections managers Conservators Other staff Board members	CCI Conservators Property restoration companies Risk management specialists Indigenous communities Cultural communities
Worker	Other staff Volunteers	Firefighters Paramedics Police officers Property restoration companies Trades Conservators Heritage professionals Volunteers

Institutions that are prepared to respond to emergencies are ready to assemble a response team from both within and outside the institution. Every emergency plan should include call



lists to speed response and reduce stress. Review and update these lists at least annually, because both the people available and their contact information may change. Insert this information in a section of the plan, such as an appendix, that can be easily edited and replaced in printed versions without needing to redo the entire plan. Because the emergency response team includes many players, it is helpful to determine who could be on the team using a structured process, as described in this section.

Step 1. Build an incident management team

The heart of the emergency response team is the incident management team. These are the people in your institution who are responsible for making key decisions when emergencies occur. They have the knowledge and skills needed to work with first responders and advisors, and to lead crews in the event of an emergency.

The incident management team need not be large, despite what guidance on emergency planning for heritage institutions may suggest. Although its size can increase with the number of permanent staff in your institution, in general, the team should consist of:

- as few people as needed to take responsibility for the ten emergency response objectives
- at least two people, one to lead the overall response and one to lead collections salvage and recovery when collections are affected
- at least one alternate dedicated to each role

The people who make up the incident management team have defined roles and responsibilities that are not necessarily related to their normal staff positions. The team may but does not need to include institutional decision makers. Staff selected for roles on the incident management team, whether lead or alternate, should:

- have the knowledge and skills to make effective decisions
- be able to respond quickly to after-hours emergencies
- be able to handle emergency situations physically and emotionally

Many types of skills and knowledge can be useful in an emergency. Table 3 provides some examples.

Table 3: examples of skills and knowledge that are useful for specific roles when responding to emergencies

Role	Useful skills and knowledge
Coordinating the team	• Experience managing people and projects • Skills in communication and negotiation • Experience in media relations
Dealing with facility issues	• Experience managing projects • Training or experience in physical security



	• Knowledge of the construction trades or building renovation processes • First aid training
Managing logistics	• Experience managing projects • Knowledge of procurement, financial management or bookkeeping • Skills in report writing
Managing collections salvage	• Experience managing projects • Object handling skills • Training and experience in conservation of cultural property

Key roles on the team should be given to people who can be on site quickly if an emergency occurs after hours. When choosing team members, consider the following:

- How close does each staff member live to your institution?
- What means of transportation are available to each person?
- How long will each person take to reach the institution?
- Is each person able to drive?

Team members who are responsible for assessing damage or salvaging collections need to have the physical capacity to do such work. In some emergencies, they may have to work in spaces with no power, where temperatures are extreme (hot or cold), and the air dusty or smoky. They may have to move over rubble and debris, across wet, slippery surfaces and between floors without an elevator. Their duties may require lifting and moving objects or working on their feet for long hours. Awareness of the challenges that specific people may encounter when working at emergency sites will help you select and accommodate potential team members.

People who are responsible for making decisions in response to emergencies will be most effective if they can remain cool and level-headed in stressful situations. But how we instinctively react to emergency situations varies and can be summarized by the three categories described in Table 4: fight, flight or freeze. You may not know in advance how your team members will react, and if your institution is small, you may not have a choice as to who is responsible for responding to emergencies. Thoughtful assignment of roles and team training can help ensure that all team members have the psychological capacity to contribute effectively.

Table 4: the three normal reactions to stressful situations

Reaction	Action	Role in an emergency
Fight	Take charge of the situation.	These people make good leaders. With good advance training, they also know what kinds of actions are most effective.
Flight	Leave the situation for someone else to deal with.	These people may not be much help at the emergency site, but they may be able to provide critical support from elsewhere.



Freeze	Do not act at all.	With good advance training, these people can get past the tendency not to act.
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The tasks below provide a structured approach to building an incident management team or assessing whether the one you have is adequate.

Task 1. Start with a skills survey

The people who manage emergencies may not be the same people who manage day-to-day operations of a heritage institution, unless your institution is small. Before creating an incident management team, assess whether staff or other potential team members have skills that are useful for emergency response roles. For example, you could use a survey form that includes a rating scale for skills and knowledge that are useful for responding to emergencies, like [Worksheet 1: Emergency Response Skills Questionnaire](#).

Task 2. Select a team size and structure

Define a team structure that suits the needs of your institution. Ideally, the team would be structured around the specific roles emergency response team members will play in an emergency, not normal job titles or particular people; however, sticking with job titles may simplify communications when staff are few and everyone is on the incident management team. There is no right or wrong approach, but avoid making the team too large.

We recommend three models composed of two, three or five roles depending on the number of full-time staff, as shown in Table 5. The role names can be modified to suit the needs of a heritage institution. Two team members are assigned to each role: one lead and one alternate who can step in if the lead is unable to respond. If all members, including the alternates, are well trained, responsibility can be delegated to the alternates in the event of a larger incident.

Table 5: suggested incident management team sizes

Number of staff	Suggested team size
6 or fewer	4 members (2 leads, 2 alternates)
7 to 10	6 members (3 leads, 3 alternates)
more than 10	10 members (5 leads, 5 alternates)

For small institutions with six or fewer full-time staff, the team is composed of four members, two leads and two alternates. The response lead manages the response in all emergencies. The collections lead deals with the collections when they are affected.

A slightly larger team of six members, three leads and three alternates, is suggested for medium-sized institutions (seven to ten full-time staff). The response lead primarily plays a



coordination role in managing the response, ensuring good communication among team members and others who assist with the response, as well as informing the community. The other two leads report to this person. The logistics lead deals with all details not directly related to collections salvage and recovery for all emergencies. The collections lead deals with the collections when they are affected.

Large institutions with full-time staff of more than ten can choose to have a team composed of ten members, five leads and five alternates. The response lead primarily plays a coordination role in managing the response, ensuring good communication among team members and others who assist with the response, as well as informing the community. Three other team members report to the response lead. The facility lead is involved in all emergencies in a security or health and safety capacity and manages building repair. The logistics lead manages the response and recovery finances and procures needed supplies and equipment. The collections lead manages collections salvage and recovery when the collections are directly affected. The collections lead is assisted by another person, the collections assistant, who may act as a collections lead if the emergency response involves multiple sites.

Task 3. Compare skill sets with roles

Use the results of the skills survey as a guide to determine who fits which role best. Results need not determine team composition in a simplistic way. People will interpret their own and others' skills differently. The skill sets of individuals may not align neatly with the suggested roles or may fit more than one role. Instead, use the skills survey to stimulate discussion and guide decisions.

If you used [Worksheet 1: Emergency Response Skills Questionnaire](#) for the skills survey, you can collect and compare the results in the table provided in [Worksheet 2: Emergency Response Skills Inventory](#), which also suggests the skills and experience that are useful for each incident management team role.

Task 4. Assign people to roles

As you discuss the skill sets of people who could be on your incident management team, decide who can best fill each role and which responsibilities should be assigned to each role. One way to summarize the responsibilities covered by each role is to use the set of ten emergency response objectives, as shown in Table 6. Who is responsible for which objectives may vary among heritage institutions depending on the skills and knowledge of the team members. Reassign the objectives, if necessary, to suit the skills of your staff. More than one role may be responsible for different aspects of some emergency response objectives.



Table 6: incident management team roles and the possible emergency response objectives associated with each role by size of institution

Team role	Small institutions (up to 6 full-time staff)	Medium institutions (7 to 10 full-time staff)	Large institutions (more than 10 full-time staff)
Response lead	• Coordinate the responders. • Inform the relevant publics. • Protect people. • Secure the site. • Limit the damage. • Restore the building. • Obtain supplies and equipment. • Document the incident. • Pay for it all.	• Coordinate the responders. • Inform the relevant publics.	• Coordinate the responders. • Inform the relevant publics.
Logistics lead	• No role	• Protect people. • Secure the site. • Limit the damage. • Restore the building. • Obtain supplies and equipment. • Document the incident. • Pay for it all.	• Obtain supplies and equipment. • Document the incident. • Pay for it all.
Facilities lead	• No role	• No role	• Protect people. • Secure the site. • Limit the damage. • Restore the building.
Collections lead	• Limit the damage. • Save the collections. • Document the incident.	• Limit the damage. • Save the collections. • Document the incident.	• Limit the damage. • Save the collections. • Document the incident.
Collections assistant	• No role	• No role	• Limit the damage. • Save the collections. • Document the incident.

Once you have assigned people to roles, name the roles to reflect the responsibilities. Table 6 suggests simple role names, but others could work equally well. We recommend using role names to define the incident management team rather than people's names or staff positions, unless the team comprises all full-time staff. [Worksheet 3: Incident Management Team Chart](#) provides a convenient chart to capture this information and guide discussion.



Try to assign different people to each lead and alternate position. If you assign people to more than one role, even as lead for one and alternate for another, you may end up with someone having to cover two roles in some incidents. If you have only three full-time staff, as is common in smaller institutions, consider cross-training one alternate for both lead roles. Even smaller institutions could look to board members to fill out the team or set up formal mutual aid agreements with other heritage institutions in the community. However, at least one person from your institution needs to be ready to act as the response lead when an emergency affects your facility.

If the size of your staff permits three or five roles, but assigning people to roles is difficult, consider making your incident management team smaller.

Task 5. Add information on the incident management team to your emergency plan

Once you have decided who will be on the team and what roles they will play, both leads and alternates, record this information and the related contact information in your emergency plan. You can modify an existing plan, adopt a format that has worked for your colleagues, or use a template, such as the [Emergency Plan Template](#). Update the information regularly as staff or their contact information changes.

Step 2. Connect with emergency services

For incidents where lives may be at risk or where laws have been broken, or for emergencies that affect the broader community or result in the loss of building services, emergency services in the community are a necessary and an important part of your overall response team. Developing relationships before an emergency with the 911 first responders, your local emergency manager and the people responsible for utility repairs, as described below, can improve response outcomes.

Once you have a list of key community responders and utility service providers, record the contact information in your emergency plan. Make sure to check and update the information annually.

Task 1. Build a relationship with first responders

First responders are experts in emergency prevention and response. They will manage the initial stages of the response to emergencies like building fires or criminal acts. They can also help you plan immediate response procedures that are safe, legal and effective. Ensure that they have the name of a contact person for your institution plus at least one alternate, and provide them with any information they need to better serve you.

Table 7 suggests ways that heritage institutions can connect with local fire services or law enforcement and security services.



Table 7: ways that heritage institutions can connect with first responders

First responders	Suggestions for connection
Fire services	Have a fire prevention officer visit your institution for advice on how to make your building safer and to increase staff awareness. Prepare a fire safety plan for the fire services. Discuss measures that might minimize damage from water and soot. Establish in advance which is more important, the building (for example, a historic house) or its contents. Invite staff from all shifts of the fire department to visit the institution to familiarize them with your building and collections. Let the fire services know where the water hookup is, as well as the shut-off valves for gas, water, electricity and the sprinkler system.
Law enforcement and security services	Have a crime prevention officer visit your institution. If you are part of a larger organization like a university, give the security services a tour of your facilities. Get advice on ways of making your institution safer and more secure. Find out about regular patrols in your area and what you can expect in terms of response time to calls.

Task 2. Identify your local and regional emergency management officials

Municipal, regional and provincial or territorial emergency management organizations (EMOs) are responsible for preparing for and responding to emergencies, particularly those that affect communities. In the event of a large community-wide emergency, EMOs may be focused primarily on residents who are affected. Without a pre-existing relationship, heritage institutions, like businesses, may be left to deal with the response on their own.

Do not let your institution become invisible in the eyes of your local authorities. EMOs can be a good source of information and support, so it is worth finding out who plays this role in your community and getting to know them. Also, ask where your institution stands in your municipality's emergency plan and determine if your institution has been delegated with emergency functions in the event of a community-wide emergency, such as serving as the site for a command post. Finally, discuss your need for quick access to your building to protect your collections following an emergency.

Task 3. List contacts for utility emergencies

Emergencies may damage or disrupt your facility's utilities or building systems, including electricity, gas and water, heating, ventilation and air conditioning (HVAC) systems, telecommunications, security systems and computer systems. Understanding how utilities may be affected by different types of emergencies, especially those that represent a high risk to the institution, and the time needed to restore services, will help you plan your response



appropriately. Having emergency contact numbers for utility service providers at hand when needed can save precious time.

In many institutions, such as municipal, provincial, territorial or federal government institutions or larger institutions like universities, repairs of utilities or building systems are managed by a facilities management department. Having a designated facility manager on your incident management team is ideal but may not be possible if they are not a staff member. Building a good relationship with whomever is responsible for your facility, like the relationships you hope to build with first responders, will facilitate effective action in response to emergencies. Ensure that one person on the incident management team is responsible for liaising with the facilities management department when an emergency occurs.

Step 3. Connect with advisors

Although the incident management team will lead the response to emergencies, they will not have all the answers and will look to others for advice (Table 2), particularly when collections are damaged. Large institutions will have many staff familiar with the institution and its collections who are not members of the incident management team. Many institutions, especially smaller ones, do not have all the expertise in-house that is needed to respond effectively to emergencies. To improve response outcomes, tap into the expertise of advisors on staff, of Indigenous or cultural communities, risk management specialists and restoration specialists.

Task 1. Get advice from staff who are not on the incident management team

Like any good manager, the members of the incident management team will seek input before making decisions. Staff not on the team should be involved as advisors while you are developing immediate response procedures, conducting training exercises and responding to emergencies.

Who may be helpful?

- Curators or collections managers who know what is of greatest value in a collection, where things are stored and how to use the collections management system
- Conservators who know how to deal with damage to objects
- Security personnel who have experience securing your institution and may have first aid training
- Facilities managers who know facilities and how to maintain them

Task 2. Consult with members of Indigenous or cultural communities

Respectful museum practice recognizes the diverse ways in which objects are valued. Sacred and culturally sensitive objects and collections are treated in a manner that respects the beliefs and traditions of the community of origin. Creators retain moral rights that include a guarantee that their works are not to be changed without their permission.



Like collections management in general, emergency response should reflect shared authority in preserving certain types of objects and belongings. Specific procedures may be necessary for incidents that call for rapid response. Such procedures are best developed in advance in collaboration with the relevant communities. If collections salvage must be done by specific community members, their contact information should be in your plan.

Task 3. Talk to professionals in risk management

Several professionals can help you better understand the risks and challenges associated with responding to emergencies in heritage institutions. Their advice can inform the procedures that you adopt in your emergency plan. In some circumstances, you may need their assistance during an emergency, so you need to know who to contact and to record their contact information in your emergency plan.

Emergencies can create new risks in the work environment. Making sure people are safe is a key objective of any response. Expert advice can clarify the types of risks that you may encounter, the work conditions that might violate occupational health, and safety regulations and the measures needed to keep people safe. Given the pressures that emergencies bring, it is important to know in advance whether you will need licensed or certified professionals to make certain decisions.

Which professionals can help ensure people are protected?

- Structural engineers can assess if structural damage to buildings makes entry unsafe.
- Electricians or electrical engineers can identify and respond to electrical hazards.
- Indoor air quality investigators can assess mould risks.
- Occupational health and safety officers can provide guidance regarding exposure to dust or toxic materials (asbestos, lead paint, polychlorinated biphenyls, dead animals, etc.), or obstruction of emergency exits.
- Fire inspectors or fire protection technicians can deal with inoperative fire protection systems.

Check with your municipal and/or provincial or territorial governments to see what advisory services are available. Obtain contact information for professionals that you may need to consult when an emergency occurs.

How you respond depends in part on your financial resources. Insurance companies are in the risk management business. You should have insurance, but you need to make sure it will meet your needs. Check with your insurance broker to ensure that your insurance policy covers the appropriate hazards for both your building and collections and will pay for the expenditures you anticipate. In addition to clarifying the limits of your coverage, your insurance broker can also explain the steps and information needed to make a claim.



Task 4. Contact restoration specialists

Many cultural and heritage institutions, especially smaller ones, do not have staff with the expertise to deal with damaged objects or a damaged building. Tapping into such expertise can improve emergency outcomes. The specialists who can help include:

- conservators
- property restoration companies
- document and data recovery services
- movers or collection transport services
- tradespeople

Conservators can provide advice on collections evacuation, salvage and recovery. Their experience treating damaged heritage objects may make their assistance invaluable when you are responding to emergencies where collections are affected. Conservators will be in the best position to help if:

- they are specialists in the treatment of the types of objects that are damaged
- they can see the damaged objects in person
- they are familiar with your collections and your emergency plan
- you can pay for their services if they are not already on staff

Increasingly, heritage institutions rely on technology to serve their communities and digitize collections, and they even collect born-digital objects and records. The preservation of digital resources involves creating backups and storing them off site, perhaps in the cloud. Access to digital collection records in collections management systems can provide invaluable information to support collections salvage. Information technology specialists can advise on how to keep data safe and accessible in the event of an emergency. If disaster recovery requires external service providers, they should be listed in your emergency plan.

Restoration companies are in the business of disaster response. They have the skills, equipment and resources to respond to any kind of emergency that involves damage to property. For those who can afford their services, they can arrange for immediate freezer storage, rent dehumidifiers and air movers, provide container storage and clean and dry out the building. Because disaster response is their business, expect them to come knocking on your door when an incident happens.

However, not all restoration companies have the expertise needed to deal with heritage collections or historic buildings. Some companies provide services in document recovery that can be invaluable for library and archival collections, but only in larger cities. To get the support you need, talk to companies about their services and your needs before an emergency. Insist on having a conservator review any treatments proposed for objects or records before agreeing to anything. Most important, make sure you have the necessary insurance coverage so that you can afford these services.



If an emergency causes significant damage to collection spaces, or objects need to be sent out for treatment, you may need to move objects off site at short notice, possibly in significant numbers. Think about who you can call on to assist with such moves, especially if objects may be damaged or dirty and will be packed in haste.

If an emergency damages the building, repairs are often needed, even after affected spaces are cleaned and dried. The people you usually rely on for building maintenance and repairs may be able to help. When the damage is extensive, facility managers may reach out to tradespeople in the community. How fast they are able to respond will depend on the scale of the emergency. Be aware that tradespeople will be in demand following a community-wide emergency. List alternates in your emergency plan as a backup.

Step 4. Plan for work crews

The incident management team will make the decisions regarding what needs to be done in response to an emergency, but the team will rely on other people to get the institution back up and running normally. Effective response and recovery often depend on many others to do the work (Table 2). Thinking about who will be on work crews and what they will or will not do in advance can make for a smoother response under the stress of an emergency.

Task 1. Determine where you will find workers

The size of work crews needed depends on the scale of the emergency. Plan for a big emergency, and your needs are likely to be covered. Consider whose assistance you would need from among institutional staff not on the incident management team, institutional volunteers, colleagues from similar institutions, community volunteers and contract workers. While thinking about how to assemble work crews, consider the following:

- Do staff, contract workers or volunteers have the needed skills and physical abilities?
- Can external companies, such as property restoration companies, provide the needed workers?
- Does your insurance require specific qualifications for people who handle heritage objects?
- Will the crews show up every day if the response takes a long time? Paid staff or contractors are obliged to, but volunteers are not.
- When will people arrive? When will they leave each day?
- How many days of work can volunteers commit to?
- Are volunteer workers covered by workplace insurance in case of injury while assisting? This may be the case in some jurisdictions if a state of emergency has been declared.
- Are people on your list personally affected by the emergency?

Contact information for workers who can assist in response to an emergency can be added to your emergency plan. At the same time, consider strategies for recruiting workers for larger incidents and document them in your plan.



Task 2. Define the roles workers will play

Work crews can assist with many emergency response actions, including:

- collections salvage and recovery
- collections transport and documentation
- building restoration and repair
- site security
- sourcing supplies and equipment
- provision of refreshments
- fundraising
- social networking

Specific tasks will depend on the scope of the incident and the nature of the damage to property. For some of these tasks, staff who are not on the incident management team may be carrying out their normal duties, just in an abnormal context. Note that some tasks may require qualified personnel for legal or insurance purposes.

Develop risk-based immediate response procedures

An emergency, whether small or large, whether collections are affected or not, usually requires actions outside those of normal operations. The first steps in responding to an emergency may be critical to ensuring that people are kept safe and damage is contained. Knowing what to do first when an emergency occurs, however, may not be obvious. Advance planning readies heritage professionals to act quickly and effectively. This section describes how to develop immediate response procedures customized for your institution.

Immediate response procedures are designed for all staff, not just the incident management team. They include actions to be done once the incident occurs, but also in advance of emergencies when sufficient notice is given, as for hurricanes or sometimes for overland flooding or wildland fires. These procedures primarily address three of the ten emergency response objectives: protect people, limit the damage and secure the site.

Step 1. Assess emergency risks

A risk assessment can help an institution better understand potential emergencies and decide which would benefit from detailed immediate response procedures. When the core of the emergency plan is an all-hazards response, not every type of emergency needs an immediate response procedure. However, such procedures should be developed for emergencies that represent an elevated risk to the institution and its collections and those that occur regularly. The process involves identifying hazards, analyzing the associated risks and then evaluating those risks. You can use [Worksheet 4: Emergency Risk Assessment](#) to guide the risk assessment.



Task 1. Identify hazards that might affect your institution

Start by making a list of emergencies that could affect your institution. Table 8 provides a list of possible hazards grouped by hazard category. Other handbooks may provide even more detailed lists. If you feel short on time, select the five emergency hazards that concern you the most to begin with.

Table 8: list of emergency hazards

Hazard category	Hazard
Building related	Fire or arson
Building related	Water leak
Building related	Power failure
Building related	Explosion or gas leak
Natural hazard	Flood, storm surge or tsunami
Natural hazard	Earthquake
Natural hazard	Severe storm
Natural hazard	Hurricane
Natural hazard	Tornado
Natural hazard	Hail, snow or ice storm
Natural hazard	Wildland fire
Criminal acts	Break-in
Criminal acts	Theft
Criminal acts	Vandalism
Criminal acts	Civil disorder
Criminal acts	Bomb threat or discovery of explosive device
Industrial accidents	Major chemical spill
Industrial accidents	Nuclear power plant emergency
Industrial accidents	Transportation accident (rail, air or road)
Collection related	Pest infestation
Collection related	Accidental damage
Health and safety	Injury or illness
Health and safety	Missing child
Health and safety	Pandemic
Health and safety	Chemical spill (in-house)
Information technology	Computer or server failure
Information technology	Hacking of server



Task 2. Analyze the risk associated with each hazard

Most risk assessment methods estimate the frequency or likelihood of events as well as their consequences. Of particular interest to staff of heritage institutions is the potential loss of value to heritage collections. Risk assessment can be done using a detailed, rigorous method, such as the [ABC Method: A risk management approach to the preservation of cultural heritage](#) or the *Cultural Property Risk Analysis Model: Development and Application to Preventive Conservation at the Canadian Museum of Nature* (consult the “[Bibliography](#)”), but a simpler approach that provides good enough estimates for relative frequency and loss (consequences) may be sufficient for emergency planning. [Worksheet 4: Emergency Risk Assessment](#) provides a simple, structured approach to emergency risk assessment to guide discussions and record results.

Task 3. Evaluate emergency risks to identify priorities

Comparing the risk assessment results allows heritage institutions to rank emergency risks and set priorities for planning. Most risk assessment methods generate scores for each risk that can be ranked. Many methods group risks into categories based on their score or use traffic light colours to visually indicate the relative risk. The categories used for the ABC method, for example, can be interpreted in terms of emergency risks (Table 9). Emergencies that fall into higher risk categories are those that need an immediate response procedure. Those in lower risk categories may also benefit from a procedure if they occur frequently.

A simple risk matrix can be used to assign risk categories that are useful for emergency planning. The matrix in Table 10 is based on the logarithmic step scales for frequency and loss of value used in the ABC method for analyzing risks to collections. Each frequency and loss pair is associated with an ABC method risk category (Table 9) and a suggestion on whether the risk needs an emergency response procedure. [Worksheet 4: Emergency Risk Assessment](#) describes how to use this matrix to prioritize emergency risks.

Table 9: ABC method risk categories and their implications for emergency risks

Risk category	Implications for emergency risks	Colour
Catastrophic	All or most of the collection is likely to be lost in a few years or less. Possible only for a collection recently placed in a high-risk zone, such as a very badly designed building in the wrong place, or a collection facing a known impending disaster, such as active hostilities or frequent hurricanes. Risk reduction is a priority. Some form of emergency response and mitigation is probably already in place.	Red
Extreme	Significant damage to all the collection, or total loss of a significant fraction of the collection is possible within a decade to a few centuries. This level of risk typically arises from fire and theft risks where mitigation measures are basic or non-existent. Developing emergency response measures specific to these risks should be top priority, as should plans to reduce the risk.	Amber



High	Significant loss to most of the collection is possible in several centuries, or significant loss to a small fraction of the collection is possible in a decade. Most institutions face such smaller, more frequent emergencies from time to time. Risk mitigation strategies should be considered. Emergency plans can help reduce the risk to collections.	Yellow
Medium	Moderate damage or likelihood of loss is expected over many decades or significant loss to most of the collection over many millennia. Many such emergencies may cause short-term inconvenience but are less significant overall. Consider risk reduction strategies or emergency planning after higher risks have been dealt with. Immediate response procedures may be helpful for emergencies that occur regularly.	Green
Negligible	This level of risk means one expects tiny or minuscule damage to occur to a tiny fraction of the collection over centuries. Emergency response measures or risk reduction measures are not required.	Blue

Table 10: risk categories for combinations of frequency and loss as assessed using the ABC method scales

	Incidents occur almost never (once in over 10,000 years)	Incidents occur rarely (every 1,000 to 10,000 years)	Incidents occur seldom (every 100 to 1,000 years)	Incidents occur occasionally (every 10 to 100 years)	Incidents occur often (every 1 to 10 years)
Loss is catastrophic (10% to 100%)	High (yellow) Immediate response procedure optional	High (yellow) Immediate response procedure recommended	Extreme (amber) Immediate response procedure recommended	Extreme (amber) Immediate response procedure essential	Catastrophic (red) Immediate response procedure essential
Loss is significant (1% to 10%)	Medium (green) Immediate response procedure not necessary	High (yellow) Immediate response procedure recommended	High (yellow) Immediate response procedure recommended	Extreme (amber) Immediate response procedure essential	Extreme (amber) Immediate response procedure essential
Loss is moderate (0.1% to 1%)	Medium (green) Immediate response procedure not necessary	Medium (green) Immediate response procedure not necessary	High (yellow) Immediate response procedure recommended	High (yellow) Immediate response procedure recommended	High (yellow) Immediate response procedure recommended



Loss is minor (0.01% to 0.1%)	Negligible (blue) Immediate response procedure not necessary	Medium (green) Immediate response procedure not necessary	Medium (green) Immediate response procedure optional	Medium (green) Immediate response procedure optional	High (yellow) Immediate response procedure recommended
Loss is trace (less than 0.01%)	Negligible (blue) Immediate response procedure not necessary	Negligible (blue) Immediate response procedure not necessary	Negligible (blue) Immediate response procedure not necessary	Medium (green) Immediate response procedure optional	Medium (green) Immediate response procedure optional

Step 2. Prepare an evacuation procedure

An effective evacuation routine is essential for keeping people safe when certain emergencies, like fire, occur. If your plan contains one immediate response procedure, it should be an evacuation procedure that:

- reminds everyone to remain calm
- advises people to leave immediately by the nearest exit
- reminds people not to use elevators (if your building has one)
- indicates the location, at least 100 metres from the building, where people should assemble to wait for further instruction

Most institutions already have an evacuation procedure for mandatory fire drills. You may also want to have a specific procedure for staff who act as floor sweepers. If you are in a zone at high risk for severe storms or tornadoes or you are concerned about active shooters, you may wish to add shelter-in-place and lockdown procedures.

Step 3. Prepare other immediate response procedures

Immediate response procedures for specific types of emergencies can be helpful and are often included in emergency plans. They are short lists of key actions that focus on first steps, described simply and concisely. We suggest that you include such procedures for the high priority hazards identified in the risk assessment exercise. You may also want to include procedures for incidents that occur frequently even if the effects are minor, or incidents that may put people in danger.

Two options for developing immediate response procedures are suggested below. If you already have such procedures in an emergency plan, consider using one of the options to review and update them.



Option 1. Edit model procedures, then test with an exercise

Task 1. Select model procedures

Existing immediate response procedures are a good place to start. For example, you could use procedures from:

- a template, such as the [Emergency Plan Template](#)
- emergency plans from other institutions (ask your colleagues; search the Internet)
- publications or websites on emergency planning (consult the “[Bibliography](#)” for suggestions)

There are no right or wrong procedures, only ones that suit your institution. If you already have a plan that you are updating, you can skip this step. If you cannot find a model for a particular hazard, try Option 2.

Task 2. Edit procedures to suit your institution

Immediate response procedures will be effective if they are customized to meet your needs. Some models may be fine as they are. Others will need to be adapted. Pay attention to:

- procedures that require a specified location, such as a designated assembly area
- procedures that refer to features, such as operable windows or elevators, that may not be present in all buildings

Task 3. Test the adapted procedures and revise if necessary

Do not wait for an emergency to find out if your procedures will work effectively. Test them with a drill or scenario exercise (consult Option 2 below for how to do this). Revise procedures if the exercise exposes gaps or weaknesses. Once you are happy with the result, add them to your emergency plan.

Option 2. Use scenario exercises to create procedures

Task 1. Prepare floor plans for your institution

An easy way to keep people focused on a scenario during a tabletop exercise is to use a printed floor plan. Floor plans that show all parts of your building or your site are most useful. Indicate the location of such things as:

- fire alarm pulls and extinguishers
- water and gas shut-offs
- first aid kits
- emergency exits

Include a copy in your emergency plan.



Task 2. Prepare a scenario

Before the exercise, one person prepares a scenario for discussion by:

- choosing an emergency hazard
- selecting a day of the week and a time when the incident occurs
- selecting a location in the building for hazards that cause localized damage
- sketching the effects of the scenario on a copy of your floor plans

You can make up your own scenarios, use a worksheet, like [Worksheet 10 Scenario Exercises](#), as a guide, or adapt scenarios proposed by others (consult the “[Bibliography](#)”).

Task 3. Run the exercise

Invite people who can contribute to developing effective immediate response procedures, including:

- your incident management team
- people who take care of your facility or deal with security
- someone who can represent the perspective of other staff

Keep the group small to facilitate discussion. Keep the meeting short: 15 to 30 minutes should do.

Introduce the scenario to the group. Make a list of actions that would be done to:

- protect people in the building
- limit damage to the building and collections
- secure the site

Limit your list to what needs to be done in the first 15 minutes for emergencies that happen without notice. If notice is given, such as for hurricanes and some overland floods, make a list of all precautions to take in advance.

Task 4. Draft the immediate response procedure

Use your list to create a formal immediate response procedure for the emergency hazard. Keep it concise and remember that it should work for all incidents that involve that specific hazard.

At this point, you may wish to consult and edit models as in Option 1, integrating the steps you recorded during the scenario exercise. Once you are satisfied with the immediate response procedures, add them to your emergency plan.

Define all-hazards incident management procedures

Responding to emergencies almost always requires actions outside those of normal operations. When heritage professionals plan for possible responses in advance, they will be ready to deal with incidents quickly and effectively. This section focuses on all-hazards



incident management, explains what it is and why it is important. It also describes how to develop all-hazards incident management procedures customized for your institution.

Step 1. Understand the need for all-hazards procedures

Although all emergencies disrupt the normal everyday work of heritage institutions, the way they do so varies greatly. The scale and nature of the next incident cannot be predicted with great certainty. For this reason, those working in emergency management recommend an all-hazards approach. All-hazards procedures outline a framework for responding to any type of emergency, whether expected or unexpected.

If you tried to include details on how to respond to every kind of emergency, your emergency plan would become unwieldy, and the process of completing it more likely to fail. When the emergency plan includes all-hazards incident management procedures, only those emergencies that happen regularly or create a high risk need the detail found in immediate response procedures.

All-hazards procedures are core, generic actions that guide an institution's overall response to emergencies. Your plan only needs one set of these for all emergencies, so the procedures need to apply to a wide range of incidents in terms of severity and scale. Because all-hazards procedures are general, you do not need to start from scratch. You can use procedures from:

- a template, such as the [Emergency Plan Template](#)
- emergency plans from other institutions (ask your colleagues; search the Internet)
- an old emergency plan from your institution that needs updating

Unlike immediate response procedures and emergency response strategies, all-hazards procedures provide general direction towards meeting all ten of the emergency response objectives in a manner that is not specific to a particular hazard. Many of these procedures are not complicated, but because emergencies are not “normal,” it is good to think about them before the emergency happens.

All-hazards procedures can guide response efforts at every stage of any emergency, from the beginning to the end, when normal operations resume or a new normal is established. By comparison, immediate response procedures focus on the first steps in response to an emergency, and collections emergency response strategies are only needed when collections are affected. Because the scale of emergencies varies significantly, from localized incidents that touch no objects to community-wide incidents, only some all-hazards procedures will apply to all emergencies. Grouping these procedures in a manner that accounts for increasing severity makes it easy to see when specific procedures are needed.

While immediate response procedures are designed for all staff and sometimes visitors, and collections emergency response strategies are primarily for collections staff, all-hazards procedures are mainly designed to help the incident management team. These are the



people who are responsible for ensuring that the necessary work gets done when an emergency occurs.

All-hazards procedures are more effective if they are assigned to individual members of the incident management team so that areas of responsibility are well understood. Although the incident management team will depend on all-hazards procedures to manage any emergency, they will not be doing all the work. While such procedures are being reviewed, it is useful to think about other people who have the knowledge or skills to advise or assist with specific procedures and to record names and contact information for call lists in your emergency plan.

Because they are general, all-hazards procedures will need to be interpreted in the context of each emergency. In fact, keeping them general can encourage creative problem solving to deal with unexpected constraints in a specific incident. Because emergency situations are not “normal,” practice in advance of an incident will help incident management team members make better decisions under pressure.

Step 2. Prepare all-hazards procedures for your plan

All-hazards procedures are the most general of all the procedures in your emergency plan. Adopting procedures from a template or an existing emergency plan and making small adjustments to meet the needs of your institution is a smart approach. Whichever set you choose as a model, remember to think of the procedures as a guide, not a prescription.

Below, we provide a structured method for preparing all-hazards procedures. Ideally you would complete these tasks at a meeting with the leads and alternates of your incident management team. If you do not have a formal incident management team yet, invite staff and/or volunteers who you expect would play a key role in responding to emergencies. Preparing all-hazards procedures may help you identify good candidates for your team. Keep the group small to facilitate discussion. Keep the meeting short; 30 to 60 minutes should do to get started.

You may wish to use [Worksheet 5: All-Hazards Procedures Review](#) to guide this process. You do not need to follow these suggestions if another solution works better for your institution.

Task 1. Adopt a list of all-hazards procedures

Find a suitable list of all-hazards procedures. If you decide to use procedures from an existing emergency plan, consider comparing your procedures to another model to identify any gaps and to ensure that all emergency response objectives are met. One set of procedures is provided in the [Emergency Plan Template](#). Review the selected procedures with your team and edit them to meet the needs of your institution. Many procedures will be fine as they are because they are meant to be general. Others may need to be adapted. If you identify gaps in the model you adopted, you can add new procedures.



Task 2. Group procedures to reflect emergencies of varying severity

Break up long lists of tasks and make them easier to scan by grouping them under headings. Grouping all-hazards procedures in a manner that accounts for increasing severity makes it easy to see when specific procedures are needed. For example, the [Emergency Plan Template](#) uses the following headings:

- For all incidents
- When the media is involved
- When the incident requires closure of the building
- When the incident results in damage to collections and/or property
- When the response takes longer than a few hours
- When the building is inaccessible for hours or days
- When the building remains inaccessible for weeks or months
- When the building remains inaccessible during a community-wide emergency

Task 3. Assign procedures to incident management team members

Work through the list of procedures and assign each to one or more members of the incident management team. If procedures in an existing plan have already been assigned, review them in the context of current team members. We encourage you to discuss these procedures as a group to find the best person for each.

Task 4. Record the names of others who can assist with response to emergencies

For each procedure, think of other staff, volunteers or specialists who could help the incident management team as advisors or workers when responding to an emergency. Write down their names as you work through the model procedures or review an existing plan.

Task 5. Test procedures with a scenario exercise and revise if necessary

Do not wait for an emergency to figure out how to interpret all-hazards procedures or to find out if they work effectively. Test them by conducting a scenario exercise as follows:

- Schedule a meeting for the incident management team (leads and alternates).
- Choose an emergency hazard and imagine how it would affect your institution.
- Review the grouping phrases in the all-hazards response and decide which apply.
- Have each team member choose the first procedure they would implement and describe in detail how they would do so by naming the names of those who would help and by identifying spaces, supplies and equipment that would be needed to complete specific tasks.
- Discuss each procedure as a group one by one.
- Record the names of others who could help, as well as useful supplies and equipment for each procedure.
- Revise your plan if the exercise exposes gaps or weaknesses.



Although scenario exercises can be very useful for improving all-hazards procedures, beware of inserting too much detail after such testing. All-hazards procedures list key tasks, not details about how they will be implemented.

Task 6. Add all-hazards procedures to your emergency plan

Once you are satisfied with the list of all-hazards procedures and the list of incident management team members who are responsible for them, add them to your emergency plan. We recommend including an overall list as well as lists sorted for each incident management team member. In addition, document the contact information of anyone who can help if they are not already listed in your plan, and add sources for supplies and equipment needed to carry out the procedures.

Identify emergency response strategies for collections

Second only to injury to staff and visitors, loss of collections or heritage buildings due to an emergency is the outcome all heritage institutions fear most. Protection of collections is what heritage institutions do, so much so that collections staff may want to jump right in and start salvaging things. Your emergency plan can offer guidance to ensure that emergency response actions that aim to save the collections are efficient and safe.

It is helpful to distinguish between three types of emergency response strategies for collections, even if they overlap in reality: evacuation, salvage and recovery (Table 11). The ultimate goal of all these emergency response strategies is to preserve as much of a collection's heritage value as possible.

Table 11: emergency response strategies for heritage collections

Emergency response strategy	Definition
Evacuation	Involves moving unaffected collections out of harm's way, usually before the incident or during the early stages of salvage.
Salvage	Refers to the assessment, protection, retrieval and stabilization of objects and/or related vital records affected by an emergency.
Recovery	Includes all actions taken to return objects damaged by an emergency to a stable, usable condition. Some recovery projects, like conservation treatments, may take place long after the response to an emergency has ended.

Although evacuation, salvage and recovery may all be required to return to normal operations, the emergency plan should provide support for salvage in particular. Salvage often begins before the initial shock of the emergency has subsided. Decisions are usually made quickly, under pressure. Objects have been damaged and may require different approaches to care and handling than they usually would. Guidance that helps prevent missteps is thus useful. Evacuation is also performed under pressure, but standard



collections care guidelines still often apply. In contrast, collections recovery projects can be planned and implemented at a more normal pace.

For effective implementation, salvage can be split into two phases: orientation and stabilization. The first phase, orientation, helps with managing the overall process of collections salvage through:

- assessing the site and damage
- setting overall priorities
- implementing an effective workflow

Stabilization refers to all activities that address potential or actual adverse effects to collections due to an emergency, including:

- moving of collections
- sorting or triage
- cleaning and drying
- temporary storage

Both phases are necessary for the overall response to be effective. This section reviews key components of these phases, beginning with orientation, and describes how to document these activities in your emergency plan.

Step 1. Facilitate initial damage assessment

Collections salvage is most effective when based on a plan. Since the impact of emergencies on collections and facilities varies greatly, the salvage plan cannot be created in advance. However, the emergency plan can document general procedures and information that facilitate the initial orientation phase and help you counter the tendency to jump into collections stabilization immediately.

We suggest adopting a structured process, as described below, to develop orientation procedures for your emergency plan. As for immediate response procedures, standard text may be sufficient. The [Emergency Plan Template](#) provides examples. Alternatively, you can adapt text proposed by others (consult the “[Bibliography](#)”). If you already have a plan, check to see that it includes sufficient information to guide initial damage assessment.

Task 1. Select an appropriate re-entry checklist

To protect people, you should do a re-entry check before going into any building or area affected by an emergency, particularly after a disaster. Listing key points, like those listed below, will keep people safe and make initial damage assessment more effective:

- Is the building or room safe to enter?
- Are you going in with a partner?
- Do you have appropriate PPE?



- Do you have everything you need to do an assessment?

Like immediate response procedures, a generic re-entry checklist will do in most cases. Find a model that works for your institution.

Task 2. Adopt a procedure and form for initial damage assessment

When it is safe to enter the building or area affected, you will want to conduct an initial damage assessment to document the overall state of collections. A list of steps is helpful to guide this process. A generic damage assessment procedure should be sufficient in most cases. A good procedure will document in general terms:

- the nature of the emergency
- the area at risk and degree of access
- the types of property damage
- the types and extent of damage to objects
- the number and types of objects affected

A damage assessment form can help ensure that all useful information is collected systematically. A generic template may be adequate or adapted to meet your specific needs. Incorporating checklists into the form can make documenting certain kinds of information, like overall types of damage, faster and more accurate, especially if the checklists are customized to reflect your collections and building. The [Emergency Plan Template](#) provides a form that can be used as is or edited to meet specific needs.

Most damage assessment forms are organized around categories of materials, objects, records or specimens, since distinct categories often need different approaches to salvage. Ideally the form you use would reflect the items in your collections. You may wish to use [Worksheet 6: Collections Checklist](#) to inventory the types of objects in your collections and create a set of categories for the initial damage assessment form.

Task 3. Prepare detailed floor plans of collection spaces

Floor plans of collection spaces that indicate the layout of display and storage units can be very useful for documenting damage and for conducting scenario exercises. Use annotations or colour-coding to indicate the location of sub-collections or specific objects. Label display and storage units with the location codes used in the collections management system to assist with object tracking when collection spaces are severely damaged. The same floor plans can be used for storage assessments and reorganization plans. When responding to an emergency, you can visually map the type and extent of damage to collections on a copy of these floor plans to complement the information documented in the initial damage assessment form.

Task 4. Test procedures with a scenario exercise and revise if necessary

Do not wait for an emergency to see whether your re-entry and damage assessment



procedures and the adopted initial damage assessment form function effectively. Test them with a scenario exercise, as follows:

- Schedule a meeting for incident management team members responsible for collections, including alternates.
- Choose an emergency hazard and imagine how it would affect collections in a specific space. If possible, illustrate where objects are wet, damp, soiled or displaced on floor plans, photographs or even in situ using descriptive labels or annotations on draped transparent plastic sheeting.
- Review the re-entry checklist to see how it applies.
- Fill out the initial damage assessment form for the scenario. Assess how easy it is to use and whether it captures information that will be helpful for making a salvage plan.
- Revise your procedures and forms if the exercise exposes gaps or weaknesses.

Step 2. Prepare in advance for salvage planning

Once the overall damage and stabilization needs of collections are better understood, you will be ready to develop a salvage plan. Since the scale and nature of emergencies cannot be predicted with great certainty, describing specific salvage workflows, work sites or temporary storage arrangements in your emergency plan may not be helpful. Thinking about what you may need to support collections salvage in advance, however, can help you identify options that could be implemented and others to be avoided. The plan can facilitate making decisions under pressure by listing key salvage planning tasks and related constraints.

The tasks below can guide you in completing this part of your emergency plan. The [Emergency Plan Template](#) provides a model for text that you might include. Alternatively, you can adapt text proposed by others (consult the “[Bibliography](#)”). If you already have a plan, check to see that it includes sufficient information to guide workflow planning.

Task 1. Adopt guidelines for workflow planning

In the heat of responding to an emergency, it is easy for the collections lead to forget their main responsibility: to manage salvage activities, not necessarily to do the actual work. The very general all-hazards procedures describe the objectives of salvage but not in enough detail for stressful situations. Additional guidelines, like those listed below, can help as a reminder of all that needs to be done:

- Select collections salvage procedures.
- Account for salvage priorities.
- Find appropriate spaces for work and temporary storage.
- Assemble supplies and equipment.
- Assign responsibility for work sites and documentation to someone.
- Train salvage workers.
- Coordinate salvage activities within the overall response.

A generic set of guidelines may be adequate in most cases.



Task 2. Set criteria for safe temporary storage and work sites

If the emergency results in damage to collection spaces, objects may need to be moved elsewhere for protection or stabilization. Listing minimum criteria for temporary storage and workspaces in your plan can be very helpful when searching for and selecting spaces during emergencies. To create such a list, consider these questions:

- What level of climate control is required (for example, shelter from the elements, temperature control, full RH and temperature control)?
- What level of security do you need (for example, good locks, intrusion detection, security patrols)?
- What degree of access is necessary for movement of collections, furniture, equipment and people (for example, a loading dock, on grade access, elevators)?
- Is there a minimum size for off-site work sites or storage?
- Can you afford to rent space if necessary?

Task 3. Identify alternate storage and work sites

If you know of temporary storage or workspaces that meet your criteria and that could be available during an emergency, it is good to list them in your plan. Consider spaces for both localized emergencies, like plumbing leaks, and those that may require closure of your institution, like a fire. Examples include:

- spaces within your institution (for example, classrooms or meeting rooms, unaffected collection spaces)
- community spaces outside your institution (for example, community centres or school gyms)
- self-storage units or warehouses
- third-party fine-art storage
- sub-zero (freezer) storage

Determine feasibility in advance, as well as any limitations to using such spaces, such as seasonal access, or use for relatively clean versus dirty or fire-damaged objects.

Step 3. Identify salvage priorities

The goal of a good collections salvage plan is to save as much of a collection's remaining heritage value as possible given available resources. In many emergencies, this will involve triage to determine:

- what gets evacuated to a safer space, assuming you have advance notice
- what gets special protection in situ
- what gets salvaged first assuming all collections are equally accessible
- what areas are cleared for access first if access is blocked by damage
- what is not discarded, even if badly damaged



Priority lists prepared in advance make on-the-spot decisions easier. Lists can identify:

- the top five objects in the entire collection that would be evacuated or protected in situ
- up to five priority objects in each collection space (storage room or exhibition gallery), including any objects on loan
- vital records (collection, research, institutional) that are not duplicated and stored off site

Longer lists may be less helpful unless a very large fraction of the collection needs to be salvaged.

To be ready for triage, you need to know two things about your collections: the most valuable objects and the most vulnerable objects. Table 12 shows how these criteria interrelate for setting priorities.

Table 12: the priority order in which objects would be salvaged based on their relative value and vulnerability

Priority order	Value	Vulnerability to damage
Protect or salvage first	High value	High vulnerability
Protect or salvage second	High value	Low vulnerability
Protect or salvage third	Low value	High vulnerability
Protect or salvage last	Low value	Low vulnerability

All objects and records in a heritage collection have some value, or they would not have been collected in the first place. Those of highest value often exhibit one or more of the following characteristics:

- They clearly support the institutional mission.
- They have specific historical, cultural, scientific or legal importance.
- They have high monetary value.
- They are rare or irreplaceable.
- They have a well-documented provenance.
- They are on loan from other institutions.
- They are pristine or in excellent condition for their type.

As collections grow or institutional priorities shift, the assessment of relative value may also change. At any point in time, however, the assessment of value is independent of any specific emergency.

The relative vulnerability of objects depends on the interrelation of three things within the context of a specific emergency:

- The vulnerability of object materials or structure to damage due to the hazard



- The degree to which storage enclosures or display cases protect objects from the hazard
- The degree to which the object location is exposed to the hazard

For example, objects stored openly on lower shelves in a basement storage room in a building in a flood plain are exposed to flood hazards, but not all objects are equally vulnerable. Those that are fully or partially soluble in water are most vulnerable to overland flooding, followed by things like paintings, textiles, books and paper objects that could be highly damaged by extended immersion in dirty water. By contrast, many ceramic objects may be at low risk of damage from immersion in flood water, but they may be highly vulnerable to earthquake damage or other emergencies that cause them to topple or fall off shelves, unless storage or display methods are designed to prevent this.

Recovery may be extremely difficult for some types of objects. For example, case photographs, ink jet prints, untanned skins and soluble minerals may sustain permanent damage if affected in incidents involving water. The effects of heat on plastics with a low melting point, or soot on objects with complex or porous, fragile surfaces (for example, feathers, textiles and paintings) that are stored or displayed openly may be difficult to treat, even if the objects are not exposed to direct flames during a fire. Identifying such objects in advance permits taking preventive measures, particularly for objects of high value. Knowing which objects are particularly vulnerable to loss can also inform salvage content in your emergency plan, the design of documentation forms, as well as decisions about salvage priorities.

The list of salvage priorities should reflect institutional consensus, not just the favourites of a few individuals. Invite anyone who knows the collections well to participate. In larger institutions, this exercise needs to include all or most curators and collections managers. Achieving consensus may be challenging. Below, we suggest a structured approach to identifying salvage priorities. Schedule meetings to discuss priority objects. Keep the groups small and the meetings short; 60 minutes should do to get started.

Task 1. Identify vulnerable objects

Before the meeting, the people in your institution who know the collections best will identify objects made from materials that are particularly vulnerable to damage and may be difficult to salvage in the event of an emergency. If there are no conservators on staff, it may be helpful to consult with external conservators as they may have a greater understanding of the properties of objects in your collections. [Worksheet 6: Collections Checklist](#) can help you identify vulnerable objects.

Task 2. Identify high value objects

Ask everyone invited to make a list of high value objects (including heritage buildings) from their perspective before the meeting. Consider limiting the number of objects, at most ten,



for example, so that everyone has made some difficult choices in advance. Ideally, they will also characterize the values of each identified object or collection to justify their choices. Assessing each object or collection against a generic or customized list of value criteria that are important to the institution may make discussions and decisions about salvage priorities easier. Value criteria can be associated with a simple or weighted scoring system to permit comparison of relative value. You may wish to use [Worksheet 7: Salvage Priorities Questionnaire](#) to guide to this process. The [Salvage Priorities Assessment Tool](#) (Excel spreadsheet, 127.7 KB) can be used to automate relative value calculations.

Task 3. Decide on salvage priorities

Just before or at the beginning of a meeting, compile a list of all the high value objects that have been identified. If the value assessment method used included scores, rank all objects in order of descending value score. List objects with the same score alphabetically or by accession number. Repeat objects identified by more than one person, especially if their scores vary. [Worksheet 8: Salvage Priorities Inventory](#) can be used for this purpose. You may prefer to enter everyone's selections into a spreadsheet, like the [Salvage Priorities Assessment Tool](#) (Excel spreadsheet, 127.7 KB) for easy sorting and display.

Once the long list has been compiled, get everyone to agree on a target for the number of objects to include as salvage priorities in your emergency plan. For example, you might limit the short list to what fits on one or two pages or decide on up to five objects from each collection space, storage room or exhibition gallery. There is no right or wrong target; but the longer the list, the less useful it will be for deciding when to make exceptional efforts to evacuate or salvage objects.

In a meeting, discuss the suggested priority objects and decide on a final list to include in your emergency plan. If value scores were used, they need not determine selections in a simplistic way. Remember that people will interpret the value criteria differently. The scores may be helpful when you want to pare down a long list for the emergency plan.

As you agree on a final list, consider whether each object is a priority for evacuation in addition to salvage. Most will be both, but some things can be difficult to evacuate quickly due to their size or weight (a building, for example) or the way they are displayed or stored. Have someone add the agreed-on list of salvage priorities to your emergency plan. A single list is sufficient, but you may wish to organize entries by collection spaces and add notes on handling and security. Ideally, you would find a way to indicate salvage priorities in your collections management database, so that you can search for them, make lists easily and flag them when they are proposed for exhibitions and loans.

Remember to review your salvage priorities from time to time as part of updating your emergency plan. The list may change as your collections grow or curatorial interests shift.



Task 4. Mark locations of priority objects to facilitate retrieval

Consider adopting a discrete method of identifying salvage priorities in situ, such as coloured dots or reflective tape on boxes or shelving units. The location of priority objects can also be indicated on floor plans in the emergency plan. The detailed floor plans of collection spaces suggested for initial damage assessment would be especially useful for this purpose.

Step 4. Adopt salvage procedures suitable for your collections

When collections are affected by an emergency, quick, thoughtful salvage aims to stabilize objects in order to preserve as much of their heritage value as possible. The properties of heritage objects determine which procedures will be effective and which may cause further damage. Procedures can be drawn from a template, an existing plan or books on emergency planning.

Salvage procedures can be documented in your emergency plan in two ways:

- By action (like move, pack, clean and dry)
- By object type (like books, documents, paintings and textiles)

We highly recommend including salvage procedures organized by action in your emergency plan. The twelve actions listed in Table 13 can help minimize the loss of a collection's heritage value regardless of the scale of the emergency or the nature of the objects affected. Like the ten emergency response objectives, these actions provide a flexible framework for planning salvage, recovery and evacuation, if necessary, as an emergency unfolds. Because they are not closely associated with specific types of objects, they can be mixed and matched as needed to deal with specific types of damage in specific contexts given the available resources. The emergency plan would summarize guiding principles for each action and provide recommendations for specific objects where lack of detail may lead to decisions that cause further damage.

Table 13: twelve response actions for managing heritage collections affected by emergencies

Action	Objective
Triage	Set priorities for assessing, evacuating and treating objects.
Protect	Control risks in or near collection spaces to prevent further damage.
Document	Describe the effects of the incident on collections, record the condition and treatment of affected objects and track the location of objects.
Move	Relocate objects for treatment or to prevent damage.
Pack	Wrap or box objects to permit safe movement and facilitate treatment.
Buy time	Prevent uncontrolled drying of wet objects by freezing or keeping them wet to prevent mould growth or permit treatment later.



Clean	Remove from objects any mud, soot or mould resulting from the emergency.
Dry	Remove excess water from objects that are damp or wet due to the emergency.
Store	Place objects in a suitable, often temporary location between response phases.
Rehouse	Replace storage enclosures or display cases, mounts, fittings and furniture.
Treat	Address damage to objects through conservation treatment.
Discard	Deaccession objects that have lost their heritage value.

Many emergency plans include salvage procedures organized by object type, such as books, paper, paintings, textiles and furniture. Such procedures provide useful information and step-by-step guides, primarily for dealing with wet objects and records. They can be helpful when learning how to apply salvage actions to specific collections and for guiding salvage when only a few types of objects are affected. You may therefore wish to append a list of salvage procedures by object type to your plan. This approach, however, may not be the most efficient for overall planning of salvage operations for mixed collections, especially when many objects are affected.

The tasks below provide a structured approach to developing salvage procedures for your emergency plan. If you already have salvage procedures in an emergency plan, consider using these tasks to review and update them.

Task 1. Adopt model salvage procedures and edit them to suit your institution

For salvage procedures organized by action, use the [Emergency Plan Template](#), which provides model text that you can edit to account for the types of objects in your collections. For salvage techniques organized by type of objects or records, several sources are appropriate:

- Emergency plans from other similar institutions
- Publications or websites on collections salvage (consult the “[Bibliography](#)” for suggestions)

While much information in available models may be used as is, salvage procedures will be effective if they are customized to meet your needs. To do so:

- include salvage information only for objects found in your collections
- indicate objects that could be damaged by specific measures, like freezing or vacuum freeze-drying, if the objects are found in your collections
- identify people who may handle objects during salvage
- include measures for in-situ protection or evacuation if your institution expects to receive advance notice for emergency hazards, like overland flooding, hurricanes or wildland fires
- estimate the number of objects that your institution can safely air dry within 48 to 72 hours



- indicate the number of severely damaged objects that your institution can safely store until deaccessioning
- record any insurance policy restrictions pertaining to salvage

If your collections are exposed often or occasionally to natural hazards, such as overland flooding or hurricanes, where you may have advance notice, consider adding an immediate response procedure for collections evacuation.

Task 2. Select documentation methods for collections salvage

There is no right or wrong way to document the salvage of a collection, but some approaches may be more useful or easier to implement than others. Salvage records would ideally document:

- the location of affected objects
- the condition of affected objects (type and degree of damage)
- any salvage and recovery treatments (proposed and/or completed)

At minimum, all objects affected by the emergency would be inventoried. Using forms or detailed labels helps ensure that the information recorded is consistent and complete. As for other salvage procedures, adopting existing forms and adding them to your emergency plan may be sufficient (consult the [“Bibliography”](#)). Feel free to adapt forms to suit your circumstances and to modify the version in your plan based on experience.

Task 3. Test procedures and revise if necessary

Do not wait for an emergency to find out whether your salvage procedures are useful. Test them with a scenario exercise as follows:

- Schedule a meeting for the incident management team (leads and alternates).
- Invite conservators on your call list if none are on your team.
- Choose an emergency hazard and imagine how it would affect your collections.
- Use a specific exercise to keep the discussion on task and more effective.
- Note the supplies and equipment that you would need to carry out the actions (use a list of recommended supplies).
- Review guidance on salvage techniques (consult the [“Bibliography”](#)) or consult with conservators if you are uncertain how to proceed for specific objects.
- Revise your salvage procedures if the exercise exposes significant gaps or weaknesses, while recognizing that no emergency plan will have detailed procedures for all possible incidents.

Task 4. Provide hands-on salvage training

Whether it includes guidance on salvage actions or a set of salvage techniques specific to types of objects, the emergency plan on its own is not sufficient preparation for salvage. The members of the incident management team responsible for the collections (both leads and alternates) need hands-on training in salvage techniques to be ready to manage these



procedures during an emergency. Similar training is also useful for anyone who might contribute to collections salvage in the event of an emergency. Identify such training as part of a training plan included in your emergency plan.

Provide resources for effective response to emergencies

Identifying members of the emergency response team and equipping them with well-planned immediate response procedures is not enough. Effective response always requires resources: funds to pay for it all, supplies and equipment and training in advance for team members. This section describes steps to ensure that your institution can access the resources needed for effective emergency response. A good emergency plan will include information that facilitates assembling resources in the middle of an emergency.

Step 1. Provide funding sources and protocols

Most emergencies that affect heritage institutions will require funds to deal with the resulting loss or damage; for example, to repair building damage, to pay for expert services or rental of storage or freezer space, or to treat objects. The operating budget usually does not cover such expenses. Securing funds, whether through insurance, grants or donations, is thus a critical component of the overall response to any emergency.

The key source of funds for emergency response and recovery is insurance, as it is for all businesses. Having suitable insurance coverage may make more response options affordable. Several types can assist heritage institutions after emergencies:

- Property insurance
- Fine arts or collection insurance
- Liability insurance (commercial and employer)
- Crime insurance

In some cases, heritage collections may be covered by insurance through their governing authority, such as a university, municipality or other levels of government. Group insurance plans, like those offered to members of the Canadian Museums Association, may provide coverage customized to the needs of heritage institutions at reduced rates.

Knowing the details of what is covered and what is not can help you develop appropriate emergency mitigation and response strategies in advance. Insurers will offer coverage that is specific to regions. Basic plans for property insurance typically cover damage from many types of emergencies, including:

- fires and wildland fires
- water leaks from inside the building (for example, plumbing leaks)
- wind, hurricane and tornado damage
- theft and vandalism



However, not all types of damage are insurable. Most insurance policies have standard exclusions. Some types of emergencies, as well as damage that tends to occur more gradually may not be covered, including damage from:

- overland floods
- earthquake and landslides
- civic commotion, riots, war or terrorism
- environmental fluctuations (for example, HVAC failure)
- wear and tear or gradual deterioration
- pest damage

The nature of your building also impacts your coverage. Insurance premiums are based on your building's material construction and its systems. Renovations or the addition of equipment, such as automatic fire suppression or intrusion detection, could lead to eligible discounts. Unreported changes could void potential claims. Risk factors may limit coverage, but extended coverage may be added, which may or may not incur additional charges.

However, property insurance alone may not be sufficient for heritage institutions since it usually does not cover collections. Fine arts or collections insurance is an additional expense, but an important one that may not cost as much as some expect. Policies may insure objects item by item, which requires appraisal values, or the collection as a whole to a maximum amount. If objects are insured individually, conservation treatment costs above the appraised value may not be covered.

Understanding the claims process can help you make decisions when responding to an emergency. Keep in mind that you will not necessarily receive money upfront. Your insurer may only reimburse expenses once your claim is processed, and processing times vary greatly. If dealing with an emergency of limited scope that affects fewer than five objects, claims should be straightforward and resolved within 30 days. If an entire collection is impacted, you may receive an interim payment to cover extra expenses. It may be wise to use third parties, as proving expenses will be simpler. Insurers will also pay them directly. Investigating other sources of funding in advance is also recommended. Insurance, although crucial, may not cover all expenses and always includes a deductible. Find out if you are eligible for emergency financial aid such as grants or government disaster assistance programs. Explore in advance other ways of raising funds, such as charity events (for example, concerts, casino nights, silent auctions) or fundraising drives. Consider which services, supplies and equipment people may be able to donate in kind.

Regardless of where the money comes from, you will need to document and justify all emergency response expenditures. As much as possible, you would follow normal purchasing and accounting procedures, but you may want some flexibility when quick action is necessary to limit damage or harm. Defining the boundaries of such flexibility in advance will help ensure that expenditures are appropriate.



Your emergency plan is not a financial plan, but it can include emergency procurement procedures or point to where such procedures are fully documented. Completing two related tasks will help ensure both financial readiness and operational continuity.

Task 1. Integrate your insurance policy into your emergency plan

At minimum, add contact information for your insurance providers to your plan. In addition, consider including a summary of your insurance policy and the claims process. This is a good way to prepare for emergencies and to make sure you have the coverage you need. First, describe your coverage as follows:

- Perils that are covered, as well as those that are not
- Expenses that are covered and those that are not (for example, supplies and equipment, such as freezer truck rental; art packing or moving services; business interruption, such as revenue loss or salary; and conservation treatment)
- Any policy conditions (for example, restrictions on who can handle objects)
- Any related coverage limits and deductibles

Second, ask your insurance company to describe how insurance claims are processed, and summarize key details in your plan as follows:

- Initiating a claim: How much time do you have to contact your insurance company when an incident occurs?
- Investigation: How is an adjuster assigned and what will an investigation involve?
- Verification: What information will you need to submit to the insurance company?
- Payment: Are expenses only reimbursed after the claim is processed? Can you receive an interim payment if the disaster is severe and the response will take months?
- Closing a claim: What are the implications once a claim is closed; for example, if you receive payment for a stolen artwork that is later returned?

Also, consider appending a copy of your insurance policy, so that it is easy to find. If you prefer to keep insurance documentation separate, indicate where to find it in your plan.

Task 2. Prepare for emergency expenditures

Quick action when responding to emergencies usually results in less loss. This often requires purchasing supplies and equipment or hiring consultants or workers on short notice. To permit quick, accountable decision making, ensure that you have protocols in place that describe:

- how emergency purchases are paid (for example, by credit card)
- who is authorized to make or approve purchases
- whether normal hiring or procurement rules can be waived in emergency circumstances
- whether you have emergency service agreements with preferred service suppliers



If normal procedures may be waived, consider including guidelines for decision making. For example, indicate whether you can:

- sole source goods or services
- depend on verbal rather than written quotes
- obtain goods or services without a contract
- lease rather than purchase
- ask suppliers to invoice later than usual

Dealing with the financial implications of an emergency will be easier if related information is documented in your emergency plan.

Step 2. Source and stock supplies and equipment

To be implemented effectively, emergency response strategies require a well-equipped team, from the first immediate response procedures through to the weeks or years of recovery. Supplies and equipment will be needed to meet almost all of the ten emergency response objectives. Emergencies are too varied to plan for what you will need in advance. Instead, do the following:

- Identify what could be useful.
- Find out what you already have.
- Source the rest.
- Stock for emergencies.
- List all supplies and equipment, supplier contact information and storage locations in your plan.

Some supplies and equipment may be kept on hand for other purposes. Some are usually available in local stores. Others are specialized products and equipment that would only be needed in case of emergency. While reviewing what would be useful for emergencies at your institution, consider the following:

- Will the items you regularly rely on under normal circumstances be in stock and accessible during an emergency?
- Can you afford to stock dedicated emergency supplies? Do you have space to store them?
- Can you replace or bring in supplies quickly? Are they available locally?
- Can specialized supplies and equipment be provided by conservation and restoration specialists when an incident occurs?

As you consider what could be useful, aim to equip for short-term emergency salvage, not long-term preservation. Salvage and short-term recovery treatments are in a different league than long-term storage or normal conservation treatment. The site is often dirty, and the number of objects or records that need immediate attention may be large. For stabilization purposes, reach for the cheapest supplies that are safe, not for archival quality. Look for materials that have:



- no colour, if possible
- no water-soluble components (dyes, adhesives, inks, degradation products, etc.)
- smooth, nonfriable, uncorroded surfaces

The types of supplies and equipment that can be useful to meet emergency response objectives or carry out collections salvage are not unique to a particular institution. However, your circumstances may limit what you are likely to need or what you can source. Consider the following:

- What is most useful for the objects in your collections?
- What can you afford to stock or buy when you need it?
- What can you source locally?

It is good to think about these questions before an emergency occurs and to include information in your emergency plan that will help you obtain supplies and equipment quickly when needed. The tasks below provide a structured approach to planning for emergency supplies and equipment. If you already have such information in an emergency plan, consider using these tasks to review and update them.

Task 1. Identify useful emergency supplies and equipment

Start with a review of supplies and equipment commonly suggested for responding to emergencies. Find lists recommended for institutions that have similar collections if you can. Several sources are appropriate:

- Sample emergency plans or templates, such as the [Emergency Plan Template](#)
- Emergency plans from other institutions (ask your colleagues; search the internet)
- Publications or websites on emergency planning (consult the “[Bibliography](#)”)
- [Worksheet 9: Emergency Supplies and Equipment List](#)

As you review recommended supplies and equipment, make a list of those that would be useful for your institution. A longer list that you can consult for ideas may be more useful than one that has been cut down severely. You may not know what resources will be available or affordable when an emergency occurs.

Task 2. Identify appropriate suppliers

Whether or not you keep supplies on hand, you will need to know where to obtain all useful supplies and equipment. Generic supplier categories (for example, hardware stores, grocery stores and pharmacies) may be sufficient for commonly available items. Include local sources where possible. List specific sources for items that are harder to find or require specialty suppliers. Include more than one source for expensive supplies and equipment, in case you need multiple estimates for insurance claims or procurement purposes.



Task 3. Create an emergency supplies kit

One way to ensure that some supplies and equipment are on hand is to create a stock of materials for emergency purposes only. To do so:

- decide on a storage enclosure or space (for example, a wheeled garbage bin, plastic storage bins, a covered cart, a storage cabinet or a small storage room)
- purchase materials and assemble the kit
- store the kit where it can be accessed easily (you may want more than one)
- secure the kit to ensure that materials are not depleted for non-emergency purposes
- list the kit contents in your emergency plan
- check contents annually and refresh when needed

Only stock materials that are likely to be used. Avoid items that might degrade in storage. Useful items to keep on hand include:

- gloves
- disposable particulate respirators (rated for mould, N95 or higher)
- flashlights and batteries
- mop, buckets and sponges
- polyethylene sheeting
- resealable plastic bags
- extra-large garbage bags
- packing tape, builder's tape
- scissors, utility knives
- permanent markers

Consider purchasing emergency supplies for kits in bulk with other institutions in your region to save on the cost of supplies.

Task 4. Test the usefulness of the supplies list and revise if necessary

Do not wait for an emergency to find out whether your list of supplies and equipment is useful. Run some tests using scenario exercises:

- Schedule a meeting for the incident management team (leads and alternates).
- Choose an emergency hazard and imagine how it would affect your collections.
- Check off, on a copy of your supplies list, the supplies and equipment that you would need to respond to the emergency and carry out the necessary salvage actions. (You may wish to use [Worksheet 9: Emergency Supplies and Equipment List](#) for this purpose.)
- Check to see whether those items and related suppliers are listed in your emergency plan.
- Revise your plan if the exercise exposes gaps. If certain supplies and equipment are identified as useful across several scenarios, consider keeping stock on site, if you do not already.



Step 3. Provide adequate training for responders

Emergencies do not happen often in most heritage institutions, and when they do, they often unfold in unexpected ways, leaving staff unsure how to proceed even if they have a great emergency plan. As for any skill, practice through periodic training will help staff feel ready to implement strategies and use resources. Such training can include:

- scenario-based decision-making training for the incident management team
- hands-on training in salvage and recovery techniques for those who will use them
- immediate response drills for all staff (for example, evacuation and fire drills)
- first aid, CPR and fire extinguisher training for at least some staff
- mock disaster exercises

Given everything that needs to be done at your institution, emergency response training may not be a priority. It is worth thinking about the minimum amount of training you can realistically do on a regular basis and formally committing to that by including it in your emergency plan.

One simple way to deliver training is to use tabletop scenario exercises. Although multi-day workshops or mock disasters may be useful, short, frequent tabletop exercises organized in-house may be a more cost-effective way to train your team in emergency response decision making. In a scenario exercise, staff imagine how a specific emergency might play out in the institution, and then the incident management team members practise developing response strategies for that emergency.

The point is not to know the right way to do things; emergencies are too variable for this to be possible. The idea is to practise emergency responses in advance, so that you are not making response decisions for the first time when an emergency occurs. Scenario exercises are easy to do and can serve different purposes. For example, they can be used to:

- test the usefulness of the written plan with each scenario
- identify where the plan needs updating or modification
- identify specific salvage training requirements
- determine the most useful supplies and equipment to stock on site
- identify facility improvements that will lessen the impact of emergencies

Exercises can be associated with the development of new exhibitions or programs, or with building renovations. They may even contribute to safer design. The key is to keep them simple and specific. The tasks below show how to set up a tabletop exercise.

Task 1. Schedule a meeting

Short but frequent in-house scenario exercises will keep your emergency plan from gathering dust on the shelf. Because scenario exercises allow staff to practise making decisions, they are especially useful for members of the incident management team, both leads and alternates. Do one large exercise annually, or shorter ones two or three times each year.



Task 2. Prepare a scenario

Each exercise begins with choosing a scenario for discussion. Pick a type of emergency that is likely to affect your institution. Work from past incidents or from knowledge about maintenance issues in your building. The results of your risk assessment can also indicate what emergencies are more likely. You can make up your own scenarios, use a worksheet, like [Worksheet 10: Scenario Exercises](#) as a guide, or adapt scenarios proposed by others (consult the “[Bibliography](#)”). Emergencies come in all shapes and sizes. Although initially staff may respond better to a believable scenario, any scenario will help improve preparedness.

An easy way to keep people focused on a scenario during a tabletop exercise is to use floor plans that illustrate where the water, soot or other damage has occurred. Floor plans that show all parts of your building, and in some cases your site, are most useful. Ideally, you will have prepared floor plans that indicate the location of emergency equipment such as fire extinguishers and utility shut-offs for your emergency plan. More detailed plans that indicate the location of storage units and displays can be especially helpful in imagining what objects are affected and could be used to help track the location of objects that are salvaged in a real emergency. If you have no formal plans, a sketch will work. If you do these exercises regularly, you could laminate a set of floor plans and use dry erase markers to sketch out the areas affected. Alternatively, digital versions could be projected onto a wall or whiteboard or shared through collaborative software.

Task 3. Select and run the exercise

A clear objective can keep the discussion on task and make scenario exercises more effective, and thus more likely to be repeated. Set your own objective or choose one of the following:

- Create or test immediate response procedures.
- Review all-hazards procedures.
- Prepare a high-level salvage action plan.
- Prepare a plan for the overall emergency response that meets the ten emergency response objectives (consult [Worksheet 10: Scenario Exercises](#)).

For longer training sessions, you may wish to use more than one objective.

Once you have decided on the objectives of the exercise, introduce the scenario to the group. Discuss what needs to be done, who would be responsible and what supplies or equipment would be needed. If more than one option is possible, decide which you would choose. Record your ideas in a document, on sticky notes or on a whiteboard, whether physical or digital. This record can be used to modify your plan, if necessary.

Be sure to integrate your emergency plan into the exercise. Whether you have an old, outdated plan or a recently updated one, or you are just beginning to develop a plan based



on the [Emergency Plan Template](#), using your own emergency plan while doing a scenario exercise is an excellent way to determine what needs to be included (or might be missing) in the written document. Edit the plan afterwards if you discover any critical gaps.

Conclusion

If you have worked through the steps outlined in this manual, your institution will be better prepared to respond to emergencies. You will have completed an emergency plan customized for your institution and conducted exercises to train your emergency response team and test the usefulness of that plan. Creating an emergency plan requires time and effort, ideally by everyone on the incident management team. It is not a one-time project, but once you have a good plan, it will be easier to update its contents regularly, as staff, your collections or facilities change. You might return to this manual for assistance and focus on sections that need revision.

With an emergency plan, a trained team and resources in place, you will be able to address the inevitable incidents as they occur with resilience and prevent worse outcomes. By their nature, however, emergencies cause damage or harm. If you identify risks to people, your collections or your facilities as you prepare an emergency plan, consider whether those risks could be reduced. Preventing damage or harm is always preferable and will let you concentrate on the important work you do within your community.

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